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# Best Practices for Microsoft Power Apps Implementation



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## Best Practices for Microsoft Power Apps Implementation

The objective for this thesis was to explore the best practices for implementing an application with Microsoft Power Apps. The objective was achieved through researching the relevant topics concerning the best practices of development and implementation. Pointing out the most important aspects of those subjects and giving a variety of relevant examples from companies which have implemented Power Apps into their processes, was also an important part of this thesis.

Many topics from the basics of Power Apps to lifecycle management were explored in order to give a thorough explanation on which practices to look out for, when implementing a Power App.

The result of the thesis was a good deal of information and examples regarding the best practices for implementing Power Apps into an organization. The result of this thesis can be used in the future for understanding all the different aspects that go into creating a great and sustainable application in Power Apps.

Keywords:

Microsoft, Power Apps, Best Practices, Web Application Development, Low-Code

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# Parhaat käytännöt Microsoft Power Appsin implementaatioon

Tämän opinnäytetyön tavoitteena oli tutkia parhaita käytäntöjä sovellusten toteutukseen Microsoft Power Apps -työkalulla. Tavoitteet saavutettiin tutkimalla kehittämisen ja toteuttamisen parhaita käytäntöjä koskevia aiheita. Tärkeiden näkökulmien esiin tuominen näistä aiheista ja esimerkkien antaminen yrityksistä, jotka ovat ottaneet Power Appsin osaksi prosessejaan, oli myös olennainen osa tätä opinnäytetyötä.

Useita relevantteja aiheita käsiteltiin, aina Power Appsin perusteista elinkaaren hallintaan, jotta saatiin kattava selitys siitä, mitä käytäntöjä tulee ottaa huomioon Power Appsin toteuttamisessa.

Opinnäytetyön tuloksena syntyi runsaasti tietoa ja esimerkkejä parhaista käytännöistä Power Appsin toteuttamisessa organisaatiossa. Tämän työn tuloksia voidaan käyttää tulevaisuudessa ymmärtämään kaikkia niitä eri näkökulmia, jotka ovat olennaisia hyvän ja kestävä Power Apps -sovelluksen luomisessa.

Asiasanat:

Microsoft, Power Apps, parhaat käytännöt, verkkosovelluksen kehitys, Low-Code

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## List of abbreviations

GDPR	General Data Protection Regulation
HIPAA	Health Insurance Portability and Accountability Act
CCPA	California Consumer Privacy Act
ALM	Application lifecycle management
CI/CD	Continuous Integration and Continuous Deployment
ERP	Enterprise Resource Planning
RBAC	Role-based access control
HVAC	Heating, ventilation, and air conditioning

# 1 Introduction

In the current era, organizations worldwide are being challenged with rapid digital transformation and seek solutions to help them streamline their operations and enhance their productivity. Luckily companies like Microsoft have come up with solutions to help companies deal with these challenges. Microsoft Power Platform is a platform that includes many services for companies to benefit from. Services such as Power BI, Power Automate, and especially Power Apps are used globally to deal with streamlining their processes and operations within a business.

In this thesis, the focus is going to be on Microsoft Power Apps, the app-building service of the Power Platform. The topics are focused on the best practices of implementation, which include things such as design, data management, security, performance, and governance. This thesis also includes case studies, that show real-world examples of the benefits when it comes to developing Power Apps with the best practices in mind.

The objective of this thesis is to hopefully give some companies which are considering using the Power Platform and especially Power Apps, whether they could benefit from using it and especially to give them examples and information about the best ways to do so.

Power Apps is an easy way to get into web application development, start implementing solutions and to streamline operations with little- to no experience in the field, which is why I chose this topic for my thesis.

## 2 Understanding Microsoft Power Apps

### 2.1 Overview of Microsoft Power Apps

Microsoft Power Apps is a low-code platform for building applications. Creating solutions for business needs is what Power Apps is all about. Power Apps is a part of the Power Platform, which also includes components such as Power Automate and Power BI, which you can integrate with in Power Apps if needed (Mendoza, 2022).

### 2.2 Features and capabilities

Power Apps offers many features and ways to get started on an app. The three types of Power Apps available are canvas apps, model-driven apps, and Power Pages which each have different uses. Apps built in Power Apps have a responsive design and can be run within a browser or on a mobile device. Many different data storage options are available such as Microsoft Dataverse, SharePoint, SQL Server, etc. Developers can integrate external data to their app and create custom connectors. (Microsoft, 2023a).

### 2.3 Licensing

Licensing options for Power Apps is something to consider before starting development. Microsoft offers a couple of options when it comes to this. Power Apps Premium, is licensed per user and it offers the ability to build, edit and run any number of custom apps for \$20/user/month. Power Apps per app is a different approach and costs \$5/user/app/month. The last option is the pay-as-you-go which is linked to an Azure subscription and the cost will depend on how many users used an app. (Microsoft, 2024a).



## 3 Designing User-Centric Applications

### 3.1 Importance of the designing phase

The design phase is crucial in developing Power Apps as it lays the foundation for user satisfaction and how effective the application is going to be. A well-thought-out design makes sure that the application will meet the specific needs of its users, leading to higher satisfaction rates for its users, and more efficient workflows. To put it simply, the designing phase involves two major things: planning the user interface (UI) and user experience (UX). Both are hugely important and make a massive difference in the outcome for the app (Microsoft, 2024c; Microsoft, 2022a).

### 3.2 Best practices for user-centric applications

When designing a user-centric app, it might get overwhelming to think about all the different aspects to consider about the design of the eventual application. But here's a couple of the key things to keep in mind when setting out for the implementation of the app.

**Consistency:** Ensure that design elements are uniform across the entire app to avoid possible confusion. It greatly helps to create a seamless user experience.

**Simplicity:** Keep the interface clean and straightforward to minimize cognitive load and make navigation intuitive. It's important to keep things simple and to keep the interface of the app relatively clean and straightforward. This makes the navigation, for example, more intuitive for the user of the app.

**User-Centricity:** Remember to focus on the needs and preferences of the users, tailoring the app to their specific workflows and roles.

**Efficiency:** Design to streamline tasks, reduce unnecessary steps, and most importantly to increase productivity. Having an app that is fast and efficient will ensure that users will count on it.

**Feedback and Guidance:** Incorporate elements that provide immediate feedback and clear guidance to users. For example, a success -screen after submitting a form within the app is a great way to give feedback.

**Scalability:** Design with future growth and changes in mind, this is going to ensure that the app can evolve with possible user needs.

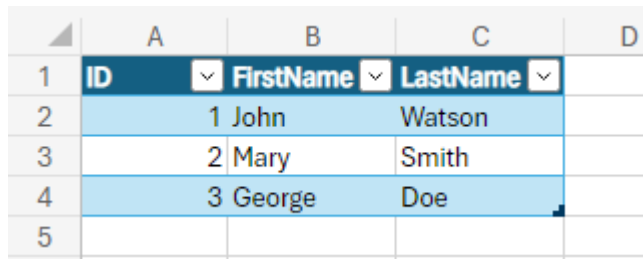
**Accessibility:** It's always a great idea to take into consideration who is going to use the app and so, it's great to design the app to be accessible to users with diverse needs (Microsoft, 2024c; Microsoft, 2022b).

## 4 Data Management in Power Apps

### 4.1 Data sources and integration

Data sources within Power Apps are usually tables, where you can store and retrieve data from. The table can either be a local data source or a connected data source such as Excel, SharePoint, SQL, etc. Tables are the most common by far, but other data sources can be used as well, for example Microsoft 365 has a lot of connectors where you can use the data about your organization to help make the app you need. The tables within a data source can be modified within Power Apps using different functions such as Patch, Collect and Remove (Microsoft, 2022a).

Integrating a data source to your application is easy and simple, and here's an example of the process using an Excel Workbook saved in OneDrive.



	A	B	C	D
1	ID	FirstName	LastName	
2	1	John	Watson	
3	2	Mary	Smith	
4	3	George	Doe	
5				

Figure 1. Example Excel table.

Using a table within an Excel Workbook, you can start reading and writing data once you have integrated the data source with Power Apps.

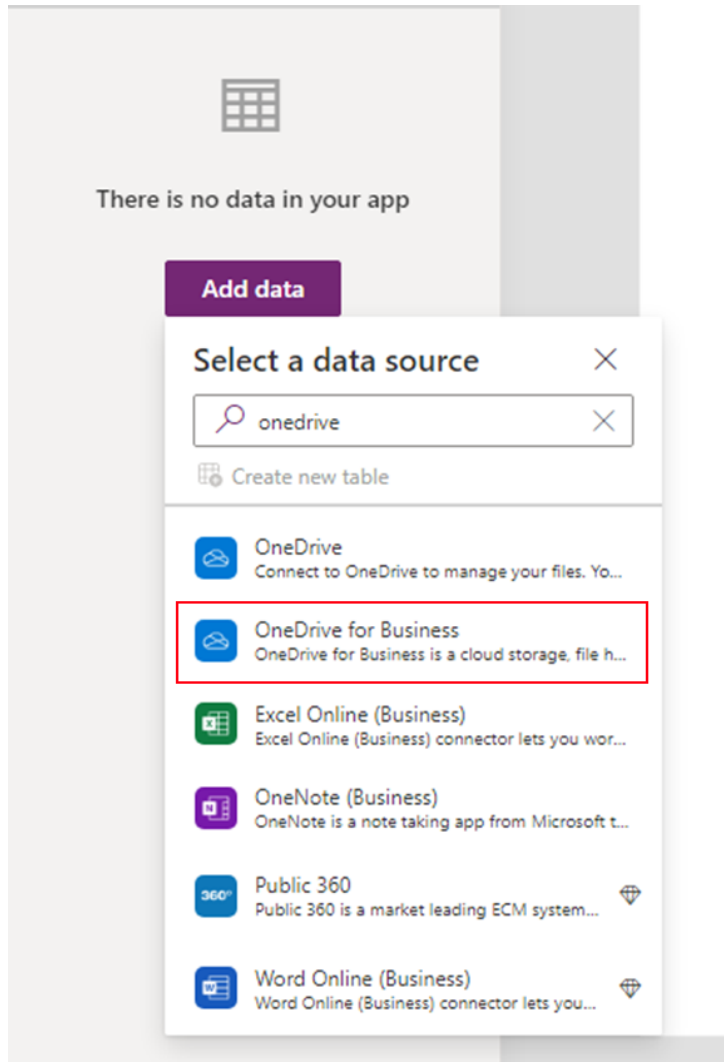


Figure 2. Data source selection in Power Apps studio.

After selecting OneDrive for Business, I'm going to select the Excel Workbook which includes the table.

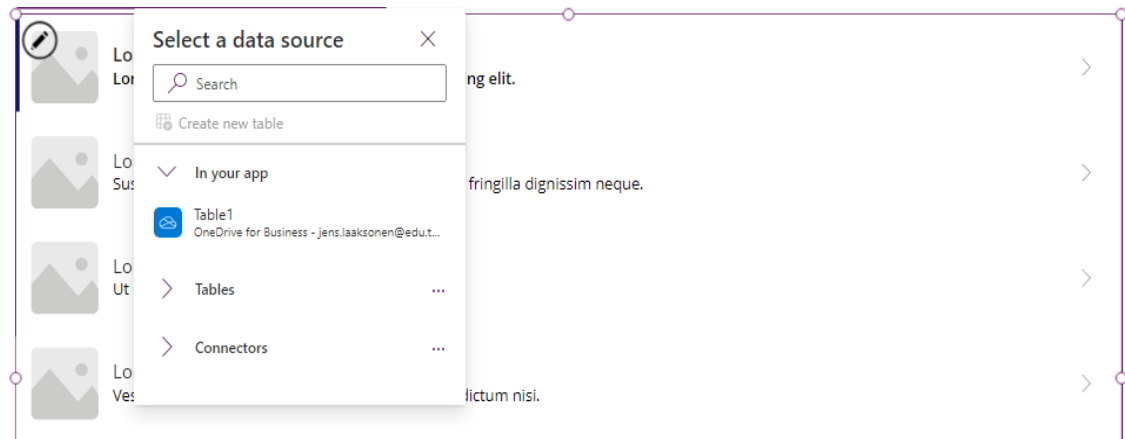


Figure 3. Data source selection within a Gallery in Power Apps studio.

Once I've selected "Table1" as my source in the Gallery, I can modify what type of data to show from the table in the Gallery. Here's an example of what can be shown.



Figure 4. Example of data visualization in a Gallery.

Just within a couple of steps, the data is connected to the app and can be modified, updated, created and displayed.

#### 4.2 Data source limitations and considerations

When picking out a data source to use, it's important to consider the limitations of each data source. For example, Microsoft Lists (SharePoint) can only use 15 data types when Dataverse can handle 23-24. Several other things should be

considered also, such as the security needs for the data, data movement and its capacity. Additionally, certain data sources have limitations in terms of delegation, which affects the number of records that can be retrieved or manipulated in a single operation. For example, SharePoint and Excel have delegation limits that might impact performance and scalability when dealing with large datasets. Therefore, understanding these limitations and planning accordingly can help in choosing the most suitable data source for your application (Microsoft, 2022b).

#### 4.3 Real-world example of data management

Armanino, which is an accounting and business consulting firm based in the US were faced with the challenge of managing their office space efficiently for their workforce across 16 different office locations. To tackle this, they decided to develop a Workspace Scheduler mobile app using Power Apps. The app integrates several important connectors, such as Microsoft Outlook, Office 365 Users and SQL. These allowed the employees to reserve office space in real time. The implementation of this app improved space utilization greatly and made it possible for the office space to be used more effectively (Microsoft, 2022c).

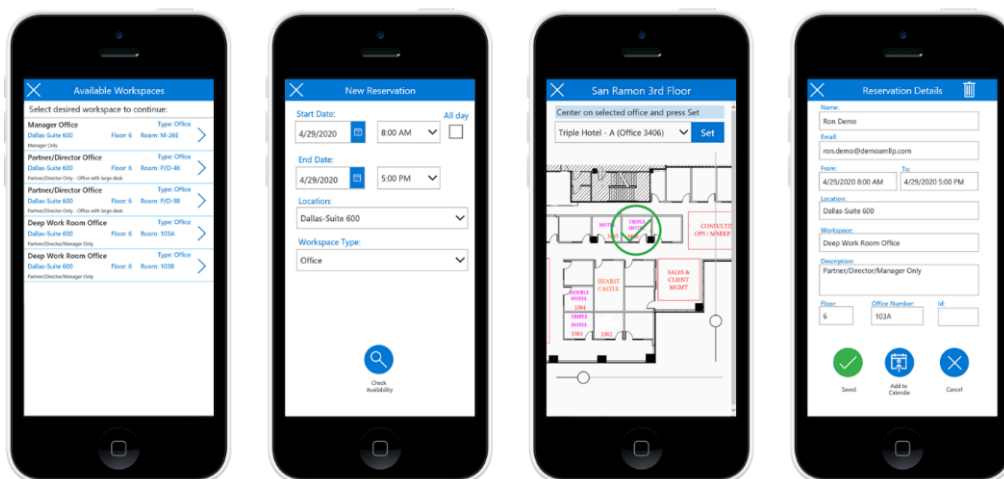


Figure 5. Armanino mobile app.

Best practices used by Armanino:

Integration with existing systems: By integrating with Outlook and Office 365, the app ensured made the booking of office space easy and seamless.

Real-time data access: The use of SQL Server connectors enabled real-time updates on space availability. It's fair to say they picked out the perfect data source for their needs and this allowed them to have the data managed without issue.

User-centric design: They focused a lot on ease of use and designing the app for the end user. This ensured the employees can quickly and easily find the space they need in the office.

By using these practices, the implemented application led to increased efficiency and better space management, allowing the firm to house their mobile workforce very effectively (Microsoft, 2020a).

## 5 Security and Compliance

### 5.1 Security in Power Apps

Before building an app, it's good to consider the security of the data. There are many ways to protect data, mostly with permissions. For example, with SharePoint and Excel, even if there is a limitation for the data that can be viewed in the application, they still have access to fully view that data where it is stored. This might be fine if the data is simple and not confidential, but if it isn't, options such as Dataverse and SQL Servers might be worth considering (Weston & Martín, 2023).

The security features within Power Apps can be broken down into levels, such as these:

App-level security: Restricts access to the app itself.

Form-level security: Controls access to specific forms within model-driven apps.

Record-level security: Assigns access permissions to individual records.

Field-level security: Provides fine-grained control over individual fields within a record (Microsoft, 2022g).

It's evident from these levels, that an app can be tailored to a company's specific needs and restricting user access is possible even in the field-level within the app.

### 5.2 Compliance considerations

When it comes to compliance, it's worth noting the importance of application and data handling. These need to adhere to the regulatory standards such as GDPR, HIPAA, and CCPA. Microsoft provides tools and resources to help organizations meet these standards, such as the Microsoft Trust Center which contains help regarding GDPR (Microsoft, 2023c).



### 5.3 Best Practices for Securing Power Apps

Here are some of the main topics to keep in mind when taking the security of a Power App into consideration:

**Data Loss Prevention (DLP) Policies:** It's a good idea to establish some DLP policies to control data sharing and prevent any unauthorized access.

**Environment management:** Using separate environments for development, testing, and production is great to minimize risks. If all apps are in the same environment, the navigation is bloated and might get confusing for everyone.

**Role-Based Access Control (RBAC):** Assigning roles based on who needs access to what data to limit access to sensitive data is a great practice. It's also a good idea before publishing to check who has access to the data that's being handled by the Power App.

**Regular audits:** Conducting regular security audits and checking on the compliance is important for identifying and mitigating potential risks regarding the security of the app (Microsoft, 2022g; Microsoft 2023d).

## 6 Maximizing Performance and Scalability

### 6.1 Performance considerations in Power Apps

The bigger and more complex an app gets; the more performance should be a consideration during development. Several things need to be kept in mind to ensure your app doesn't start to suffer from performance issues. For instance, large amounts of data that are shown at once can take a while to load and should be avoided if it's not necessary. Having a lot of objects, forms, videos, and pictures also puts stress on the application (Microsoft, 2023b).

### 6.2 Performance solutions and scalability

Three great areas to keep in mind are to load data fast, calculate fast and minimize required resources. Keeping your datasets at a reasonable size and not populating a collection with huge amounts of data is a good way to increase performance. Using faster calculations efficiently is also a great way to speed things up. For example, App formulas can split a formula into a more efficient form for execution. But most importantly, keeping things simple and not having unnecessary performance hindering bloat in the app is the simplest and best way to ensure a better performance for an app. Also, a very good idea is to split up the app to another one if it's getting too big and performance heavy. By having great performance considerations, it makes the app more scalable down the line (Microsoft, 2024b).

## 7 Lifecycle Management

Lifecycle management is an important and critical aspect to think about, before and after the implementation of a Power App. When it comes to developing applications, it's well known that the needs and wants from the requester of the app can change at any time so it's important for the application to be scalable and efficient. ALM involves things like practices, tools and frameworks intended for overseeing the entire life cycle of a Power App through initial development, implementation, and the eventual retirement of the app. Managing the lifecycle of an app makes sure that the Apps are developed and most importantly maintained in a specific manner which leads to better performance, security and compliance (Microsoft, 2024d).

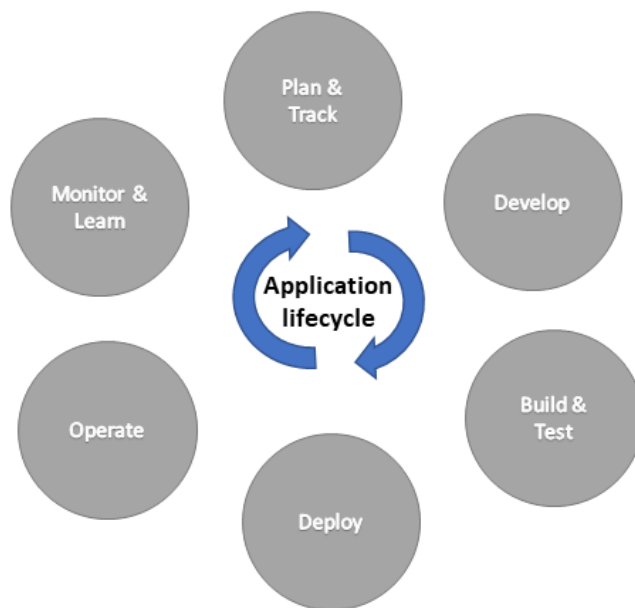


Figure 6. Application lifecycle in the Power Platform. (Microsoft, 2024d)

### 7.1 Lifecycle management practices

The practices of lifecycle management include a range of things designed to streamline development, reduce potential risks and ensure a long-lasting and sustainable future for the applications made in Power Apps. Key practices to keep

in mind are planning, development, testing, deployment, and monitoring. The Power Platform offers tools to help manage these practices effectively and to ensure a healthy lifecycle. These include solutions for source control, CI/CD, environment management, and application performance monitoring. By leveraging these capabilities, organizations can implement best practices in ALM to enhance the reliability and scalability of their Power Apps solutions (Microsoft, 2022d).

## 7.2 Governance frameworks in organizations

Implementing a governance framework is a good idea for maintaining control and ensuring compliance when developing and deploying Power Apps. A framework gives a structured approach for several key areas around implementing applications, such as development and policies around the app. These areas help with consistency and security as well as aligning with organizational policies and standards (Microsoft, 2022d).

Establishing a framework also includes things such as the definition of roles and responsibilities around the app, the setting up of approval processes, and the implementation of security measures for data and app protection. Monitoring is also a good area to keep in mind, since it ensures ongoing compliance and helps to identify possible areas of improvement in the future (Microsoft, 2022d).

## 7.3 Version control and change management

Version control and change management are fundamental parts of lifecycle management in Power Apps. Version control systems help developers to track changes made to the code of the app, manage multiple versions of an application if there are many, and collaborate with other developers of an app more effectively. Version control systems within Power Apps also prevent conflicts, reduce the possibility of errors, and most importantly ensure that the application

can be rolled back to a previous version if it's deemed necessary (Microsoft, 2022d; Microsoft, 2024d)

The other big part of ALM is change management, which involves planning, implementing, and monitoring the possible changes to applications in some planned and controlled manner. The process of change management helps to ensure that changes are made with some system in mind, without disrupting the app itself and its users. By implementing an application with these two big parts of ALM in mind, organizations can have more stable and reliable Power Apps solutions, knowing that updates to their apps are implemented systematically and smoothly (Microsoft, 2022d; Microsoft, 2024d).

## 8 Case Studies and Best Practice Examples

For this chapter of the thesis, I've gathered examples of real-world applications of some applications made in Power Apps and highlighted the best practices they have used to make such successful applications.

### 8.1 Example A: IKEA Sweden – Enhancing Customer Experience

IKEA Sweden set out to implement a personalized service for improving the customer buying experience known as the “IKEA Sales Tool.” This included four apps, which managed customer bookings, in-store meetings, revenue, and appointment management. The solution of the tool made IKEA able to streamline their operations and greatly enhance customer satisfaction. Before the Power Platform solution, they used a much less effective Excel spreadsheet (Microsoft, 2020b).

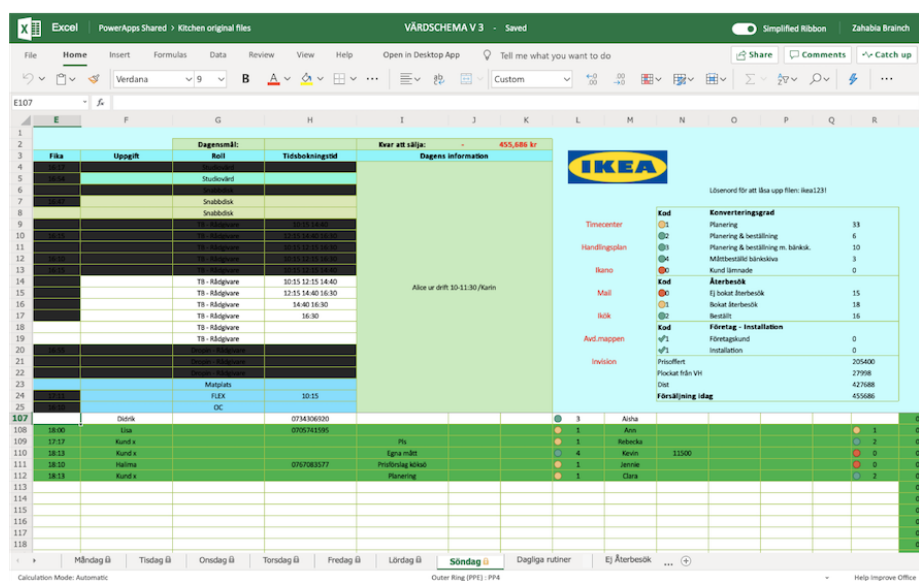


Figure 7. Spreadsheet that was used before the solution (Microsoft, 2020b)

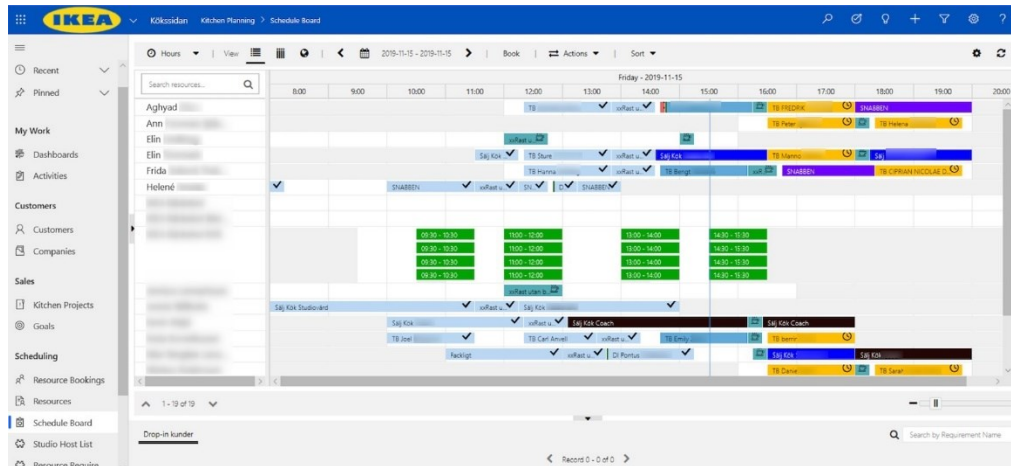


Figure 8. One of the apps which was implemented to assign appointments (Microsoft, 2020b)

Some of the best practices that were used:

**User-centric design:** They focused on creating an intuitive and seamless user experience with the end user always in mind.

**Integration with existing systems:** They integrated their solution with other Microsoft services for ensuring smooth data flow and operational functionality.

**Scalability:** Designed the solution to be scalable to meet the likely demands from the customer.

These practices are a great example of how a successful implementation of some Power Apps can lead to better customer interaction and satisfaction and increase effectiveness greatly.

## 8.2 Example B: Customer Air Products & Services (CAPS) - Streamlining Manufacturing Processes

CAPS, a Houston-based HVAC solutions provider, used Power apps to enhance their manufacturing processes by addressing the inefficiencies found in them. The apps they developed tracked the HVAC unit production from start to finish.

Quality checks and notifications were also taken into consideration, which eliminated a lot of redundant work across systems. And the important thing to note with these apps is that they were developed by a data analyst who had no prior coding experience (Microsoft, 2019).

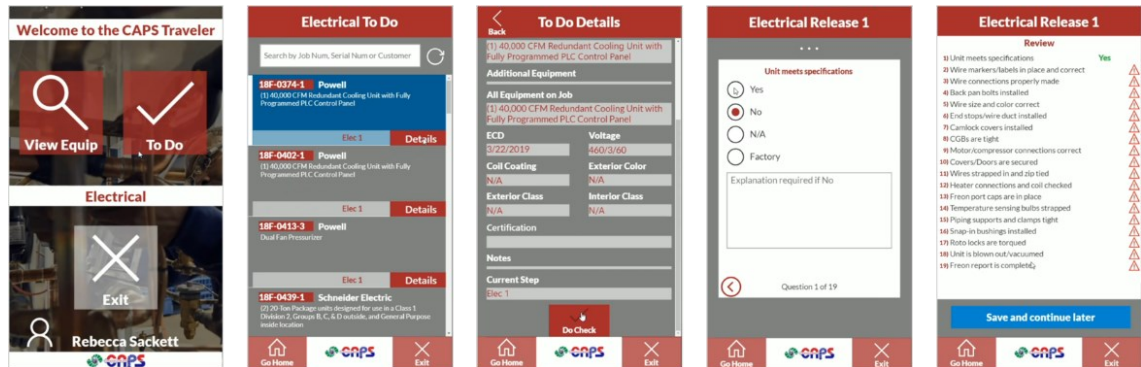


Figure 9. One of the ten customized apps that were made (Microsoft, 2019).

Some of the best practices that were used:

Low-code development: Enabled a non-developer to create effective solutions quickly and with no prior knowledge of coding.

Real-time data monitoring: Provided real-time tracking with updates, which enhanced their operations by a big margin.

Process automation: Automating tasks and making these types of apps for repetitive tasks reduces errors and saves a lot of time.

These practices resulted in more streamlined operations and this example showed that even without experience, implementing and developing these apps to enhance processes is more than possible.

### 8.3 Example C: G&J Pepsi-Cola Bottlers - Improving Field Operations

G&J Pepsi-Cola Bottlers, one of the largest Pepsi bottlers in the world, implemented Power Apps as their solution to improve their field operations. They developed a plethora of apps that enabled them to, for example, manage their



inventory, conduct inspections on equipment and submit necessary reports right from their mobile devices. These apps greatly reduced the unnecessary spending of time on tasks and improved the accuracy of their data across the company (Microsoft, 2020c).

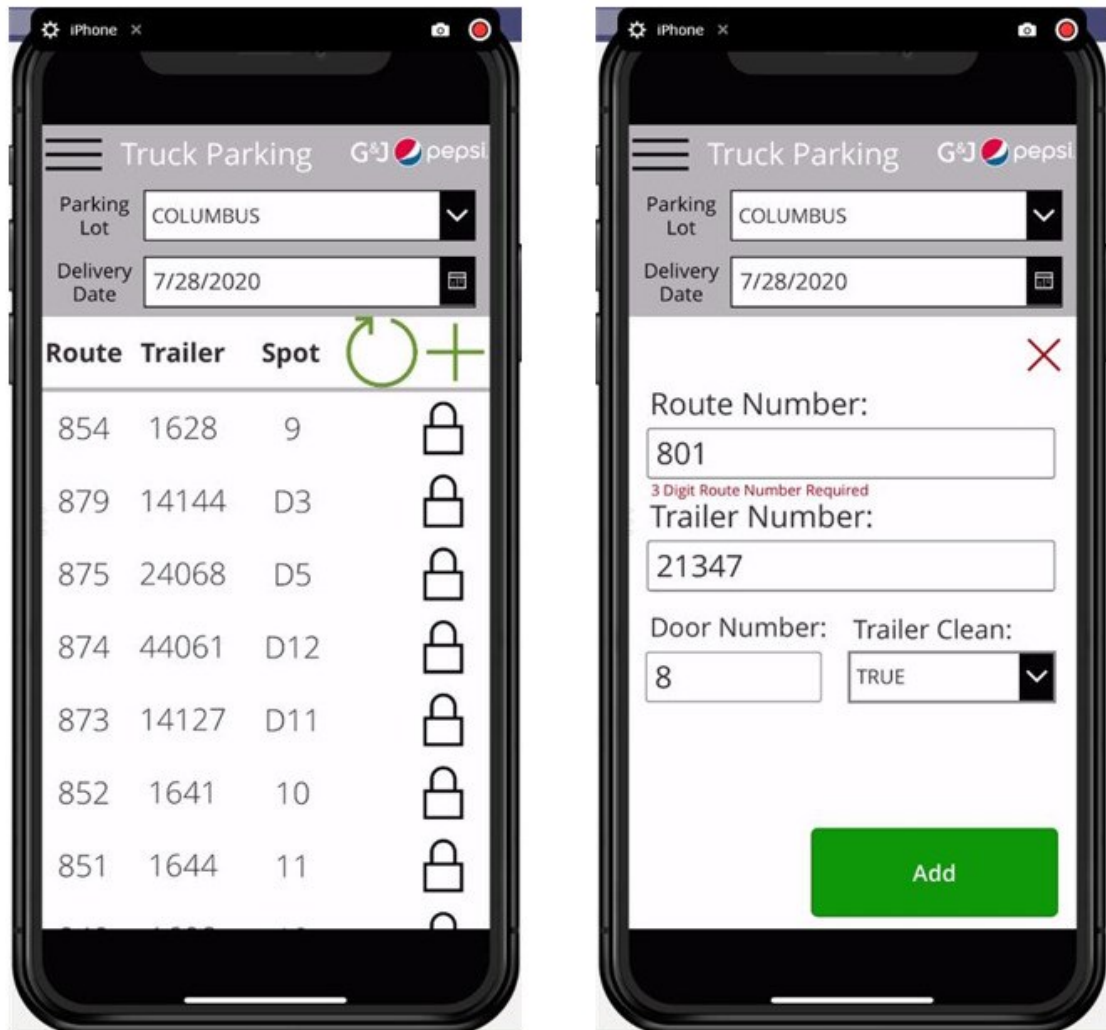


Figure 10. A parking app that was made with Power Apps (Microsoft, 2020c)

Some of the best practices that were used:

**Mobile accessibility:** They made sure the apps could be used with mobile devices, which made the field workers able to access and input the data that was needed on the go.

Integration with existing systems: They were able to integrate the apps with an existing ERP system, which ensured data synchronization remained efficient.

User training and adoption: They focused on detailed user training which helped users adopt these new apps and made the usage of them more effective down the line.

In summary, these three examples show how companies have utilized the capabilities of Power Apps and the Power Platform to enhance their processes. They took into consideration some excellent practices and gave a good example of how a successful implementation of Power Apps can look. It's always a good idea to have a look at how other companies and organizations have managed to utilize Power Apps to enhance their processes before setting out to do so yourself.

## 9 Conclusion and the future

The aim of this thesis was to give businesses that might be interested in implementing Microsoft Power Apps into their processes, several things to consider before doing so. This thesis focused on key areas of the best practices for implementation, such as user-centric design, data management, security, performance, and governance. The findings from each chapter were substantial and can give future developers or companies a good understanding about the best practices of implementation.

The research was done mainly on Microsoft's own documentation and customer stories to give current and accurate information on their product. The platform is changing constantly and some of the things in this thesis might be out of date in a couple of years, but the general advice is still very much usable and can be adhered to by anyone interested in Power Apps and its best practices.

The examples given throughout the thesis and especially in the chapter before this one, can give developers invaluable information and foresight to a Power App of their own. And most importantly, seeing what has been made with Power Apps and what is possible is a great way to encourage the adoption of the Power Platform and the implementation of Power Apps to a company's processes.

In conclusion, the adoption of Microsoft Power Apps can significantly enhance business operations by enabling rapid application development and deployment. By adhering to the best practices outlined in this thesis, organizations can be certain that their Power Apps implementations are going to turn out user-centric, secure, compliant, and scalable, thereby maximizing the benefits of digitalizing their processes with Power Apps.

## References

Mendoza, E. (2022). Microsoft Power Apps Cookbook: Apply low-code recipes to solve everyday business challenges and become a Power Apps pro. (2<sup>nd</sup> ed.) Birmingham. Packt Publishing, Limited.

Weston, M. & Martín, E. B. (2023) Learn Microsoft Power Apps: The definite handbook for building solutions with Power Apps to solve your business needs. (2<sup>nd</sup> ed.) Birmingham. Packt Publishing, Limited.

Microsoft. (2019). Custom Air Products & Services manages manufacturing process using Microsoft Power Platform. <https://powerapps.microsoft.com/fin/blog/custom-air-products-services-manages-hvac-manufacturing-process-using-the-power-platform>. Accessed 08.06.2024.

Microsoft. (2020a). Consulting firm speedily solves space issues with innovative workspace scheduling app, enhances its culture. <https://customers.microsoft.com/doclink/786165-armanino-partner-professional-services-power-apps>. Accessed 08.06.2024.

Microsoft. (2020b). IKEA Sweden – Reimagining the customer experience with Microsoft Power Platform. <https://powerapps.microsoft.com/en-us/blog/ikea-sweden/>. Accessed 08.06.2024.

Microsoft. (2020c). G&J Pepsi pours in-house expertise into perfect apps with low-code Power Apps driven by Power Automate. <https://customers.microsoft.com/pt-br/story/821738-gj-pepsi-cola-bottlers-consumer-goods-microsoft-power-platform>. Accessed 08.06.2024.

Microsoft. (2022a). Introduction: Planning a Power Apps project. <https://learn.microsoft.com/en-us/power-apps/guidance/planning/introduction>. Accessed 06.04.2024.

Microsoft. (2022b). Key UI/UX design principles. <https://learn.microsoft.com/en-us/dynamics365/guidance/develop/ui-ux-design-principles>. Accessed 18.04.2024.

Microsoft. (2022c). Pattern: Asset management. <https://learn.microsoft.com/en-us/power-apps/guidance/patterns/asset-management-pattern>. Accessed 18.04.2024.

- Microsoft. (2022d). ALM basics with Microsoft Power Platform. <https://learn.microsoft.com/en-us/power-platform/alm/basics-alm>. Accessed 17.05.2024.
- Microsoft. (2022e). Overview of tools and apps used for ALM. <https://learn.microsoft.com/en-us/power-platform/alm/tools-apps-used-alm>. Accessed 17.05.2024.
- Microsoft. (2022f). Best practices: Collaborating and co-developing apps using Power Apps. <https://learn.microsoft.com/en-us/power-apps/guidance/co-develop/overview>. Accessed 17.05.2024
- Microsoft. (2022g). Securing the app and data. <https://learn.microsoft.com/en-us/power-apps/guidance/planning/security>. Accessed 29.04.2024.
- Microsoft. (2023a). What is Power Apps? <https://learn.microsoft.com/en-us/power-apps/powerapps-overview>. Accessed 11.04.2024.
- Microsoft. (2023b). Overview of creating performant apps. <https://learn.microsoft.com/en-us/power-apps/maker/canvas-apps/create-performant-apps-overview>. Accessed 19.05.2024.
- Microsoft. (2023c). Compliance and data privacy. <https://learn.microsoft.com/en-us/power-platform/admin/wp-compliance-data-privacy>. Accessed 25.05.2024.
- Microsoft. (2023d). Introduction to Microsoft Power Platform security and governance. <https://learn.microsoft.com/en-us/training/modules/security-governance-intro/>. Accessed 25.05.2024.
- Microsoft. (2024a). Power Platform licensing FAQs. <https://learn.microsoft.com/en-us/power-platform/admin/powerapps-flow-licensing-faq#power-platform-product-licensing>. Accessed 11.04.2024.
- Microsoft. (2024b). Optimize app or page load for peak performance. <https://learn.microsoft.com/en-us/power-apps/maker/canvas-apps/fast-app-page-load>. Accessed 19.05.2024. Accessed 19.05.2024.
- Microsoft. (2024c). UI/UX Design for Dynamics 365. <https://learn.microsoft.com/en-us/dynamics365/guidance/develop/introduction-customer-engagement-ui-ux-design-guide>. Accessed 18.04.2024.

Microsoft. (2024d). Overview of application lifecycle management with Microsoft Power Platform. <https://learn.microsoft.com/en-us/power-platform/alm/overview-alm>. Accessed 19.05.