

Bachelor's Thesis
Information and Communications Technology
2023

Elisha Baniya
Diary-based thesis on
Web Development and Quality Assurance



Bachelor's Thesis | Abstract
Turku University of Applied Sciences
Information and Communications Technology
2023 | 83 pages

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This thesis, presented in a diary-based format, examines seven weekly portfolio reports detailing learning experiences and activities across various projects at FIRMA, an ICT-focused company, and a student-driven project learning environment at Turku University of Applied Sciences (TUAS). The reports provide insight into daily responsibilities and track professional growth in roles as a Web Developer and Quality Assurance Specialist within two distinct internal projects at FIRMA.

A daily learning diary was maintained, with weekly summary analyses reviewing tasks completed, challenges faced, and goals achieved. This diary details the creation of a marketing website using WordPress Software in the Web Developer role and encompasses tasks performed as a Quality Assurance Specialist, including code reviews, software testing, and audit reports. The thesis aimed to reflect on and analyze the knowledge, skills, and experiences acquired during the reporting period.

In the rapidly evolving technological landscape, the seven-week duration of this project offered fresh perspectives and personal challenges, emphasizing skill development and adaptability to new challenges. The importance of time and project management was underscored in the professional work placement. The thesis demonstrates the value of reflecting on daily progress, self-assessment, and analysis of work as a software engineer.

Keywords: WordPress, Figma, HTML, CSS, JavaScript, Software Testing, Code Review, Auditing

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1 Introduction

This 7-week thesis diary analysis, starting from (the 19th of June to the 4th of August 2023) explains the author's day-to-day tasks and challenges as a Web developer and a Quality Assurance specialist. The diary report thesis has been divided into three major parts, descriptions of the projects, learning diaries and conclusion explaining about development tools and software that have been used during this entire period and the working environment as well as skills and goals from this professional work placement.

This thesis, adopting a diary-based approach, scrutinizes seven weekly portfolio reports that elucidate learning experiences and activities within diverse projects at FIRMA, an ICT-centric company, and in a student-led project environment at Turku University of Applied Sciences (TUAS). These reports offer insights into routine duties and chronicle professional advancement in roles as a Web Developer and Quality Assurance Specialist in two unique internal projects at FIRMA.

A daily learning diary was consistently kept, complemented by weekly summary analyses that evaluated completed tasks, encountered challenges, and the attainment of set goals. The diary documents the process of developing a marketing website using WordPress Software from the vantage point of a Web Developer and includes a range of tasks undertaken in the Quality Assurance Specialist role, such as conducting code reviews, performing software testing, and generating audit reports. The thesis endeavours to scrutinize and interpret the knowledge, skills, and experiences gained throughout this period.

In the context of a rapidly transforming technological sphere, the seven-week timeline of this endeavour presented novel viewpoints and individual challenges, focusing on skill enhancement and the capacity to adapt to emerging challenges. The critical roles of time management and project coordination were emphasized during the professional work placement. This thesis underscores the significance of documenting daily progress, conducting self-assessments, and critically analysing one's contributions as a software engineer.

1.1 Working Environment

The FIRMA (theFirma n.d.) is a student-driven learning environment and an ICT-concerned company, working with real-life projects in Turku University of Applied Sciences (TUAS). It is an open platform for all the TUAS students to learn as it is a

student-centred learning environment consisting of nearly 100 employees including the Student CEO, project managers, and project team members working as a developer, software testers, auditors, UI/UX designers and so on with around 50 different internal and external projects. The author has been doing both the internal and external projects of the FIRMA as the previous internships as well as different ICT courses projects for 3 long years and the FIRMA office premises have always been the second home where the author re-think, re-set and re-start herself.

The FIRMA is one of the best working environments to students who are interested to boost their knowledge, skills, and experiences in their related fields because all the project members are assigned to the various projects according to the interests of learning fields and distinct categories. Each project consists of a Project manager who takes the whole responsibility of handling the project, dealing with the customer, and conveying the messages to the project members. The tasks are split to all the project members according to their level of skills, interests, and experience.

The number of project members depends on the nature of the project, with its type and size. Most of the projects consist of three to four project members with a project manager, respectively. Multicultural and multidisciplinary teams work together in challenging assignments to meet the goals of the projects and their customers. Teamwork is a particularly important thing to the development of a software engineer because many projects involve professionals in a multidisciplinary approach and aspects where leadership and communication are essential to achieve a successful project.

1.2 Development tools

Both projects during the learning diary period were executed using a handful of well-known software and development tools. The software and tools vary according to the nature and type of the project and the available development tools and software are used accordingly. Along with the required software and technologies, soft skills are also especially important aspects of the development phase. Teamwork and effective communication between project customers, project managers, and project team members also play a vital role in the development of the projects.

In the Futuristic Interactive Technologies (FIT Turku Competence Centre n.d.), the author's task was to build a marketing website using WordPress Software under TUAS WordPress theme template and using some of the Figma designs. Some of the

embedded coding was created using HTML (Hypertext Markup Language), CSS (Cascading Style Sheets) and JavaScript programming languages to enhance the marketing web pages for the FIT website. The author had previously worked on some projects building a website using WordPress software and Figma designs, so it was easy for an author to work on this project and create a marketing website.

1.2.1 WordPress

WordPress (WordPress n.d.) is a web content management system for creating WordPress websites. It is also known as WP or WordPress org. or often called self-hosted WordPress. Firstly, WP was created as a tool to publish blogs but later, it evolved for publishing websites, web content, internet forum and learning management systems. WordPress has been popular recently because of its simplicity and versatility. With its wide themes and plugins, it is ideal for creating a personal project or for online businesses. WordPress is written in PHP language and later paired with MySQL and MariaDB database. It is an open-source content management system which is licensed under GPLv2. This software can be used or modified by anyone free of cost where we can create our own type of website using WordPress such as business websites and e-commerce stores. Blogs, resumes, portfolios, social networks and so on. It is used by individuals, big and small businesses.

1.2.2 Figma

Figma is a free, online UI (User Interface) tool, which provides a platform for teams to create, design, develop, collaborate, prototype, and collect feedback in one Space. It offers features such as multiplayer editing, team libraries, and contextual feedback and works on Windows, Chrome, Mac, and Linux. All our work is autosaved and we can access Figma's version history, and it does not need to be installed separately. It is the first design tool that combined the accessibility of the web with the functionality of a native app. Its capabilities extend beyond just UI/UX design and it has been adopted by a wide range of industries and professions. Also, it is a popular choice for creating wireframes and prototypes of digital products. Wireframing in Figma is quick and efficient. It is an excellent platform for building and keeping design systems and style guides. Thus, it is a highly versatile design tool with a wide range of applications, from UI/UX design and prototyping to graphic design, illustration, and even user testing.

In the Quality Assurance (Q/A) project, the goal of the project was to perform quality assurance on the FIRMA's projects and processes. This was achieved through auditing

and testing of the projects, including software testing, code reviews, website reviews and auditing the projects. Author did the GUI test and BUG test for the software testing of the projects. The purpose of the project was to ensure that projects were up to the standards set by FIRMA and aimed to improve and keep the quality of all the projects at a prominent level. The role of the Quality Assurance team is always to help to hand over a successful and qualitative project to the customers, which plays a vital role in completing the whole project smoothly and efficiently.

1.2.3 GUI test

The Graphic User Interface (GUI) (Computer Hope n.d.), also known as UI (User Interface) testing is a software testing tool that focuses on the Graphic User Interface of the software to ensure all the functionality of the software application function works as per its specification by checking screens and controls such as menus, buttons, icons, text, and font styles and so on. It involves the blend of manual and automated testing. It aims for the end users to enjoy an uncomplicated and problem-free, hassle-free experience by focusing on the design of the app, its colour and whether it is easy to navigate or not. The success of a software product immensely depends upon how the GUI interacts with the user and the ease of using its various features, which is particularly important.

1.2.4 BUG Test

The Bug test, (TESTFORT N.D.) which aims to detect the bugs or errors in the software that cause malfunction. With the bug test, we will be able to monitor bugs during software testing. We identify whether a software product or application is doing what it is supposed to do or not. Thus, bug testing helps to prevent distractions, lowering the development cost estimations and so on by improving its performance. If we encounter a bug during software testing, it gives incorrect data protection, input values, and statements. It is caused by a lack of performance errors and communication and if the policy framework does not exist. We include the bug's name, id and description, and status while making a bug test report.

1.3 Skills and goals

Working in a group of project team members in a project helps to enhance individual knowledge, skills, and experiences. Communication plays a vital role while working in a team. After being involved in various projects, the author has built up communication skills while also gathering experience and knowledge from the entire team. At the same

time, building up a habit of scheduling and having proper pre-plans is especially important for time management and project management. Hence, building up programming and coding skills, and diving into depth with the ICT-related development tools and software are the major priorities of the author's skills and goals. Working in an ICT sector with real projects and customers is quite a challenging aspect. Within this 7-week interval, the author proved herself to accept risks and problem-solving, multi-tasking, and time management.

Teamwork often proves more effective than tackling problems alone. The author enhanced their ability to work collaboratively with a group or project team, fostering healthy discussions around problem-solving and solutions. The evaluation of learning and development in professional practice, both as a Web Developer and Quality Assurance Specialist, was a key focus. Progress was analysed in relation to tasks undertaken, decision-making processes for each problem, and the role of team communication in resolving these tasks. This analysis also extended to understanding the depth of professional advancement in the ICT sector.

2 Descriptions of the projects

During this 7-week diary analysis, the author was working on two different projects, Futuristic Interactive Technologies (FIT) and Quality Assurance (Q/A). Here, the author has described the projects and what she did during the professional work placement in both projects. Also, the tools and technologies that are used and the software used are highlighted in both projects. Since the author's team started to create an innovative marketing website for Futuristic Interactive Technologies (FIT), it was extremely easy to start from the beginning of the project. FIRMA's WordPress theme template was provided to the web developers team which made our project much easier, smoother, and efficient. As there was close communication with the project's customer, all the required materials, documents, and so on were provided to the web developer team beforehand and updated from time to time according to the recent changes in the project.

On the other hand, the Quality Assurance project is ongoing and will be ongoing until the FIRMA company continues. So, the author caught up with the earlier team members who worked as a Quality Assurance Specialist in the FIRMA's project and went through the older documentation stored on the Teams channel to continue for the 7-week analysis period. The good thing was that during one of the course's projects, she already worked in the Quality Assurance (Q/A) team for a few weeks, so she already had a basic idea of how the Q/A team continues to work for a successful and potential handover of projects to its customers, respectively.

About the time management for the projects, the author spent 7 weeks full time in the work placement every weekday. Since she was involved in two different projects, she decided to divide half of the day for Future Interactive Technologies (FIT) and the other half of the day for the Quality Assurance (Q/A) project as both projects were equally important and challenging as it should be updated weekly in the weekly meetings and discussions. In case, if there were some quick meetings because of new changes of the project plan or some important discussions and updates of the project, she focused on that specific project on that specific day and on the next day tried to balance both projects so that the work is updated and going with the right schedule with both of the projects. Time management and project management were highlighted mostly during the thesis diary analysis.

2.1 Futuristic Interactive Technology (FIT)

FIT is a special competence that uses recently renovated laboratory facilities for augmented and virtual reality technology. It is related to applied research on interactive technologies such as VR (Virtual Reality), AR (Augmented Reality), and AI in different fields such as technology, industry, education, etc. The goal of this project is to create a website that can be used for marketing FIT's services and to work as a work certificate for past project members, as closely according to the customer's vision as possible. The services provided by the FIT website are effectiveness studies, usability and user experiences, visualization solutions, rapid prototyping, and an applied resource on Virtual Reality and Augmented Reality.

Author's project team created a new and refreshing Website using WordPress software which includes layout changes to accommodate challenges created by the Turku UAS WordPress theme that is used to create the website, as well as creating both English and Finnish versions of the site. The time estimation for developing this website was 7 weeks. The team had created an entire website using WordPress with some Figma designs and layouts. And some of the embedded codes were used on the website. Basic programming languages such as HTML, CSS and JavaScript are used for creating the website. At the end of the project, coaching on how to update and keep the site was instructed to the customer and all the guidance will be stored in the project's files and folders of the company. The outcome of the project is a website (www-page).

2.2 The Quality Assurance (Q/A)

The Q/A team handles software testing, reviewing codes, and auditing both the internal and external projects, which are achieved based on a pre-existing template provided by the FIRMA. These reports are then stored in the Teams group created for FIRMA's Q/A team. The team followed various software testing templates such as GUI testing, BUG testing, etc. and reviewed codes and web pages as well. At the end, the team makes an audit report of various projects at least 2 or 3 times until the project is handed over to the customer. Some projects were already completed and there were many more upcoming new internal and external projects in FIRMA.

The project has been ongoing and will continue to be ongoing, as the purpose of the project is to ensure that projects are up to the standards set by FIRMA. If the quality assurance team does not exist, there is no guarantee that projects will follow the FIRMA's

processes. So, without Quality Assurance, no ICT companies will be able to hand over successful and qualitative projects to the customers as Q/A aims to improve and maintain the quality of all the projects at an elevated level.

2.3 Summary of the projects

Both projects focus on the development of skills and experiences using different technologies and software and it has its own importance and perspective. Teamwork and communication play a significant role in completing a project smoothly and successfully.

One of the projects focuses on Web development using WordPress software, programming languages and Figma design tools. Thus, after completing this project, author was able to create a marketing website, learnt basic embedded codes worked on a time limit and dealt with the customers and project managers in a real project in the ICT sector.

And another project covered an entire task that a Quality Assurance Specialist should do such as software testing, codes, and web page reviews, and making an audit report at final for a productive and qualitative project. She learned more about software testing and code reviews. Also, she conducted audit reports of various internal and external projects of FIRMA. Hence, she improved herself to be a successful Quality Assurance Specialist in the upcoming future during these 7 weeks diary analysis and assessment.

3 Diary Entries

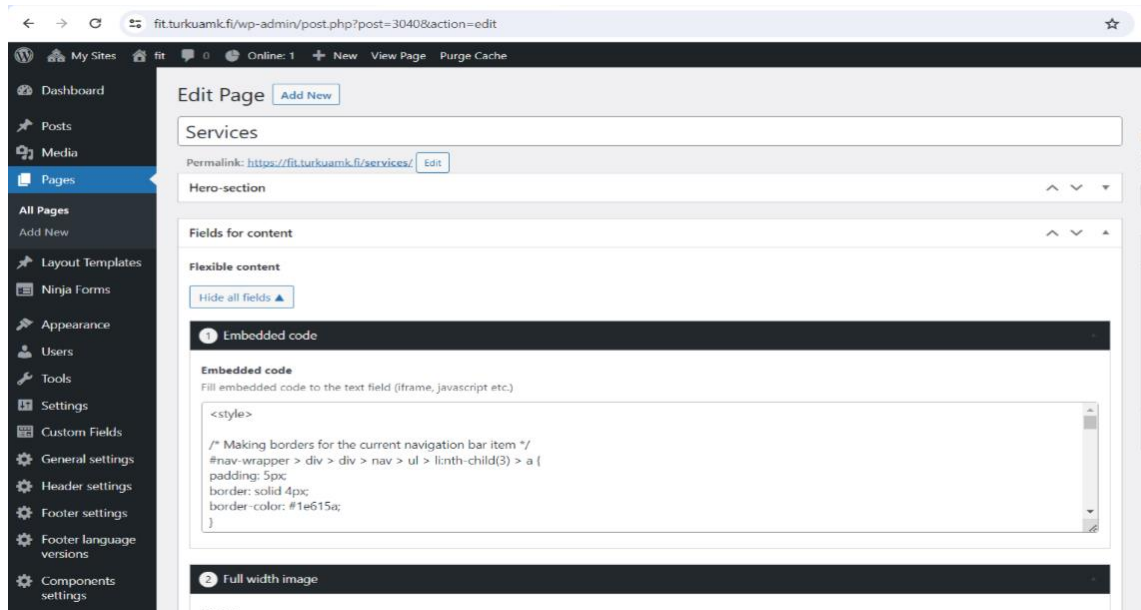
Here in the diary entries, the overall description and summary of both projects are provided for every entire week, and the daily tasks are explained in brief in daily basis respectively for both projects. All the recent changes and updates from the weekly meeting and discussion as well as a weekly plan of the project are mentioned in the weekly summary of both projects. The weekly agenda is discussed briefly in every weekly summary.

3.1 First Week (19th June-23rd June)

3.1.1 Objectives

Futuristic Interactive Technologies (FIT):

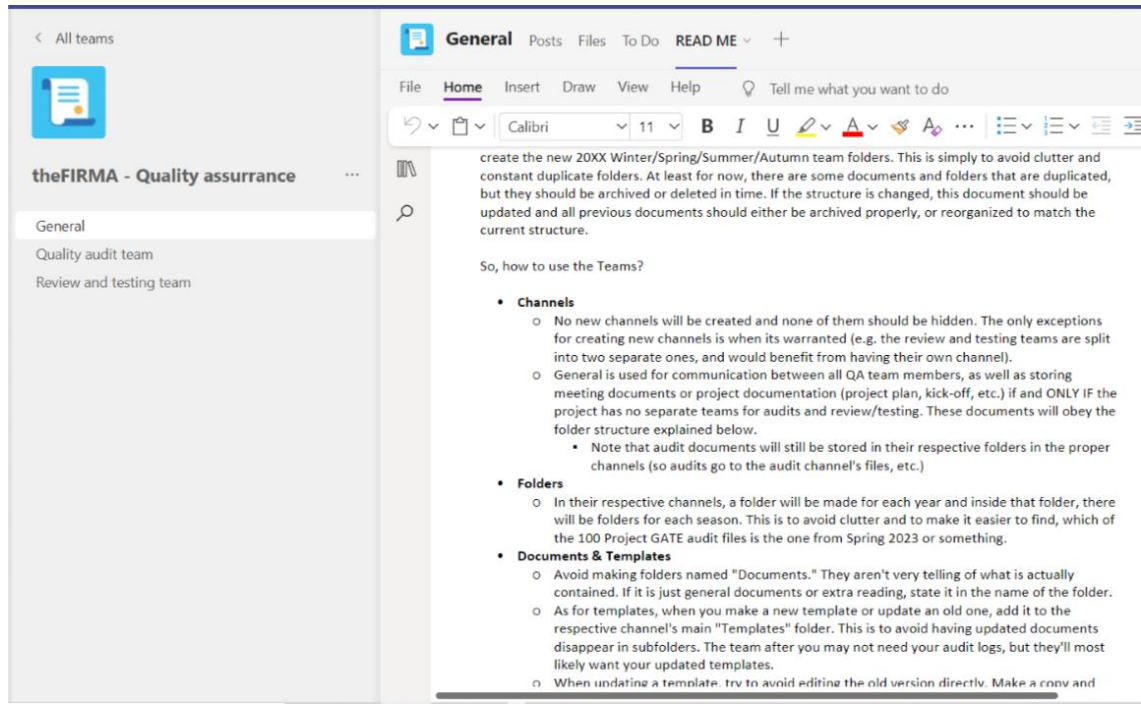
Futuristic Interactive Technologies (FIT) is a project consisting of 4 project members including the Project Manager. On the very first day of the diary thesis analysis, the author and the project team started the project with a kick-off meeting with the project customer, project manager and all the project members at the FIRMA premises. They discussed the details of the projects, project requirements, and what the customer wants us to do on the project. They were provided the user access to the actual website, and they planned for a weekly meeting every week for the update of the project with all the project members and project managers. Also, the project customer decided to have a meeting with all the project members every two weeks for the follow-up of the task that they have been given. The project Manager created the agenda of the project for an entire week and decided to make the meeting minutes of every weekly meeting so that all our discussions will be documented well and can be accessed easily in future if needed. According to the customer's requirement, they planned to create the different pages of the marketing websites and started working on each of their page that was divided by the project manager to all the project members, respectively. The author was assigned with three different pages for the website, and she started to work on it. The (Picture 1.) shows the first page that she created on the website.



Picture 1. Service page for FIT in WordPress.

Quality Assurance (Q/A):

Quality Assurance (Q/A) project consists of 3 project members including a Project manager. In the very first day of the diary thesis analysis, the author and the project team started Q/A projects with kick off meeting with project manager and all the project members who were involved in the project. Since, Q/A is the internal project of FIRMA so there was no project customer in this project and all tasks and details of the project was discussed with the student CEO of the FIRMA. It is an ongoing project and will be ongoing in future of the FIRMA as well. The author and the project team continued this project by going through the old documentations that were stored in Q/A team's channel. They made a new plan and agenda for the project for an entire week and decided to enlist all the projects that was supposed to be tested and audited by our team. They planned for a weekly meeting every week for update of the project and decided to update the meeting minutes on every weekly meeting so that all the discussions will be documented well and can be easily used in the future by other Q/A team members. The goal of this week was to start new project for software testing and code reviewing. Also, some the projects were ready for auditing so planned to do some audit reports this week. So, they divided the tasks to all project members accordingly for a whole week and focused on Webpage testing, software testing, code review and some audit reports as well. The (Picture2.) shows the FIRMA's Quality Assurance (Q/A) team's channel.



Picture 2. Q/A Teams channel.

3.1.2 Weekly analysis

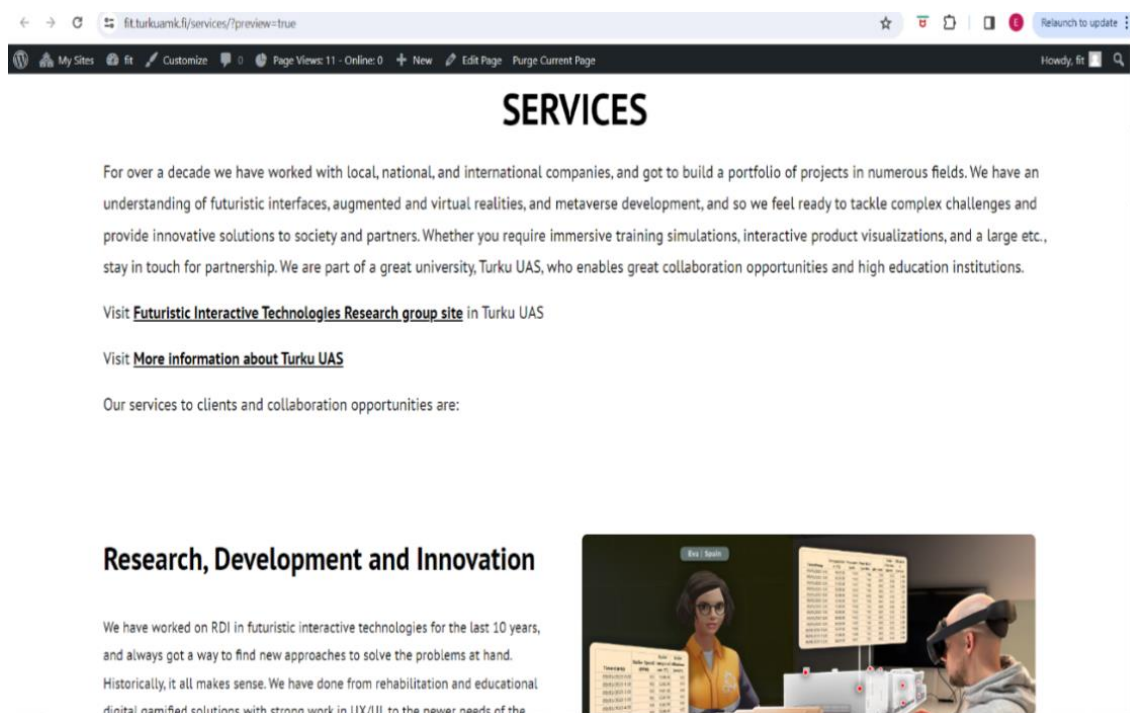
Monday, 19th June 2023

Futuristic Interactive Technologies (FIT):

In the first day of the first week, the project team started the project with a kick off meeting with project manager, all the project members and the project customer. A customer provided the details and description of the project to the project team and explained all the needs and requirements that they need to do in a project. All the project members were able to login to the website with the user ID provided by the customer. Afterall, they made an agenda of the project in details and enlisted the required documents and materials from the customer. Since all the project members were familiar with using a software WordPress to create a marketing website of FIT, it was quite easy for all of them to jump to the project right away.

The first plan of the project was to start creating the required pages of the websites. Project manager divided the work accordingly to all the project members. On the website, the author worked in three different pages Services, Research and Innovation, and Teams. Today she started to create a Service page for the website and enlisted the required text, images and other materials that were supposed to use in the

Service page. Other project members were working on other pages simultaneously according to our weekly plan. She worked on the first topic of service page, Research, Development, and innovation. The (Picture 3.) shows the Research and Innovation topic in Service page of FIT.



Picture 3. FIT Service Page - Research, Development and Innovation.

Quality Assurance (Q/A):

On the first day of Quality Assurance (Q/A) project, the project members started the project with a kick-off meeting with the project manager, Q/A is an internal project of the FIRMA, and there was not any project customer in this project. Thus, all the details of the projects were provided to the student CEO of the FIRMA. They enlisted all the ongoing FIRMA projects and distinguish the projects that are to be audited or to be tested and made a weekly plan accordingly. After figuring out the projects, project manager divided the projects to the testing team and auditing team. The author was assigned to the audit team with the list of projects that were supposed to be audited. Her task was to schedule a meeting with the Project Managers whose projects are ready to be audited. So, she made the plan accordingly and started sending the meeting invitation to the project managers, respectively. She went through all the audit report templates and prepared herself to work as an auditor and made an audit report of the given projects. As she had already worked in Q/A project during one of the courses, it was familiar with

software testing and auditing, which made her much easier to focus on it. The (Picture 4.) shows the Internal audit report template of TUAS.



Picture 4. Internal audit report template TUAS.


Tuesday, 20th June 2023

Futuristic Interactive Technologies (FIT):

In the 2nd day of the first week, today's agenda for the Future Interactive Technologies (FIT) project was to continue working on a Service page that the author created yesterday. Service page in FIT website includes the topics of research, development, and innovation, collaborating project, Game and app development, Incubator services spin and launch, access to facilities and equipment, training and workshops, intellectual property license. She worked on Collaborating project topic in Service page.

Additionally, she added some of the texts and similar pictures which were provided by the customer in the kick-off meeting and focused on fixing image size and layouts in the web pages. The team decided to use the WordPress component as much as possible because all project members were working on different web pages of the FIT website so

it might look unmatching and unsimilar. The project team used to discuss all the small tasks in the team's channel so that all teams were using the same layouts and font size with the texts and images. The author continued half of the day working on this topic of the FIT website. The (Picture 5.) shows the topic, Collaborative Projects, in Service page.



Collaborative Projects

We love to collaborate with technology companies and partners on research and development projects that can lead to new products, patents, and innovations. We want to help you reaching and scale in global markets. Our past includes projects with Research to Business, Co-creation, Co-innovation, and Veturi funding from Business Finland and multitude of partners. Our services included development, testing and market validation of several digital services, patenting, industrial training simulator development, etc.

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 David Oliva, david.oliva@turkuamk.fi

Picture 5. Collaborative projects, Service page FIT.

Quality Assurance (Q/A):

The second day of first week's diary analysis started with the auditing of the project named "Nord agent." It was an external project of the FIRMA where renovation of the old webpage was done for the customer in a modern and responsive way. The audit report was held on the FIRMA premises. The author followed the audit report template of the FIRMA and filled up the form. The audit report was ready to be uploaded to the Q/A team's channel for the update of the project. Project manager was informed that the audit report was completed, and documentations was done. Later, she sent a meeting invitation for the Project manager of the project, "Project Gate" to have the auditing tomorrow. Date, time, and place details for auditing was mentioned in the email meeting invitation. The (Picture 6.) shows the Audit report sample of the project "Nordagent".

Audit_Report_Nordagent.pdf

2. Questions

2.1 Project work

Give a short description of the project	Renovation of the webpage for the customer in a modern and responsive way.
Which phase is the project currently in?	Almost final phase, (Cost discussion is left)
Do all team members know what stage the project is at and where they can see it?	Yes
What goals do the team members have?	Learning WordPress, working in a project and time management
How often and how is the customer contacted?	Contacted often as it is in final phase
Where are the customer's wishes written down?	FIRMA's contract, outlook (or may be in teams too)

Picture 6. Audit report of the project "Nordagent."

Wednesday, 21st June 2023


Futuristic Interactive Technologies (FIT)

Today was the third day of the first week. Today the author started working on the same Service pages and added a new topic, Game, and app development in the FIT WordPress. She spent her first half of the day on (FIT) by adding new topic in the Word page. The texts and images provided by the customer was added to the page. She also focused on margins and formatting of the page layout. The (Picture 7.) shows the web page of the Game and App Development topic of the Service page in FIT.

Game and App Development

We started developing mobile games and apps in 2010 and got to do things in exergaming (BEE, Actvage), educational and serious games (Virpa - Fire Expert), tourism oriented (Lights On) and so on. With you we can develop any game or app for mobile iOS and Android with Unity engine, and we published some scientific papers if you want to know what we were up to. Reach us if you want to talk about concepts to develop with us.

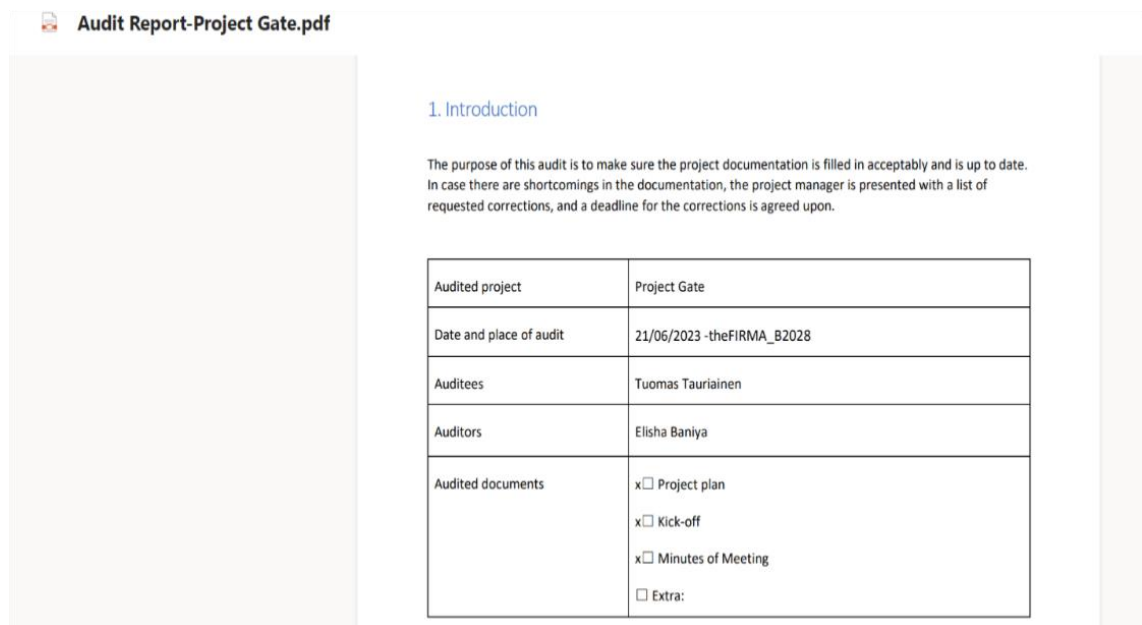
Contact:
 David Oliva, david.oliva@turkuamk.fi
 Taisto Suominen, Taisto.Suominen@turkuamk.fi



Picture 7. Game and app Development- Service page FIT.

Quality Assurance (Q/A):

The third day of first week's diary analysis started with the auditing of the project named "Project Gate." It is an internal project of the FIRMA which helps to connects all the FIRMA's projects, Project managers, members, and new TUAS students to apply for the project. The audit report was held on the FIRMA premises. Author followed the audit report template of the FIRMA and filled up the form. Later, the audit report was ready to be uploaded to the Q/A team's channel for the update of the project. Project manager was informed that the audit report was completed, and documentations was done. And invitation was sent to the Project manager for the first auditing of another new project, "Varausapp" for tomorrow. The (Picture 8.) shows the screenshot of the Audit report of the project "Project Gate" in the FIRMA.



Picture 8. Audit report of the Project "Project Gate."

Thursday, 22nd June 2023

Futuristic Interactive Technologies (FIT):

Today's agenda for Future Interactive Technologies (FIT) was fixing the image layouts and style in service pages of the website. The author added more text that was required in the service page in each topic. Also, she added some embedded codes in WordPress for the text and image layouts. Along with it, she focused on the new topic, Incubator services spin and launch. The (Picture 9.) shows how the topic, Incubator Service Spin and Launch looks in the Service page of FIT.



Incubator Services Spin & Launch

The incubator Spin & Launch has been created by FIT personnel within the School of ICT for all faculties and teams in Turku UAS, with already some stories to tell. We help early phase teams and also companies developing for instance side projects around three important pillars for success; Team skills and expertise recruiting, innovation validation with customers, and the always needed funding. We look for innovations aiming for global markets to spin In and Spin Out. Please, reach out.

Contact:
David Oliva, david.oliva@turkuamk.fi

Picture 9. Incubator Service Spin and Launch- Service page FIT.

Quality Assurance (Q/A):

Today was the 4th day of 1st week. After other half of the day, the project team held a weekly meeting with the Project manager and all project members. The meeting minutes was updated for today's weekly meeting. They discussed about how the project is ongoing and how it can be improved in the future. After successfully auditing some of the projects, they enlisted the projects that needed to do software testing. Later, Project manager divided the tasks accordingly to all the project team member. They were supposed to focus on GUI test and BUG test and were provided the pre-theme template of the software testing. The author went through GUI test template and prepared herself for software testing which would be started next week and later she started the auditing of "Varausapp" which was scheduled for today with its project manager. The (Picture 10.) shows the Audit report of "Varasuapp" in Q/A.

Audit_Report_VarauAPP.pdf

2.1 Project work

Give a short description of the project	VarauAPP is a booking app for meeting spaces in the FIRMA premises.	
Which phase is the project currently in?	Almost heading to the end	
Do all team members know what stage the project is at and where they can see it?	Yes, discord channel	
What goals do the team members have?	Learning React, Database, MongoDB	
How often and how is the customer contacted?	Very often	
Where are the customer's wishes written down?	Only discussed but not mentioned in the documents.	

	Yes	No	Comments
Have meetings been documented? Whose responsibility, is it?		x	Not documented, communication and discord channel only but Project Manager will document it soon.
Are all team members briefed on their tasks?	x		
Are all project members involved in internal team communication?	x		
How has the internal communication worked so far?	Very well		

Picture 10. Audit report of "Varasuapp".

Friday, 23rd June 2023

Futuristic Interactive Technologies (FIT):

On the last day of the first week, the project team had a weekly meeting with project manager and all project members. Meeting minutes memos was updated. They discussed in a group about the progress in the project and planned an agenda for the next week so that all project members can work efficiently. After the meeting, the author continued focusing on the margins, scales, and layout format for the entire Service that she had create throughout the week and added some of the texts and picture in the Service page. Afterall, she added a new topic in service page, Access to facilities and equipment. The (Picture 11.) shows the new project topic, Access to Facilities and Equipment in the Service page in FIT.

Access to Facilities and Equipment

Our state-of-the-art research facilities and equipment can be used by you for product development and testing. We have demo rooms and equipment for our students and partners in our premises of ICT and EDUcity buildings in Turku. We help you to reach other experts if you need a multidisciplinary approach.

Contact for FIT research group facilities and equipment:

Jami Aho, jami.aho@turkuamk.fi

or DEV-team

Contact to reach other labs, research groups, experts:

Mika Luimula, Mika.Luimula@turkuamk.fi

David Oliva, david.oliva@turkuamk.fi



Picture 11. Access to facilities and equipment-service page FIT.

Quality Assurance (Q/A):

On the last day of the first week of the diary analysis, the author made all the audit reports ready which she did during the entire week. She documented all the audit reports to Q/A team's channel for the use in future and easy access. For the next week, she planned to continue Q/A project with GUI testing of a project "Diginavi" according to yesterday's weekly meeting and update. And she prepared herself for software testing by going through the GUI test templates. The (Picture 12.) shows the GUI testing plan template.

GUI testing plan template	
Contents	
GUI testing plan template	1
1. WINDOW	1
1.1. Responsive	2
1.2. Alerts	5
2. ICONS & IMAGES	5
3. BUTTONS & LINKS	6
3.1. Buttons	7
3.2. Links	7
4. FIELDS & BOXES	8
4.1. Validation	9
4.2. Placeholders	10
4.3. Checkboxes & Radio buttons	11
5. ACCESSIBILITY	12
6. ATTACHMENTS	14
6.1. Attachment x	15

Picture 12. GUI test template.

3.1.3 Conclusion

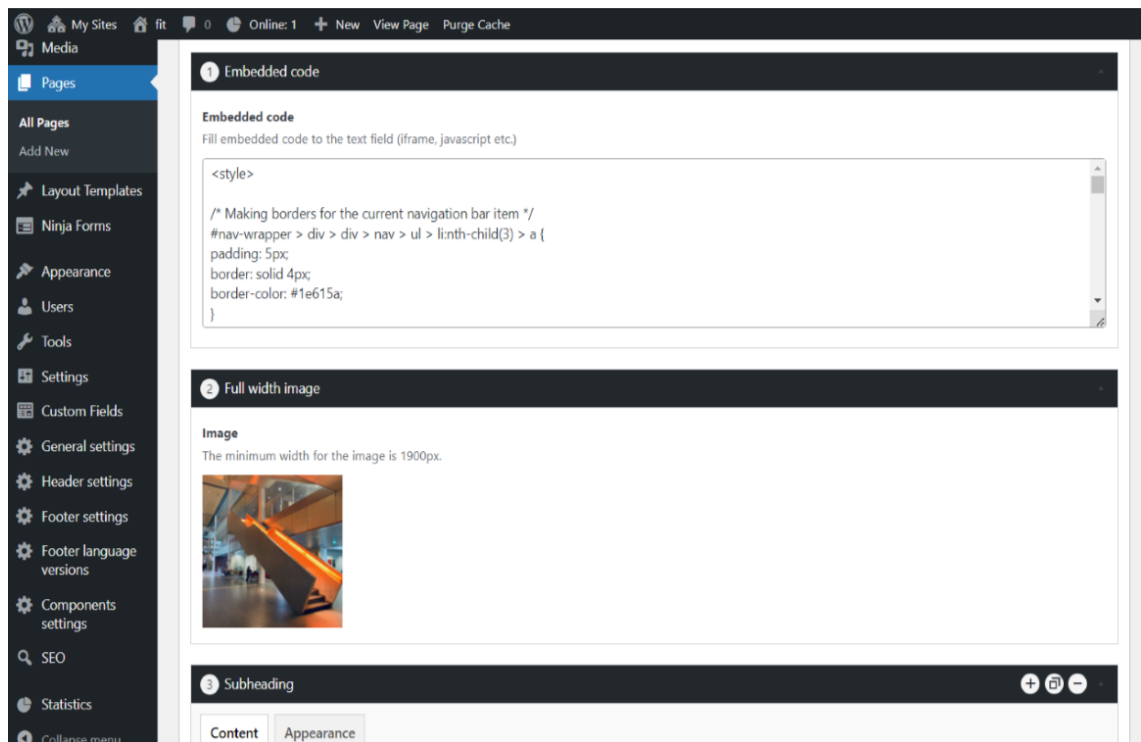
The conclusion of the first week of the diary thesis analysis was that the project team reached the goal of the week in both projects. The author succeeds to complete the tasks that were assigned in both projects. She encountered some of the challenges during the week, but she coped up with it and came with the solution successfully. The author could analyse the professional development skills during the first week of the diary thesis report. And she assumed that the daily tasks were depicted in detail as much as possible.

3.2 Second Week (26th June – 30th June)

3.2.1 Objectives

Futuristic Interactive Technologies (FIT):

In FIT, the project team followed the first week's goals and plan and did a checklist of whether the first week's goals were achieved or not as well as added a new agenda for the second week. The author focused on images, texts layouts, margins and formatting in the web pages that was created last week and some of the new topics in web page were added to the FIT website. If everything went according to the plans and schedules, the author will be creating a new web page for the Website this week. The project had a weekly meeting on Friday with the Project manager and all project members where all the work progress, difficulties that was faced during last week, and how to solve them efficiently was discussed in detail and enlisted the required texts and images for the web pages to ask for the customer. Project team stay focused and motivated towards the tasks that were assigned for a whole week's agenda. The (Picture 13.) shows the Embedded codes in Service page of FIT.



Picture 13. Embedded codes in service page of FIT.

Quality and Assurance(Q/A):

The second week's agenda of Q&A was to focus on detecting errors in codes and web pages. Last week, the author conducted some of the auditing of the project and focused on testing and code review this week. The project team did software testing and a code

review of some of the projects. Also, they completed webpage reviews on Desktop, mobile, and iPad of the given projects. The Q/A team progressed on software testing and code reviews of various projects. The projects that were ready for software testing were enlisted and divided the projects to each project member. A weekly meeting was held on Thursday and further updates and progress were encountered. A meeting-minute memo was updated. This week the author focused on the GUI test and BUG test of the project “Diginavi” with its desktop and mobile app for a whole week. The (Picture 14.) shows the BUG test template provide by the FIRMA to the Q/A team.

ID	Topic	Title	Platform / Environment	Description	Steps to Reproduce	Expected Result	Actual Result	Severity	Report Date	Reporter
1	UI/UX	Element alignment	Windows / Google Chrome	Elements don't align at x resolution	1. Decrease resolution or increase zoom 2. Scroll down to view the element 3. Element is no longer aligned	Elements align properly	Elements do not align properly	Critical	1/1/2023	John Doe
2								Major		
3								Minor		
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										

Picture 14. BUG test template.

3.2.2 Weekly analysis

Monday, 26th June 2023

Futuristic Interactive Technologies (FIT):

The first day of 2nd week's agenda in Future Interactive Technologies (FIT) was to continue with the same plan and goals as the first week. Today, the author focused on text layouts, image size, margins and so on and later fixed some of the bugs in the web pages. The Service page that was created on the last week was edited with the texts and images layouts. After that, she added a new topic in the service page, Trainings and Workshops. The required texts and images were already provided by the customer beforehand during the kick-off meeting, so it was easier to use. The (Picture15.) shows the Training and Workshops project added in the Service page in FIT website.



Training and Workshops

Our team of experts can provide dedicated training and teaching sessions. Topics include game engines, current programming languages and software, interactive technologies development, industrial metaverse, project design, etc. We have topics for key-note speeches and educational series if you need your experts to reinforce some of our fields of expertise, and we would like to hear about your needs.

Contact for programming and educational services:

Taisto Suominen, Taisto.Suominen@turkuamk.fi

Other contact:

David Oliva, david.oliva@turkuamk.fi

Picture15.Training and Workshops-Service page FIT.

Quality Assurance (Q/A):

In Quality Assurance project, today the author continued with the software testing of the project “Diginavi” and started with the GUI test template. She detected some of the errors and bugs while testing the project and listed it all in the report. Both the desktop and mobile versions were tested in both English and Finnish website. The (Picture 16.) shows the sample of Diginavi 2.0 Mobile app GUI test.

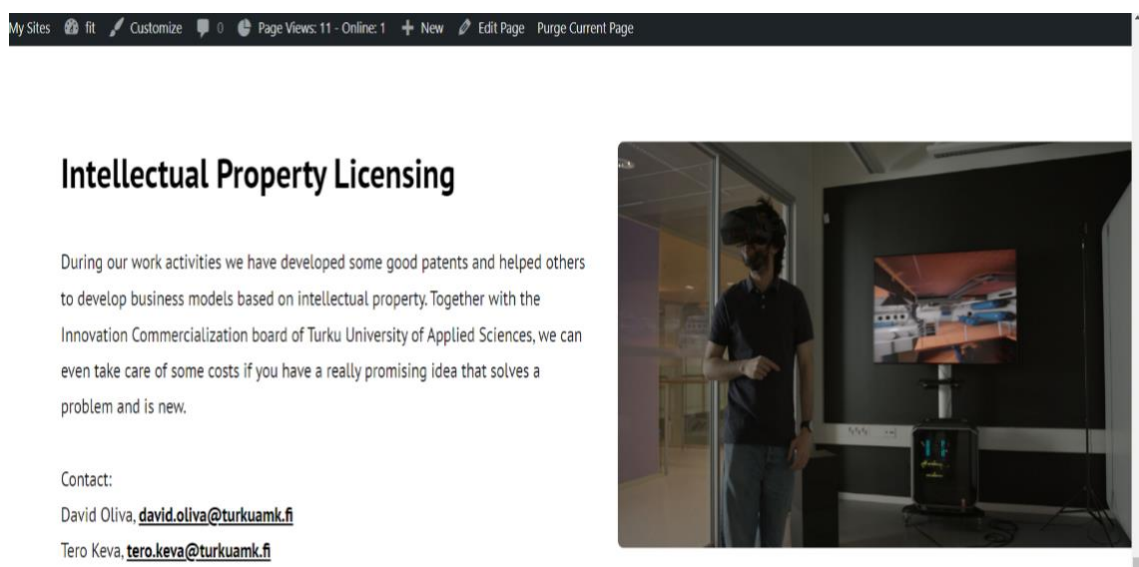
<u>Diginavi 2.0 Mobile App GUI testing</u>	
Contents	
Diginavi 2.0 GUI testing	1
1. WINDOW	1
1.1. Responsive	2
1.2. Alerts	5
2. ICONS & IMAGES	5
3. BUTTONS & LINKS	6
3.1. Buttons	7
3.2. Links	7
4. FIELDS & BOXES	8
4.1. Validation	9
4.2. Placeholders	10
4.3. Checkboxes & Radio buttons	11
5. ACCESSIBILITY	12
6. ATTACHMENTS	14
6.1. Attachment x	15

Picture 16. Diginavi 2.0 Mobile app GUI testing.

Tuesday, 27th June 2023

Futuristic Interactive Technologies (FIT):

In Future Interactive Technologies (FIT) project, today the author's plan was to redirect the navigation bars to its actual pages. All the texts and images that were used in the service page were formatted in correct margins and layouts. One last topic, Intellectual Property Licensing was added to the Service page on the website. The (Picture 17.) shows the project, Intellectual property licensing in the Service page of FIT.



Picture 17. Intellectual property licensing-service page FIT.

Quality Assurance (Q/A):

In the **Quality Assurance (Q/A)** project, Author's plan was to continue with the testing of Diginavi project in desktop and mobile versions and prepare GUI test report. Also, she reviewed some codes of the Diginavi project and checked its Finnish web pages. The Diginavi project was supposed to be tested on iOS as well as android mobile app following the GUI test template according to the weekly agenda. The (Picture 18.) shows the test case sample of Mobile app GUI test of a Diginavi project.

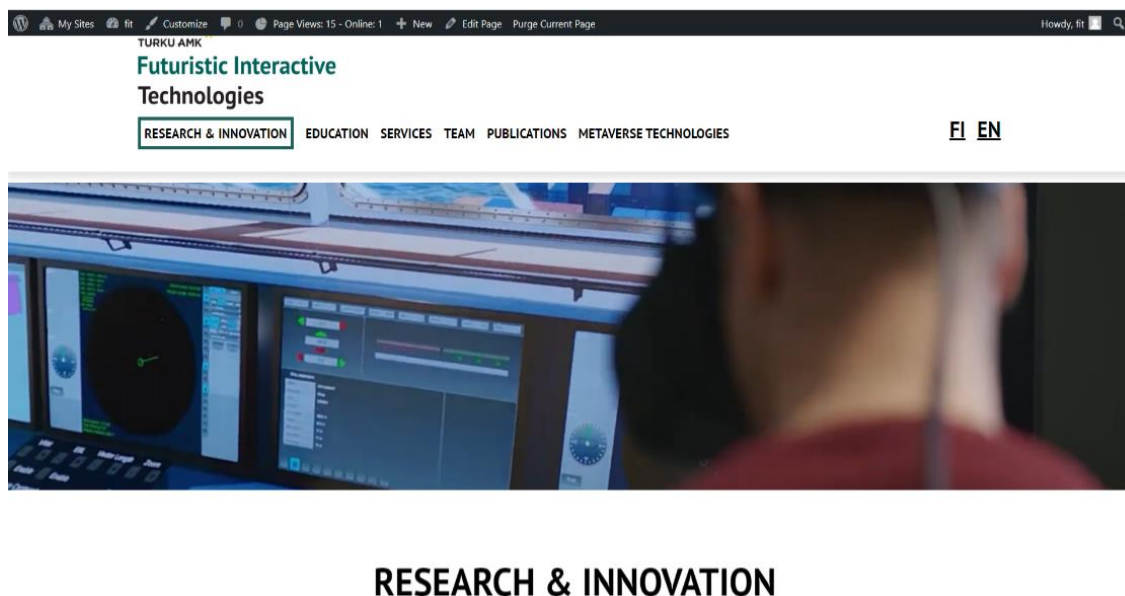
TEST CASE 9 ALERT/ERROR WINDOWS – DO THE ALERTS/ERROR HAVE A “CLOSE” BUTTON CLEARLY VISIBLE AND ALIGNED		
DESCRIPTION		<input checked="" type="checkbox"/> Checked <input checked="" type="checkbox"/> Valid
TEST CASE 10 ALERT/ERROR WINDOWS – DO THE ALERTS SCALE WITH DIFFERENT RESOLUTIONS		
DESCRIPTION		<input type="checkbox"/> Checked <input type="checkbox"/> Valid
TEST CASE 11 ALERT/ERROR WINDOWS – ARE THE ALERTS/ERRORS CLEARLY DISPLAYED AND READABLE		
DESCRIPTION		<input checked="" type="checkbox"/> Checked <input checked="" type="checkbox"/> Valid

Picture 18. Mobile app GUI testing-Diginavi test case.

Wednesday, 28th June 2023

Futuristic Interactive Technologies (FIT):

In Future Interactive Technologies (FIT), before creating a new web page for the website, the author finalized the Service page and focused on images and text format with the required margins and web page layouts. She checked whether all the reference links that were provided in the Service page were correct or not. And later, a new web page, Research and Innovation for the FIT was created. The (Picture 19.) shows the Research and Innovation page in FIT.



RESEARCH & INNOVATION

Picture 19. Research and Innovation page, FIT.

Quality Assurance (Q/A):

The other half of the day, the author focused on the code review of the Diginavi project and updated the GUI test report of the project as well as checked the BUG test report. Both the IOS and android version of the mobile app was tested using a GUI test template. The (Picture 20.) shows the test report on IOS version of the Diginavi project.

Diginavi testaus – IOS version

Testing time: 25.06-27.06.2023

On the home page, in the lower right corner useless back button.

The activity shown in the profile started directly with "weeks active 3".

In the profile "exercises completed" under "during the week " the completed one is directly limited to x/2 and does not count the number of exercises that the user has set for the week.

Mapping, check the answers, clicking on the headings will not show that the page continues down.->This is more often when the survey has only been answered a couple of times and you won't notice any additional material below the chart. -> Heading 5. The text of section 3 on leisure and social relations does not appear at the beginning.

Mapping, when completing the mapping, leaving the application resets the responses. Therefore, the mapping and plan must be completely completed before leaving the application in order to save the user's responses.

The training calendar

, accepting the exercises as done and leaving the application without returning to the home page will lose the exercises. -> NOTE. This also happens when you don't select all the exercises and leave the app without returning to the home page. -> You can get the exercises back by going to the plan, selecting one of the plans and saving this plan again.

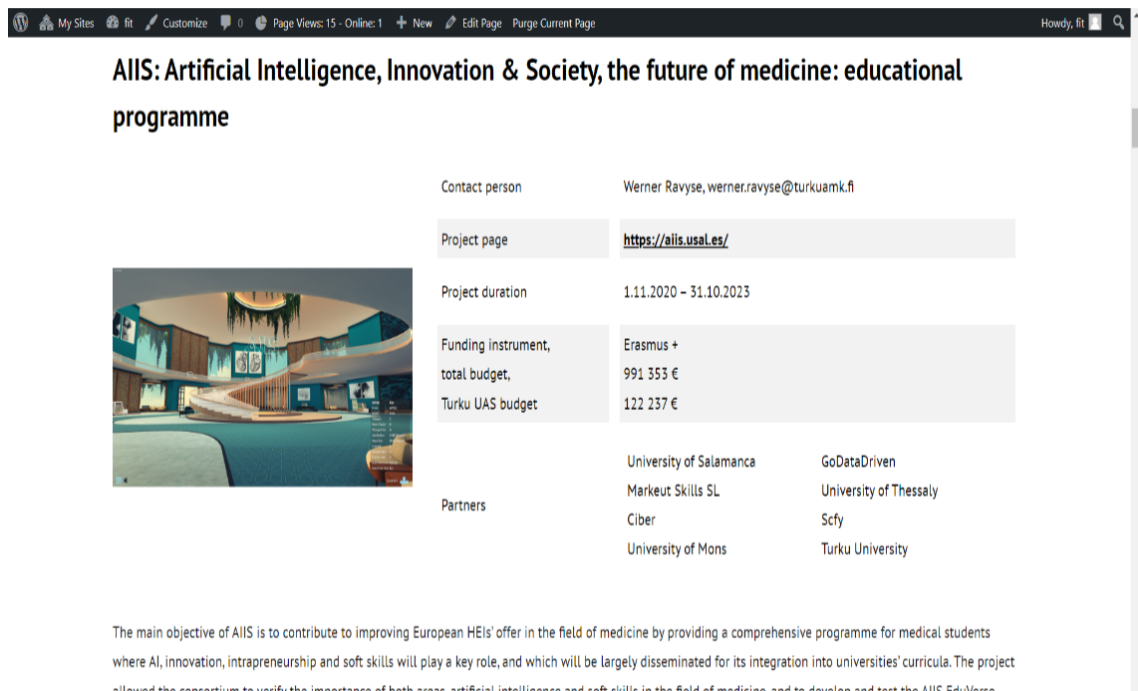
Training calendar, the calendar does not show exercises marked from the previous day, even if they were marked as done.

Picture 20. Diginavi test report-IOS version.

Thursday, 29th June 2023

Futuristic Interactive Technologies (FIT):

In the Futuristic Interactive Technologies (FIT), today the author created a context that was required in the Research and Innovation page. As the project team had followed the WordPress template theme of the FIRMA, it made the web developers easier to create a website provide by TUAS. All the texts and images provide by the customer are added accordingly in the WordPress format. And for some styling of the text and font style, embedded coding is done under HTML, CSS, and JavaScript programming languages. The (Picture 21.) shows the AIIS- Research and Innovation project.



The screenshot shows a WordPress website for the AIIS project. The page title is "AIIS: Artificial Intelligence, Innovation & Society, the future of medicine: educational programme". The page features a gallery image of a modern, curved architectural structure. To the right of the image is a table of project details:

Contact person	Werner Ravyse, werner.ravyse@turkuamk.fi
Project page	https://aiis.usal.es/
Project duration	1.11.2020 - 31.10.2023
Funding instrument,	Erasmus +
total budget,	991 353 €
Turku UAS budget	122 237 €
Partners	University of Salamanca GoDataDriven Markeut Skills SL University of Thessaly Ciber Scfy University of Mons Turku University

Below the table, there is a paragraph of text describing the project's objectives:

The main objective of AIIS is to contribute to improving European HEIs' offer in the field of medicine by providing a comprehensive programme for medical students where AI, innovation, intrapreneurship and soft skills will play a key role, and which will be largely disseminated for its integration into universities' curricula. The project allowed the consortium to verify the importance of both areas: artificial intelligence and soft skills in the field of medicine, and to develop and test the AIIS EduVerse

Picture 21. AIIS- Research and Innovation.

Quality Assurance(Q/A):

In Q/A, a weekly meeting was held with the Project member and all the project members. There, the project team discussed about the progress that was done throughout the week and encountered some of the challenges during a whole week. They added a new agenda for next week and meeting minutes were updated with the goals and plans. After the weekly meeting, the author updated the GUI test report in the specific files and folders and continued working on testing the mobile app in android version after completing the IOS version. The (Picture 22.) shows the Diginavi testing in the android version.

Diginavi testaus - Android version

App user created: 25.6.2023 Device information
: HUAWEI P10 Lite, Model: WAS-LX1, Android version: 8.0.0 Testing period:
25.6.2023-28.6.2023

On the home page, in the lower right corner, there is a useless back button. You can't go back anywhere from the homepage, so the icon at the bottom of the page is useless in the app.

The activity shown in my profile started directly as "weeks active 3" when I first logged in to the app.

From the profile join the organization, under "Info about the application?" opens that has not yet been filled/completed, this is presumably already known to the creators of the application. This same view appeared when logging into the app after entering the security slogan and security date.

Join the organization; My organization's "jp-org" key on Toimari's website does not work with the application in the "Add organization joining code" section. In the application will; **Error** TypeError: Cannot read property 'request' of undefined.

Picture 22. Diginavi test-android version.

Friday, 30th June 2023**Futuristic Interactive Technologies (FIT):**

Every Friday, the project had a weekly meeting with all the project team members and project managers. Today, in the weekly meeting, they discussed about the progress and the problems that raised in the project throughout this week and tried to discuss and find a better way of solution if anyone in the project team were facing any problems. After the weekly meeting, the projects updates were discussed briefly. Meeting minutes was done by the project manager. Later, after the meeting, the author continued working on the Research and Innovation page of the website. Today she added a new context in this page, MarISOT (Maritime Immersive Safe Oceans Technology). The (Picture 23.) shows the project MarISOT in Research and Innovation page in FIT.

Contact person	Juha Saarinen, juha.saarinen2@turkuamk.fi
Project page	https://marisot.turkuamk.fi/
Project duration	1.9.2020 - 8.11.2023
Funding instrument, total budget,	Business Finland 650 000 €
Turku UAS budget	650 000 €

The Maritime Immersive Safe Oceans Technology (MarISOT) was a two-year R&D project at Turku University of Applied Sciences. The project developed a simulation training scenario using the state of the art VR technologies and researched the commercialization possibilities of the system being developed. The collision avoidance training scenario, the bridge with its equipment and environment, was implemented for Varjo XR3 glasses. Thanks to the advanced XR3 glasses, a high-definition view equivalent to human eye resolution, a user interface implemented with hand tracking, and eye tracking were made available. In addition to the actual training scenario, an AI-based background system was developed, the purpose of which is to analyze and provide feedback on performance. A special feature of the background system is the attempt to measure cognitive load during training and use it as part of the information offered for AI to analyze. According to the results of the project, the aim is to commercialize MarISOT.

Picture 23. MarISOT- Research and Innovation.

Quality Assurance (Q/A):

This Friday, the author finalized the testing of the project “Diginavi.” She completed mobile app testing iOS as well as android versions. All the documents of the testing reports were uploaded to the files and folders of Q/A teams' channel respectively so that it can be used by new Quality Assurance Teams when needed in future. The (Picture 24.) was the screenshot of the FIRMA Quality Assurance Teams channel.

Picture 24. The FIRMA Quality Assurance Teams Channel.

3.2.3 Conclusion

The conclusion of the second week of diary thesis observation was that the project team was successful in covering all the second week's plans and goals that the team

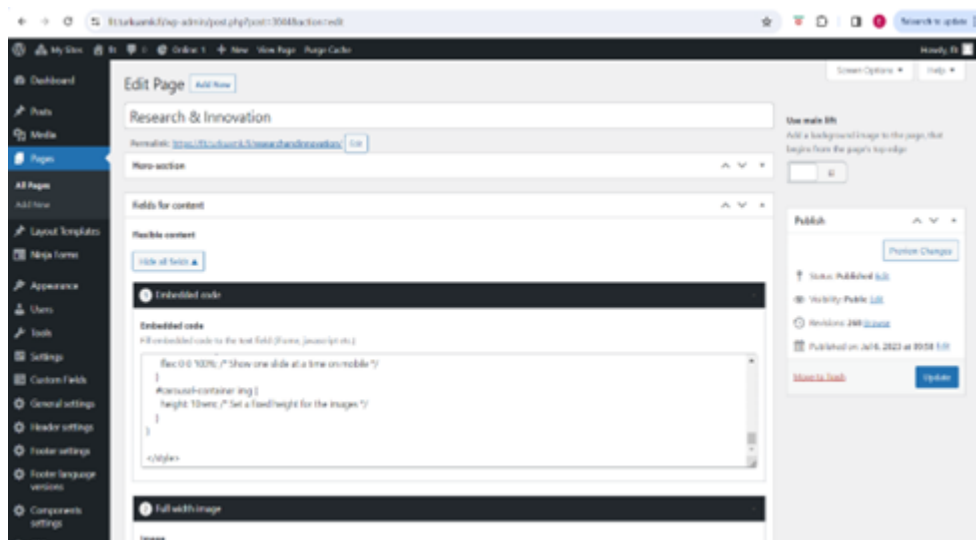
discussed earlier. In FIT, the author added new topics and contexts and worked on texts, and images layout and formatting. And in Q/A, this week the author completed testing of Diginavi and documented all the testing reports.

3.3 Third Week (3rd July - 7th July)

3.3.1 Objectives

Futuristic Interactive Technologies (FIT):

The team followed second week's goals and plan. New agenda was added in the following plans and goals and the team focused on editing of images, texts layouts. The correct links and references in website were added accordingly. The project team had a meeting with customer this week and the customer provided the missing documents, texts and images that were required for creating a website. Also, weekly meeting was held on Friday as usual, and the author continued with adding different contexts in the Research and Innovation page. The (Picture 25.) shows the Research and Innovation page in WordPress template.

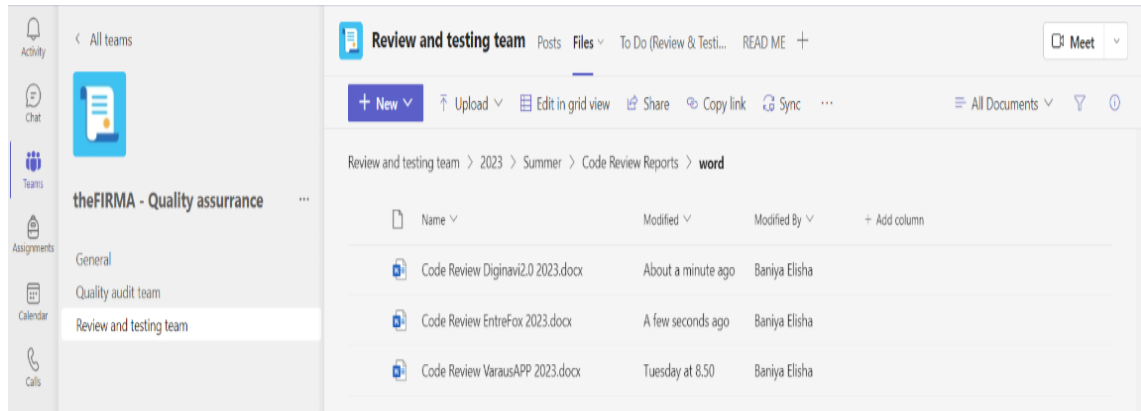


Picture 25. Research and Innovation page in WordPress template.

Quality and Assurance(Q/A):

In Q/A team the author started new project "Varausapp" code review from this week. She focused on detecting errors in codes and webpage and tested the website in Desktop, mobile and iPad. Also, she worked on software testing and auditing of various projects.

The new project testing started this week. The (Picture 26.) shows the Code Review documentation in Q/A team's channel.



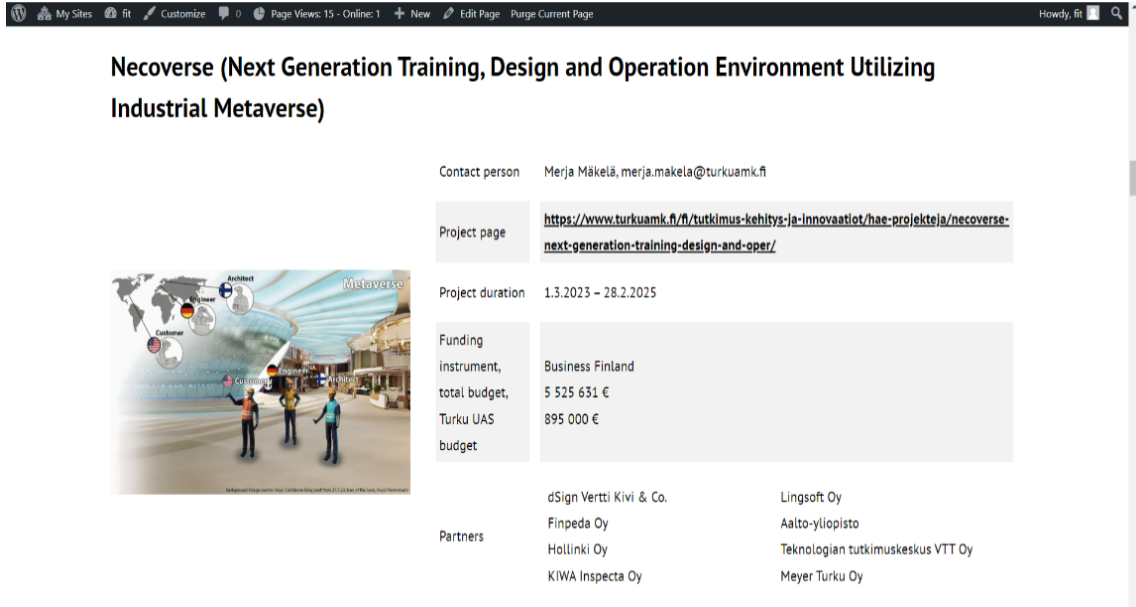
Picture 26. Code Review documentation.

3.3.2 Weekly analysis

Monday, 3rd July 2023

Futuristic Interactive Technologies (FIT):

Today the project team had a meeting with the customer. Meanwhile, communication between the project customer and all the team members was very frequent. The customer was quite satisfied with the progress that the project team had done within these 2 weeks. The project manager asked the customer for the missing materials, texts and images that was required in some of the web pages, and then the customer updated the project to the team. After the meeting, the author continued with adding the new context in Research and Innovation page, Necoverse (Next Generation Training, Design and Operation Environment Utilizing Industrial Metaverse). The (Picture 27.) shows the new Necoverse project in Research and Innovation page in FIT.



Necoverse (Next Generation Training, Design and Operation Environment Utilizing Industrial Metaverse)

Contact person Merja Mäkelä, merja.makela@turkuamk.fi

Project page <https://www.turkuamk.fi/fi/tutkimus-kehitys-ja-innovaatiot/hae-projekteja/necoverse-next-generation-training-design-and-oper/>

Project duration 1.3.2023 – 28.2.2025

Funding instrument, total budget, Turku UAS budget

Business Finland	5 525 631 €
895 000 €	

Partners

dSign Vertti Kivi & Co.	Lingsoft Oy
Finpeda Oy	Aalto-yliopisto
Hollinki Oy	Teknologian tutkimuskeskus VTT Oy
KIWA Inspecta Oy	Meyer Turku Oy

Picture 27. Necoverse- Research and Innovation.

Quality Assurance (Q/A):

In Quality Assurance (Q/A), today the author started a new project for testing and focused on code review of the Varausapp and detected some errors in the codes. In line number 1, the findings of the code review was the code expected a JSON object, array or literal and recommended in the code report for the array or literal Json in api/package.json. The (Picture 28.) shows the Code review (I) of Varausapp.

```

{} package.json 1
C: > Users > baniya.elisha > Desktop > VarausAPP > database > api > {} package.json
1  nj{
2    "name": "api",
3    "version": "1.0.0",
4    "description": "",

```

Picture 28. Code review (I) of Varausapp.

Table 1. Code review (I) - Varausapp.

File	Line specified	Findings	Actions
<i>api/package.Json</i>	<i>Number of the line(s): 1</i>	<i>Expected a JSON object, array or literal</i>	<i>Array or literal. Json</i>

Tuesday, 4th July 2023

Futuristic Interactive Technologies (FIT):

In FIT, today the author created a new context of the ARPA (Applied Research Platform for Autonomous) (Applied Research Platform for Autonomous Systems) in Research and Innovation page, an added the details of the budget from the text provided by the customer in WordPress text area. Also, the image with appropriate layout was formatted. The (Picture 29.) shows the project ARPA in Research and Innovation page in FIT.

ARPA (Applied Research Platform for Autonomous Systems)

Contact person: Jarkko Paavola, jarkko.paavola@turkuamk.fi

Project page: [Applied Research Platform for Autonomous Systems \(turkuamk.fi\)](#)

Project duration: 1.11.2020 – 31.10.2023

Funding instrument: [Ministry of Education and Culture / Opetus- ja kulttuuriministeriö](#)

total budget, 1 971 400 €

Turku UAS budget 1 256 800 €

Partners: Yrkeshögskolan Novia

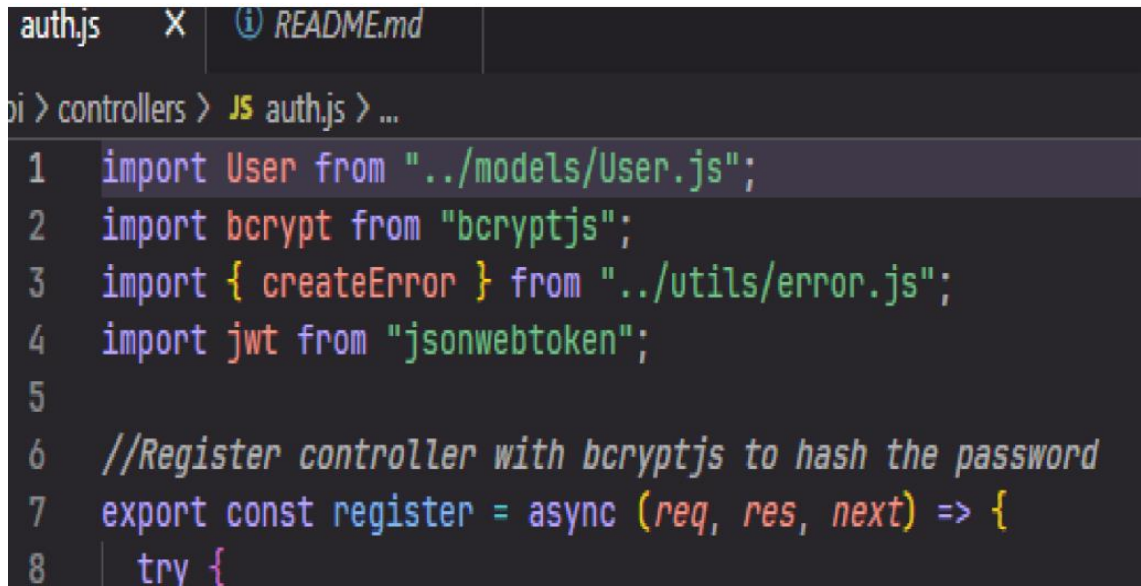
Applied Research Platform for Autonomous Systems (ARPA) is a three-year RDI project of Turku University of Applied Sciences (Turku UAS) and Novia University of Applied Sciences. The project actions concentrate in creating an ambitious new platform for applied research focusing on autonomous systems, which enables different operators' concrete RDI work in the field of smart operating environments. Applied research of remotely operated, automated, and autonomous systems is a globally important area for developmental work and innovation, and Finland has significant research in this field. However, vital testing infrastructures are still largely missing. ARPA will develop a research platform and digital services for testing the reliability and safety of autonomous systems before they are introduced in the market.

Picture 29. ARPA- Research and Innovation.

Quality Assurance (Q/A):

In Quality assurance project, today the author continued with yesterday's task that she focused rest of the day to the code review of the Varausapp. She detected some of the bugs and errors in the codes and noted in the report. From line no. 1-4 in the codes, 'User', 'bcrypt', 'createError', and 'jwt' are declared but their values are never read so she recommended in the code review report to clarify if the imports are needed in the

future development otherwise, just to delete those lines from the code. The (Picture 30.) shows the Code review (II) of the project Varausapp.



```

auth.js X (i) README.md
pi > controllers > JS auth.js > ...
1 import User from "../models/User.js";
2 import bcrypt from "bcryptjs";
3 import { createError } from "../utils/error.js";
4 import jwt from "jsonwebtoken";
5
6 //Register controller with bcryptjs to hash the password
7 export const register = async (req, res, next) => {
8   try {

```

Picture 30. Code review (II) -Varausapp.

Table 2. Code review (II) – Varausapp.

File	Line specified	Findings	Recommended actions
Js/auth.js	Number of the line(s) 1,2,3,4	'User', 'bcrypt', 'createError' and 'jwt' are declared but their values are never read	Clarify if the imports are needed in future development. If not, delete lines.

Wednesday, 5th July 2023

Futuristic Interactive Technologies (FIT):

In FIT, the author created a new context of the VTC (Virtual Training Certification) in Research and Innovation page today and enlisted the project details with the texts and images provided by the customer with a WordPress theme. And for image and text layouts, some of the CSS styling was done. The (Picture 31.) shows the project VTC (Virtual Training Certification) in Research and Innovation page in FIT.

VTC (Virtual Training Certification)

Contact person: Timo Haavisto, timo.haavisto@turkuamk.fi

Project page: <https://www.tuas.fi/en/research-and-development/projects/vtc-virtual-training-certification/>

Project duration: 1.6.2022 - 31.5.2024

Funding instrument: Business Finland
 total budget: 2 981 100 €
 Turku UAS budget: 530 000 €

Partners: KIWA Inspecta Oy, ADE Oy, Turku UAS, Turku University, Omnia Education Partnerships Oy, TTS Tyotehoseura, Desigence Oy, Meyer Turku Oy

The VTC project aims to establish a light-weight framework for proving effectiveness in industry certification training, by utilizing virtual reality, augmented reality and multi-user collaborative environments. The project contains four experiments, each with their own iteration and research data collection. In these experiments, the project measures and compares VR, face-to-face, self-study and theory and instructor-led training effectiveness. The new developed certification platform will allow to harmonize

Picture 31. VTC- Research and Innovation.

Quality and Assurance (Q/A):

The author continued reviewing the codes of Varausapp. She detected more errors in codes in between the lines 10-21 and commented out an overstruck code. Here, the author recommends in the report to clarify if the commented out-lines are needed in the future development. Otherwise, just to delete those lines from the codes. The (Picture 32.) shows the Code review (III) the Varausapp.

```

10  //CHECK CONTROLLERS FOR SPECIFIC FUNCTIONS
11
12  //CREATE
13  router.post("/", verifyAdmin, createComputer);
14  //UPDATE
15  router.put("/:id", verifyAdmin, updateComputer);
16  //DELETE
17  router.delete("/:id", verifyAdmin, deleteComputer);
18  //GET
19  router.get("/find/:id", getComputer);
20  //GET ALL
21  router.get("/", getComputers);
22
23  export default router;
24

```

Picture 32. Code review (III) -Varausapp.

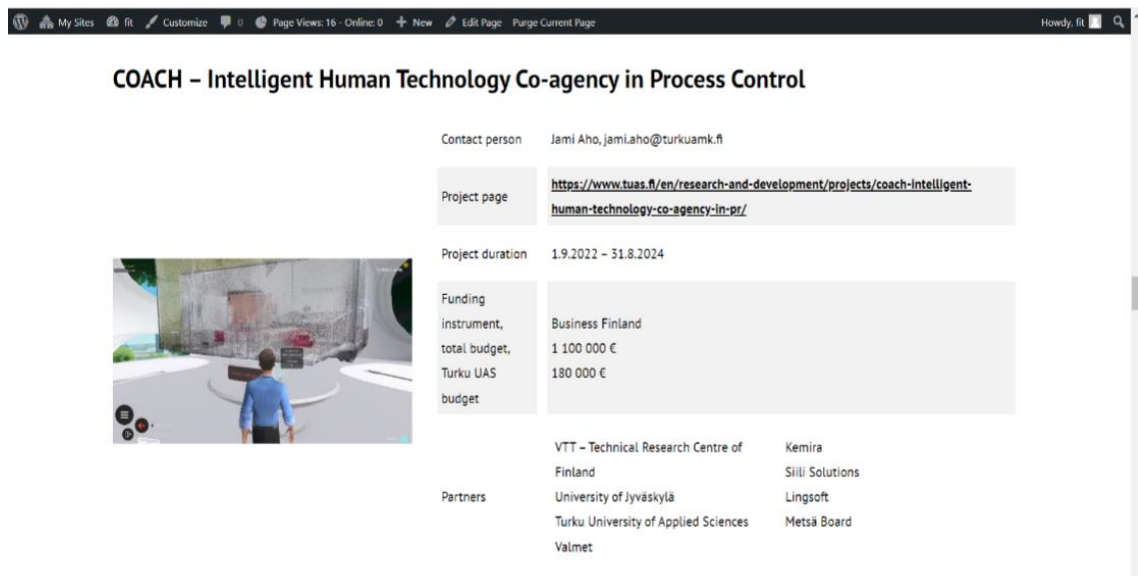
Table 3. Code review (III) – Varausapp.

File	Line specified	Findings	Recommended actions
<i>Js/computer.js</i>	<i>Number of the line(s) 10-21</i>	<i>Commented out and overstruck code</i>	<i>Clarify if the commented-out lines are needed in future development. If not, delete lines.</i>

Thursday, 6th July 2023

Futuristic Interactive Technologies (FIT):

Today, the author started the day with adding a new context of COACH - Intelligent Human Technology Co-agency in Process Control, in the Research and Innovation page of the FIT website. The text and links were added in the text area of the WordPress theme. And for styling the page layout, CSS styling was done by adding the page layout of embedded code in the WordPress. Full width image of COACH, technology agency, provided by the customer was added. The (Picture 33.) shows the project COACH in the Research and Innovation in FIT.



COACH – Intelligent Human Technology Co-agency in Process Control

Contact person Jami Aho, jamlaho@turkuamk.fi

Project page <https://www.tuas.fi/en/research-and-development/projects/coach-intelligent-human-technology-co-agency-in-pr/>

Project duration 1.9.2022 – 31.8.2024

Funding instrument, total budget, Turku UAS budget

Business Finland
1 100 000 €
180 000 €

Partners

VTT – Technical Research Centre of Finland
University of Jyväskylä
Turku University of Applied Sciences
Valmet

Kemira
Siili Solutions
Lingsoft
Metsä Board

Picture 33. COACH- Research and Innovation.

Quality Assurance (Q/A):

Today, the Q/A project team had a weekly meeting about the Quality and assurance of the project with the Project manager and other project members. They discussed all the progress of the tasks of this week and if any difficulties arise doing the assigned tasks. The project team evaluated themselves if they were able to succeed this week's goal or not. Then the project manager prepared the agenda for next week as well and divide the tasks to all the project members for next week. Meeting minutes was updated with the new agenda. After the meeting, the author continued with the code review of the project Varausapp and decided to complete this project's code review so that she can start the new assigned task form next week. Today she summarized and gave the feedback in the code review report. The (Picture 34.) shows the report of the summary of the code review of the project, Varausapp.

Feedback:

Clarify the need and use of overstruck codes and comments.

Summary:

The overall look of the codebase is clean, and the code is easily readable and well-organized. Sound principles of React Native development and formatting are used.

The testing team commends the VarausAPP development team, past and present, for their good quality work.

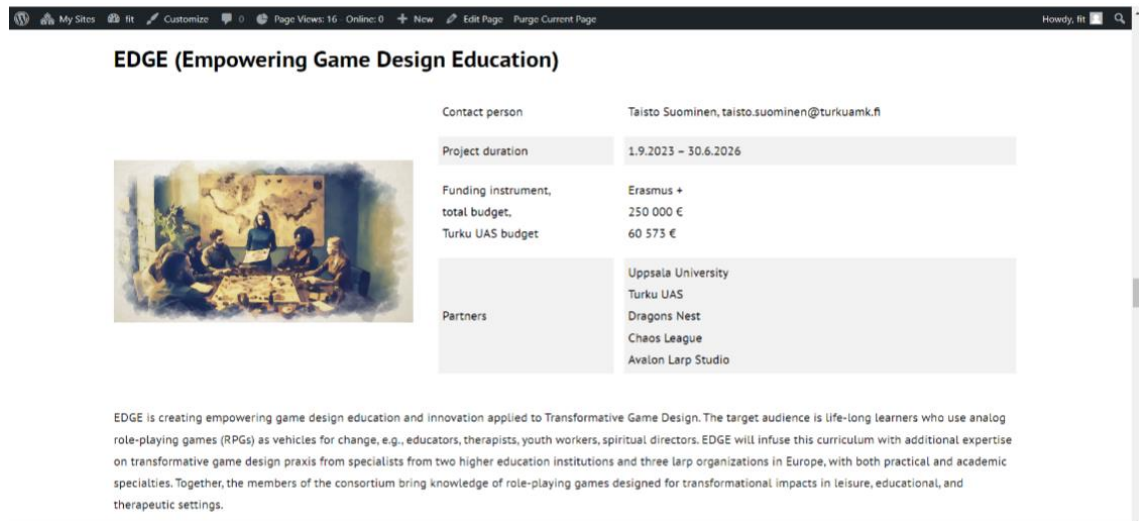
Picture 34. Summary of the code review- Varausapp.

Friday, 7th July 2023

Futuristic Interactive Technologies (FIT):

Every Friday, the FIT developer team had a weekly meeting with the project manager and all the project team members where they discuss about the progress in the assigned tasks the whole week with all the project members. The daily task of a project member is to add new context or topic in specific page. They add new given topic with the text and images with proper margin and layout of the web page. And if any materials are needed from customer, they discuss it on the weekly meeting so that the project manager can inform to the customer, so the tasks run smoothly and efficiently. Meeting minutes was updated with new goals and plans. Later after having a weekly meeting, the author

started working on the Research and Innovation page with adding a new topic, EDGE (Empowering Game Design Education) in it and added the project's description and cost estimations. The (Picture 35.) shows the project EDGE in the Research and Innovation in FIT.



EDGE (Empowering Game Design Education)

Contact person: Taisto Suominen, taisto.suominen@turkuamk.fi

Project duration: 1.9.2023 – 30.6.2026

Funding instrument: Erasmus +

total budget: 250 000 €

Turku UAS budget: 60 573 €

Partners: Uppsala University, Turku UAS, Dragons Nest, Chaos League, Avalon Larp Studio

EDGE is creating empowering game design education and innovation applied to Transformative Game Design. The target audience is life-long learners who use analog role-playing games (RPGs) as vehicles for change, e.g., educators, therapists, youth workers, spiritual directors. EDGE will infuse this curriculum with additional expertise on transformative game design praxis from specialists from two higher education institutions and three larp organizations in Europe, with both practical and academic specialties. Together, the members of the consortium bring knowledge of role-playing games designed for transformational impacts in leisure, educational, and therapeutic settings.

Picture 35. EDGE- Research and Innovation.

Quality and assurance (Q/A):

The author completed all the code review of the project Varausapp and gave some feedback and summarization to the errors that she detected in the code. Today she wrapped of this project's code review and documented all the reports of the Varausapp project in the files and folders in the Q/A teams in the FIRMA company. The (Picture 36.) shows the testing log update of the Varausapp.

theFIRMA QA Team Testing Log			
Project Name	Project Manager	Testing done?	Additional info
VarausAPP	Stephan Gu	Yes	Testing done
Diginavi 2.0	Marika Säisä	No	Large scale testing
Project Gate	Tuomas Tauriainen	No	Large scale testing
EntreFox	Unknown (ask Nico)	No	Priority #1

Picture 36. Testin log update- Varausapp.

3.3.3 Conclusion

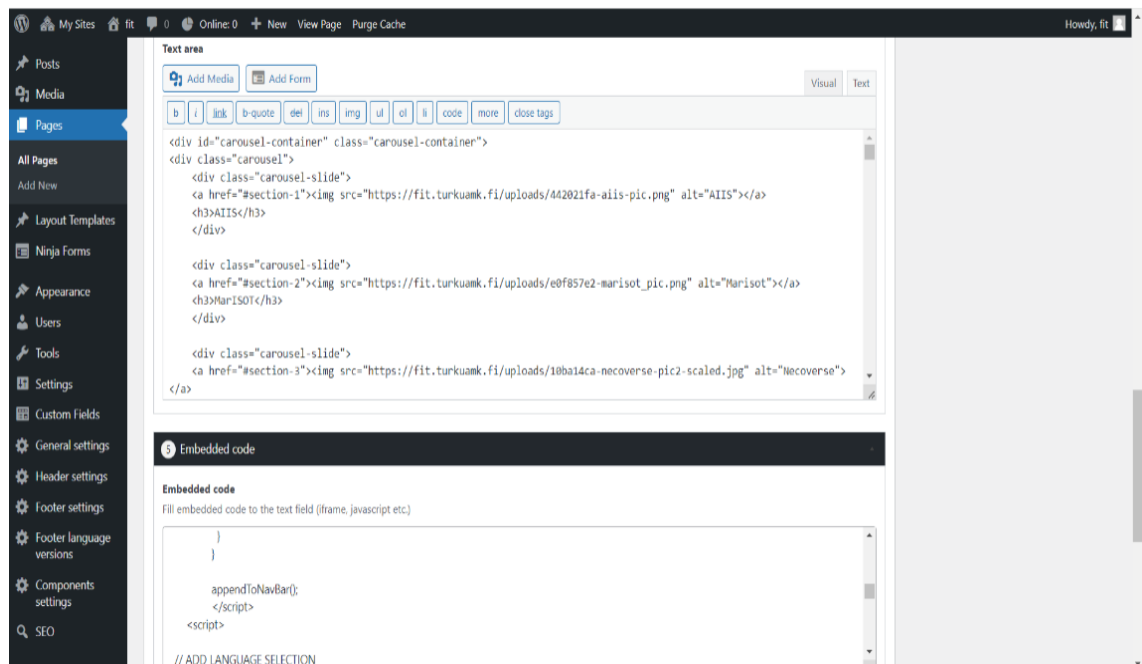
Conclusion of the third week of diary thesis analysis and observation was that the author and other project team members in both projects were successful to meet the goal of this week. In Future Interactive Technologies (FIT), project, the author added the new contexts in the Research and Innovation page, and she will be continuing rest of the contexts and topics in following weeks. And in Quality Assurance project, she completed the code reviewing of the project Varausapp and documented all the code review reports on the Varausapp project of the company's specific files and folders.

3.4 Fourth Week (10th July - 14th July)

3.4.1 Objectives

Futuristic Interactive Technologies (FIT)

In Futuristic Interactive Technologies, this week the author continued with the third week's plans and goal and focused on the Research and Innovation page by adding more project topics in the Research and Innovation page in the FIT website. The author tries to complete one project topic in a web page each day so that she can plan thoroughly. The (Picture 37.) shows the WordPress theme of Research and Innovation.

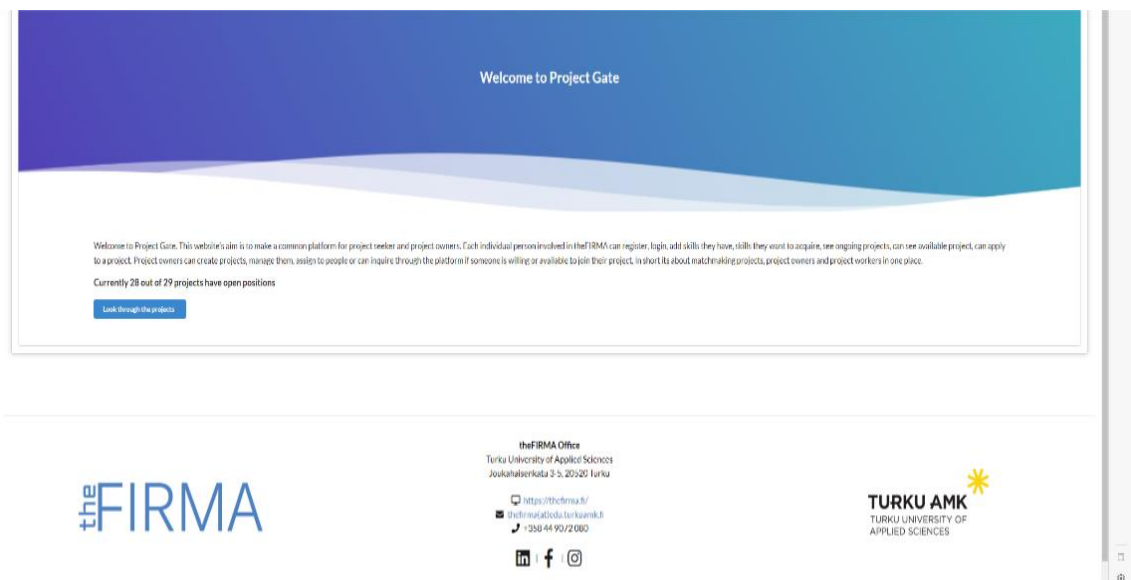


Picture 37. WordPress theme of Research and Innovation page.

Quality Assurance (Q/A)

A new project, "Project Gate" was started from this week. It is a project to create an app which connects all FITRMA projects, project managers, projects members to apply and choose the projects according to their interest. This project was approaching to its final stage, so the Q/A team decided to have a GUI and BUG test of this project to hand over the qualitative project to the FIRMA company. This app was tested both in desktop and mobile version. So, this week the author worked on GUI test and BUG test of the Project Gate. The (Picture 38.) shows the front page of the Project Gate app.

6



Picture 38. Project Gate app.

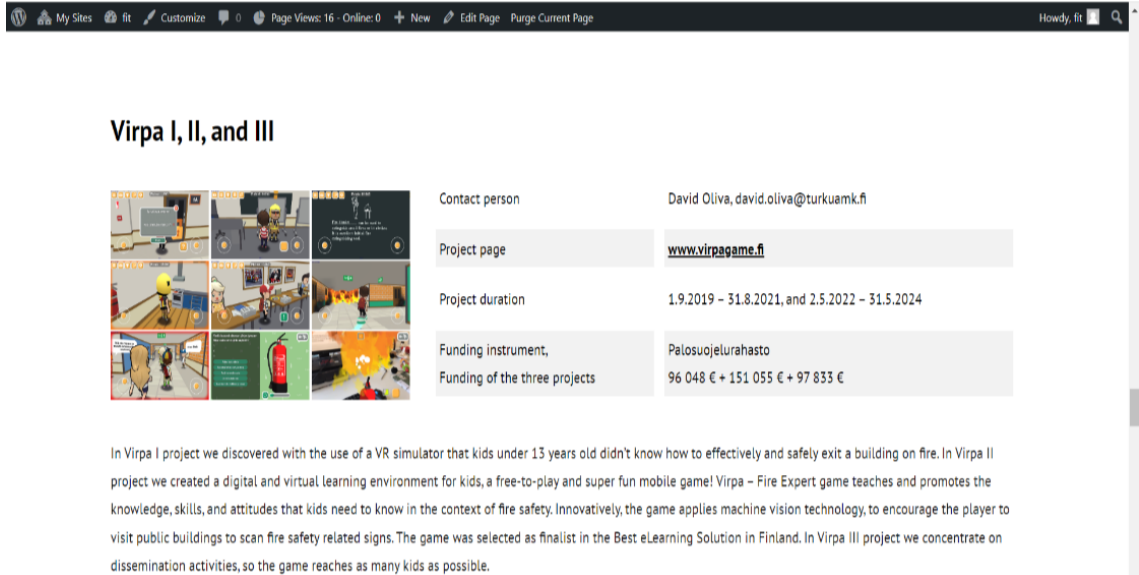
3.4.2 Weekly analysis

Monday, 10th July 2023

Futuristic Interactive Technologies (FIT):

Today its 1st day of 4th week of the thesis diary analysis and the author worked on the same web page that she has been working since last week. In Research and Innovation page, a new project topic, Virpa I, II, III was created and added the details of the project with the time durations and cost estimations. A brief detail about the project is attached from the text provided by the customer. Also, she focused on the page and text layouts and margins with some CSS stylings form the embedded coding layout of the

WordPress. The (Picture 39.) shows the project, VIRPA I, II, III in the Research and Innovation.



The screenshot shows a WordPress page with the following content:

Virpa I, II, and III

Contact person	David Oliva, david.oliva@turkuamk.fi
Project page	www.virpagame.fi
Project duration	1.9.2019 – 31.8.2021, and 2.5.2022 – 31.5.2024
Funding instrument,	Palosuojelurahasto
Funding of the three projects	96 048 € + 151 055 € + 97 833 €

In Virpa I project we discovered with the use of a VR simulator that kids under 13 years old didn't know how to effectively and safely exit a building on fire. In Virpa II project we created a digital and virtual learning environment for kids, a free-to-play and super fun mobile game! Virpa – Fire Expert game teaches and promotes the knowledge, skills, and attitudes that kids need to know in the context of fire safety. Innovatively, the game applies machine vision technology, to encourage the player to visit public buildings to scan fire safety related signs. The game was selected as finalist in the Best eLearning Solution in Finland. In Virpa III project we concentrate on dissemination activities, so the game reaches as many kids as possible.

Picture 39. VIRPA I, II, III- Research and Innovation.

Quality Assurance (Q/A):

According to this week's agenda, the author started Q/A project task with GUI testing of the Project Gate. She followed the template provided by FIRMA. Also, she did some research on it and started to check the Windows, Icons and Images, fields, and boxes and so on today. The (Picture 40.) shows the GUI test contents of the Project, Project Gate.

Project Gate GUI testing

Contents

GUI testing plan template	1
1. WINDOW	2
1.1. Responsive	2
1.2. Alerts	5
2. ICONS & IMAGES	6
3. BUTTONS & LINKS	7
3.1. Buttons	7
3.2. Links	8
4. FIELDS & BOXES	9
4.1. Validation	9
4.2. Placeholders	11
4.3. Checkboxes & Radio buttons	12
5. ACCESSIBILITY	13
6. ATTACHMENTS	15
6.1. Attachment x	15

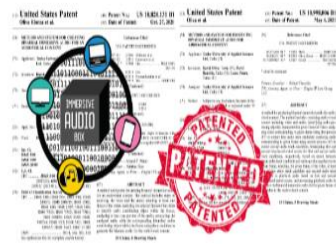
Picture 40. Project Gate GUI test.

Tuesday, 11th July 2023

Futuristic Interactive Technologies (FIT):

As Research and Innovation page consist of many contexts and topics to be added, it took more than a week. So, today the author added another new project topic, Immersive Audio Box in the Research, and Innovation page in the FIT marketing website. All the project details were updated in the web page. She added the full width image from the layout of the WordPress and similarly text and image layouts are created using the embedded code layout in the WP by using HTML, CSS, and JavaScript codes. The picture of the project was provided by customer, and she had added all the description and cost estimations of the project. The (Picture 41.) shows how the ImA- Immersive Audio Box looks in Research and Innovation page.

ImA-Box (Immersive Audio Box)



Contact person	David Oliva, david.oliva@turkuamk.fi
Project duration	1.11.2020 – 31.10.2023
Funding instrument,	Business Finland
total budget,	511 595 €
Turku UAS budget	511 595 €

During this project we develop algorithms and methods to automatically and autonomously improve the audio quality of digital audiovisual content broadcasted and streamed through the internet. Smartly combining machine vision and machine listening principles and processes, the mono and stereo audio of videos were converted to 3D-audio. The major outcome of the project were two US patents (US 10,998,006 and US 10,820,131) and the proof of concept which was verified via psychoacoustic research. The outcome of the project could be utilized by streaming platforms, recording systems like mobile phones, and video edition software to automatically improved the quality of the audio content with our proposed cost-efficient process.

Picture 41. Immersive Audio Box- Research and Innovation.

Quality Assurance (Q/A):

Other half of my day, the author focused on Quality Assurance (Q/A) project as usual. Today she continued with yesterday’s GUI test template of the Project Gate. She focused on Fields and boxes, accessibility, and some attachments in the project Gate app. Here is the example of test case in submit validation and limitations. The (Picture 42.) shows the GUI test case (I) of the Project Gate.

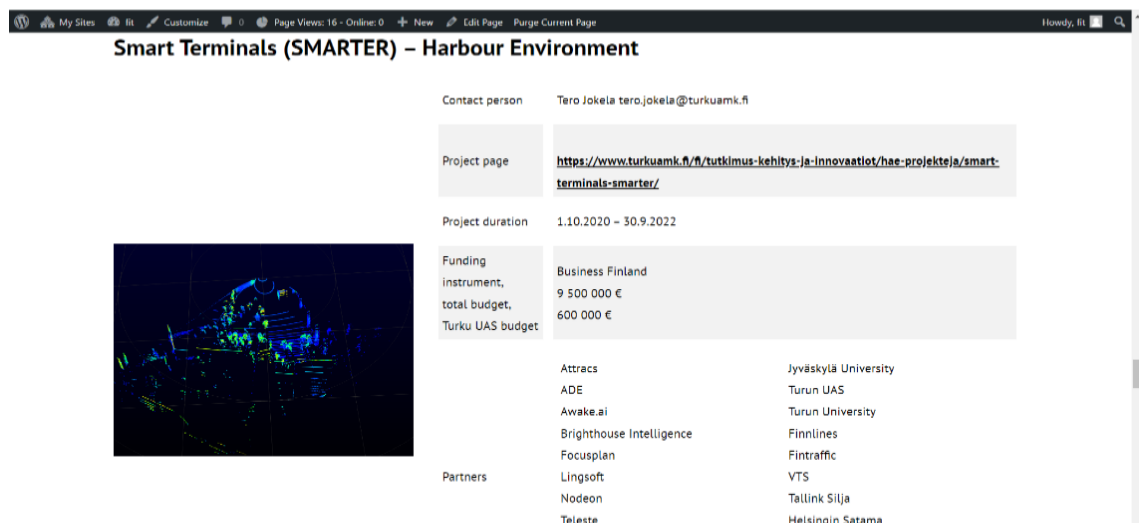
<p>TEST CASE 27 SUBMIT VALIDATION – IS THERE A CONFIRMATION FOR SUBMITTING</p> <p>DESCRIPTION When applying for project you don't get a confirmation for an application.</p> <p>Changing your password does not confirm the submission</p>	
<p>TEST CASE 28 LIMITATIONS – DO THE FIELDS/BOXES RECOGNIZE LIMIT DISPLAY AN ERROR</p> <p>DESCRIPTION "Setting up profile" you can add your birthday as any year year is not limited to 4 digits even it is directed to the calendar. And in mobile version, it directly gives option to choose from only.</p> <p>See attachment 6.</p>	

Picture 42. GUI test case (I)- Project Gate.

Wednesday, 12th July 2023

Futuristic Interactive Technologies (FIT):

Smart Terminals- Harbour Environment is one of the projects focused on tailoring sensor use to improve and optimize harbours and ports functioning, for instance passenger flows in terminals, truck traffic in port area and ship turn-around at the sea, that is included in Research and Innovation page. The author added the amazing pictures and the project details provided by the customer. The (Picture 43.) shows the project, Smart Terminals in Research, and Innovation in the WP.



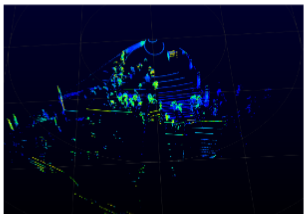
Smart Terminals (SMARTER) – Harbour Environment

Contact person: Tero Jokela tero.jokela@turkuamk.fi

Project page: <https://www.turkuamk.fi/fi/tutkimus-kehitys-ja-innovaatiot/hae-projekteja/smart-terminals-smarter/>

Project duration: 1.10.2020 – 30.9.2022

Funding instrument: Business Finland
 total budget: 9 500 000 €
 Turku UAS budget: 600 000 €



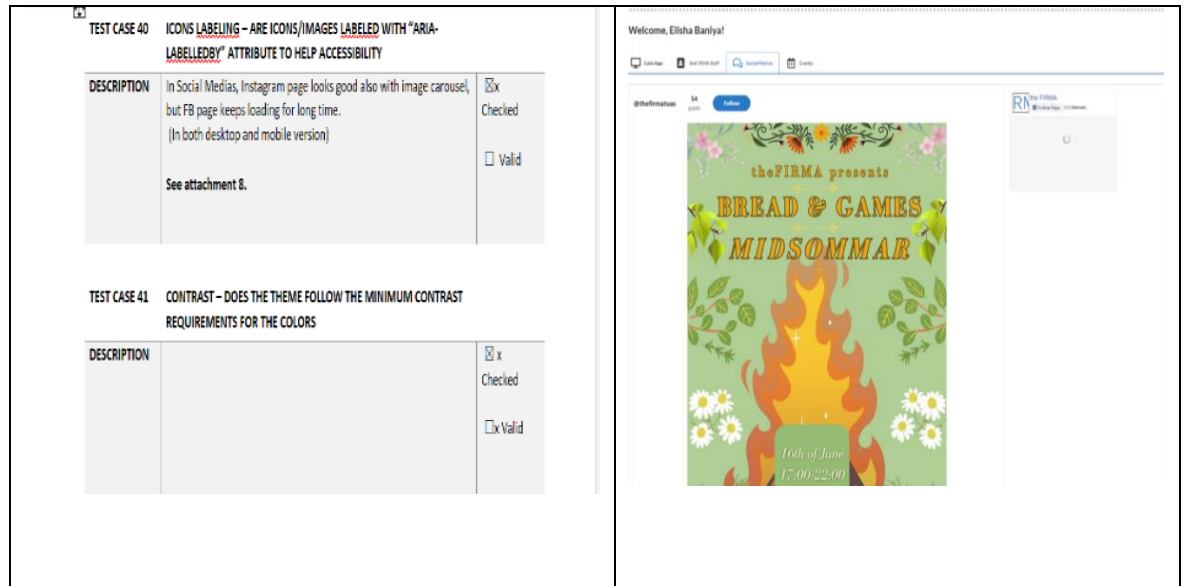
Partners:

Attracs	Jyväskylä University
ADE	Turun UAS
Awake.ai	Turun University
Brighthouse Intelligence	Finnlines
Focusplan	Fintraffic
Lingsoft	VTS
Nodeon	Tallink Silja
Teleste	Helsingin Satama

Picture 43. Smart Terminals- Research and Innovation.

Quality Assurance (Q/A):

Today, the author continued the GUI test case of Project gate. In test case 40, icon labelling, the image was not labelled with '*aria.labelledby*' attribute to help accessibility. In social media, Instagram page looks fine with the image carousel but in FB page, it keeps loading for the long time in both desktop and mobile version. The (Picture 44.) shows the GUI test case (II) of the Project Gate.



Picture 44. GUI test case (II)- Project Gate.

Thursday, 13th July 2023

Futuristic Interactive Technologies (FIT):

Author's today's plan for Futuristic Interactive Technologies (FIT) was adding a new project topic in Research and Innovation web page. Operating culture of student entrepreneurial communities took a hit due to the pandemic. So, the goal of this project is to find digital platforms and solutions that enable student entrepreneurial communities to create and maintain their operating culture. She added all the project details, time duration and cost estimations in the web page thoroughly. The (Picture 45.) shows the project, TOVE- DIGI in Research and Innovation page of FIT.



Picture 45. TOVE- DIGI- Research and Innovation.

Quality Assurance (Q/A):

Today, the Q/A team had a weekly meeting with the project manager and all the project team members. They discussed all the progress that they made during the entire week and encountered some problems. They updated the meeting memos and added new plans and goals for next week. This week the author tried to complete all the BUG and GUI test of Project gate and do all documentation. So, after weekly meeting, she started to work on BUG test of Project Gate. Also, she checked all the description, steps to reproduce, expected result and actual result and all. The BUG test sample provided by the FIRMA was followed. The (Picture 46.9 shows the BUG test report of the project, Project Gate.

<PROJECT GATE> Bug Report

ID	Topic	Title	Platform / Environment	Description	Steps To Reproduce	Expected Result	Actual Result	Severity	Report Date	Reporter
1	UI/UX	Element alignment	Windows / Google Chrome	Elements don't align at x resolution	1. Decrease resolution or increase zoom 2. Scroll down to view the element 3. Element is no longer aligned	Elements align properly	Elements do not align properly	Critical	1.1.2023	John Doe
2								Major		
3								Minor		
4										

Picture 46. BUG test report - Project Gate.

Friday, 14th July 2023

Futuristic Interactive Technologies (FIT):

Today, the project team held a weekly meeting of Futuristic Interactive Technologies (FIT) project. The team enlisted all the tasks that the team were able to do and detected some problems throughout the week. They tried to discuss and solve them together in the meeting. A new goals and plans were updated for next week and all the tasks are divided to all the project members. They contacted to the project customer, updated about the progress in the project, and asked for the missing material from the FIT project for next week's customer meeting. Thus, after the meeting, the author gets back to the Research and Innovation page and added a new project topic, VINCE, Virtual integration home – promoting inclusion and empowerment digitally. The (Picture 47.) shows the project, VINCE in Research and Innovation page in FIT.

VINCE Virtual integration home – promoting inclusion and empowerment digitally

Contact person Riina Riihimäki, Riina.riihimäki@turkuamk.fi

Project page <https://www.tuas.fi/en/research-and-development/projects/virtual-integration-home-promoting-inclusion-and-e/>

Project duration 1.4.2023 – 31.3.2026

Funding instrument, total budget, Turku UAS budget

Central Baltic Programme
2 214 000 €
648 000 €

Partners

Turku UAS
Turun kaupunki
Sateenkaari Koto ry
Flyktingmedicinskt centrum
Region Ostergötland

Picture 47. VINCE- Research and Innovation.

Quality Assurance (Q/A):

Today, the author checked the GUI test that she did yesterday and prepared a GUI test report of Project Gate. She documented all the GUI test and BUG test of this project in the specific files and folders of Project Gate of the FIRMA company. She completed all the testing and documentation of this project.

Review and testing team

theFIRMA - Quality assurance

General

Quality audit team

Review and testing team

Review and testing team > 2023 > Summer > Testing Reports > Project Gate

Name	Modified	Modified By	+ Add column
Project_Gate_bug_testing.xlsx	About an hour ago	Baniya Elisha	
Project_Gate_GUI_testing.docx	About an hour ago	Baniya Elisha	

Picture 48: Project gate testing report documentation

3.4.3 Conclusion

Conclusion of the fourth week of the diary analysis observation was that the author was able to meet the goal of this week successfully. She completed the assigned task for this week. In Future Interactive Technologies (FIT), project, she added the new contexts in the Research and Innovation page, and she will be continuing one last project topic next Monday and move to new web page after that in following weeks. And in Quality

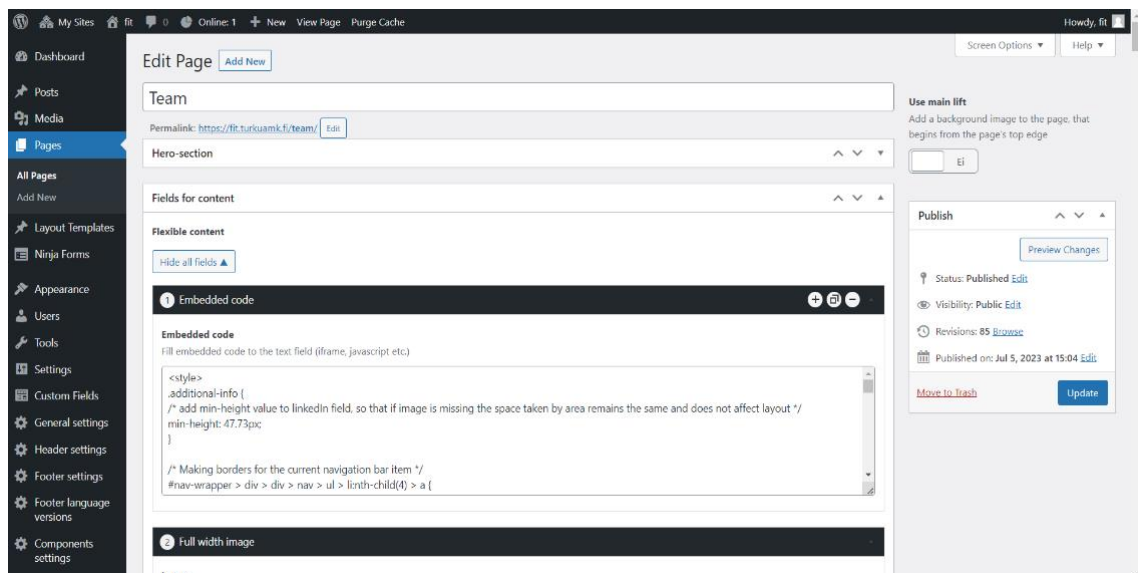
Assurance project, the author completed the GUI and BUG test of the Project Gate. All the testing's reports and prepared and documented in the specific file and folders of the Project Gate.

3.5 Fifth Week (17th July - 21st July)

3.5.1 Objectives

Futuristic Interactive Technology (FIT)

In Futuristic Interactive Technologies, this week the author continued with the fourth week's plans and goals. She completed the Research and Innovation page except a new project topic, VR Fast Track which I did this Monday. Afterall, she created a new Team page on the website. This page was quite different compared to other pages. This page introduces Research Group Lead, Senior Specialists, Lecturers, Project Specialist, Engineer, and Developers teams with their details. The project team started this week with a project customer meeting where the customer provided all the required materials, texts, images, reference links that were needed for the further development of the web site. The (Picture 49.) shows how the Team Page looks in WordPress template of FIT.



Picture 49. Team Page in WordPress.

Quality Assurance (Q/A)

After completing GUI test and BUG test of 'Project Gate' last week, this week's agenda for Quality Assurance (Q/A) projects was to do the code review and GUI testing of the project 'Digireactor.' It is an app which was started to build during the pandemic for various new skills by TUAS students and it responds to the demand by creating a digital product development platform. The platform is implemented in English and creates a versatile digital product development network in the region. This week the author did the code review of this project as well and at the end of this week, a GUI test was also conducted. The (Picture 50.) shows the front page of Digireactor app.



Picture 50. Digireactor app.

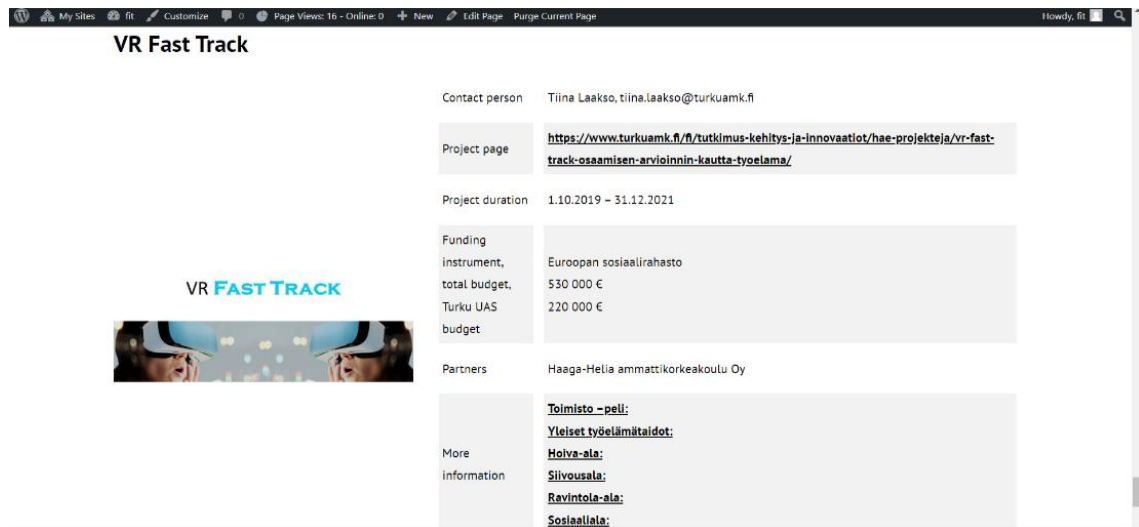
3.5.2 Weekly analysis

Monday, 17th July 2023

Futuristic Interactive Technologies (FIT)

Today the project team had a customer meeting where they checked up the progress of the project together and discussed all the planning and goals of the project. All the required materials are provided by the customer for the further progress of the project. The customer was happy with the progress till now what we had done in the project. The last project topic was left to do from the previous week in Research and Innovation page. So, today the author started working on the last topic of earlier page and then from tomorrow she will start to create a new page in WordPress. The VR Fast Track is one of the projects of FIT collaborating with Haga-Helia University of Applied Sciences OY. She enlisted all the description of the project along with its time duration and cost estimation. Full width image of VR Fast Track is used in the web page which is provided by the

project owner. The (Picture 51) shows how the VR Fast Track project looks like in the Research and Innovation page in FIT website.



The screenshot shows a web browser window displaying the 'VR Fast Track' project page. The browser's address bar shows the URL: <https://www.turkuamk.fi/fi/tutkimus-kehitys-ja-innovaatiot/hae-projekteja/vr-fast-track-osaamisen-arvioinnin-kautta-tyolama/>. The page title is 'VR Fast Track'. The main content area features a banner image of two people wearing VR headsets with the text 'VR FAST TRACK' overlaid. To the right of the banner is a table of project details:

Contact person	Tiina Laakso, tiina.laakso@turkuamk.fi
Project page	https://www.turkuamk.fi/fi/tutkimus-kehitys-ja-innovaatiot/hae-projekteja/vr-fast-track-osaamisen-arvioinnin-kautta-tyolama/
Project duration	1.10.2019 – 31.12.2021
Funding	
Instrument,	Euroopan sosiaalirahasto
total budget,	530 000 €
Turku UAS	220 000 €
budget	
Partners	Haaga-Helia ammattikorkeakoulu Oy
More information	<p>Toimisto – peli:</p> <p><u>Yleiset työelämätaidot:</u></p> <p><u>Hoiva-ala:</u></p> <p><u>Siivousala:</u></p> <p><u>Ravintola-ala:</u></p> <p><u>Sosiaaliala:</u></p>

Picture 51. VR Fast Track- Research and Innovation.

Quality Assurance (Q/A)

Today, the author started reviewing the codes of the Digireactor app. From the code snippet, she detected the errors that several values are declared but their values were never read in the code. And she wrote a recommended action to clarify if imports are needed in future development. Otherwise, these lines from 1-20 can be deleted. The (Picture 52.) shows the Code snippet (I) of the Digireactor app.


```

components > chapterpages > JS chapterlist.js > ...
1  |import React, { useState, useContext } from "react";
2  |import {
3  |  ScrollView,
4  |  TouchableHighlight,
5  |  View,
6  |  StyleSheet,
7  |  TextComponent
8  | } from "react-native";
9  |import { TouchableOpacity } from "react-native-gesture-handler";
10 |
11 |import Chapter from "../chaptercontainer";
12 |import Subchapter from "../subchaptercont";
13 |import { GlobalContext } from '../../context/globalstate';
14 |import styles from './style.js';
15 |
16 |// this is the chapter list page
17 |const ChapterList = ({ navigation }) => {
18 |  const [step1, updatestep1] = useState(false);
19 |  const [step2, updatestep2] = useState(false);
20 |  const [step3, updatestep3] = useState(false);
21 |

```

Picture 52. Code snippet (I) -Digireactor.

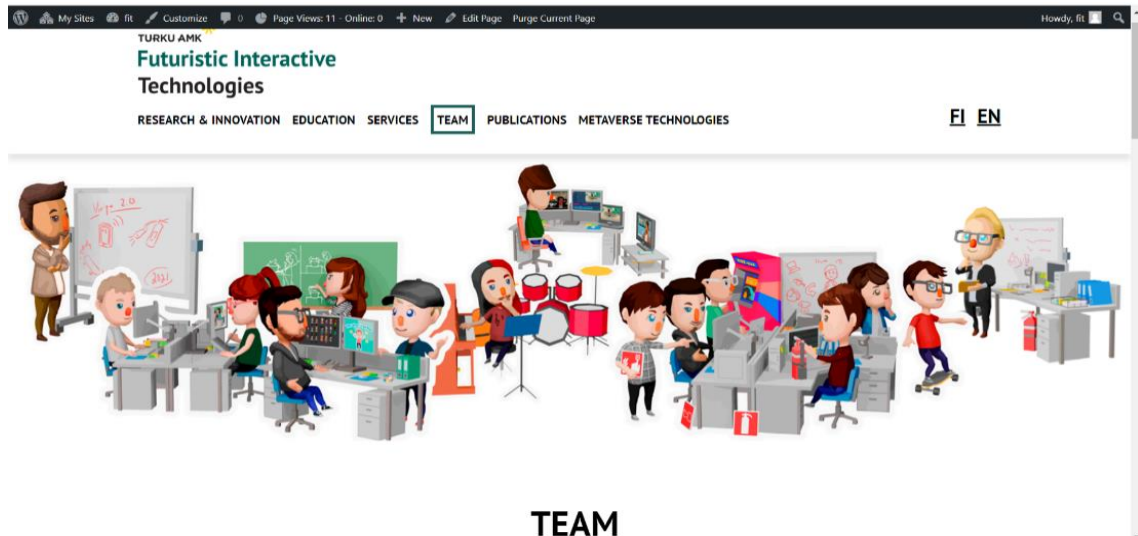
Table 4. Code review (I)- Digireactor.

File	Line specified	Findings	Recommended actions
components/chapterpages/chapterlist.js	1 – 20	Several variables are declared but their values are never read	Clarify if the imports are needed in future development. If not, delete lines.

Tuesday, 18th July 2023

Futuristic Interactive Technologies (FIT)

From today, the author started creating a new page, TEAM in the FIT website. This page was quite different compared to other pages that I had created. This page consists of all the details of the project teams. She was provided the list of all project members, and she enlisted them to the FIT webpage accordingly. She created a separate layout to distinct positions and started to update all the details of name, email, position, and LinkedIn link which can give direct access to their LinkedIn profile, respectively. Some CSS styling was done using the embedded code layout in WordPress. The (Picture 53.) shows how the Team frontpage looks like on the website.



Picture 53. Team frontpage.

Quality Assurance (Q/A)

Today also, the author continued with the code review of the Digireactor app. She detected some of the errors and enlisted them in the code review report at the same time. In the file, welcomepage.js, Several variables were declared but their values are never read from line 5-18 in the mentioned snippet of the code. She recommended to clarify if the imports are needed in the future development, otherwise, those lines can be deleted. The (Picture 54.) shows the Code snippet (II) of the Digireactor app.

```

components > chapterpages > JS welcomepage.js > ...
1  import React, { useContext, useEffect, useState } from "react";
2  import {
3    Text,
4    View,
5    Button,
6    Linking,
7    StyleSheet,
8    TouchableHighlight,
9    ScrollView,
10   Image,
11   ImageBackground
12 } from "react-native";
13 import { useIsFocused } from "@react-navigation/native";
14 import { TouchableOpacity } from "react-native-gesture-handler";
15 import { GlobalContext } from '../..context/globalstate';
16
17 import styles from '../style.js';
18 import Storage from '../storage.js';
19

```

Picture 54.Code snippet (II) -Digireactor.

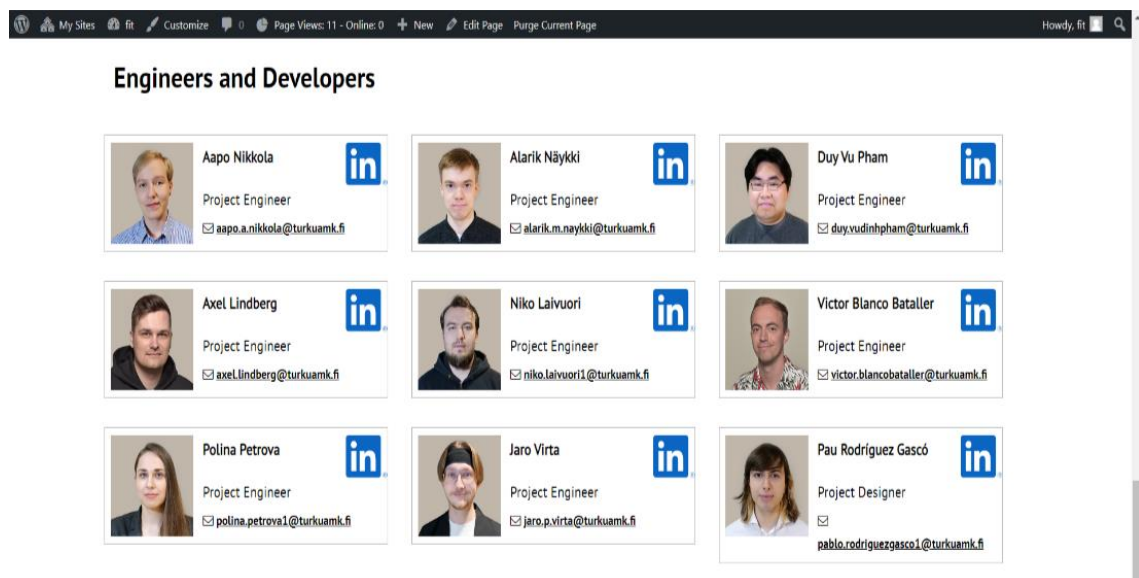
Table 5. Code review (II)- Digireactor.

File	Line specified	Findings	Recommended actions
<i>components/chapterpages/ welcomepage.js</i>	5 – 18	<i>Several variables are declared but their values are never read</i>	<i>Clarify if the imports are needed in future development. If not, delete lines.</i>

Wednesday, 19th July 2023

Futuristic Interactive Technologies (FIT)

Today, the author created a separate layout for the group of Engineers and Developer who was working in the FIT and she added the ID card layout tin the WordPress theme directly and added pictures, their positions, email address and the LinkedIn profile was added. Some CSS and JavaScript code were used to arrange the image and text layouts and margins. The (Picture 55.) shows the screenshot of Project Teams of FIT.



Picture 55. Screenshot of Project Teams.

Quality Assurance (Q/A)

The day was as usual as yesterday, the author continued with reviewing the codes and marked the errors in the code review report. In the file, components quiz.js, the stylesheet is declared but its value is never read in the code of line number 2. So, she noted in the code review report in recommendation actions to clarify the import is needed in the future

development and if not, the import need to be deleted from the 2nd line code. The (Picture 56.) shows the Code snippet (III) of the Digireactor app.

```

1 import React, { useContext, useEffect } from 'react'
2 import { Image, StyleSheet, View, Text, TouchableOpacity, Alert, Modal, Pressable } from 'react-native'
3 import { useState } from 'react';
4 import { GlobalContext } from '../context/globalstate';
5 import { useIsFocused } from '@react-navigation/native';
6 import styles from './quiz1styles.js';

```

Picture 56. Code snippet (III) -Digireactor.

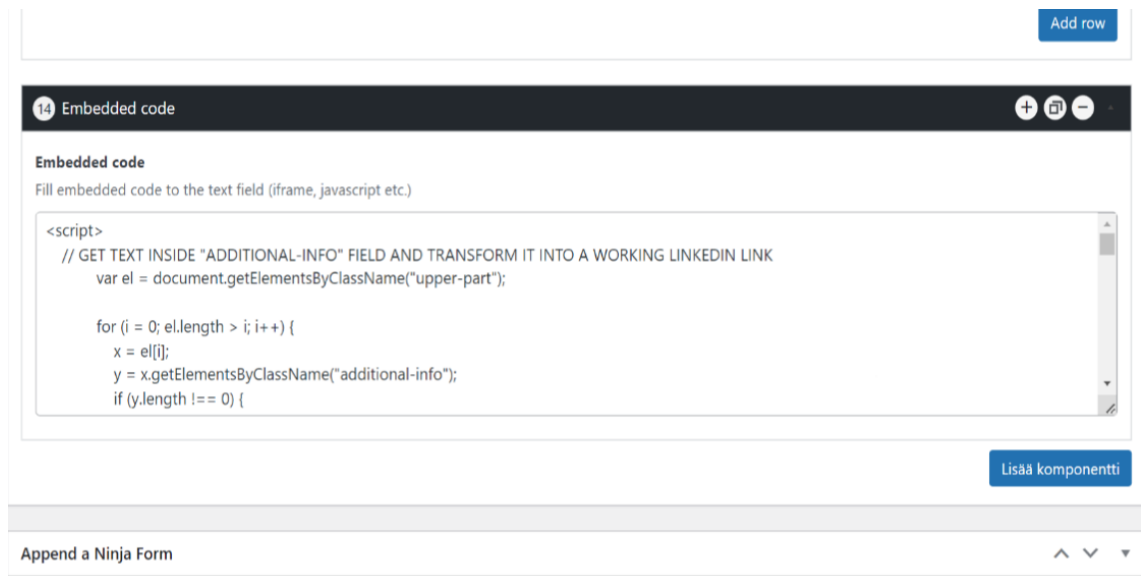
Table 6: Code review (III)- Digireactor

File	Line specified	Findings	Actions
components/quiz1, 2,3.js	2	'Stylesheet' is declared but its value is never read.	Clarify if the import is needed in future development. If not, delete import.

Thursday, 20th July 2023:

Futuristic Interactive Technologies (FIT)

After adding all the details and information's of all the Futuristic Interactive Technologies (FIT) project team, the author added some embedded coding for the styling of text and image layouts in the page. The positions of the project team tittle were listed as Heading 3. LinkedIn link was added in the additional details in the ID card layout in the WordPress. The (Picture 57.) shows the embedded code in WordPress template in the Service Page.



Picture 57. Embedded Code in WP- Service Page.

Quality Assurance (Q/A)

Today, Quality Assurance (Q/A) the project team had a weekly meeting where they discussed about the goals and progress and how much the team succeed with the tasks that were assigned for this week. They discussed and tackled about the problems that raised throughout the week. The meeting minutes memo was updated. And new agenda for next week was created. The plans and goals for next week was described and the task was divided to all the project members accordingly. After the meeting, the author continued with the code review of Digireactor app. The (Picture 58.) shows the code snippet (IV) of the Digireactor app.

```

14  import {
15      NavigationContainer,
16      createNavigationContainerRef,
17  } from "@react-navigation/native";
18  import {
19      createDrawerNavigator,
20      DrawerContentScrollView,
21      DrawerItemList,
22      DrawerItem,
23  } from "@react-navigation/drawer";
24

```

Picture 58. Code snippet (IV) -Digireactor.

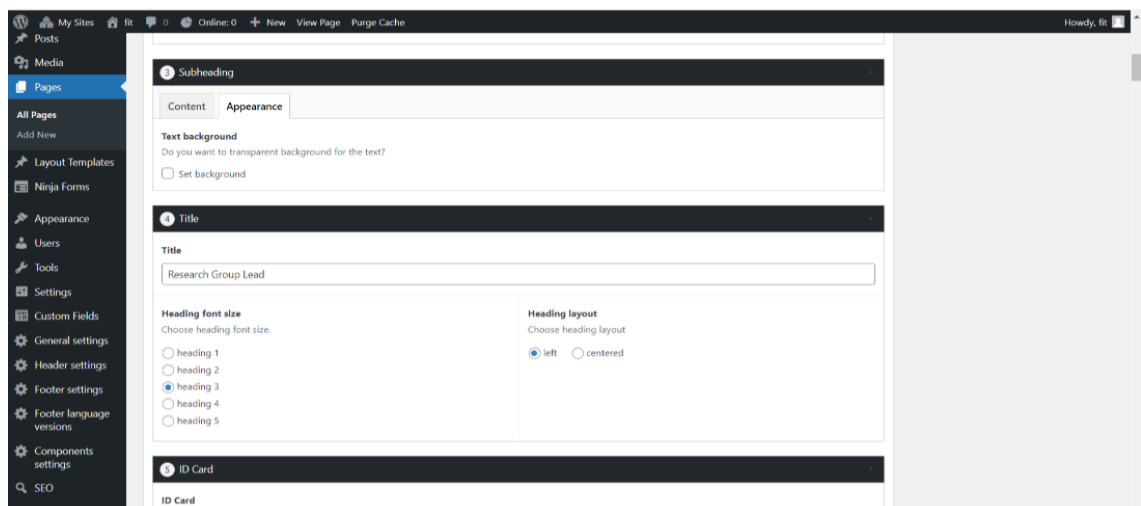
Table 7. Code review (IV)- Digireactor.

File	Line specified	Findings	actions
App.js	16 – 22	Several variables are declared but their values are never read	Clarify if the imports are needed in future development. If not, delete lines.

Friday, 21st July 2023

Futuristic Interactive Technologies (FIT)

In Futuristic Interactive Technologies (FIT), the project team held the weekly meeting today and discussed all the plans and goals of this week and how well the project progressed. All the problems and difficulties throughout the entire week was discussed in the meeting. Meeting minutes was updated and a new agenda for next week was created with. The tasks for next week were divided accordingly to all the project members. After the meeting, the author continued with editing the text and image layouts of the Team's page. The (Picture 59.) shows the WordPress template of Service page.



Picture 59. WordPress template –Service page.

Quality Assurance (Q/A)

After completing reviewing of the code yesterday, the author started for the GUI test of the same project, Digireactor app rest of the day where she followed the GUI test template provided from the FIRMA and researched some GUI templates as well for

various web sites. She checked the Windows, Icon and image resolutions, buttons and links that were used in the app and all the checkboxes and the radio buttons. In the GUI test template, the contents that she covered were shown in the following screenshot. The Picture 60) shows the GUI test plan of the Digireactor app.

GUI testing plan DigiReactor

Contents

GUI testing plan template	1
1. WINDOW	2
1.1. Responsive	2
1.2. Alerts	5
2. ICONS & IMAGES	6
3. BUTTONS & LINKS	7
3.1. Buttons	7
3.2. Links	8
4. FIELDS & BOXES	9
4.1. Validation	9
4.2. Placeholders	11
4.3. Checkboxes & Radio buttons	12
5. ACCESSIBILITY	13

Picture 60.GUI test plan- Digireactor.

3.5.3 Conclusion

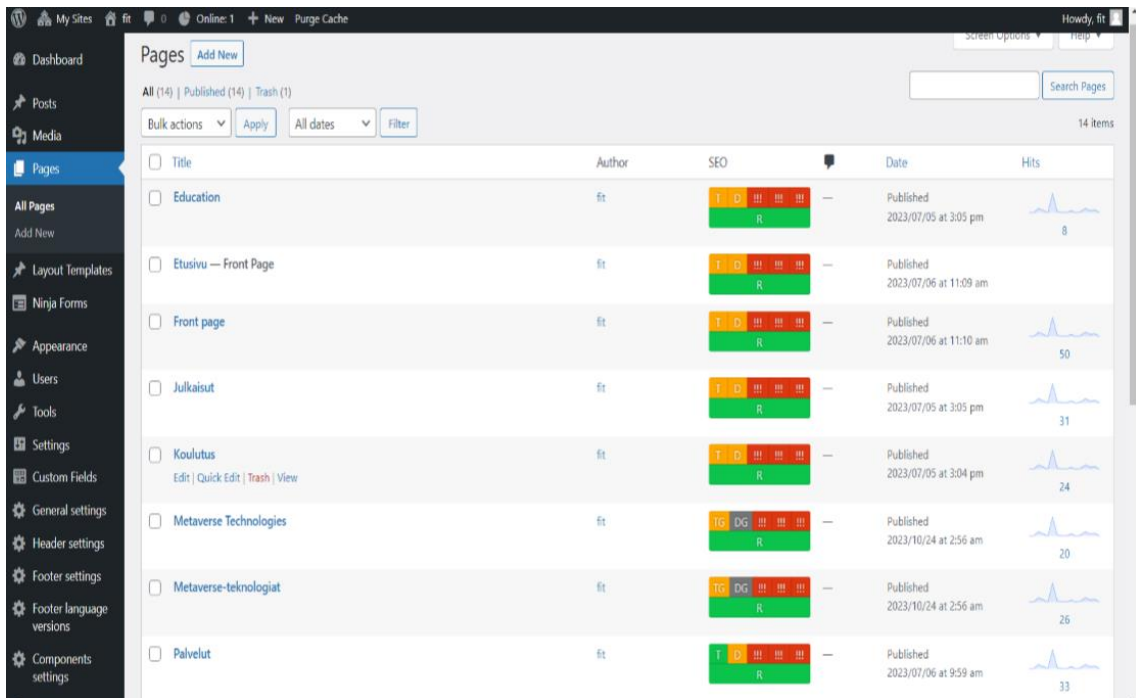
The conclusion of the fifth week of the diary analysis observation was that the author was able to meet the goal of this week successfully. She completed all the assigned tasks for this week. In Future Interactive Technologies (FIT), project, she completed the Team page by adding all the details and information of each project team member from Futuristic Interactive Technologies (FIT) and added the images and the LinkedIn links, respectively. In the Quality Assurance project, she completed the code review and the GUI test report of the Digireactor app project. All the code review report and GUI testing reports were updated, and they were documented in the specific file and folders in the Digireactor project.

3.6 Sixth week (24th July - 28th July)

3.6.1 Objectives

Futuristic Interactive Technology (FIT)

Coming up to 6th week of the diary thesis analysis, the author had completed 3 different web pages that was assigned to do. Rest of the pages were covered by other project members. And the project members completed all the pages that were required in the FIT marketing website. Some of the materials were missing and text and image layouts and margins were to be fixed still on the website. According to the weekly meeting that was held on last Friday and the customer meeting last week, this week our FIT project team were creating a web page in the Finnish language version. So, they had to change all the texts to the Finnish language and Finnish version of the web page is created for each of the page. The author created the Finnish version of the web site of the same web pages that was created in English on last weeks. Every layout, image, templates was same but only the English texts were converted to the Finnish language. As the author was a non- Finnish speaker, one of the Finnish team members from the project helped to translate the texts which made much easier to work on it. The (Picture 61.) shows how a WordPress pages looks like after created a Finnish version of the web pages in FIT.



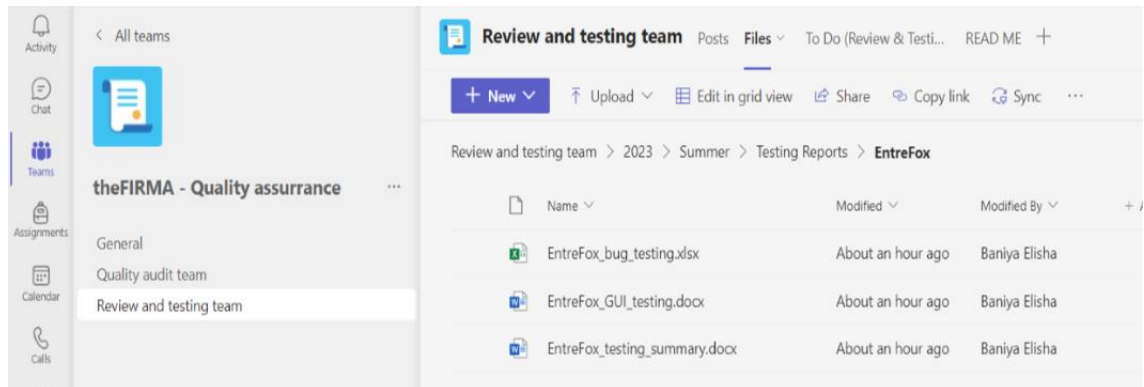
The screenshot shows the WordPress 'Pages' management interface. The left sidebar contains navigation options like Dashboard, Posts, Media, Pages, All Pages, Layout Templates, Ninja Forms, Appearance, Users, Tools, Settings, Custom Fields, General settings, Header settings, Footer settings, Footer language versions, and Components settings. The main content area displays a table of pages with columns for Title, Author, SEO, Date, and Hits. The table lists several pages, each with a checkbox, a title, an author name 'fit', an SEO status indicator (a bar chart with 'R' below it), a date, and a hits graph.

Title	Author	SEO	Date	Hits
Education	fit	[SEO Status]	Published 2023/07/05 at 3:05 pm	8
Etusivu — Front Page	fit	[SEO Status]	Published 2023/07/06 at 11:09 am	
Front page	fit	[SEO Status]	Published 2023/07/06 at 11:10 am	50
Julkaisut	fit	[SEO Status]	Published 2023/07/05 at 3:05 pm	31
Koulutus	fit	[SEO Status]	Published 2023/07/05 at 3:04 pm	24
Metaverse Technologies	fit	[SEO Status]	Published 2023/10/24 at 2:56 am	20
Metaverse-teknologiat	fit	[SEO Status]	Published 2023/10/24 at 2:56 am	26
Palvelut	fit	[SEO Status]	Published 2023/07/06 at 9:59 am	33

Picture 61. WordPress pages in English and Finnish version.

Quality Assurance (Q/A)

This week's goal of Quality Assurance (Q/A) project was to work on the project called 'EntreFox' where the author did the GUI testing and BUG testing. Later at the end of the week, a testing report was done. As other project's testing, she followed GUI test template that was provided to the Q/A team by the FIRMA company. Furthermore, she followed some of the tutorials and websites to know more about the GUI test as well as BUG test. The (Picture 62.) shows the EntreFox testing documentations in Q/A teams.



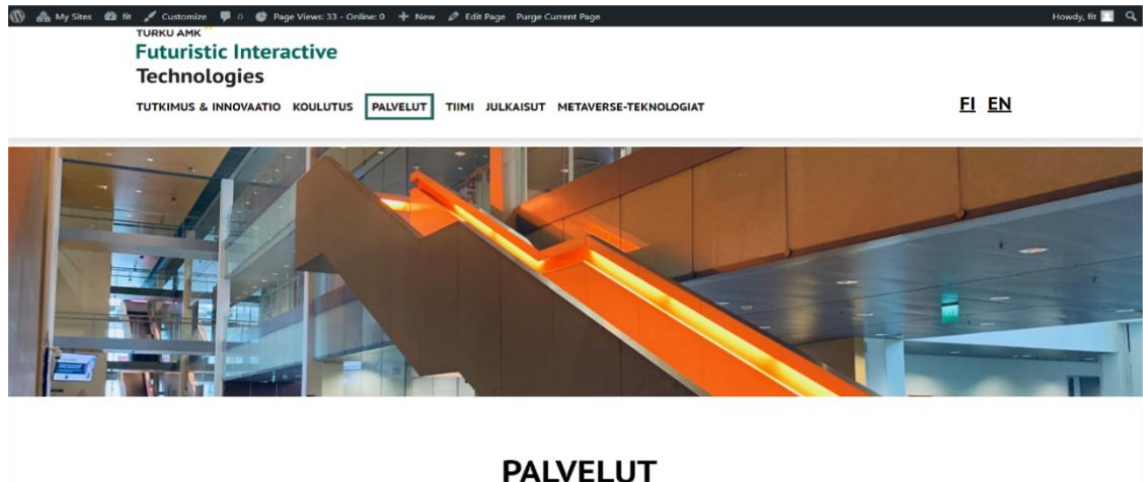
Picture 62. EntreFox testing documentations in Teams.

3.6.2 Weekly analysis

Monday, 24th July 2023

Futuristic Interactive Technologies (FIT)

Today, the author started by creating a Service page in Finnish which is called "Palvelut." As the author was non-Finnish, one of the project team members helped to translate the texts into the Finnish language and later she copy-pasted the texts in Finnish. Rather than that all the images, layouts, and margins were like the English page. The (Picture 63.) shows the front page of Service which is called Palvelut in the Finnish language.



Picture 63. Service – Palvelut.

Quality Assurance(Q/A)

Today, the author started the EntreFox project's GUI test in Quality Assurance (Q/A). Like previous projects, she followed the GUI test template provided by the FIRMA. All the Icons and Image resolutions were checked, and the buttons and the links were tested in the EntreFox project. Fields, boxes, and accessibility were also tested and noted in the GUI test report. The (Picture 64.) shows the contents of the GUI test of the Entrefox projects.

EntreFox GUI testing

Update

Contents

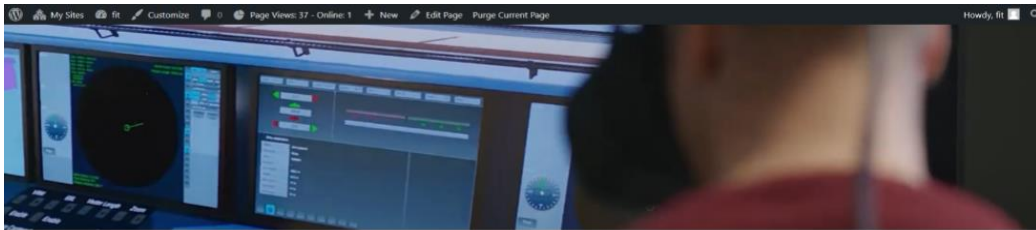
EntreFox GUI testing	1
1. WINDOW	2
1.1. Responsive	2
1.2. Alerts	5
2. ICONS & IMAGES	6
3. BUTTONS & LINKS	7
3.1. Buttons	7
3.2. Links	8
4. FIELDS & BOXES	9
4.1. Validation	9
4.2. Placeholders	11
4.3. Checkboxes & Radio buttons	12
5. ACCESSIBILITY	13

Picture 64. EntreFox GUI test.

Tuesday, 25th July 2023

Futuristic Interactive Technologies (FIT)

Same as the Service page, which the author created yesterday, she created the Finnish version of the web page, Research, and Innovation, which is called “Tutkimus and Innovaatio” in the Finnish language. The team member translated the texts as the author was not a Finnish speaker and pasted the Finnish text in the web page that she created. Rather than the text, everything was as similar as in the English site of the Research and Innovation page. The (Picture 65.) shows the Research and Innovation page in Finnish which is called Tutkimus & Innovaatio.



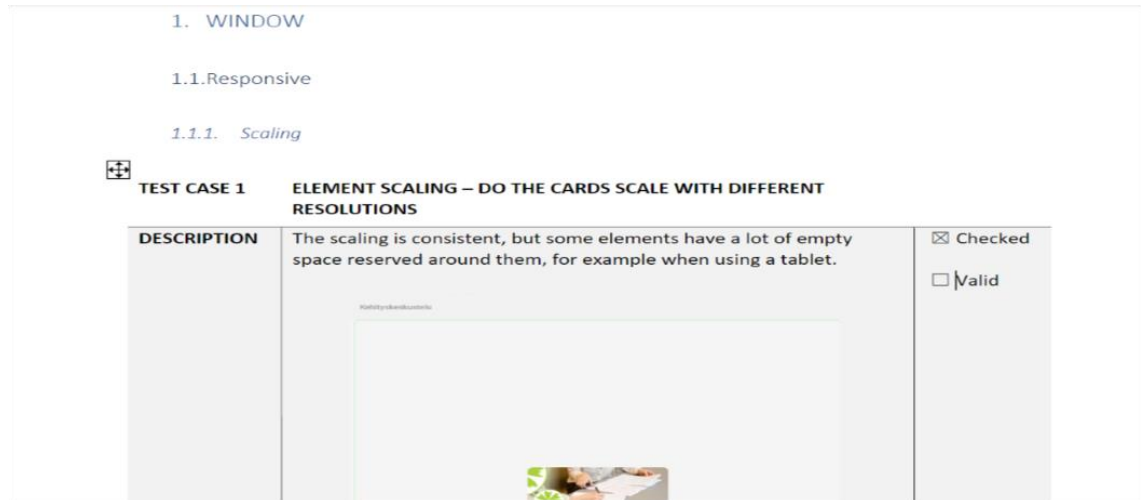
TUTKIMUS & INNOVAATIO

Olemme ylpeitä historiastamme ja kasvavasta TKI-portfoliostamme, toisinaan suunnittelemalla ja johtaen, toisinaan vahvoina kehityskumppaneina. Sopeudumme tämän dynaamisen kentän kehittyvään maisemaan. Matkamme on vienyt meidät perinteisestä pelaamisesta ja sovelluskehityksestä sellaisille alueille, kuten exergaming ja vakavat pelit, ja syvemmälle lisätyn todellisuuden (AR) ja virtuaalitodellisuuden (VR) maailmoihin. Nykyään seisomme ylpeänä eturintamassa ja olemme edelläkävijöitä oman metaverse-tekniologiamme kehittämisessä, joka on erityisesti suunniteltu usean käyttäjän teollisiin koulutussovelluksiin. Alta löydät sanoja ja tietoa tärkeimmistä projekteista, joissa olemme mukana nyt tai niistä, joissa olemme olleet mukana viime vuosina. Jos tarvitset meitä kumppaniksi, ole hyvä ja ota yhteyttä!

Picture 65. Research and Innovation – Tutkimus & Innovaatio.

Quality Assurance

Today also, the author continued with the GUI testing of the EntreFox project where she did the element scaling with different resolutions. She found out that the scaling was consistent, but some elements had a lot of empty Spaces reserved around. So, this was not the valid one. She completed all other components of the GUI test of the EntreFox project. The (Picture 66.) shows the element scaling with different resolutions in the GUI test of the project EntreFox.

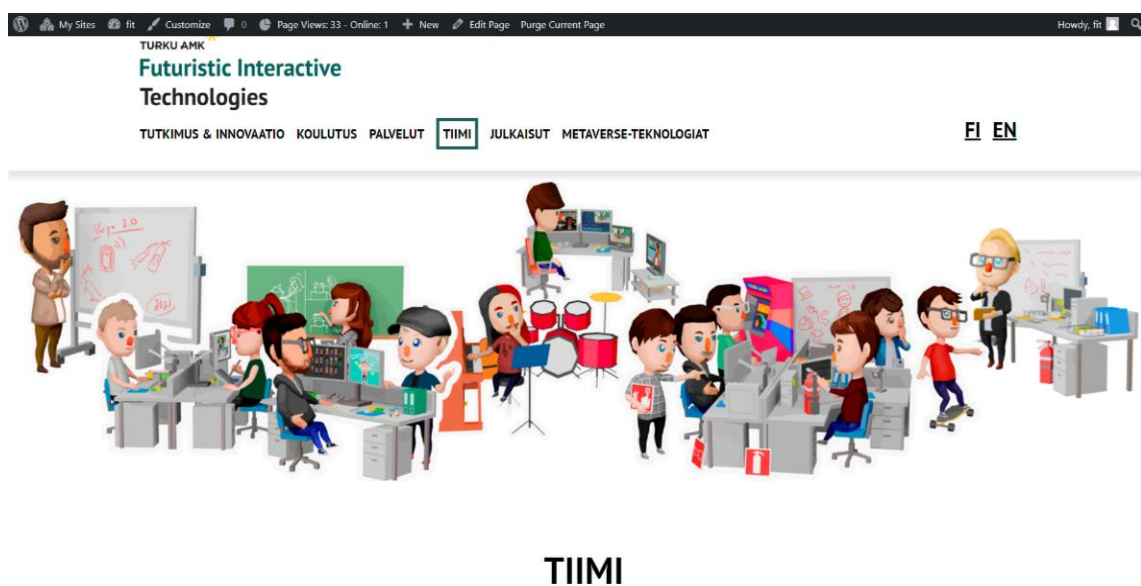


Picture 66. GUI test- Element scale of EntreFox.

Wednesday, 26th July 2023

Futuristic Interactive Technologies (FIT)

Likewise, for the other pages, Service, Research and Innovation page, the author created a Finnish version of webpage of the Team page as well which is called “Tiimi” in Finnish. Here also, the headings and topics were translated to Finnish language by one of the Finnish team members of the project and all other details remains similar as compared to the English version of the Team page. The images, page layouts remain same. The (Picture 67.) shows the Team page in Finnish version which is called Tiimi.



Picture 67. Team – Tiimi.

Quality Assurance

After doing the GUI test, the author focused today for the BUG test report of the project, Entrefox. BUG test is different than GUI test. Today, she tested on 3 different topics of the project, UI/UX, React native and code. The severity was minor to UI/UX and for React native it was the minor severity that the expected result was no errors mentioning deprecated or soon-to-be-components. The (Picture 68.) shows the BUG report (I) of the EntreFox project.

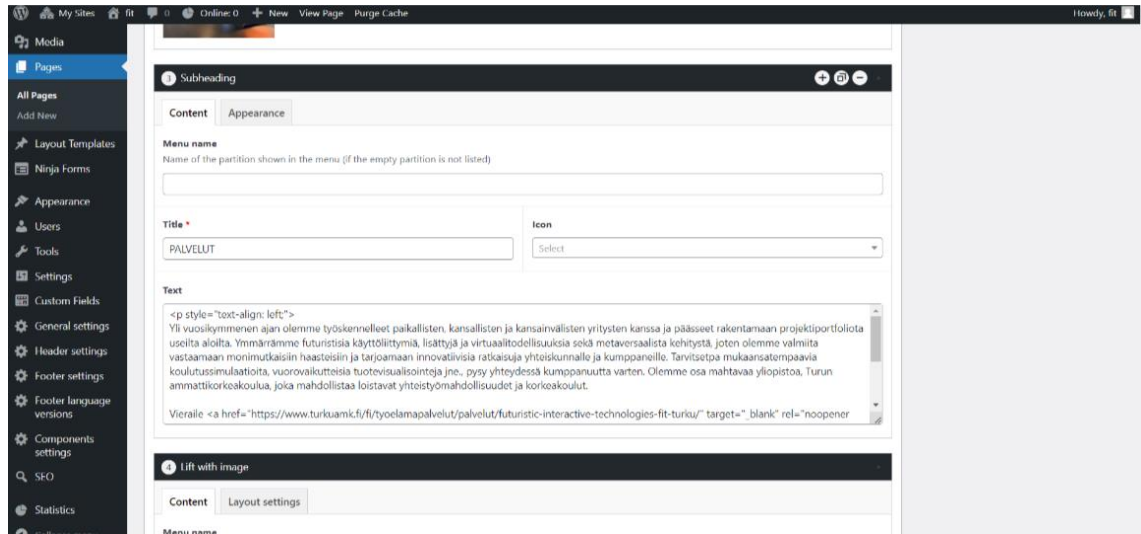
EntreFox Bug Report											
ID	Topic	Title	Platform / Environment	Description	Steps To Reproduce	Expected Result	Actual Result	Severity	Report Date	Reporter	
6	1 UI/UX	Font related error 1	Android Studio (Google Pixel 2 API 30)	When loading any page, the user is prompted with an alert, mentioning that the "fontFamily 'anticon' is not a system font"	1. Start the app 2. If the alert was dismissed, open any of the views (apart from the home screen)	No error message should appear	Error message is prompted	Minor	26.7.2023	Elisha Baniya	
7	2 React Native	ViewPropTypes removal	Android Studio (Google Pixel 2 API 30)	When going through the error log after booting up the app, two of the errors mention that ViewPropTypes will be removed from React Native (and therefore should be migrated e.g., migrate to a type system like TypeScript)	1. Start the app 2. Open one of the two alerts that are prompted on startup 3. Go to "Log 1 of 4" or "Log 3 of 4"	No errors mentioning deprecated or soon-to-be-removed components	ViewPropTypes is used and will be removed eventually	Major	26.7.2023	Elisha Baniya	
8	3 Code	Require cycle	Android Studio (Google Pixel 2 API 30)	On boot, a warning is prompted. The warning links to a "Require cycle: utils.js -> components/TypeComponents/PieSlider.js -> utils.js" The error states that require cycles are allowed but can result in uninitialized values	1. Start the app 2. Open the yellow alert/warning	No alerts or warnings are prompted on startup	A warning is prompted	Minor	26.7.2023	Elisha Baniya	

Picture 68. BUG report (I) EntreFox.

Thursday, 27th July 2023

Futuristic Interactive Technologies (FIT)

The author completed creating the web pages in the Finnish version as well by this week, but some more editing with texts was left to do. So, today, she focused on the Finnish text of the Service page that was translated by the project team member. I checked if any of the details were missing on the Service page. Here is a screenshot of the Service page created in the Finnish version. The (Picture 69.) shows the WordPress text area on the Service page in Finnish.



Picture 69. WordPress text page Service in Finnish.

Quality Assurance

Today, the Q/A project team held a weekly meeting with all the Project members and the project manager. They discussed and checked the progress of the project and enlisted what they did and what is left to do with the projects in Quality Assurance. Meeting minutes were updated and the new plans and goals from next week were updated. The task for next week was divided among each project member. After all, the author continued with the BUG test report which she did yesterday and focused on the components UI/UX and codes where the severity was minor, and the error message was prompted and figured out that the UI looked clean, and all elements have a clear purpose, and the boxes clutter the UI, and their purpose was unknown. The (Picture 70.) shows the BUG report (II) of the EntreFox project.

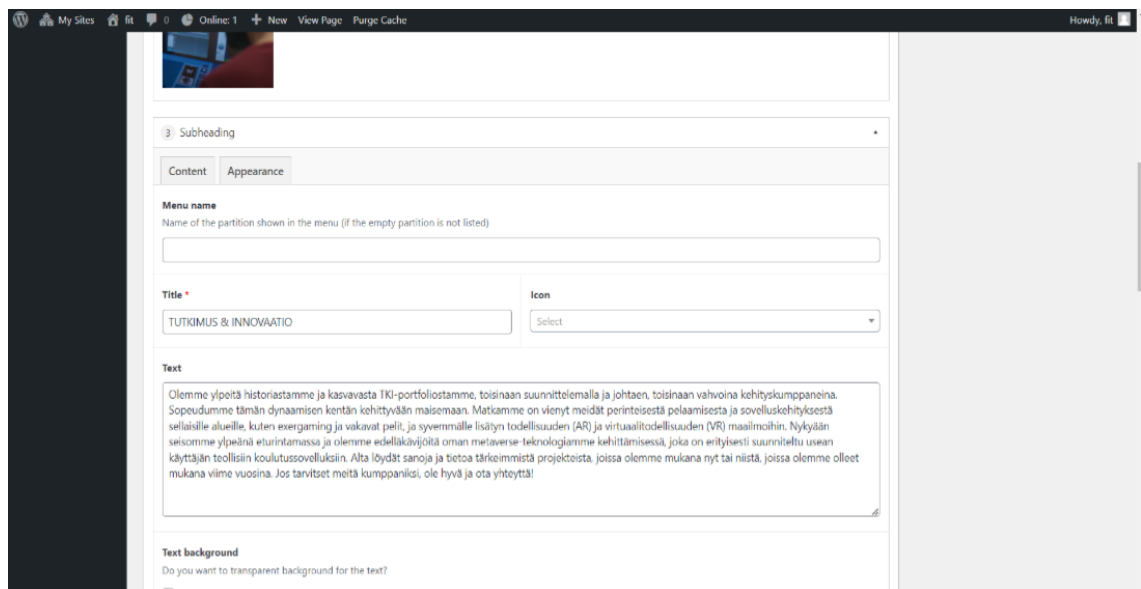
	A	B	C	D	E	F	G	H	I	J	K	L
9		4	UI/UX	Font related error 2	Android Studio (Google Pixel 2 API 30)	fontFamily "material-community" is not a system font and has not been loaded through FontLoadKycnc. A similar error is prompted with the list font, related error	1. Navigate to the time management view 2. click the time management survey 3. The error should be prompted	No error message should appear	Error message is prompted	Minor	27.7.2023	Esha Baniya
10		5	Code	Missing "key" props	Android Studio (Google Pixel 2 API 30)	When finalizing the time management survey, a warning is prompted. The warning states that "Each child in a list should have a unique "key" prop."	1. Navigate to the time management view 2. Finish the time management survey 3. The error should be prompted	No error message should appear	Error message is prompted	Minor	27.7.2023	Esha Baniya
11		6	UI/UX	Unnecessary boxes	Android Studio (Google Pixel 2 API 30)	The view "Osaamiskarttus" (Osaamiskarttus -> tutustu kehitykseen) has multiple boxes that have nothing inside them. Potentially used for titles or as separators, but they make the UI look a bit cluttered	1. Open the main screen 2. Go to "Osaamiskarttus" 3. scroll down and click the button that says "Tutustu kehitykseen" (click on the button) 4. The boxes are on this page	The UI looks clean and all elements have a clear purpose	The boxes clutter the UI and their purpose is unknown	Minor	27.7.2023	Esha Baniya

Picture 70. BUG report (II) EntreFox.

Friday, 28th July 2023

Futuristic Interactive Technologies (FIT)

Today, the last day of the 6th week, FIT team had a weekly meeting of this project FIT. they discussed all the progress that we did during this entire week. Since all the required web pages were created by all the project members, the project was approaching to its final phase. They will be focusing on the texts and image layouts; the web page margins and so on. They updated the meeting minutes memo of this weekly meeting and enlisted the missing documents, images and texts that were required in the web pages from the customer. Overall, all the project team members were succeeded to complete the assigned task by this week. So, they will be focusing on the basic editing in the web page. After the meeting and discussion, the author continued to edit the texts and images layouts on all the web pages that she created. The (Picture 71.) shows the WordPress text page on the Research and Innovation page in Finnish.





Picture 71. WordPress text page Research and Innovation in Finnish.

Quality Assurance

Coming to the end of the 6th week, the author checked the GUI test and BUG test of the EntreFox project that she completed and encountered that some of the test cases were missing in the GUI test. So, she focused on the GUI test today as well. The fields were not marked clearly, and the validations was required in the project because the bottoms of the page clearly stated that each question should be answered, but the required fields are not separately indicated in the questionnaires. And what she suggested in the GUI

test report was an asterisk could be added to required fields, although this might not be necessary with the given context. The (Picture 72.) shows the summary of BUG test of the EntreFox project.

4. FIELDS & BOXES		
4.1.Validation		
TEST CASE 23	REQUIREMENTS VALIDATION – ARE THE FIELDS MARKED AS REQUIRED CLEARLY	
DESCRIPTION	The bottom of the page does clearly state that each question should be answered, but the required fields are not separately indicated in the questionnaires. Suggestion: An asterisk could be added to required fields, although this might not be necessary with the given context.	<input checked="" type="checkbox"/> Checked <input checked="" type="checkbox"/> Valid
	TEST CASE 24	FIELD VALIDATION – DO THE TEXT FIELDS SHOW AN ERROR WITH WRONG INPUTS
DESCRIPTION	The text fields in the application can't have wrong inputs, as free form answers are only used in open questions, which the user can answer however they like.	<input checked="" type="checkbox"/> Checked <input checked="" type="checkbox"/> Valid
	TEST CASE 25	ERROR INDICATORS – DOES THE ERRORS HAVE A SUITABLE COLOR AND STYLE INDICATING TO AN ERROR
DESCRIPTION		<input checked="" type="checkbox"/> Checked

Picture 72. Summary of BUG test EntreFox.

3.6.3 Conclusion

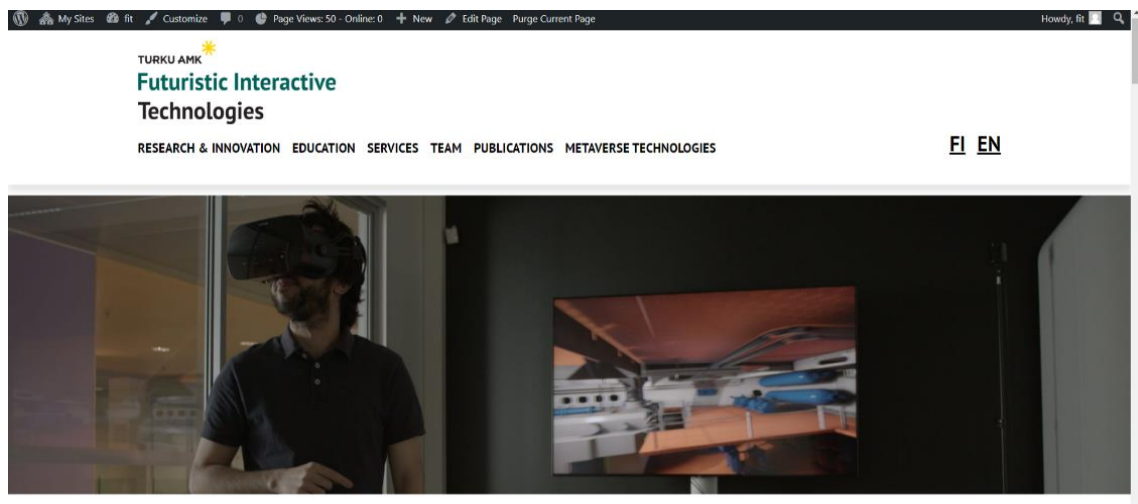
Conclusion of the sixth week of the diary analysis observation was that the author was able to meet the goal of this week successfully. She completed the assigned task for this week. In Future Interactive Technology (FIT), project, the author created the Finnish version of the web pages. Some of the text layouts, image size and resolutions, margins and formats are still on editing and updating process which she will be continuing next week. And in Quality Assurance project, the author completed the code review and the GUI test and BUG test of the project, EntreFox. The testing reports were prepared and documented in the respective files and folders of the EntreFox project in the FIRMA Quality Assurance team's channel.

3.7 Seventh week (31st July - 4th July)

3.7.1 Objectives

Futuristic Interactive Technologies (FIT)

Coming to the final week of diary thesis analysis, the Futuristic Interactive Technologies (FIT) project team had been able to meet all the goals and create a successful marketing website for FIT with the necessary web pages with its contexts. Some final changes with some editing and updating some details to the web pages will be done this week. The project team has a customer meeting every Monday, and he will be providing all the missing texts, reference links, and images. The customer was happy with the project team's progress coming to the final phase. They had a weekly meeting held on Friday as usual and did the final check-up of all the web pages before the handover of the project to the customer. The meeting minutes memo was updated, and all the documentation of the project was done by the Project manager. The customer of the project was invited to the weekly meeting day, and they did the final checking of the project together and went through each of the pages and details. The project was happily handed over to the customer. The (Picture 73.) shows what a front page of the website looks like of FIT.

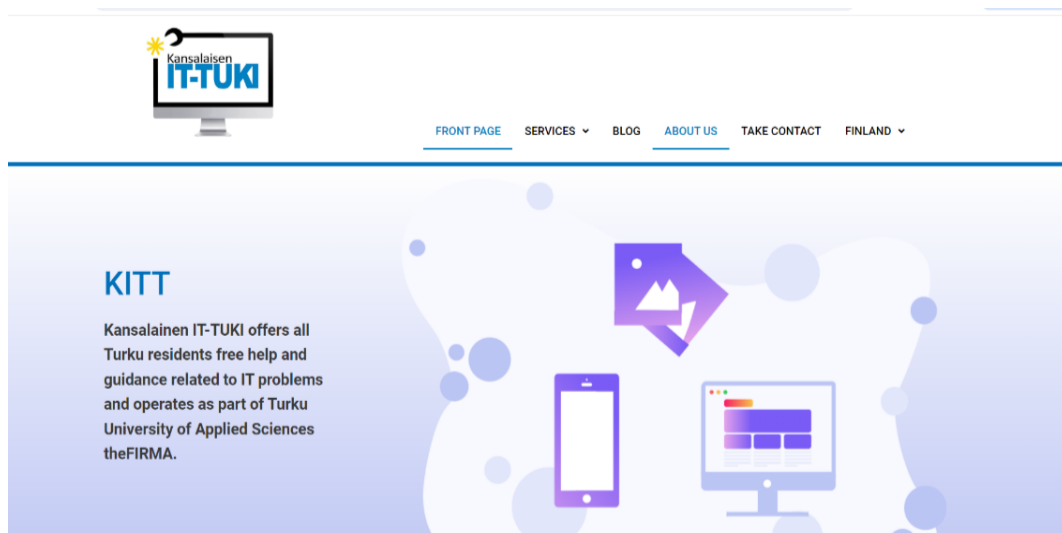


Picture 73. Front page of FIT.

Quality Assurance (Q/A)

Coming to the 7th week, the final week of the thesis diary analysis, the author did many software testing as well as code reviews. Also, she did audit of many internal and external projects of the FIRMA. And learned in detail about BUG test and GUI test procedures.

Quality Assurance (Q/A) is an ongoing project, and it will be an ongoing, never-ending project of the FIRMA in the long term until there will be internal and external projects. The project team had a weekly meeting every Thursday as usual and they enlisted all the projects in which they did the software testing, code reviews, and auditing. Also, they checked if all the projects that they had worked on were documented properly or not and in specific files and folders of the company. This week the author focused on one of the projects, "KITT" where she did the GUI test and the website testing in the desktop and mobile versions. Later at the end of the week checked all whether all the testing reports, code review reports and the audit reports were re-documented properly or not. (Picture 74.) show.) shows the front page of the KITT website.



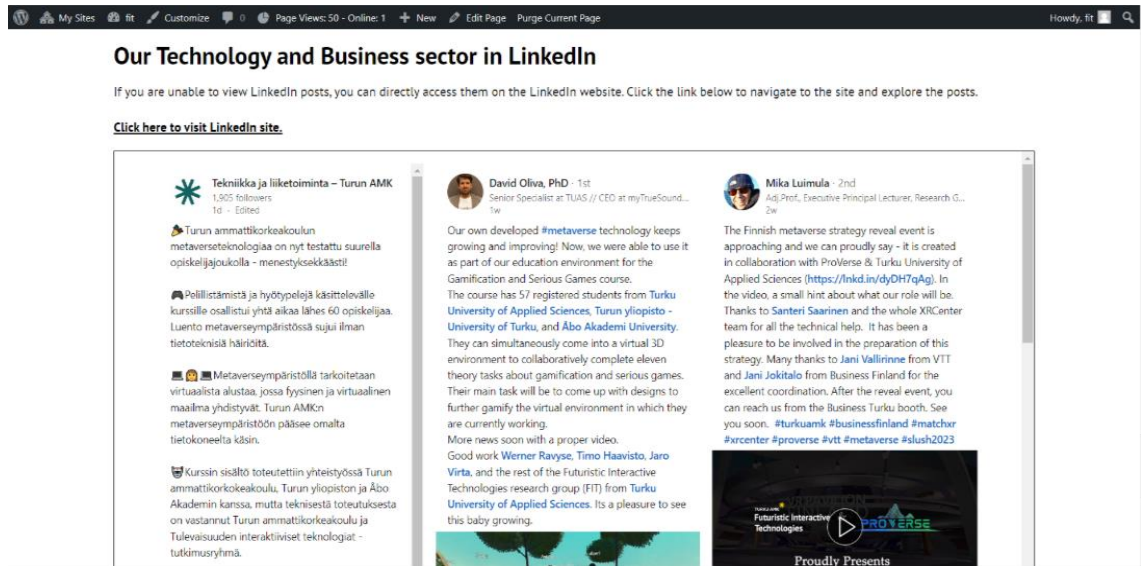
Picture 74. KITT website.

3.7.2 Weekly analysis

Monday, 31st July 2023

Futuristic Interactive Technologies (FIT)

Coming to the first day of the last week of the diary thesis analysis, all assigned tasks were completed throughout this week in Futuristic Interactive Technologies (FIT) website. Some of the text layouts, updates and margins were left to do with the final check-ups. Today, the author added the LinkedIn links of Technology and Business sectors. The links can be opened directly or visiting the LinkedIn sites. The (Picture 75.) shows the LinkedIn posts in Front page of FIT.



Picture 75. LinkedIn links in Front page of FIT.

Quality Assurance (Q/A)

KITT, Kansalainen IT-TUKI is a website that offers all Turku residents free help and guidance related to IT problems which operates as a part of Turku University of Applied Sciences (TUAS). It is a website created by a group of FIRMA project members and our Quality Assurance (Q/A) project was supposed to do the web test in desktop as well as mobile versions and later GUI test was also conducted. Today, the author focused on the web test of the KITT website in desktop version and made a web test report of it. The (Picture 76.) shows the website review summary (I) of the KITT.

1. Link testing

HOMEPAGE

- All links point to the right pages, Finnish site.
- All links redirect to the right sites, English site.
- Frontpage looks good with images hovering.

***The site will change the language back to Finnish if you return to the front page via the KITT logo button or refresh the website.**

LOGO

- Located in the top left corner of the website, looks good.

SERVICES

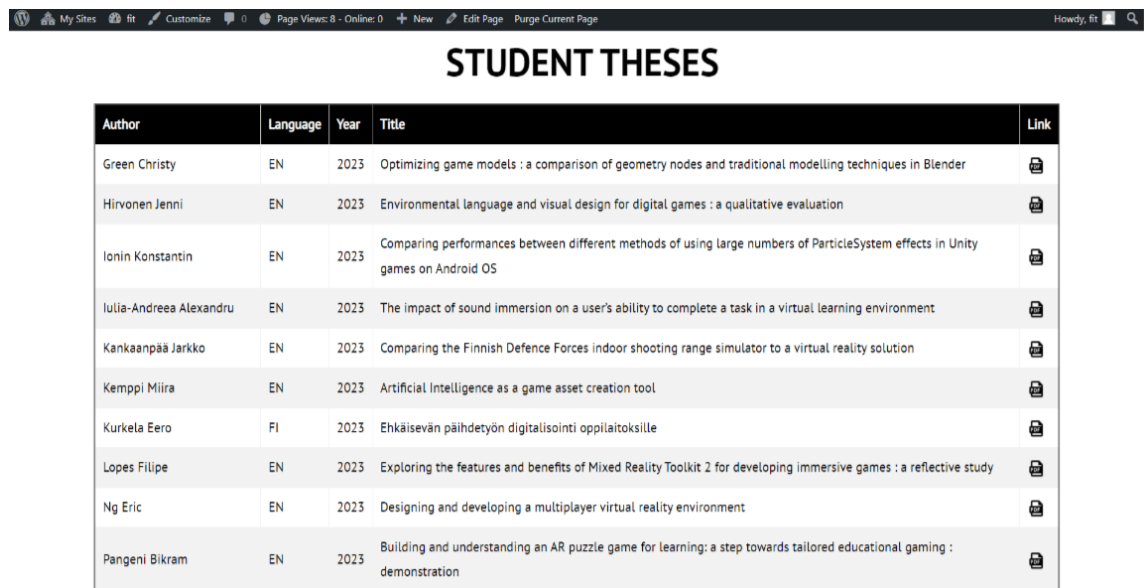
- All links point to the correct pages, Finnish and English pages.
- In Services>User Guidance>, the right image is blank...?
- In Services>User Guidance>, it might look much better if little bit of space is added between the images and the footer...?











Picture 76. Website review summary (I) KITT.

Tuesday, 1st August 2023

Futuristic Interactive Technology (FIT)

While doing the final overview of the website, the author found out that some of the student theses were not updated on the Education page of the FIT website. So, she updated all the details of the student theses with the name of the author, the year of its publication, language, and the title of the thesis. The theses published don 2023 were updated on the Education page of FIT. The (Picture 77.) shows the student theses updated on the Education page.



Author	Language	Year	Title	Link
Green Christy	EN	2023	Optimizing game models : a comparison of geometry nodes and traditional modelling techniques in Blender	
Hirvonen Jenni	EN	2023	Environmental language and visual design for digital games : a qualitative evaluation	
Ionin Konstantin	EN	2023	Comparing performances between different methods of using large numbers of ParticleSystem effects in Unity games on Android OS	
Iulia-Andreea Alexandru	EN	2023	The impact of sound immersion on a user's ability to complete a task in a virtual learning environment	
Kankaanpää Jarkko	EN	2023	Comparing the Finnish Defence Forces indoor shooting range simulator to a virtual reality solution	
Kemppi Miira	EN	2023	Artificial Intelligence as a game asset creation tool	
Kurkela Eero	FI	2023	Ehkäisevän päihdetyön digitalisointi oppilaitoksille	
Lopes Filipe	EN	2023	Exploring the features and benefits of Mixed Reality Toolkit 2 for developing immersive games : a reflective study	
Ng Eric	EN	2023	Designing and developing a multiplayer virtual reality environment	
Pangeni Bikram	EN	2023	Building and understanding an AR puzzle game for learning: a step towards tailored educational gaming : demonstration	

Picture 77. Student theses updated in Education page.

Quality Assurance (Q/A)

As of yesterday, the author continued to do the web test of KITT in the desktop version and focused more on the bottom of the site. She figured out that there were no links attached to the logos in addition to at least the Turku UAS logo in it. So, she reported that the Footer part needs to be improved with spacing in the Service details. The (Picture 78.) shows the website review summary (II) of the project, KITT.

CONTACT

- No concerns, all links works well, Finnish and English site.
- In contact details, location looks inaccurate due to spacing layout.

2. Bottom of the site

- There are no links attached to the logos, possible addition to at least the TurkuUAS logo.

***Header part is good but in Footer part, spacing does not looks perfect in "Services- details" and "We are here-address".**

3. Testing a website on your phone

Link testing:

- Links work in the same way as on a website.

Layout:

- The layout of texts and images is good on other pages, but on the "Blog" page, the image is halved, and the text layout has moved to a more central position than on other pages.
- When clicking links, the yellow underscore falls short at the beginning, which does not happen on the machine. *Photo 1.*

|

Picture 78. Website review summary (II) KITT.

Wednesday, 2nd August 2023

Futuristic Interactive Technology (FIT)

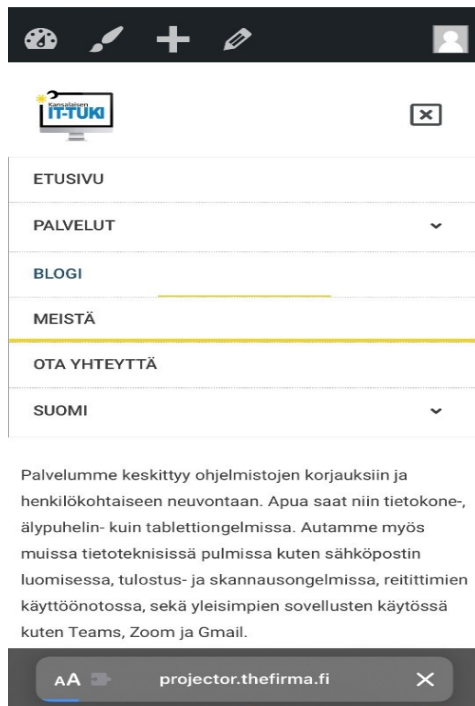
After updating the latest student theses yesterday in the Education page, what the author identified during the overall review of the website was that some of the latest publications of the articles were missing in the list in the Publication page. As a group and together with other research groups and partners, FIT project members got published over the last years tens of papers, most of them for international congresses and it is ongoing. The (Picture 79.) shows the list of publications updated in Publication page.

Title	Year	Creator(s)	Published in	Link	PDF
The Effects of a Home Based, Exergaming Intervention on Physical Function and Pain after Total Knee Replacement in Older Adults: A Randomized Controlled Trial	2023	Janhunen, M., Katajapuu, N., Paloneva, J., Pamilo, K., Oksanen, A., Kreemu, H., Karvonen, M., Luimula, M., Korpelainen, R., Jämsä, T., Kautiainen, H., Mäkelä, K., Heinonen, A., and Aartolahti, E.	BMJ Open Exercise Medicine, 2023	-	-
Pragmatic and Hedonic Experience of Virtual Maritime Simulator	2023	Tärkkanen, K., Saarinen, J., Luimula, M., and Haavisto, T.	In: Proceeding of the 7th Annual International GamiFIN conference, Levi, Finland, April 18-21, 2023	-	-
Towards Metaverse: Utilizing Extended Reality and Digital Twins to Control Robotic Systems	2023	Kaarlela, T., Pitkäaho, T., Pieskä, S., Pedrão, P., Bobadilla, L., Tikanmäki, M., Haavisto, T., Blanco Batailler, V., Laivuori, N., and Luimula, M.	Actuators, Vol12(6), Article 219, 2023	-	-
Experiences on the Creation of a Multi-disciplinary Course in a Metaverse Environment	2023	Kontio, E., Ravise, W., Saarenpää, T., Pizarro-Lucas, E., Dorado-Diaz, I., Sanchez, P.L., Haavisto, T., and Luimula, M.	In: Proceedings of the 19th International CDIO Conference (CDIO 2023), Trondheim, Norway, 2023	-	-

Picture 79. List of publications updated in Publication page.

Quality Assurance (Q/A)

In Q/A, after reviewing the website in the desktop version, today the author focused on the web test of the KITT website in the mobile version. All the links worked as same as in the desktop app but there were some changes in the image and text layout of the 'Blog' page in the mobile version. Also, what she identified was that when clicking the links, this yellow underscore shown in the screenshot falls short at the beginning which does not happen on the desktop version of the website. The (Picture 80.) shows the screenshot of the KITT web test on mobile.



Picture 80. Web test on mobile.

Thursday, 3rd August 2023

Futuristic Interactive Technologies (FIT)

After the overall check-up, the project of creating a marketing website for FIT has been completed by our project team. Today the project team did a final report of the whole project. All the project team member filled up the final report with all the tasks that they did during the 7 weeks entire duration. The total outcome of the project was 14 different pages on the website in which 7 were in English version and 7 were in Finnish version. The (Picture 81.) shows the final report of FIT explaining in a brief about each of the web pages.

Outcome of the project was 14 pages in (7 in Finnish and 7 in English) total.

Etusivu/front page

This is the landing page that holds general information about the FIT and LinkedIn social media feed.

Tutkimus & innovaatio / research & innovation

Projects and project information are listed on this subpage.

Koulutus / education

Student theses are shown on this subpage.

Palvelut / services

The services provided are shown on this subpage.

Tiimi / team

Team members are shown on this subpage.

Julkaisut / publications

Publications are shown on this subpage

Metaverse-teknologiat / metaverse technologies

FIT teams youtube uploads are showcased on this subpage.

Picture 81. Final report of FIT.

Quality Assurance (Q/A)

In Quality Assurance (Q/A), today the author had the last weekly meeting of the 7 weeks diary thesis. As Q/A is an ongoing and will be ongoing project in future, some of other project members continued the project with new project members upcoming from the

next week. The team discussed all the progress that they did on this week and discussed the problems together. After KITT web test, the author was supposed to do the GUI test of the same project so after the weekly completed, and continued the project with the GUI test with the contents that were in the GUI test template provided by the FIRMA. The (Picture 82.) shows the contents of the GUI test of the project KITT.

KITT website GUI testing	
Contents	
KITT website GUI testing	1
1. WINDOW	1
1.1. Responsive	2
1.2. Alerts	5
2. ICONS & IMAGES	5
3. BUTTONS & LINKS	6
3.1. Buttons	7
3.2. Links	7
4. FIELDS & BOXES	8
4.1. Validation	9
4.2. Placeholders	10
4.3. Checkboxes & Radio buttons	11
5. ACCESSIBILITY	12
6. ATTACHMENTS	14
6.1. Attachment 1	15
6.2. Attachment 2	15
6.3. Attachment 3	16
6.4. Attachment 4	17
6.5. Attachment 5	17

Picture 82. KITT GUI test.

Friday, 4th August 2023

Futuristic Interactive Technologies (FIT)

Today the last day of the diary thesis analysis, the project had a weekly meeting as usual. As this week was the project closing week, the project team invited project customer to our weekly meeting. They viewed the website overall along with the customer. The customer was fully satisfied with all the task that they had done and even better with the group discussions and suggestions together with the team. The better communication and team work always helps to complete the project successfully. Also, the project team created a document including guide to the FIT website so that it can be edit and updated easily in the future. They wrote all the details about how the project team created the successful website using WordPress. The FIT web developer team handed the project

with access to every documentation related with this Futuristic Interactive Technologies (FIT) project. Thus, the project group ended the project happily in 7 weeks' time duration. The (Picture 83.) show the report related with the guide to FIT website.

- [Table of Contents](#)
- Logging in to the admin view 2
- Version control 3
- Saving/Publishing/Updating 3
- Page specific instructions 5
 - Main page 5
 - How to add a new post to LinkedIn feed? 5
 - Education 8
 - How to add a new lift with image? 9
 - Research & Innovation 11
 - Services 14
 - Team 16
 - Creating a new ID Card 16
 - Updating ID card images 17
 - Publications 17
 - Metaverse Technologies 18
- Element specific instructions 22
 - Full width image banner 23
 - Subheading 23
 - WP component order 23


Picture 83. Guide to FIT website.

Quality Assurance (Q/A)

As yesterday, the author continued with the GUI test of the KITT website and focused on the image resolution, elements scaling is and so on and prepared a GUI test report. Later, at the end of the day, she documented all the reports to the specific files and folders of Q/A team's channel and inform it to the project manager. The (Picture 84.) shows the Image resolutions in the GUI test of the project KITT.

1. WINDOW			
1.1. Responsive			
1.1.1. Scaling			
TEST CASE 1	ELEMENT SCALING – DO THE CARDS SCALE WITH DIFFERENT RESOLUTIONS		
DESCRIPTION	Resolutions tested: 2560x1440 (recommended), 1920x1080 and 1280x720. The cards do not scale correctly when using the 1280x720 resolution. See attachment 1	<input checked="" type="checkbox"/> Checked	<input type="checkbox"/> Valid
TEST CASE 2	IMAGE/SVG SCALING – DO THE IMAGES SCALE WITH DIFFERENT RESOLUTIONS		
DESCRIPTION	Resolutions tested: 2560x1440 (recommended), 1920x1080 and 1280x720.	<input checked="" type="checkbox"/> Checked	<input checked="" type="checkbox"/> Valid

6.1. Attachment 1



The screenshot shows a website interface. At the top, there's a header '6.1. Attachment 1'. Below it, there are three cards. Each card has an image at the top and text below. The first card is titled 'Laitteen huolto', the second 'Laitteen korjaus', and the third 'Laitteen päivitys'. Below the cards, there's a section titled 'BLOGI' with the text 'Tutustu KITTiin paremmin blogimme kautta!'. There are two blog posts visible, each with a title 'LOREM IPSUM 3' and 'LOREM IPSUM 1', a short paragraph of text, and a 'Lue lisää' button.

Picture 84. Image resolutions- KITT GUI test.

3.7.3 Conclusion

Conclusion of the seventh week, the final week of the diary analysis observation was that the author was able to meet the goals of this week successfully. She completed all the assigned task for this week. In Futuristic Interactive Technologies (FIT), project, she reviewed the website overall as well as updated and edited the pages where needed. The project team was able to create a successful marketing website of FIT and hand over the project to the customer happily with all the documentations and access to all the files and folders of the website. And in Quality Assurance project, the author completed the web test and the GUI test a KITT website. The reports were done and documented in the respective files and folders of the KITT's teams' channel in the FIRMA.

4 CONCLUSION

Completing the 7-week diary report highlighted its value as a significant learning opportunity. Through authoring this thesis and observing the results of tasks undertaken, progress became evident over a fleeting period, working on two different projects and engaging with real-life customers. The transition from theoretical learning in school and books to practical training presented unexpected challenges, offering a stark contrast to initial expectations.

Real-life issues often arise unexpectedly and can be novel in nature. The experience taught the author to approach and resolve problems not only with technical skills but also through effective problem-solving strategies and mindset.

The analysis of this thesis diary underscored the necessity of acquiring a broad range of skills and technologies to excel as a software engineer. Documenting the thesis report was beneficial, aiding in the author's progression. The project revealed both strengths and areas for further study, helping to chart a future path focused on learning, self-development, and goal achievement. Managing time effectively across both projects was crucial, as each presented unique and significant challenges. The roles of self-assessment and teamwork were identified as key to success.

Skill improvement in WordPress was noted, recognizing the web-centric nature of the field. The pursuit of deeper knowledge in HTML tagging and CSS styling was seen as advantageous, despite WordPress not requiring it. Successfully developing a marketing website using WordPress software and contributing as a Quality Assurance specialist in various FIRMA projects enhanced the overall project quality before delivery to clients.

From the start of the thesis diary analysis, noticeable development in problem-solving skills and a boost in confidence were observed. The author demonstrated fast-learning capabilities, primarily through self-education and reflection. This journey reinforces a timeless truth applicable in all fields, particularly in information technology: there is always more to learn, with readiness for ongoing updates and learning being essential. Although the study period may conclude, the lifelong journey as a software developer is just beginning, filled with continuous updates and perpetual learning.

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