

The fundamentals of the ubiquitous online shopping cart development  
and online ordering system

Tsegaye Beka Ture

Bachelor's Thesis

Degree program in Business Information Technology

March, 2014

Degree Program in Business Information Technology

March, 2014

<p>Author or authors</p> <p>Tsegaye Beka Ture</p>	<p>Group or year of entry 2009</p>
<p>Title of report</p> <p>The Fundamentals of the ubiquitous online shopping cart development and online ordering system</p>	<p>Number of report pages and attachment pages</p> <p>37+21</p>
<p>Teacher or supervisor</p> <p>Teemu Patala</p>	
<p>The term e-commerce was coined to denote electronic transaction that takes place over the Internet. E-commerce still blossoms despite the fact that the realm of the internet has revolutionized tremendously over since its early inauguration and launching as a novice acquisition introduction in the early 1990's, by leveraging the emergence of technological sophistications which can be considered as step forward to the digital era. Over the past decade or so, consumer confidence has continued to rise and more and more people are making purchases online.</p> <p>In this undergraduate dissertation work, I tried to develop an online ordering system in which customers can make purchases with and without the need for registration and generate revenue for owners of product items which can be considered as a platform for creating a credible, reliable and lucrative business empire .This is a small scale business transaction platform software application which is aimed to meet the scopes of the then undergraduate dissertation work and could be further developed and different features, functionalities and perspectives could be integrated to it to make it a large scale business transaction digital shopping mall.</p>	
<p>Keywords</p> <p>Online Ordering System, Online Shopping Cart, E-commerce, Online Web Store, Online Web Shop, Digital shopping mall.</p>	

# Table of Contents

Abstract .....	2
1. Abbreviations and Acronyms.....	4
2. Introduction.....	5
2.1 Back ground Information .....	5
2.2 The Conception of Online Ordering System .....	6
3. Project Objectives and Outlines of the Online Ordering System.....	7
3.1 Research plan and Work Flow Trends .....	8
3.2 Procedural Constraints and limitations.....	9
3.2.1 Technical constraints.....	9
3.2.2 Personal constraints and restrictions.....	10
4. Explanatory approach to the ubiquitous Online Ordering System .....	11
4.1 Existing Systems .....	11
4.2 The User Journey Algorithm Flow Chart.....	12
5. Database Design .....	15
5.1. MySQL Database Tables Create and Insert Sample Data Scripts .....	19
5.2 Inserting Some Sample Data.....	24
6. Coding the online ordering system.....	27
6.1 Adding the Item to the Cart.....	28
6.2 Displaying the Basket Summary .....	31
6.3 Checking It Out .....	32
6.4 Paying .....	33
6.5 Managing Completed Orders.....	34
6.6 Viewing a Specific Order.....	35
7. Summary .....	37
References .....	39
Attachments and Appendices.....	40
Attachment1, Program Codes Scripts of config.php file .....	40
Attachment2, Program Codes Scripts of db.php file.....	41
Attachment3, Program Codes Scripts of header.php file.....	42
Attachment 4, Cascading Style Sheet used for the Online Ordering System .....	44
Attachment5, Test Case Scenarios /Interview with ideal customers.....	51

## 1. Abbreviations and Acronyms

Terminology	Definition
PHP	Hyper Text Pre Processor
SQL	Sequential Query Language
HTTP	Hyper Text Transfer Protocol
HTML	Hyper Text Markup Language
E- Commerce	Electronic Commerce
FTP	File Transfer Protocol
HDD	Hard Disk Drive
IDE	Integrated Development Environment
IP	Internet Protocol
MAC	Media Access Control
DBMS	Database Management System
DDL	Data Definition Language
DML	Data Manipulation Language
WWW	World Wide Web
AI	Artificial Intelligence
CRUD	Create,Read,Update,Delete
URL	Universal Resource Locator
ROPL	Recognition of Prior Learning
CSS	Cascading Style Sheet
ARPANET	Advanced Research Projects Agency Network
LAN	Local Area Network
WAN	Wide Area Network
WLAN	Wireless Local Area Network

## **2. Introduction**

### **2.1 Back ground Information**

The notion of Internet was conceived in the late 1960s as a government research project to link computers together in a robust network. It was in 1957, when the then Soviet Union (Union of Soviet Socialist Republic, USSR) launched Sputnik, the first man-made satellite. Americans were shocked by the news. The Cold War was at its peak, and the United States and the Soviet Union considered each other enemies. If the Soviet Union could launch a satellite into space, it was possible it could launch a missile at North America. President Dwight D. Eisenhower created the Advanced Research Projects Agency (ARPA) in 1958 as a direct response to Sputnik's launch. ARPA's purpose was to give the United States a technological cutting edge leverage over other countries. One important part of ARPA's mission was computer science targeting control and hegemony over countries in the existing universe with ultimate preponderance and supremacy in terms of technological advancement and sophistication. Being pioneers in cyber presence and utilizing it predominantly and solely was part and parcel of the military dominance and security strategy. In the 1950s, computers were enormous devices that filled entire rooms. They had a fraction of the power and processing ability we can find in a modern PC. Many computers could only read magnetic tape or punch cards, and there was no way to network computers together. ARPA aimed to change that. It enlisted the help of the company Bolt, Beranek and Newman (BBN) to create a computer network. The network had to connect four computers running on four different operating systems. They called the network ARPANET. (Internet Society 2014).

Without ARPANET, the Internet wouldn't look or behave the way it does today. It might not even exist. Although other groups were working on ways to network computers, ARPANET established the protocols used on the Internet today. Moreover, without ARPANET, it may have taken many more years before anyone tried to find ways to join regional networks together into a larger system. An England man called Sir Timothy John "Tim" Berners-Lee invented the World Wide Web (WWW). He made a proposal for an information management system in March 1989 and he implemented the first successful

communication between a Hypertext Transfer Protocol (HTTP) client and server via the Internet sometime around mid-November.

As the internet evolved from this packet-switching experiment to a functional network capable of transferring information between computer systems, it became an important tool in academic institutions. Mosaic, one of the first web browsers that was released in 1993, changed the face of the internet forever by making the World Wide Web accessible to the ordinary person. World Wide Web celebrated its 25<sup>th</sup> anniversary in 2014.

## **2.2 The Conception of Online Ordering System**

Forward-thinking businessmen saw great potential in this new and growing medium and started advertising and selling their wares online. The term e-commerce was coined to denote electronic transactions that takes place over the Internet. E-commerce still blossoms despite the fact that the realm of the internet has revolutionized tremendously over since its early inauguration and launching as a novice introduction of technology and its acquisition, by leveraging the emergence of technological sophistications. Over the past decade or so, consumer confidence has continued to rise and more and more people are making purchases online. The shopping cart has come to be the ubiquitous e-commerce application since cyber conception to its actual physical presence. (New Media Institute 2014).

Hereby in this thesis, I will develop my own shopping cart application around which I can build up an e-commerce website for my own personal small business startup utilization. In order to develop the system, most commonly software developers will use a server-side scripting language which is PHP version 5 as a back end application since it is compatible to most of the servers available in the web. Cascading Style Sheet CSS3 will also be needed for styling purposes and HTML5 for creating forms. As for the back end, for the database application, software developers prefer MySQL 5 as it is widely used in most of the hosting sites and has an easy-to-use interface.

### **3. Project Objectives and Outlines of the Online Ordering System**

After looking at some popular e-commerce sites, I contemplated that my online ordering system or web store obviously needs some key features, looks and functionalities which are similar to the existing systems. It needs the ability for users to search for and browse products, within different categories. Visitors to the site obviously need to be able to purchase these products, which leads to the need for a shopping basket to store products the visitor intends to purchase and a checkout process to manage delivery details, tax calculations, delivery charge calculations, payment processing, and of course order management for administrators. The exception with regards to those features is eBay, which forgoes the need for a shopping basket; however, it contains provisions for watching items, automatically bidding for items, and with "Buy it now" making an instant purchase. The objective I am trying to achieve here is building up a startup project that has the potential to be further enlightened and transformed into a real world customer based small scale lucrative business empire. The project is intended of course to reveal the knowledge acquisition developed so far and the capability acquired as a degree holder in implementing the skills and proficiency procurement during the course took part of and participated into a software engineering development product, which in our case is an online ordering system. I have plans to launch this project into a medium scale personal business platform and on a long basis to transform it to a well-known transaction platform just like those currently available reputable ones like Amazon, eBay and the like, if my plans go smoothly as planned to accomplish the objective I set and successfully achieve the mission of this project.

I am planning to implement it mainly in Ethiopia, particularly in Addis Ababa where there is a better internet penetration and accessibility to the public. I will try to build upon at least the core features and functionalities which we see from the mean time existing web stores and the ubiquitous shopping cart applications.

### **3.1 Research plan and Work Flow Trends**

The mechanism pursued as a research methodology to get the background theory of this thesis project is literally investigating previous works by taking them as frame of reference and meticulously scrutinizing these available resources and literature recapitulation. This methodology consists of gathering theoretical knowledge, comprehensive and rigorous understanding of the appropriate and relevant concepts which have close relation and coherence as well as connection to this thesis project. The gathered knowledge will be comprised together to choose the right hypothetical architecture, design ,functionalities and features which are fairly simplified and easy to understand practical implementation particularly from usability point of view in regards to embracing a wide range of client groups from different intellectual backgrounds and experience. The empirical part of this thesis project will be carried out in the following steps: The first phase of this part will be suggesting the right development environments and platforms if somebody wants to use this thesis project to develop their own online shop by taking this work as step by step reference. The second phase consists of designing the database which mainly involves the user friendly PHP MyAdmin database interface by making use of XAMPP web and database server running (Apache and MySQL).

Designing the database encompasses writing the create database and table scripts and then writing the insert data scripts which will enable us to insert sample data into the database tables. The next phase will be writing the programming scripts and coding in profound explanatory details. The last phase of this thesis work will be demonstrating the practical outcomes acquired as a result of implementing the application. This will be showing screen shots of PrtScr or snipping tool captures of a counter example actual user transaction as well as flow chart algorithms.



## **3.2 Procedural Constraints and limitations**

I consider some minor constraints and drawbacks that might affect the successful accomplishment of this thesis work project. These limitations and constraints could be categorized in to two categories: technical and personal constraints.

### **3.2.1 Technical constraints**

This thesis project work is meant to be implemented in the world wide web in order to make it a really functioning online shop in which one can use it as a medium of transaction for small scale business and become lucrative as the project scope is enhanced to target a wide range of user groups and attract more and more clients addicted to the web page. On the basis of this could not publish it online and will be demonstrating a working model on a local host machine which will be my MacBook Pro using different browsers in order to show what it will look like when users hit the page from different browsers available out there.

The financial incapability to publish this web application on the internet is one constraint which I believe is a minor as I used my three months free trial subscription for web hosting service from Windows Azure and has expired. I know there are cheap web hosting services from Amazon, Go Daddy and from different companies, but I am not just secure enough spend. However I finally managed to get a small usage traffic and disk space as well as a few number of email accounts from a company which g provides free web hosting services.

### **3.2.2 Personal constraints and restrictions**

Accomplishing a planned project requires a painstaking and unstinting effort and sacrifice in terms of time, resource, knowledge and money. Regarding the technical skills for performing this project work requires extensive background in software development engineering and information technology aspects. Having said that, the technical proficiency I have acquired from the regular degree program outlines and course contents was not fairly sufficient to implement such a practical and widely used application. Personally I believe that if somebody acquires a sufficient knowledge and proficiency in a specific programming language, it won't be a mountain to climb task for one to work with a different programming language and achieve the desired result.

In the three and half years of my academic pursuit of wisdom and knowledge in Haaga-Helia University of Applied Sciences, I tried to acquire a profound background in software development engineering elements like using C# and SQL and I also pursued a year of professional specialization in PHP and MySQL from Arcada University Of Applied Sciences. And these courses were of massive importance and contributed immensely for the successful achievement of my thesis project work.

## 4. Explanatory approach to the ubiquitous Online Ordering System

E-commerce, or electronic commerce, is the sale and purchase of goods or services through electronic means which enables you to build your own lucrative business empire. In our case, this electronic means is the Internet. There are so many different applications of E-commerce on the Internet, including:

- Online shops selling products, such as Amazon (The largest online retailer), SportsDirect.com, Zalando, Verkkokauppa, TBDress.com
- Online auctions, such as eBay, Tori.fi, Huuto.net and Nettiauto.com.
- Online services/web services and payment systems such as PayPal, Master Card and Visa Card.
- E-commerce is an incredibly popular way of doing business. Let's have a brief view of those who are using e-commerce and what they are using it for.

### 4.1 Existing Systems

#### EBay

Born in 1995 when Pierre Omidyar, a computer programmer, wrote the code for an auction website he ran from his home computer. It is now a huge international online auction website with approximately 84 million active users worldwide. EBay users trade more than \$1,900 worth of goods per second! You can use it to buy virtually anything in a virtual shopping world.

#### Features

- Powerful search feature to find products
- Purchase products directly—"Buy it now"
- Bid for products/express interest in purchasing

- Make payments and manage orders

(Big Ambition 2014).

## Amazon

What began as Earth's biggest bookstore has become Earth's biggest everything store. Expansion has propelled Amazon.com in innumerable directions. While the website still offers millions of books, movies, games, and music, electronics and other general merchandise categories, including apparel and accessories, auto parts, home furnishings, health and beauty aids, toys, and groceries ring up more than 60% of sales. Shoppers can also download e-books, games, MP3s, and films to their computers or handheld devices, including Amazon's own portable e-reader, the Kindle. Amazon also offers products and services, such as self-publishing, online advertising, e-commerce platform, hosting, and a co-branded credit card.

## Features

On a basic level, Amazon.com provides the following features to its users:

- Browse and search for products
- Rate and review products
- Purchase products
- Make payments and manage orders
- Sell products through the Marketplace

(Hoovers.Amazon.com, Inc. Company Profile 2014).

## **4.2 The User Journey Algorithm Flow Chart**

Like any successful dynamic web site, an online shop requires planning and a data store of some sort, before jumping into the implementation and deployment of the application. These tasks include database design, program flow design, and resource planning, and so on. Primarily I designed the database using PHP MyAdmin to use for this thesis work,

then it is possible to skip the first step of categorizing and normalizing our shop data as it is not of massive importance and explanatory details as far as the scope of this thesis work is concerned. Hence we should move on to explaining the program flow, or user journey algorithm flow chart. The online shopping process starts with a customer surfing the internet and ends with the customer departing with some cash expenditure, which ends up in some businessman's or company's online account. The illustration below clearly shows the entire process from the start to the finish of a customer experience of the transaction process that takes place electronically via online shopping cart system which in our case is the generic system nomenclature online ordering framework.

(Gilmore,J.2008.385)

The figure that depicts the flow chart algorithm of the entire ordering system which is a pictorial presentation of what the stake holders of the system accomplish in their activity of purchase, selling and administration processes of this lucrative business empire if it is going to be built successfully. This basic shopping scenarios trend flow in speculation as contemplated for our online ordering system example looks like this:

- A user visits the online ordering system.
- The user browses the categories of product items.
- The user views the product details.
- The user adds products to the shopping basket.
- Users remove the added products which they are not interested in buying anymore.
- The user clicks to check out and pay or continue shopping.
- The customer receives an e-mail confirmation notice after the admin has confirmed the orders and accepted the payment.

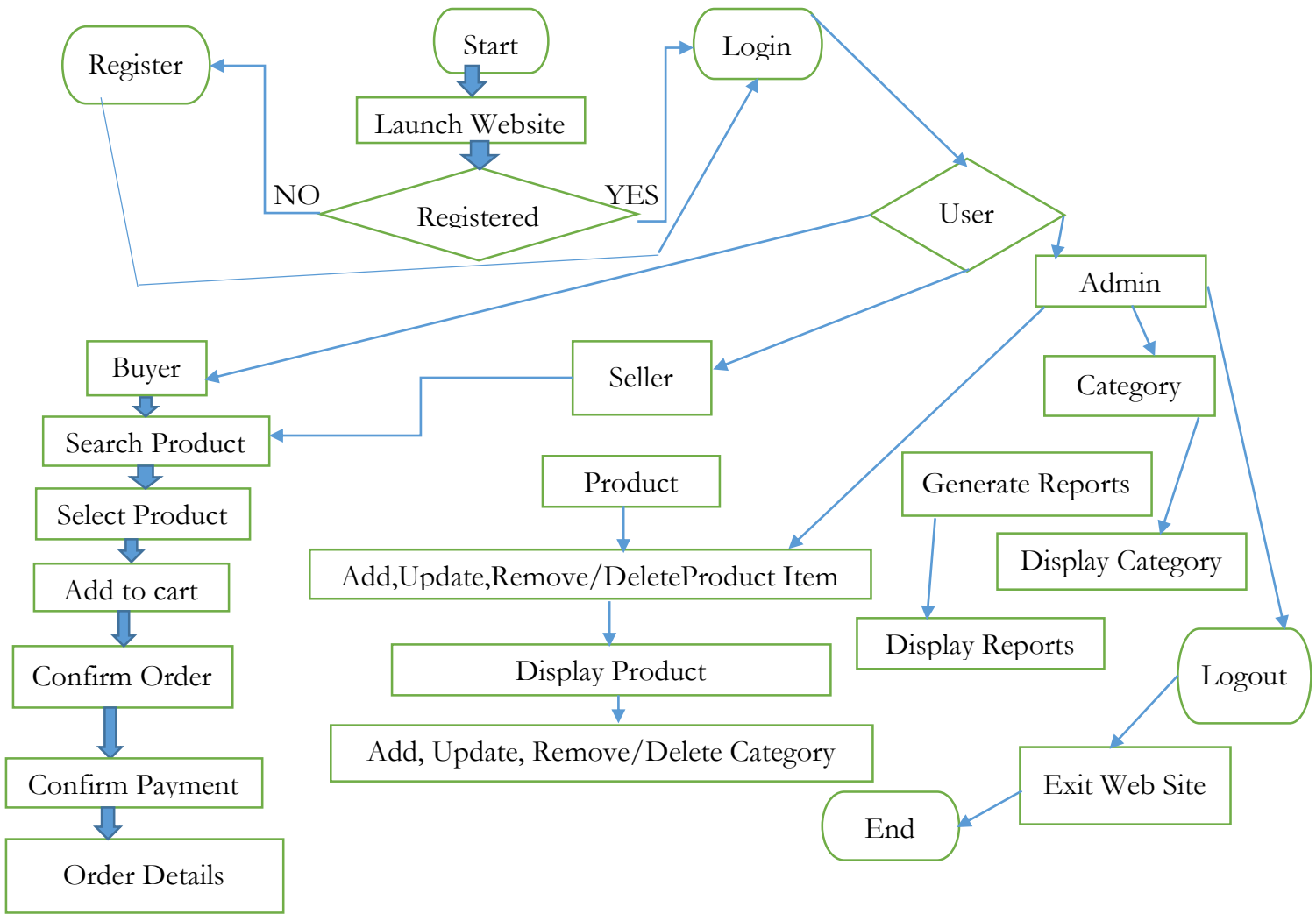


Figure 1. The User Journey Algorithm Flow Chart

(Powers.D.2007.275)

## 5. Database Design

This chapter of the thesis is of profound significance as it is the foundation building block for the crystal clear understanding of what this thesis project work is all about and for the smooth accomplishment of the project. The theoretical background and hypothetical design architecture of the user's journey as described in the previous section in the user journey flow chart algorithm are very much related to and spring boards for forming a case in this circumstance.

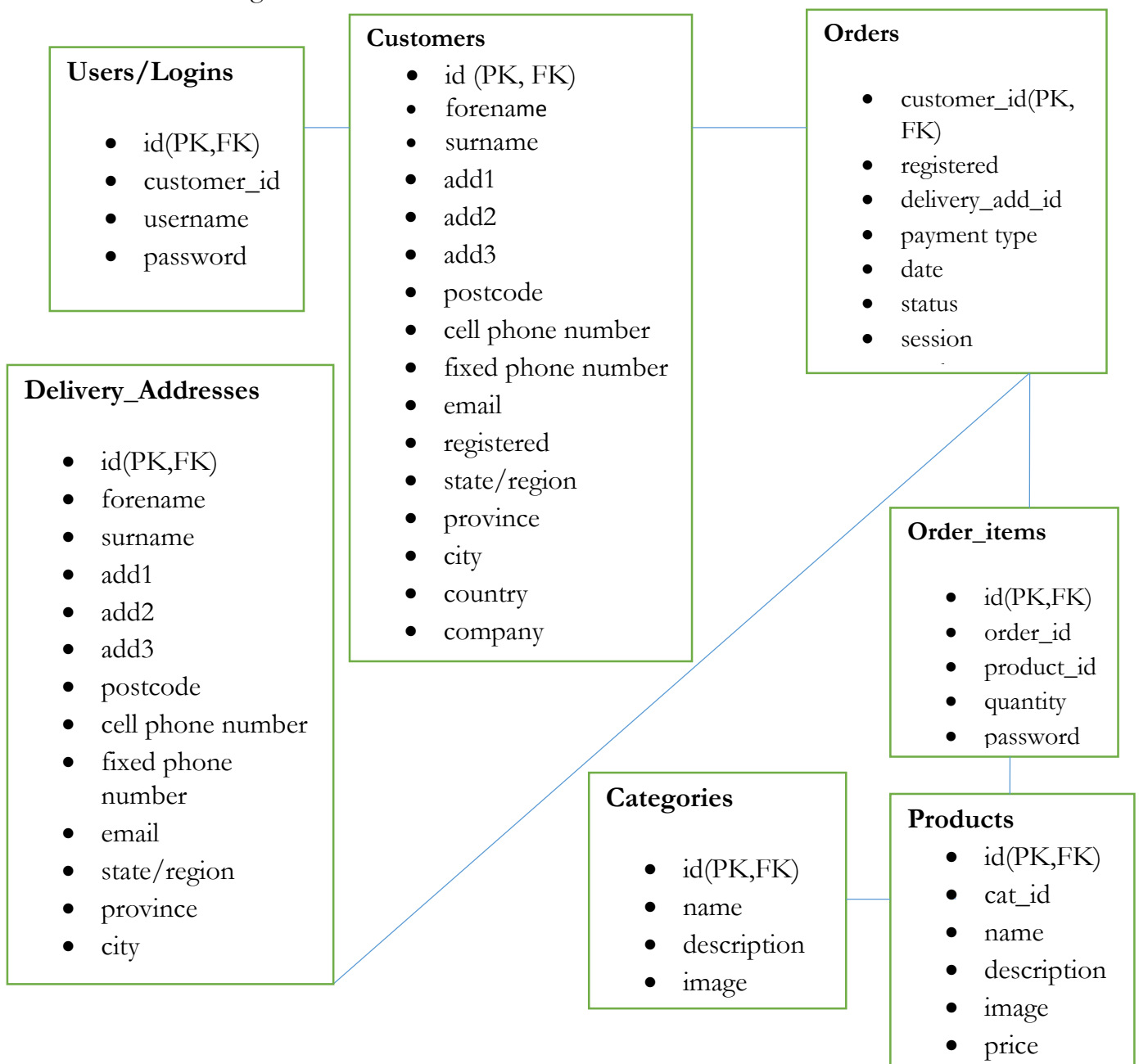


Figure 2. The Database schema revolves around the main orders table.

(Bacon.J.2002.345)

The database that is going to be created is shown in the following Figure 2. This entire project fundamentally hinges on orders stored in the **orders** table. This table relates to the **customers** (contains registered customer address details) and **Delivery\_Addresses** (contains unregistered and alternative addresses) tables. Each product (stored in the **products** table) in the order is stored in the **order\_items** table. Other tables include **logins** (stores the registered user's login details), **categories** (contains the categories that the products are part of), and **admins** (stores administrator login details).

Let's start phpMyAdmin and keep the database and web server XAMPP (provided that the latest version of both of them are installed on our computer), create a new database called **tsegayebekatureonlineorderingsystem**, and add the following tables: Always know your status. In the **orders** table is a field called status. The purpose of this field is to indicate at what status in the shopping cart the user has progressed. This field has four possible values:

- 0 The user is still adding items to his/her shopping cart.
- 1 The user has entered her address.
- 2 The user has paid for the item.
- 10 The administrator has confirmed the transaction and sent the item.

The **admins** Table

- Id. Make this a TINYINT (lots of users are possible) and turn on auto\_increment. Set this field as a primary key.
- Username. Make this a VARCHAR with a length of 12.
- Password. Make this a VARCHAR with a length of 24.

The **categories** Table

- Id. Make this a TINYINT (there will be few categories) and turn on Auto\_increment in the Extras column. Make this field a primary key.
- Name. Make this a VARCHAR and set the size to 100. (It is unlikely a category title will be longer than 100 letters.)



The *customers* Table

- Id. Make this an INT (lots of users are possible) and turn on Auto\_increment. Set this field as a primary key.
- Forename. Make this a VARCHAR with a length of 50.
- Surname. Make this a VARCHAR with a length of 50.
- add1. Make this a VARCHAR with a length of 50.
- add2. Make this a VARCHAR with a length of 50.
- add3. Make this a VARCHAR with a length of 50.
- Postcode. Make this a VARCHAR with a length of 10.
- Phone. Make this a VARCHAR with a length of 20.
- Email. Make this a VARCHAR with a length of 100.
- Registered. Make this a TINYINT.

The *Delivery\_Addresses* Table

- Id. Make this an INT (lots of users are possible) and turn on Auto\_increment. Set this field as a primary key.
- Forename. Make this a VARCHAR with a length of 50.
- Surname. Make this a VARCHAR with a length of 50.
- add1. Make this a VARCHAR with a length of 50.
- add2. Make this a VARCHAR with a length of 50.
- add3. Make this a VARCHAR with a length of 50.
- Postcode. Make this a VARCHAR with a length of 10.
- Phone. Make this a VARCHAR with a length of 20.
- Email. Make this a VARCHAR with a length of 100.

The **users / logins** Table

- Id. Make this an INT (lots of users are possible) and turn on Auto\_increment. Set this field as a primary key.
- customer\_id. Make this an INT.
- Username. Make this a VARCHAR with a length of 10.
- Password. Make this a VARCHAR with a length of 10.

The **orderitems** Table

- Id. Make this an INT (lots of items are possible) and turn on Auto\_increment. Set this field as a primary key.
- order\_id. Make this an INT.
- product\_id. Make this an INT.
- Quantity. Make this an INT.

The **orders** Table

- Id. Make this an INT (lots of orders are possible) and turn on Auto\_increment. Set this field as a primary key.
- customer\_id. Make this an INT.
- Registered. Make this an INT.
- delivery\_add\_id. Make this an INT.
- Payment type. Make this an INT
- Date. Make this a DATETIME.
- Status. Make this a TINYINT
- Session. Make this a VARCHAR and set the size to 50.
- Total. Make this a FLOAT.

The *products* Table

- Id. Make this an INT (lots of images are possible) and turn on Auto\_increment. Set this field as a primary key.
- cat\_id. Make this a TINYINT.
- Name. Make this a VARCHAR with a length of 100. It is likely there will be long product names.
- Description. Make this a TEXT.
- Image. Make this a VARCHAR and set the size to 30.
- Price. Make this a FLOAT.

(Jhonson.A.2009. 245)

### **5.1. MySQL Database Tables Create and Insert Sample Data Scripts**

In this section of this thesis, we are going to write the create database, database tables and insert data into database tables scripts. We can use stored procedures in order to save these scripts. As we have used PHP as the programming language, we are going to make use of the PHP MyAdmin Interface in order to design the database which we are going to be using for the entire application which could be considered as the backbone of the whole implementation of the designed application. Every transaction a user makes in the online ordering system is stored in these database tables including login credentials (Username and Password) of registered customers encrypted using MD5 and SHA1 random code generator algorithm for every character, products details table, categories of products table, users/customers table, orders table, administrators table as well as the ordered items table. (Morrison.M.2008.452)

The *admins* Table

```
CREATE TABLE admin
```

```
(  
  "id"          INT    NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  "username"    VARCHAR(100) NOT NULL,  
  "password"    VARCHAR(40) NOT NULL  
)  
ENGINE = InnoDB;
```

The *categories* Table

```
CREATE TABLE categories
```

```
(  
  "id"          TINYINT NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  "name"        VARCHAR(100) NOT NULL,  
)  
ENGINE = InnoDB;
```

The *customers* Table

```
CREATE TABLE customers
```

```
(  
  "id"          INT    NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  "forename"    VARCHAR(50) NOT NULL,  
  "surname"     VARCHAR(50) NOT NULL,  
  "add1"        VARCHAR(50) NOT NULL,  
  "add2"        VARCHAR(50) NOT NULL,  
  "add3"        VARCHAR(50) NOT NULL,  
  "postcode"    VARCHAR(10) NOT NULL,  
)
```

```

“phone”      VARCHAR(20) NOT NULL,
“email”      VARCHAR(150) NOT NULL,
“registered” TINYINT      NOT NULL,
“state/region”  VARCHAR(150) NOT NULL,
“city”        VARCHAR(150) NOT NULL,
“province”     VARCHAR(150) NOT NULL,
“country”     VARCHAR(150) NOT NULL,
“company”     VARCHAR(150) NOT NULL
)
ENGINE = InnoDB;

```

The *Delivery\_Addresses* Table

```

CREATE TABLE Delivery_Addresses
(
“id”          INT          NOT NULL AUTO_INCREMENT PRIMARY KEY,
“forename”   VARCHAR(50)  NOT NULL,
“surname”    VARCHAR(50)  NOT NULL,
“add1”       VARCHAR(50)  NOT NULL,
“add2”       VARCHAR(50)  NOT NULL,
“add3”       VARCHAR(50)  NOT NULL,
“postcode”   VARCHAR(10)  NOT NULL,
“Home phone number”  VARCHAR(20) NOT NULL,
“Cell phone number”  VARCHAR(150) NOT NULL,
)
ENGINE = InnoDB;

```

*The logins Table*

```
CREATE TABLE users/logins
```

```
(  
  "id"          INT NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  
  "customer_id" INT NOT NULL,  
  "username"    VARCHAR(100) NOT NULL,  
  
  "password"    VARCHAR(40) NOT NULL,  
)
```

```
ENGINE = InnoDB;
```

*The orderitems Table*

```
CREATE TABLE orderitems
```

```
(  
  "id"          INT NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  
  "order_id"    INT NOT NULL,  
  "product_id" INT NOT NULL,  
  "quantity"    INT NOT NULL,  
  
)
```

```
ENGINE = InnoDB;
```

The *orders* Table

CREATE TABLE *orders*

```
(
  "id"          INT NOT NULL AUTO_INCREMENT PRIMARY KEY,

  "customer_id" INT NOT NULL,
  "registered"  INT NOT NULL,
  "delivery_add_id" INT NOT NULL,
  "payment_type" INT NOT NULL,
  "date"        DATETIME NOT NULL,

  "status"      TINYINT NOT NULL,
  "session"     VARCHAR(100) NOT NULL,
  "total"       FLOAT NOT NULL,

)
ENGINE = InnoDB;
```

The *products* Table

CREATE TABLE **products**

```
(
  "id"          INT NOT NULL AUTO_INCREMENT PRIMARY
  KEY,

  "cat_id"      TINYINT NOT NULL,
  "name"        VARCHAR(150) NOT NULL,
  "description" TEXT NOT NULL,
  "image"       VARCHAR(30) NOT NULL,
```

“price”                      FLOAT                      NOT NULL

)

ENGINE = InnoDB;

## 5.2 Inserting Some Sample Data

With a solid set of tables ready to go, add some sample data to get started.

Remember, do not fill in a number in the id column; this is handled by Auto\_increment. Feel free to add your own sample data, or use the suggested information. (Morton.A.2002.445)

Table-1.Admins

id	username	password
1	Tsegesh	MD5(“Tsegesh2013#”)
3	Simiti	SHA1(“Simiti2013#”)
4	Netsanet	SHA1(“Netsanet2013#”)

Sample Data for the Admins Table.

Table-2.Categories

id	name
1	Laptops And Personal Computers
2	Foot wears And Costumes



Sample Data for the Categories Table

Sample Data for the *customers* Table

```
INSERT INTO customers ('id', 'forename', 'surname', 'add1', 'add2', 'add3',
'postcode', 'phone', 'email', 'registered')
VALUES
(NULL, 'Tsegaye Beka', 'Ture', 'Kitarakuja 1B,304,00420,Helsinki,Finland',
'Kurkisuontie 12D,00920,Helsinki,Finland', 'Kummati
25H,506,00520,Helsinki,Finland', '00420', '00920', '00520', '00358445665015',
'tsegbeka@yahoo.com', '1'),
(NULL, 'Simiti Abebe', 'Habtamu', 'Lintukorventie 15G,Espoo,Finland',
'Sitratie,24R,Helsinki,Finland', 'Hankasuontie 35L,Helsinki,Finland', '00570', '04830',
'09460', 'tsegayebekat0@gmail.com', '1');
```

Table-3.Customers

id	forename	surname	add1	add2	add3	postcode	phone	email	registered
1	Tsegaye	Ture	Tratie3E	Kit3	Tie7	00420	04456	@.com	1
2	Simiti	Abebe	Gratie8F	Hit6	Rie8	00940	04574	@.com	1

Sample Data for the *customers* Table

Sample Data for the *users/logins* Table

```
INSERT INTO 'tsegayebekatureonlineorder'. 'users/logins' ('id', 'customer_id',
'username', 'password')
```

VALUES

```
(NULL, '1', 'Tsegesh', SHA1('Tsegesh2013#')),  
(NULL, '2', 'Simiti', MD5('Simiti2013#'));
```

Table-4.UsersLogins

id	customer_id	username	password
1	1	Tsegesh	Tsegesh2013#
2	3	Simiti	Simiti2013#

Sample Data for the *products* Table

```
INSERT INTO products('id', 'cat_id', 'name', 'description', 'image', 'price')
```

VALUES

```
(NULL, '1', 'Best Teabags', 'A quality pack of tea bags.200 bags in each box',  
'teabages1.jpg', '2.99'),
```

```
(NULL, '2', 'Best Orange Juice', 'One gallon of quality squeezed orange juice. ',  
'bestorange-juice.jpg', '3.59');
```

Table-5.Products

id	cat_id	name	description	image	price
1	1	Best Teabags	A quality pack of tea bags.200 bags in each box	teabages1.jpg	2.99
2	2	Best Orange Juice	One gallon of quality squeezed orange juice	bestorange-juice.jpg	3.59

## 6. Coding the online ordering system

To get started, we will build a configuration file that stores generic information about the site. Let's create a new directory called *tsegayebekatureonlineorderingsystem* and let's add the following code shown in Codes-1 to config.php. Check Attachment1 at page for program code script details. To make life easier when dealing with redirects, create a file called db.php that contains just the database connection details, as shown in Codes-2. The db.php file will be included when we need a database connection but don't want to include it in header.php because of a redirect. Check Attachment2 at page for program code script details. Let's now create the header.php file usually known as the header section of a web page. This section commonly retains important information about the title of the web page and different menu links of the online ordering system in our case. Create *header.php* as shown in Codes-3. The header file adds the menu options, includes the sidebar, and adds some login/logout links. Check Attachment3 at page for program code script details. (Mikael. Olsson.2001, 534.PHP Quick Scripting Reference).The URL for the entire shopping cart application ordering system can be accessed at <http://tsegayebekature.comeze.com/>.

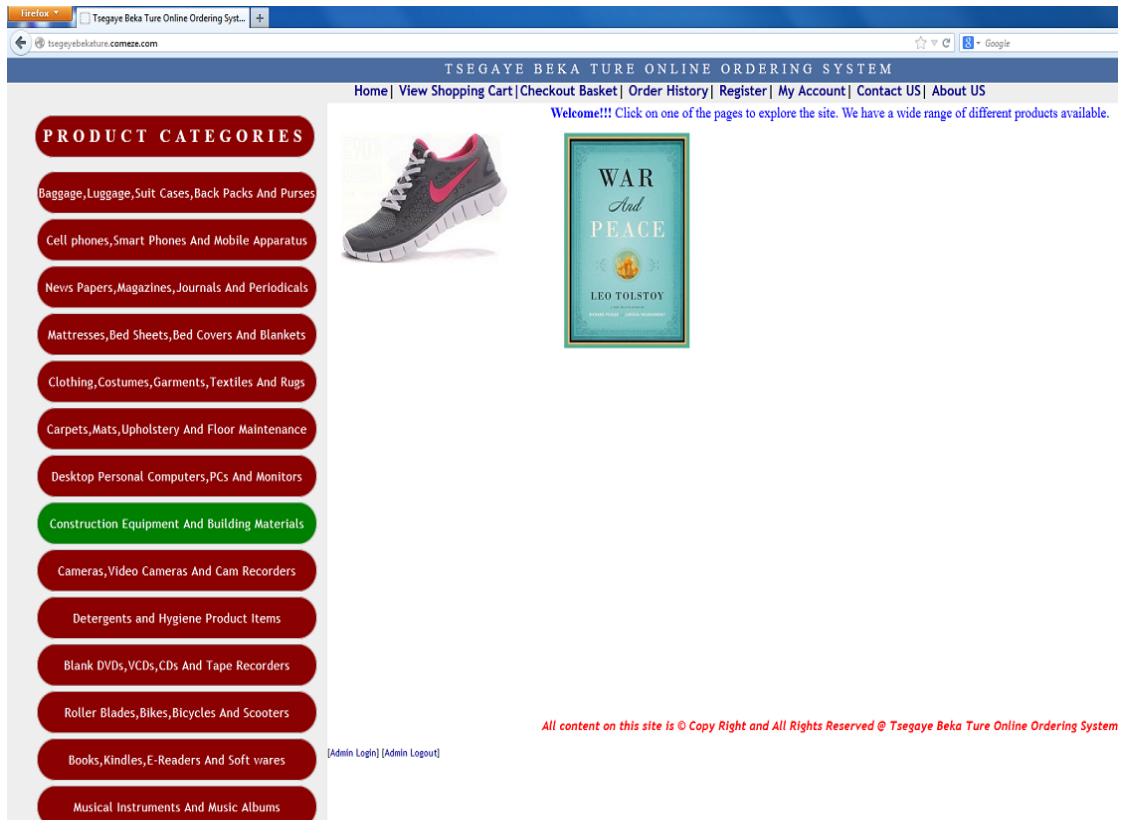


Figure 3. The main page provides a simple and clean interface for the shopping cart

### 6.1 Adding the Item to the Cart

The purpose of *addtobasket.php* is to add the selected item to the *orderitems* table and then redirect to a page that summarizes the items in the shopping cart. The *addtobasket.php* page is quite a large script with lots of nested if statements.

Firefox | Tsegaye Beka Ture Online Ordering Syst... | Tsegaye Beka Ture Online Ordering System

tssegayebekature.com/ecommerce/products.php?id=7

TSEGAYE BEKA TURE ONLINE ORDERING SYSTEM

Home | View Shopping Cart | Checkout Basket | Order History | Register | My Account | Contact US | About US

**PRODUCT CATEGORIES**

- Baggage, Luggage, Suit Cases, Back Packs And Purses
- Cell phones, Smart Phones And Mobile Apparatus
- News Papers, Magazines, Journals And Periodicals
- Mattresses, Bed Sheets, Bed Covers And Blankets
- Clothing, Costumes, Garments, Textiles And Rugs
- Carpets, Mats, Upholstery And Floor Maintenance
- Desktop Personal Computers, PCs And Monitors
- Construction Equipment And Building Materials
- Cameras, Video Cameras And Cam Recorders
- Detergents and Hygiene Product Items
- Blank DVDs, VCDs, CDs And Tape Recorders
- Roller Blades, Bikes, Bicycles And Scooters
- Books, Kindles, E-Readers And Soft wares
- Musical Instruments And Music Albums
- Lounges, Washers, Washboards And Dishes



**View Sonic VA2446M-LED 24-Inch LED-Lit LCD Monitor**

List Price: \$231.00 Price: \$149.99 & FREE Shipping. Details You Save: \$81.01 (35%) In Stock. Ships from and sold by Amazon.com. Want It Tuesday, Feb. 11? Order within 3 mins and choose Two-Day Shipping at checkout. Details Size: 24-Inch 24" (23.6 Vis) Full HD 1080p LED; 10M:1 Dynamic Contrast Ratio Integrated stereo speakers; 16:9 Aspect Ratio; Automatic Aspect Ratio Adjustment DVI and VGA Inputs (DVI cable not included) Energy Star and TCO Certified VESA mountable 100mm x 100mm

OUR PRICE: £345.55

[buy]

---



**HP ENVY 700-210 Desktop with Beats Audio by Hewlett Packard**

List Price: \$49.99 Price: \$28.64 & FREE Shipping on orders over \$35. Details You Save: \$21.35 (43%) In Stock. Ships from and sold by Amazon.com. Gift-wrap available. Want It Tuesday, Feb. 11? Order within 27 hrs 13 mins and choose One-Day Shipping at checkout. Details Color: Blueberry Incredible sound quality in a small footprint Connects wirelessly up to 30 feet away Works with all Bluetooth-enabled devices: smart phones, tablets and more Rechargeable for up to 4 hours of wireless play

OUR PRICE: £55.45

[buy]

All content on this site is © Copy Right and All Rights Reserved @ Tsegaye Beka Ture Online Ordering System

[Admin Login] [Admin Logout]



Figure 4 The Products Details and the completed Add to Basket scripts

## 6.2 Displaying the Basket Summary

When the *addtobasket.php* script has finished processing, the page redirects to *Showcart.php*. This page provides a summary of the items added to the shopping cart. Occasionally, we might need to display a summary of the items.

The screenshot shows the 'Your shopping cart' page of the Tsegaye Beke Ture Online Ordering System. The page features a navigation bar with links for Home, View Shopping Cart, Checkout Basket, Order History, Register, My Account, Contact US, and About US. A sidebar on the left lists various product categories, with 'Desktop Personal Computers, PCs And Monitors' highlighted in green. The main content area displays a table of items in the cart, including a Nokia BH 503 headphone, a Soviet Krane Jumper, a Londale 2 Piece Tracksuit, a Gibson Acoustic Guitar, a Nikon Coolpix P520 camera, a Patent Red Mickey Mouse Diaper Bag, an HP ENVY 700-210 Desktop, and a Kindle e-reader. The total price of the cart is £58228.60. A 'Go to the checkout' button is located at the bottom right of the cart table.

Items	Items Details	Quantity	Unit Price	Total Price	Remove Item
	Nokia BH 503 headphone with charger	1	£25.35	£25.35	[Remove]
	Soviet Krane Jumper	1	£8.25	£8.25	[Remove]
	Londale 2 Piece Tracksuit Set Infant Girls	100	£25.45	£2545.00	[Remove]
	Gibson Acoustic Guitar (Crown Special Blue) - 100% GENUINE	100	£165.35	£16535.00	[Remove]
	Nikon Coolpix P520 18.1MP Point-and-Shoot Digital Camera (Red)	100	£125.00	£12500.00	[Remove]
	Patent Red MICKEY MOUSE Diaper Bag by Storkisak	100	£75.45	£7545.00	[Remove]
	HP ENVY 700-210 Desktop with Beats Audio by Hewlett Packard	100	£55.45	£5545.00	[Remove]
	Kindle e-reader Wi-Fi, 6 Inch E Ink Display / Kindle	100	£135.25	£13525.00	[Remove]
TOTAL	TOTAL	TOTAL	TOTAL	£58228.60	

[Go to the checkout](#)

*All content on this site is © Copy Right and All Rights Reserved @ Tsegaye Beke Ture Online Ordering System.*

[\[Admin Login\]](#) [\[Admin Logout\]](#)

Figure 5. The shopping cart summary displays a current list of items and the ability to remove them.

### 6.3 Checking It Out

After the user has finished adding items to his shopping cart, the checkout process can begin. This process involves two steps:

- Prompt the user for a delivery address. If the user is already logged in, he should be asked if he wants to use the address he registered or use a different address. All addresses should be validated.
- Prompt the user to choose a payment method, either PayPal or a Cheque.

The screenshot displays the checkout process for the Tsegaye Beke Ture Online Ordering System. The page title is "TSEGAYE BEKA TURE ONLINE ORDERING SYSTEM". The navigation menu includes: Home | View Shopping Cart | Checkout Basket | Order History | Register | My Account | Contact US | About US.

On the left, there is a "PRODUCT CATEGORIES" sidebar with the following items:

- Baggage, Luggage, Suit Cases, Back Packs And Purses
- Cell phones, Smart Phones And Mobile Apparatus
- News Papers, Magazines, Journals And Periodicals
- Mattresses, Bed Sheets, Bed Covers And Blankets
- Clothing, Costumes, Garments, Textiles And Rugs
- Carpets, Mats, Upholstery And Floor Maintenance
- Desktop Personal Computers, PCs And Monitors
- Construction Equipment And Building Materials
- Cameras, Video Cameras And Cam Recorders
- Detergents and Hygiene Product Items
- Blank DVDs, VCDs, CDs And Tape Recorders
- Roller Blades, Bikes, Bicycles And Scooters
- Books, Kindles, E-Readers And Soft vares
- Musical Instruments And Music Albums

The main content area is titled "Add a delivery address". It contains two radio buttons: "Use the address from my account" (unselected) and "Use the address below:" (selected). Below this is a form with the following fields:

Forename	Tsegaye Beke
Surname	Ture
House Number, Street	Kitarakuja 1B,304
Town/City	Helsinki
County	Finland
Postcode	00420
Phone	+350445665015
Email	tsegbeka@yahoo.com

At the bottom of the form is a button labeled "Add Address (press only once)".

At the bottom of the page, there is a copyright notice: "All content on this site is © Copy Right and All Rights Reserved @ Tsegaye Beke Ture Online Ordering System" and two links: "[Admin Login] [Admin Logout]".



Figure 6. When the user is logged in, the radio buttons prompt users which address to use.

## **6.4 Paying**

The final part of the checkout process is to take payment. Dealing with payments on a Web site can take a variety of different routes: PayPal, Visa credit card, Master Card and more.

This project offers two payment methods: PayPal and Cheque. These two methods demonstrate how to deal with automatic (PayPal) and manual (Cheque) purchase. This simple form provides two Submit buttons only—one to pay by PayPal and the other to pay by Cheque. Our brand-new, home-grown payment screen should now resemble Figure 7.



Figure 7. The finished payment screen

## 6.5 Managing Completed Orders

The main administrator page shows the list of completed orders. The purpose of this page is to enable an admin to see which orders need products mailed. The admin can then create the package and confirm the order after it has been mailed. If all went well, the completed orders summary should look similar to the page shown Figure-8.

Firefox Tsegaye Beka Ture Online Ordering Syst... tsegeyebekature.comeze.com/adminorders.php

TSEGAYE BEKA TURE ONLINE ORDERING SYSTEM

Home | View Shopping Cart | Checkout Basket | Order History | Register | My Account | Contact US | About US

PRODUCT CATEGORIES

- Baggage, Luggage, Suit Cases, Back Packs And Purses
- Cell phones, Smart Phones And Mobile Apparatus
- News Papers, Magazines, Journals And Periodicals
- Mattresses, Bed Sheets, Bed Covers And Blankets
- Clothing, Costumes, Garments, Textiles And Rugs
- Carpets, Mats, Upholstery And Floor Maintenance
- Desktop Personal Computers, PCs And Monitors
- Construction Equipment And Building Materials
- Cameras, Video Cameras And Cam Recorders
- Detergents and Hygiene Product Items
- Blank DVDs, VCDs, CDs And Tape Recorders
- Roller Blades, Bikes, Bicycles And Scooters
- Books, Kindles, E-Readers And Soft wares
- Musical Instruments And Music Albums

Outstanding orders

[View]	Mon 17th March 2014 10.23AM	Non-Registered Customer	£1461.23	Cheque	Confirm Payment
[View]	Mon 17th March 2014 3.24PM	Non-Registered Customer	£1497220.00	Cheque	Confirm Payment
[View]	Tue 18th March 2014 2.12PM	Non-Registered Customer	£332.10	Cheque	Confirm Payment
[View]	Sat 22nd March 2014 1.24PM	Non-Registered Customer	£15579.00	Cheque	Confirm Payment
[View]	Sat 22nd March 2014 3.07PM	Non-Registered Customer	£4535.00	Cheque	Confirm Payment
[View]	Sat 22nd March 2014 3.14PM	Non-Registered Customer	£5535.00	Cheque	Confirm Payment
[View]	Sat 22nd March 2014 3.17PM	Non-Registered Customer	£2499.00	Cheque	Confirm Payment
[View]	Mon 24th March 2014 10.15PM	Non-Registered Customer	£2535.00	Cheque	Confirm Payment
[View]	Tue 25th March 2014 9.21AM	Non-Registered Customer	£137.85	Cheque	Confirm Payment
[View]	Tue 25th March 2014 6.22PM	Non-Registered Customer	£55.35	Cheque	Confirm Payment
[View]	Tue 25th March 2014 6.32PM	Non-Registered Customer	£5535.00	Cheque	Confirm Payment
[View]	Wed 26th March 2014 6.17AM	Non-Registered Customer	£7545.00	Cheque	Confirm Payment
[View]	Thu 27th March 2014 3.35AM	Non-Registered Customer	£7545.00	Cheque	Confirm Payment
[View]	Thu 27th March 2014 3.36AM	Non-Registered Customer	£42160.00	Cheque	Confirm Payment
[View]	Thu 27th March 2014 3.39AM	Non-Registered Customer	£22559.00	Cheque	Confirm Payment
[View]	Thu 27th March 2014 3.45AM	Non-Registered Customer	£60100.00	Cheque	Confirm Payment
[View]	Thu 27th March 2014 3.46AM	Non-Registered Customer	£31570.00	Cheque	Confirm Payment

Figure 8. Order Details and hierarchy of Outstanding Unconfirmed Orders

## 6.6 Viewing a Specific Order

For the administrator to get the postal address for a particular order, one needs to view the specific details for the order. This next page lists the order information (order number, address, products purchased, payment method, and so on). The completed page should look like the one shown in Figure-9.

Firefox | Tsegaye Beka Ture Online Ordering Syst... | tsegayebekature.com.et/adminorderdetails.php?id=6 | Google

TSEGAYE BEKA TURE ONLINE ORDERING SYSTEM

[Home](#) | [View Shopping Cart](#) | [Checkout Basket](#) | [Order History](#) | [Register](#) | [My Account](#) | [Contact US](#) | [About US](#)

**PRODUCT CATEGORIES**

- Baggage,Luggage,Suit Cases,Back Packs And Purses
- Cell phones,Smart Phones And Mobile Apparatus
- News Papers,Magazines,Journals And Periodicals
- Mattresses,Bed Sheets,Bed Covers And Blankets
- Clothing,Costumes,Garments,Textiles And Rugs
- Carpets,Mats,Upholstery And Floor Maintenance
- Desktop Personal Computers,PCs And Monitors
- Construction Equipment And Building Materials
- Cameras,Video Cameras And Cam Recorders
- Detergents and Hygiene Product Items
- Blank DVDs,VCDs,CDs And Tape Recorders
- Roller Blades,Bikes,Bicycles And Scooters
- Books,Kindles,E-Readers And Soft wares
- Musical Instruments And Music Albums

Order Details

[← go back to the main orders screen](#)

Order Number	6
Date of order	Mon 17th March 2014 10:23AM
Payment Type	Cheque
Address	Address from member account
Phone	
Email	

Products Purchased

	PRODUCT	QUANTITY	PRICE	TOTAL
		x	£0.00	£0.00
			TOTAL	£0.00

*All content on this site is © Copy Right and All Rights Reserved @ Tsegaye Beka Ture Online Ordering System*

[\[Admin Login\]](#) [\[Admin Logout\]](#)

Figure 9. The order summary in the admin interface

## 7. Summary

Within this thesis project, a number of different skills are tied together to create a consistent product. From the interviews I conducted with friends of mine who are studying and working in different educational institutions here in Finland gave me an encouragement and helped me immensely to visualize and understand the various range of potential customers in connection to the simplicity and complexity of their journey if they were happened to be actually purchasing items from my online ordering system. Most of them were constructive feedbacks and most of the dissatisfaction were about the density and crowdedness of the products items list collection and suggested for reorganization and also to try to embrace different current standard features and functionalities of online ordering system such as searching and image plugins effects.

Although I tried to scratch only the surface of the possible features, I8, could add to a shopping cart system, I developed the core functionality. I could make a huge range of possible additions, including the following besides the features that I added to the shopping cart core functionality I implemented, if I was not short of time and resources. The features and functionalities that could have encompassed could be enlisted as

- Send confirmation emails to the user and the admin when an order is complete
- Provide a random product box on the front page. This could be used to display an image of a product to attract users.
- Create a ratings system in which users can review a product.
- Create a comments and reviews system so that users can leave their thoughts on how effective a product is.
- Create sales reports.

- Order tracking system
- Photo Plugins of images like spin, flip and zoom views

The main goal of this thesis is to document the scenarios I experienced as a novice online ordering system developer. I could say that it was a challenging process but the reward was limitless as it enabled me to be the owner of a small scale simplicity guaranteed lucrative business empire which I prefer to call it online ordering system obtained as a result of exercising the skills acquired during the regular degree program studies. The acquisition of such extraordinary skills require effort and commitment.

## References

Welling.L.2002 PHP and MySQL Web Development, 3rd editions. Apress.

Gilmore.J.2008 Beginning PHP and MySQL from Novice to Professional, 4th editions.

West.A.2009 Practical PHP and MySQL Website Databases, 3rd editions. Apress.

Lengstorf.J.2006 PHP for Absolute Beginners, 2nd editions. Apress.

Olsson.M.2001 PHP Quick Scripting Reference, 3rd editions. Apress.

Powers.D.2005 PHP Solutions Dynamic Web Design Made Easy, 2nd editions. Apress.

Morrison.M.2008 Head First PHP and MySQL, 5th editions.

Morton.A.2003 Building Flickr Applications with PHP, first editions.

Hoovers.Amazon.com, Inc. Company Profile. URL:  
[http://www.hoovers.com/company-information/cs/company-profile.Amazoncom\\_Inc.ef53c3d095de033c.html](http://www.hoovers.com/company-information/cs/company-profile.Amazoncom_Inc.ef53c3d095de033c.html). Accessed: 11 Mrch 2014.

Internet Society. Brief History of the Internet. URL:  
<http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet>. Accessed: 11 March 2014.

New Media Institute. History of the internet. URL: <http://www.newmedia.org/history-of-the-internet.html>. Accessed: 11 March 2014.

Big Ambition. Your Digital Career Starts Here.

URL: <http://www.bigambition.co.uk/digital-careers/company-profiles/ebay/>.

Accessed: 11 March 2014.

## Attachments and Appendices

### Attachment1, Program Codes Scripts of config.php file

```
<!DOCTYPE html>
<Html>
<Head>
<Meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<!--<title><? Php echo $config_sitename ;?>< /title-->
<Title>Tsegaye Beka Ture Online Ordering System</title>
</head>
<Body>
<? Php
$dbhost = "localhost";
$dbuser = "root";
$dbpassword = "Tsegesh2013#";
$dbdatabase = "tsegayebekatureonlineorderingsystem";
$config_basedir = "http://localhost/TsegayeBekaTureOnlineOrderingSystem/";
$config_sitename = "Tsegaye Beka Ture Online Ordering System";
?>
</body>
</html>
```



## Attachment2, Program Codes Scripts of db.php file

```
<!DOCTYPE html>
```

```
<Html>
```

```
<Head>
```

```
<Meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
```

```
<Title>Tsegaye Beka Ture Online Ordering System</title>
```

```
</head>
```

```
<Body>
```

```
<? Php
```

```
Require ("config.php");
```

```
$db = mysql_connect ($dbhost, $dbuser, $dbpassword);
```

```
mysql_select_db ($dbdatabase, $db);
```

```
?>
```

```
</body>
```

```
</html>
```

### Attachment3, Program Codes Scripts of header.php file

```
<!DOCTYPE html>
<Html>
<Head>
<Meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<!--<title><? Php echo $config_sitename ;?>< /title-->
<Title>Tsegaye Beka Ture Online Ordering System</title>
<link href="Style/StyleSheet.css" rel="stylesheet">
</head>
<Body>
<? Php
session_start ();
If (isset ($_SESSION ['SESS_CHANGEID']) == TRUE)
{
session_unset ();
session_regenerate_id ();
}
Require ("config.php");
$db = mysql_connect ($dbhost, $dbuser, $dbpassword);
mysql_select_db ($dbdatabase, $db);
?>
<div id="header">
<h1><? Php echo $config_sitename ;?>< /h1>
</div>
```

```

<div id="menu">
<a href="<? Php echo $config_basedir ;?>"> Home</a> |
<a href="<? Php echo $config_basedir ;?> showcart.php">View Shopping Cart
Checkout Basket</a> |
<a href="<? Php echo $config_basedir ;?> orderhistory.php">Order History</a> |
<a href="<? Php echo $config_basedir ;?> register.php">Register</a> |
<a href="<? Php echo $config_basedir ;?> login.php">My Account</a> |
<a href="<? Php echo $config_basedir ;?> career.php">Careers</a> |
<a href="<? Php echo $config_basedir ;?> contact.php">Contact US</a> |
<a href="<? Php echo $config_basedir ;?> about.php">About US</a> |
</div>
<div id="container">
<div id="bar">
<? Php
Require ("bar.php");
Echo "<hr>";
If (isset ($_SESSION ['SESS_LOGGEDIN']) == TRUE)
{
Echo "Logged in as <strong>“. $_SESSION ['SESS_USERNAME']
. "</strong>
[<a href="“. $config_basedir
. "logout.php">logout</a>]";
}
Else
{
Echo "[<a href="
. $config_basedir. "login.php">Customer Login</a>]";
}

```

## Attachment 4, Cascading Style Sheet used for the Online Ordering System

/\*

Document : Cascading Style Sheet

Created on: 26.01.2014

Author : Tsegaye Beka Ture

Description:

Purpose of the stylesheet is to give aesthetic value and attractive look to the project just like cosmetics gives extra beauty to a woman.

\*/

Root

{

Display: block;

}

Body

{

Font-family: "trebuchet ms", verdana, sans-serif;

Font-size: 12px;

Line-height: 1.5em;

Color: #333;

Background: #ffffff;

Margin: 0;

Padding: 0;

Text-align: center;

Width: 100%;

}

#header

{

Position: absolute;

Top: 0px;

```
Left: 0px;
Height: 60px;
Width: 100%;
Background: #4b6c9e;
Padding-top: 8px;
}
#header h1
{
Font-size: 30px;
Text-transform: uppercase;
Letter-spacing: 0.3em;
Color: #fff;
Text-align: center;
}
#menu
{
Font-family: "trebuchet ms", verdana, sans-serif;
Font-size: 14px;
Font-weight: bold;
Position: absolute;
Height: 27px;
Top: 60px;
Left: 0px;
Width: 100%;
Padding: 0px;
Color: #000000;
Background-color: #eee
}
.myslides
{
Height: 0px;
```

```
Width: 0px;
Float: left;
Padding: 80px;
Margin-top: 10px;
Margin-left: 0px;
Position: relative;
Margin-right: 300px;
Margin-bottom: 0px;
}
P
{
Margin-top: 10px;
}
A: link
{
Text-decoration: none;
Color: dark blue;
}
A: visited
{
Text-decoration: none;
Border-bottom: 1px dotted #369;
Color: dark blue;
}
A: hover, a: active
{
Text-decoration: none;
Border-bottom: 1px solid #036;
Color: orangered;
}
#ProductsList
```

```
{  
List-style-type: none;  
Font-size: 14px;  
Font-weight: normal;  
}
```

Img

```
{  
Border: 0;  
}
```

#container

```
{  
Position: absolute;  
Top: 80px;  
Left: 0px;  
Background: #ffffff;  
Margin: 0 auto 0 auto;  
Text-align: left;  
Width: 100%;  
Height: 100%;  
}
```

#bar

```
{  
Float: left;  
Width: 250px;  
Background: #eee;  
Z-index: 1;  
Padding: 10px;  
Margin-right: 0px;  
Height: 100%;  
}
```

#bar h1

```

{
Font-size: 12px;
Text-transform: uppercase;
Letter-spacing: 0.3em;
}
Table
{
Border: thin solid #cccccc;
Background: #ffffff;
}
Th
{
Letter-spacing: 2.5px;
Background-color: #eeeeee;
Color: #000000;
Text-transform: uppercase;
Text-align: center;
Border-top: thick solid #eeeeee;
Border-bottom: thin solid #cccccc;
}
tr.head
{
Letter-spacing: 1.5px;
Background: #dddddd;
Color: #000000;
Text-transform: uppercase;
Border-top: thick solid #eeeeee;
Border-bottom: thin solid #cccccc;
}
tr.body
{

```



```
Background: #ffffff;
Color: #000000;
}
Td
{
Border: thin solid #cccccc;
Padding: 10px;
}
h1
{
Font-family: "trebuchet ms", verdana, sans-serif;
Color: dark blue;
Font-stretch: condensed;
Text-align: left;
}
h2
{
Font-family: "trebuchet ms", verdana, sans-serif;
Font: 16px bold;
Color: blue;
Font-stretch: condensed;
Text-align: left;
Margin-top: 0px;
}
h3
{
Font-family: "trebuchet ms", verdana, sans-serif;
Font: 14px bold;
Color: red;
Font-stretch: condensed;
Text-align: left;
```

```
}  
h4  
{  
  Font-family: "trebuchet ms", verdana, sans-serif;  
  Font: 12px bold;  
  Color: darkred;  
  Font-stretch: condensed;  
  Text-align: left;  
}  
h5  
{  
  Font-family: "trebuchet ms", verdana, sans-serif;  
  Font: 10px bold;  
  Color: darkorchid;  
  Font-stretch: condensed;  
  Text-align: left;  
}  
h6  
{  
  Font-family: "trebuchet ms", verdana, sans-serif;  
  Font: 8px bold;  
  Color: darkviolet;  
  Font-stretch: condensed;  
  Text-align: left;  
}
```

## Attachment5, Test Case Scenarios /Interview with ideal customers

<b>Potential Customer: Client 1</b>		
<b>How the interview was conducted</b>		
<p>I conducted the interview in my residence on a personal computer from local host machine as well as the one I published online in the net. I undertook the interview with friends of mine who study in different educational institutions in Helsinki and Espoo. The interviewees studies in different levels from undergraduate to PHD in Haaga-Helia University Of Applied Sciences, Helsinki University, and Aalto University.</p>		
<p><b>Explanation to the interviewees:</b> I am planning to develop an online shopping cart application which in my case, I prefer to name it as an online ordering system. I want to develop the application in such a way that customers get the features and functionalities that let them buy from this online shop in simple steps. So your opinion is very important for me to plan for a user friendly application. I appreciate your cooperation and your feedback will be kept confidential if you want it to be in that way.</p>		
Name: Anonymous, Age: 30 ,Profession: IT professional		
1	Question	How often do you make consumer transaction from online sellers?
	Answer	Seldom. Only when the seller is well known and trustworthy like Amazon, eBay and etc.
2	Question	Which are the online shops that you have bought from?
	Answer	<a href="http://www.ebay.com">www.ebay.com</a> , <a href="http://www.amazon.com">www.amazon.com</a>

3	Question	What do you think of my E-Commerce Website Tsegaye Beka Ture online ordering system?
	Answer	Well, I think your E-commerce web site looks pretty awesome and simple to understand.
4	Question	What didn't you like from my E-Commerce Web Site?
	Answer	Language problem, should be also in other languages other than English like Finnish, Amharic etc. As you are planning to implement it in your native country of origin.
5	Question	What did you like from my E-Commerce Web Site?
	Answer	The product categories list and product detail information are very organized and easy to read.

6	Question	Do you have suggestions of improvement from my E-Commerce Web Site?
	Answer	There is no big problem in it. Except for the Product Categories list on the right. I think you should try to arrange these Product Categories list in a more decent formalization.
7	Question	What concerns you have regarding the item that you buy from online?
	Answer	The product was not exactly as it was mentioned in the website, though it was written on the website that actual product can be different than what is mentioned in the website in some features and product description.

8	Question	What and how it concerns you most about the online shopping application/ website (e.g. secure payment, navigation)?
	Answer	Yes, secured, familiar company, simple and renowned website.
9	Question	What and how it concerns you most about the total online shopping system (e.g. decision making to buy online, delivery date, return policy)?
	Answer	Some products are not available in physical shop, some are in another country, which are not available in local market. Return policy within a month, good thing. Price is different in shop and in online. I have good experience in most of the online shopping as finding the products as described and did not return any items after delivery.
10	Question	Do you think people will make more shopping online?
	Answer	Yes

### **Potential Customer: Client 2**

#### **How the interview was conducted**

I conducted the interview in my residence on a personal computer from local host machine as well as the one I published online in the net. I undertook the interview with friends of mine who study in different educational institutions in Helsinki and Espoo. The interviewees studies in different levels from undergraduate to PHD in Haaga-Helia University Of Applied Sciences, Helsinki University, and Aalto University.

**Explanation to the interviewees:** I am planning to develop an online shopping cart application which in my case, I prefer to name it as an online ordering system. I want to develop the application in such a way that customers get the features and functionalities that let them buy from this online shop in simple steps. So your opinion is very important for me to plan for a user friendly application. I appreciate your cooperation and your feedback will be kept confidential if you want it to be in that way.

Name: Anonymous, Age: 25, Profession: Student

1	Question	How often do you make consumer transaction from online sellers?
	Answer	Sometimes, only when I get products that are of object of interest to me
2	Question	Which are the online shops that you have bought from?
	Answer	<a href="http://www.tori.fi">www.tori.fi</a> , <a href="http://www.groupon.fi">www.groupon.fi</a> , <a href="http://www.nettiauto.com">www.nettiauto.com</a> , <a href="http://www.kaplan.co.uk">www.kaplan.co.uk</a>
3	Question	What do you think of my E-Commerce Website Tsegaye Beka Ture online ordering system?
	Answer	I like your E-commerce web site. Especially the look, the color coding and the general implementation is magnificent.
4	Question	What didn't you like from my E-Commerce Web Site?
	Answer	The formalization of the products categories lists is not visible enough to distinguish the different categories and should be re arranged to avoid the suffocation of the lists.

5	Question	What did you like from my E-Commerce Web Site?
	Answer	Pretty satisfied, well directed, navigation and organized. Above all pretty awesome to understand for most people.
6	Question	Do you have suggestions of improvement from my E-Commerce Web Site?
	Answer	As I said earlier there is no massive problem in your E-commerce approach, however the products list implementation needs to modify.
7	Question	What concerns you have regarding the item that you buy from online?
	Answer	Secure payment, Privacy, Are the information going to be public, or stealing/embezzlement of my properties by third party.
8	Question	What and how it concerns you most about the total online shopping system (e.g. decision making to buy online, delivery date, return policy)?
	Answer	Payment System Security, Delivery methods and concerns of delay as well as the credibility of the Web Site.
9	Question	Do you think people will make more shopping online?
	Answer	Of course. There will be more people purchasing online in this digital world in the future as the number of people who gets exposure to similar environments escalates.
10	Question	Anything else you want to comment about?

Answer	Concerning your E-commerce Web site as far as the scope of the thesis is concerned, you have a pretty good implementation. However in the future I suggest you could integrate world standard features as searching.
--------	--

<b>Potential Customer: Client 3</b>		
<b>How the interview was conducted</b>		
<p>I conducted the interview in my residence on a personal computer from local host machine as well as the one I published online in the net. I undertook the interview with friends of mine who study in different educational institutions in Helsinki and Espoo. The interviewees studies in different levels from undergraduate to PHD in Haaga-Helia University Of Applied Sciences, Helsinki University, and Aalto University.</p>		
<p><b>Explanation to the interviewees:</b> I am planning to develop an online shopping cart application which in my case, I prefer to name it as an online ordering system. I want to develop the application in such a way that customers get the features and functionalities that let them buy from this online shop in simple steps. So your opinion is very important for me to plan for a user friendly application. I appreciate your cooperation and your feedback will be kept confidential if you want it to be in that way.</p>		
Name: Anonymous, Age: 38 ,Profession: PhD researcher		
1	Question	How often do you make consumer transaction online?
	Answer	Frequently, if I find products that interest me.
2	Question	Which are the online shops that you have bought from?
	Answer	<a href="http://www.giganti.fi">www.giganti.fi</a> , <a href="http://www.ebay.com">www.ebay.com</a> , <a href="http://www.verkokauppa.com">www.verkokauppa.com</a>



3	Question	What do you think of my E-Commerce Website Tsegaye Beka Ture online ordering system?
	Answer	The implementation of the E-Commerce Web site you chose is cool. Especially the simplicity and the random images displayed in the home page of the site is cool.
4	Question	What didn't you like from my E-Commerce Web Site?
	Answer	Obviously the product categories list looks jammed and needs a little re organization.
5	Question	What did you like from my E-Commerce Web Site?
	Answer	The look, the simplicity of implementation and the images displayed randomly in the home page.
6	Question	Do you have suggestions of improvement from my E-Commerce Web Site?
	Answer	If you could make the images displayed randomly on the home page clickable and take the buyer to a list of product items in the same category.
7	Question	What concerns you have regarding the item that you buy from online?
	Answer	The payment system sometimes make me feel that my credit card's details is going to be hacked and handed over to a third party.

8	Question	What and how it concerns you most about the total online shopping system (e.g. decision making to buy online, delivery date, return policy)?
	Answer	Delivery time is not fixed, tracking information free shipping, not applicable for Finland, time consuming sometimes.
9	Question	Do you think people will make more shopping online?
	Answer	I have a strong expectation that it will grow rapidly as people develop confidence with the credibility of the online retailers/resellers.
10	Question	Anything else you want to comment about?
	Answer	Details of size in 3d, cartoon and more descriptive image plugins and more currently existing E-commerce standards implementation for your E-commerce Site as per further development.

**Potential Customer: Client 4**

**How the interview was conducted**

I conducted the interview in my residence on a personal computer from local host machine as well as the one I published online in the net. I undertook the interview with friends of mine who study in different educational institutions in Helsinki and Espoo. The interviewees studies in different levels from undergraduate to PHD in Haaga-Helia University Of Applied Sciences, Helsinki University, and Aalto University.

**Explanation to the interviewees:** I am planning to develop an online shopping cart application which in my case, I prefer to name it as an online ordering system. I want to develop the application in such a way that customers get the features and functionalities that let them buy from this online shop in simple

steps. So your opinion is very important for me to plan for a user friendly application. I appreciate your cooperation and your feedback will be kept confidential if you want it to be in that way.

Name: Anonymous, Age: 30 ,Profession: software developer

1	Question	How often do you make consumer transaction online?
	Answer	I usually buy my clothing and consumer electronics products online whenever I find them interesting.
2	Question	Which are the online shops that you have bought from?
	Answer	<a href="http://www.ebay.com">www.ebay.com</a> , <a href="http://www.amazon.com">www.amazon.com</a> , <a href="http://www.gigantti.fi">www.gigantti.fi</a> , <a href="http://www.tbress.com">www.tbress.com</a>
3	Question	What do you think of my E-Commerce Website Tsegaye Beka Ture online ordering system?
	Answer	The looks and the simplicity of the implementation of the E-commerce Web Site are awesome.
4	Question	What didn't you like from my E-Commerce Web Site?
	Answer	The product lists organization looks stifled in a densely populated manner and not appreciable as far as clarity and legibility is concerned.

5	Question	What did you like from my E-Commerce Web Site?
	Answer	The random display of images in the front page of the E-Commerce, Online Ordering System as well as the simple interface are the ones that caught my eyes.

6	Question	Do you have suggestions of improvement from my E-Commerce Web Site?
	Answer	As the scope of the thesis is further expanded. I think you need to add various features like search, image visualization plugins as well as suggestions based on the frequency of the clicking that shows the interest a consumer has showed towards a specific product item.
7	Question	What concerns you have regarding the item that you buy from online?
	Answer	Security concerns me most and there are other factors that comes next to that such as delivery delays and concerns on the quality of the product items described on the web page and mismatch with the actual product item actually delivered.
8	Question	What and how it concerns you most about the total online shopping system (e.g. decision making to buy online, delivery date, return policy)?
	Answer	Some products are not available in physical shop, some are in another country, which are not available in local market. Return policy within a month, good thing as well as dimensions and quality mismatch between the product item advertised online in the E-Commerce Web Site and the actual item delivered.
9	Question	Do you think people will make more shopping online?
	Answer	Yes, of course as more people are exposed to the digital world.
10	Question	Anything else you want to comment about?
	Answer	Faster Delivery and Shipping, secured payment system and credibility of the company are concerns and paranoia.

