

# ***SOFTWARE REQUIREMENTS SPECIFICATION***

## **Software Engineering [CS361]**

**Documentation**

**Andreas Prodromou**

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## REVISION CHART

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**This chart contains a history of this document's revisions and the people who made this. Contains the date we starter and the date we finish. The entries below are provided solely for purposes of illustration and brief description in section and content.**

Version	Primary Authors	Description of Version	Date Starter	Date Completed
Documentation	Andreas Prodromou	Documentation about the website Electronics Online Store and summary of functions	19/11/2021	06/01/2022

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# 1.INTRODUCTION

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## Overview of the entire document

### 1.1 Purpose

The purpose of this document is to analytically explain and show how the project is going to work, the necessary steps needed to be done for the project to be completed and the tools that are going to be used. Also, the other purpose is to make it easier for the costumer to understand each step of the project.

### 1.2 Scope

The main most important functionalities that our software is going to have is the User Management, Order Management and Product Management. User management will provide us with the functionality of adding a new user, modifying, and deleting an existing user. The purpose of Orders management is to receive the order from the designated list, edit the order, show us a description of the order, and accept or decline the order. Last but most important is the Product management functionalities.

### 1.3 Definitions, Acronyms, and Abbreviations

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### 1.4 References

Explanations and information that we received throw the class.

From (CS361) Software Engineering Lectures

From notes in the classroom

Under the guidance of the teacher

### 1.5 Overview

In the following Sections (2) we will, describe the general factors that affect the product and its requirements, and it will contain some background information. (3) It should describe all software requirements at a sufficient level of detail for designers to design a system satisfying the requirements and testers to verity that the system satisfies requirements.

## **2. OVERALL DESCRIPTION**

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General factors that can affect the product are the employees, the hardware interfaces such as Mail server, web server and internet connection between the customers/servers and software.

### **2.1 Product Perspective**

The product will be independent and self-contained. The admins will be in charge of managing the products, ordering the products and inserting the products in the system.

#### **2.1.1 System Interfaces**

Our System Interface will be including the object/tools below:

- Combobox
- Labels
- Textboxes
- Checkboxes and more.

#### **2.1.2 User Interfaces**

Our system will have the following Main Functions:

- User Management
- Report Management
- Orders Management
- Customer Service Management
- System Overall Settings
- Product Management

#### **2.1.3 Hardware Interfaces**

- Mail Server
- Cloud/Web based Server

- Printer for Reports

### 2.1.4 Software Interfaces

For the proper functioning of the system the following products are required:

A/A	Product Name	Version	Source	Description
1.	Microsoft Windows	XP or newer	<a href="http://www.microsoft.com">http://www.microsoft.com</a>	Operating System
2.	MacOS	OS X or newer	<a href="http://www.apple.com">http://www.apple.com</a>	Operating System
3.	PhpMyAdmin	V4 or newer	<a href="https://www.phpmyadmin.net">https://www.phpmyadmin.net</a>	Administration of Data Bases
4.	MySQL	V5 or newer	<a href="http://www.mysql.com">http://www.mysql.com</a>	Data Base
5.	Brave	All Version	<a href="https://www.brave.com">https://www.brave.com</a>	Web Browser
6.	Opera	All Versions	<a href="https://www.opera.com">https://www.opera.com</a>	Web Browser
7.	Mozilla Firefox	All Versions	<a href="http://www.mozilla.com/firefox">http://www.mozilla.com/firefox</a>	Web Browser
8.	Safari	All Versions	<a href="https://www.apple.com/safari/">https://www.apple.com/safari/</a>	Web Browser
9.	Microsoft Edge	All Versions	<a href="http://www.microsoftedge.com">http://www.microsoftedge.com</a>	Web Browser
10.	Google Chrome	All Versions	<a href="http://www.google.com">http://www.google.com</a>	Web Browser

### 2.1.5 Communications Interfaces

The system will need the following interfaces to communicate:

- Servers
- Internet Connection



### **2.1.6 Memory Constraints**

The minimum amount of RAM the website will need to function properly is 1gb.

### **2.1.7 Operations**

- After a certain period of time, the system will disconnect the User and the User will have to re-log in to avoid someone else from using his account.
- Data collection will be used in order to create a report.
- A 24hour backup will be available in order to have a recovery if a problem arise.

### **2.1.8 Site Adaptation Requirements**

- Internet Access
- Computer with the minimum system requirements to be able to run the software
- Print for executing Reports and statements
- Creating new rooms for training and for product management
- Server for data backup and recovery

## **2.2 Product Functions**

Providing a List of the website's main functions.

### **2.2.1 User Management**

- Add a new user
- Modify an existing user
- Delete an existing user

### **2.2.2 Report Management**

- Generate a report
- Summary of the report
- Print report

### **2.2.3 Orders Management**

- Receive the order from the designated list
- Edit the order
- Description of the order
- Accept or decline the order

### **2.2.4 Customer Service Management**

- Choose Type of complain
- Edit complain
- Send complain
- Preview of the complain/show chat
- Choose how to communicate

### **2.2.5 System Overall Settings**

- View current settings
- Edit Settings

### **2.2.6 Product Management**

- View Products
- Add a new Product
- Modify an existing Product
- Delete an existing Product
- Create Comparison
- View Compare List
- Modify Comparison
- Delete Comparison

## **2.3 User Characteristics**

Friendly and Patient

## **2.4 Constraints**

- Taxes
- Country shipping availability
- Payment methods
- Hardware limitations
- Legal constraints, different regulations that the project must comply with.

### 3. SPECIFIC REQUIREMENTS

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This section describes all software requirements

#### 3.1 External Interface Requirements

##### 1. Users Management:

###### **Purpose:**

This group of functions will be responsible for adding a new user into the system, modify the information of an existing user and delete an existing user when necessary.

###### **Source of Input:**

Administrators will add the information of new users and determine their access level. They will also be responsible to modify and delete existing users.

###### **Destination of Output:**

User information will be used in other subsystems of the overall system. User data can be inserted in reports, screens, log files, historical execution data etc.

###### **Valid range, accuracy, and/or tolerance:**

The system shall be able to notify users when an error occurs. Such errors may include missing fields and wrong input for certain types of fields.

###### **Timing:**

The system will be independent so there are no time delays during this functionality.

###### **Screen formats:**

Forms for input and output of information will be simple and easy to use. Forms will have graphical elements (e.g., menus, toolbars, buttons etc.) as well as textual information.

**Data formats:**

- Input: Insert Data using textboxes and checkboxes
- Output: Data will appear on the screen in different forms or labels.

**2. Report Management:**

**Purpose:**

This group of functions will be responsible for generating a report, viewing the summary of the report, and printing it.

**Source of Input:**

The administrator will add the information necessary for the report such as, date, type of report etc. He will then be able to view the report and print it.

**Destination of Output:**

Report information will be used in other important matters of the system/company such as log files, report analysis and many more.

**Valid range, accuracy, and/or tolerance:**

The system shall be able to notify the admin or the person responsible for the reports, for any abnormality about the information of the reports and for the current state of the company such as growth on sales, visits in the system etc.

**Timing:**

The system will be independent so there are no time delays during this functionality.

**Screen formats:**

Forms for input and output of information will be simple and easy to use. Forms will have graphical elements (e.g., menus, toolbars, buttons etc.) as well as textual information.

**Data formats:**

- Input: Insert Data using textboxes and checkboxes
- Output: Data will appear on the screen in different forms or labels.

### **3. Orders Management:**

#### **Purpose:**

This group of functions will be responsible for showing the orders that have been completed or the order saved from the orders list, editing the order, viewing the summary of the order, and confirming or canceling of the order.

#### **Source of Input:**

The system will store the order made by the user in the Orders List and will create a unique Order id. The user will be able to add a product in his order list or delete a product and then after inserting his credentials confirm or cancel the order.

#### **Destination of Output:**

Information of the user orders can and will be used in many other subsystems such as in reports, log files, massive execution data etc.

#### **Valid range, accuracy, and/or tolerance:**

The system must be able to send an error to the user, notifying him when an error happens such as missing amount of money for the order completion or for any invalid field.

#### **Timing:**

The system will be independent so there are no time delays during this functionality.

#### **Screen formats:**

Forms for input and output of information will be simple and easy to use. Forms will have graphical elements (e.g., menus, toolbars, buttons etc.) as well as textual information.

**Data formats:**

- Input: Insert Data using textboxes and checkboxes
- Output: Data will appear on the screen in different forms or labels.

**4. Customer Service Management**

**Purpose:**

This group of function will be responsible for choosing the type of complain, editing and sending the complain. It will also be capable of having a preview of the complain as also the way the user is going to communicate.

**Source of Input:**

The user will proceed to fill the necessary checkboxes (type of problem, way of communication such as email, live chat) to speak with the authorized person.

**Destination of Output:**

Customer service information will be used in other subsystems of the overall system. Data can be inserted in reports, screens, log files, historical execution data etc.

**Valid range, accuracy, and/or tolerance:**

The system shall be able to notify the admin when a new customer service occurs.

**Timing:**

The system will be independent so there are no time delays during this functionality.

**Screen formats:**

Forms for input and output of information will be simple and easy to use. Forms will have graphical elements (e.g., menus, toolbars, buttons etc.) as well as textual information.

**Data formats:**

- Input: Insert Data using textboxes and checkboxes
- Output: Data will appear on the screen in different forms or labels.

**5. System Overall Settings:**

**Purpose:**

This group of functions will be responsible for viewing the current settings of the user and modifying the settings

**Source of Input:**

The user will proceed and change his settings like language, currency etc. throw checkboxes.

**Destination of Output:**

User setting can be used in user report analysis for estimating the most user preferences.

**Valid range, accuracy, and/or tolerance:**

The system shall be able to notify the user that his settings have changed.

**Timing:**

The system will be independent so there are no time delays during this functionality.

**Screen formats:**

Forms for input and output of information will be simple and easy to use. Forms will have graphical elements (e.g., menus, toolbars, buttons etc.) as well as textual information.



**Data formats:**

- Input: Insert Data using textboxes and checkboxes
- Output: Data will appear on the screen in different forms or labels.

**6. Product Management:**

**Purpose:**

This group of functions will be responsible for the function of view, add, modify, delete a product by the administrator. It will also be responsible for creating a comparison between products, saving a compared products list, viewing, modifying, and deleting the list by the user.

**Source of Input:**

The User can search for a specific product name or type, select to be entered in an already created list or create a new list. The admin can enter a new product giving the necessary information and then entering the product in the system.

**Destination of Output:**

Product information as well product compared and products list be the user will be used in other subsystems of the overall system. User data can be inserted in reports, screens, log files, historical execution data etc.

**Valid range, accuracy, and/or tolerance:**

The system shall be able to notify users and admins when an error occurs. Such errors may include missing fields and wrong input for certain types of fields.

**Timing:**

The system will be independent so there are no time delays during this functionality.

**Screen formats:**

Forms for input and output of information will be simple and easy to use. Forms will have graphical elements (e.g., menus, toolbars, buttons etc.) as well as textual information

**Data formats:**

- Input: Insert Data using textboxes and checkboxes
- Output: Data will appear on the screen in different forms or labels.

### 3.1.1 User Interfaces

#### 1. Main Menu:

#	Title	Functionality	Users
1	Home	Button: View the homepage	All
2	Users	Button: View the User Section	User/Admin
3	Reporting	Button: View the Reports Section	Admin
4	Orders Management	Button: View the Orders Section	User
5	Customer Service	Button: View the Customer Service Section	User
6	System Settings	Button: View the Settings Section	User
7	Product Management	Button: View the Product Section	User/Admin
8	Exit	Button: User exits the system	All

**2. Users Management Menu:**

#	Title	Functionality	Users
1	Add a New User	Button: Add a New User	Admin
2	Modify an Existing User	Button: Edit an Existing User	Admin
3	Delete an Existing User	Button: Delete an Existing User	Admin

**3. Report Management Menu:**

#	Title	Functionality	Users
1	Generate Report	Button: Create a Report	Admin
2	Summary of the Report	Button: View the information of the Report	Admin
3	Print Report	Button: Print the Report	Admin

**4. Orders Management Menu:**

#	Title	Functionality	Users
1	Show the Orders	Button: Show Orders from list	User
2	Edit the order	Button: Edit the order	User
3	Description of the order	Button: View information about the order	User

4	Checkout	Button: Accept or Decline the order	User
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**5. Customer Service Management Menu:**

#	Title	Functionality	Users
1	Choose Type of complain	Button: Select type of complain	User
2	Edit complain	Button: Edit complain	User
3	Send complain	Button: Send the current Complain	User
4	Preview of the complain/show chat	Button: View the chat log	User/Admin
5	Choose how to communicate	Button: Choose type of communication	User

**6. System Overall Settings Menu:**

#	Title	Functionality	Users
1	View current Settings	Button: View your settings	User
2	Edit Settings	Button: Change your settings	User

**7. Product Management Menu:**

#	Title	Functionality	Users
1	View Products	Showcase the products	User/Admin
2	Add a new Product	Button: Insert a new Product	Admin
3	Modify an existing Product	Button: Edit an existing Product	Admin
4	Delete an existing Product	Button: Delete an existing Product	Admin
5	Create Comparison	Button: Create comparison between products	User
6	View Compare List	Button: View Compare List	User
7	Modify Comparison	Button: Edit Comparison List	User
8	Delete Comparison	Button: Delete Comparison List	User

**FUNCTIONALITIES OF PAGES:**

This sub-function shows the functionality of each page.

**Login:**

#	Title	Functionality	Users
1.	Username	Textfield: User inserts a username	All
2.	Password	Textinput: User inserts a password	All
3.	Remember	Checkbox: User saves password	All
4.	Forgot Password	Link: Redirect to Retrieve password	All
5.	Login	Button: The system checks if the data are correct. The user enters the system.	All

**Register:**

#	Title	Functionality	Users
1.	Name	Textfield: User inserts his name	All
2.	Surname	Textfield: User inserts his surname	All
3.	Username	Textfield: User inserts his username	All
4.	Password	Textfield: User inserts his password	All
5.	Email	Textfield: User inserts his email	All

**User Information:**

#	Title	Functionality	Users
1.	Data of birth	Checkbox: User selects date of birth	All
2.	Country	Checkbox: User selects Country	All
	City	Textfield: User inserts his city	All
3.	Address	Textfield: User inserts his address	All
4.	Passcode	Textfield: User inserts his passcode	All
5.	Payment method	Checkbox: User selects his payment method	All
6.	Payment details	Textfield: User inserts his payment method details	All

### 3.1.2 Hardware Interfaces

- **PC/Laptop/Tablets/Smart Phones:**

**Purpose:** This hardware devices will be used by the system's users.

**Input forms:** Fill in the forms

**Output forms:** Display results and data

- **Printer:**

**Purpose:** This device will print reports

**Input forms:** Screen forms

**Output forms:** Printed document

### 3.1.3 Software Interfaces

Operating System: Windows 7 or later, MacOS, Linux

Web browser: Chrome, Opera, Mozilla Firefox, Edge, Safari

Databases: MySQL, PhpMyAdmin

### 3.1.4 Communications Interfaces

**Server:**

**Purpose:** The server will be used b the system for interacting with the database

**Input:** System

**Output:** Database

## **3.2 Software Product Features**

### **3.2.1 Users Management**

#### **3.2.1.1 Purpose**

This feature is responsible for adding an new user into the system, modifying the information of an existing user or deleting an existing user

#### **3.2.1.2 Stimulus/Response Sequence**

The Users function will be triggered as soon as the administrator clicks on the Users Management button in the main menu. The administrator will then be redirected to the User's Management page where he/she will be able to choose one of the following functionalities.

#### **3.2.1.3 Associated Functional Requirements**

##### **3.2.1.3.1 ADD A NEW USER**

###### *3.2.1.3.1.1 Introduction*

The administrators of the system will be able to add new users to the system.

###### *3.2.1.3.1.2 Inputs*

The data will be inserted in the system from the administrators only.

##### **Input fields:**

Name

Surname

Username

Password

Email



#### *3.2.1.3.1.3 Processing*

The system processes the user's personal information.

#### *3.2.1.3.1.4 Outputs*

The new user is created by the system.

### **3.2.1.3.2 MODIFY EXISTING USER**

#### *3.2.1.3.2.1 Introduction*

The user has the ability his personal information after creating his/her account.

#### *3.2.1.3.2.2 Inputs*

The user the EDIT button and then makes modifications to his/her personal information.

#### *3.2.1.3.2.3 Processing*

The system processes the modified personal information and then applies the changes.

#### *3.2.1.3.2.4 Outputs*

The modified personal information is displayed to the user.

### **3.2.1.3.3 DELETE EXISTING USER**

#### *3.2.1.3.3.1 Introduction*

The system will give the ability to the user to delete his personal account.

#### *3.2.1.3.3.2 Inputs*

The user clicks the DELETE button to DELETE his personal account.

#### *3.2.1.3.3.3 Processing*

The system will delete the user's personal account.

#### *3.2.1.3.3.4 Outputs*

The user's account will be successfully deleted from the system.

## **3.2.2 Orders Management**

### **3.2.2.1 Purpose**

This function is responsible for getting a new order from the orders list, giving the ability to the user to edit his order, then showing him a description of his order and then the ability to accept or decline the order.

### **3.2.2.2 Stimulus/Response Sequence**

The Orders function will get stimulated as soon as the User clicks on the Orders Management button. The user will then be redirected to the Order's Management page where he will be able to choose one of the functionalities below:

### **3.2.2.3 Associated Functional Requirements**

#### **3.2.2.3.1 SHOW THE ORDERS**

##### *3.2.2.3.1.1 Introduction*

The system will show the orders, based on the combination of the User id and the Order id made by the system previously when it was saved in the database.

##### *3.2.2.3.1.2 Inputs*

The system will generate a unique Order id and then store the order made by the user in the Orders List.

##### *3.2.2.3.1.3 Processing*

The system will find the user's order, based on the User id with the Order id of that user.

##### *3.2.2.3.1.4 Outputs*

The system will show to the user his order.

#### **3.2.2.3.2 EDIT THE ORDER**

##### *3.2.2.3.2.1 Introduction*

The user will be able to edit his order.

##### *3.2.2.3.2.2 Inputs*

The user can modify his order by adding or removing items.

##### *3.2.2.3.2.3 Processing*

The system will update the price by adding or removing the items that the user selected from the order.

#### *3.2.2.3.2.4 Outputs*

The user's edited order will be displayed by the system.

### **3.2.2.3.3 DESCRIPTION OF THE ORDER**

#### *3.2.2.3.3.1 Introduction*

The user will see a summary of his order, including the price, on the screen.

#### *3.2.2.3.3.2 Inputs*

The user can press and see order summary

#### *3.2.2.3.3.3 Processing*

The summary will be available from the system.

#### *3.2.2.3.3.4 Outputs*

The summary will be displayed to the user by the system.

### **3.2.2.3.4 CHECKOUT**

#### *3.2.2.3.4.1 Introduction*

After viewing the summary, the user will have the option to confirm the order and send it to the Client or cancel it and remove it from the list.

#### *3.2.2.3.4.2 Inputs*

The user can either accept or reject the order.

#### *3.2.2.3.4.3 Processing*

The system will:

Accept –The order to the client, who will prepare it.

Cancel –Remove the order from the list of orders and do not send it to the client.

#### *3.2.2.3.4.4 Outputs*

Accept – Confirmation of the order.

Cancel – Cancellation of the order.

## **3.2.3 Reports Management**

### **3.2.3.1 Purpose**

This feature is in charge of creating a new report, displaying a summary of the report, and printing the report on paper. Only the system administrator has access to this feature.

### **3.2.3.2 Stimulus/Response Sequence**

When the administrator clicks the Reports Management button in the main menu, the Reports function is activated. The administrator will then be able to view a report generated by the system and, if desired, print it out on paper.

### **3.2.3.3 Associated Functional Requirements**

#### **3.2.3.3.1 GENERATE A REPORT**

##### *3.2.3.3.1.1 Introduction*

The administrator will select the report to be generated, and the report will be created.

##### *3.2.3.3.1.2 Inputs*

The administrator will select "generate report" from the drop-down menu.

##### *3.2.3.3.1.3 Processing*

To generate the report, the system will collect data.

##### *3.2.3.3.1.4 Outputs*

The report will be generated and displayed.

#### **3.2.3.3.2 SUMMARY OF THE REPORT**

##### *3.2.3.3.2.1 Introduction*

A report summary will be available from the system.

##### *3.2.3.3.2.2 Inputs*

The report summary will be requested by the administrator.

##### *3.2.3.3.2.3 Processing*

The administrator's request will be processed by the system.

#### *3.2.3.3.2.4 Outputs*

The administrator will see a summary of the report.

### **3.2.3.3.3 PRINT REPORT**

#### *3.2.3.3.3.1 Introduction*

The report will be able to be printed on paper by the administrator.

#### *3.2.3.3.3.2 Inputs*

The administrator will choose to print the report on paper.

#### *3.2.3.3.3.3 Processing*

The system will communicate with the printer.

#### *3.2.3.3.3.4 Outputs*

The report will be printed on the paper.

## **3.2.4 Customer Service Support**

### **3.2.4.1 Purpose**

This function is responsible to help the customer to contact with the support team and functionalities of this function is to choose a type of complain, editing a complain and send the complain they have. Also they can see the preview of the complaint and can choose how to communicate with the department of the services support.

### **3.2.4.2 Stimulus/Response Sequence**

When the user clicks the customer service support button in the main menu, they be redirected to the support page where they will be able to choose how to can communicate with us and send us the complain they have, also they will be able to choose one of the functionalities below.

### **3.2.4.3 Associated Functional Requirements**

### **3.2.4.3.1 CHOOSE TYPE OF COPLAIN**

#### *3.2.4.3.1.1 Introduction*

The system will provide a form for the user to choose the type of complain.

#### *3.2.4.3.1.2 Inputs*

The user clicks the customer service button.

#### *3.2.4.3.1.3 Processing*

The system will create a Complain form.

#### *3.2.4.3.1.4 Outputs*

The system will have the form ready to be filled by the user.

### **3.2.4.3.2 EDIT COMPLAIN**

#### *3.2.4.3.2.1 Introduction*

The user will be able to edit his complain.

#### *3.2.4.3.2.2 Inputs*

The user can modify his complain by rewriting what he wrote on the complaint, adding more text and can put more evidence.

#### *3.2.4.3.2.3 Processing*

The system will wait to accept the edited complain and transfer to service support.

#### *3.2.4.3.2.4 Outputs*

The user can save the edited complain.

### **3.2.4.3.3 SEND COMPLAIN**

#### *3.2.4.3.3.1 Introduction*

The user can send the complaint in the service support team.

#### *3.2.4.3.3.2 Inputs*

The user presses the button to send the complaint.

#### *3.2.4.3.3.3 Processing*

The complaint will be sent from the user to the service support.

#### *3.2.4.3.3.4 Outputs*

The service support will receive the complaint from the user send.

### **3.2.4.3.4 PREVIEW OF THE COMPLAIN**

#### *3.2.4.3.4.1 Introduction*

The system will provide a form of the chat between the user and the support team.

#### *3.2.4.3.4.2 Inputs*

The user/admin will click on “show log chat” button.

#### *3.2.4.3.4.3 Processing*

When the user/admin presses the button, the system goes to the chat log database and retrieves the chat, and then shows it the user/admin.

#### *3.2.4.3.4.4 Outputs*

It Shows the chat log back to the user/admin.

## **3.2.5 Product Management**

### **3.2.5.1 Purpose**

This function is responsible for viewing the product, adding a new product, modifying, and deleting an existing product. It’s also responsible for creating a comparison between products, viewing a compare list, modifying, and deleting a comparison.

### **3.2.5.2 Stimulus/Response Sequence**

When the user clicks the Products button in the main menu, then they be redirected to the product page where they will be able to choose one of the subfunctions of the product management which are showed below.

### **3.2.5.3 Associated Functional Requirements**

#### **3.2.5.3.1 VIEW ALL PRODUCTS**

##### *3.2.5.3.1.1 Introduction*

The system will provide a form with the products that the site provides.

#### *3.2.5.3.1.2 Inputs*

The user clicks the view all products button.

#### *3.2.5.3.1.3 Processing*

The system will retrieve the data from the products database.

#### *3.2.5.3.1.4 Outputs*

The system will show the products to the user.

### **3.2.5.3.2 ADD A NEW PRODUCT**

#### *3.2.5.3.2.1 Introduction*

The admin will be able to add a new product that doesn't exist in the system.

#### *3.2.5.3.2.2 Inputs*

The admin will have to enter the corresponding information for the product.

#### *3.2.5.3.2.3 Processing*

The system will check if there is any error and then if everything is okay it will proceed to adding a product.

#### *3.2.5.3.2.4 Outputs*

The products will be added into the database.

### **3.2.5.3.3 MODIFY AN EXISTING PRODUCT**

#### *3.2.5.3.3.1 Introduction*

The admin will be able to edit an existing product.

#### *3.2.5.3.3.2 Inputs*

The admin will have to enter the new edited information about the existing product.

#### *3.2.5.3.3.3 Processing*

The system will check if there is any error and then if everything is okay it will proceed to change the existing product.

#### *3.2.5.3.3.4 Outputs*

The system will integrate the changes of the product.



#### **3.2.5.3.4 DELETE AN EXISTING PRODUCT**

##### *3.2.5.3.4.1 Introduction*

The admin can delete an existing product from the database/site.

##### *3.2.5.3.4.2 Inputs*

The admin selects the product he wants to delete and proceeds to click the delete button.

##### *3.2.5.3.4.3 Processing*

The system asks the admin if he is sure about delete the product, and if yes it proceeds to delete it.

##### *3.2.5.3.4.4 Outputs*

The System proceeds to delete the selected product.

#### **3.2.5.3.5 CREATE COMPARISON**

##### *3.2.5.3.5.1 Introduction*

The user has the ability to select 2 or more products of the same category to be compared.

##### *3.2.5.3.5.2 Inputs*

The user selects the products he wants to compare.

##### *3.2.5.3.5.3 Processing*

The system will check if the products are of the same category and then creates a compare form of the selected products.

##### *3.2.5.3.5.4 Outputs*

The system shows the compare form to the user.

#### **3.2.5.3.6 VIEW COMPARE LIST**

##### *3.2.5.3.6.1 Introduction*

The user can click on the appropriate button to view the compared list of products he has created.

##### *3.2.5.3.6.2 Inputs*

The user clicks the Compared list button.

#### *3.2.5.3.6.3 Processing*

The system retrieves the saved compares list from the database

#### *3.2.5.3.6.4 Outputs*

The system shows a list of the saved compared lists.

### **3.2.5.3.7 MODIFY COMPARE LIST**

#### *3.2.5.3.7.1 Introduction*

The user has the ability to edit an existing compare list.

#### *3.2.5.3.7.2 Inputs*

The user clicks the edit list button.

#### *3.2.5.3.7.3 Processing*

The system will check the changes on the existing list that is being edited and then implement them.

#### *3.2.5.3.7.4 Outputs*

The system will show the new edited list.

### **3.2.5.3.8 DELETE COMPARE LIST**

#### *3.2.5.3.8.1 Introduction*

The user can delete an existing compare list.

#### *3.2.5.3.8.2 Inputs*

The user clicks on the Delete list button.

#### *3.2.5.3.8.3 Processing*

The system will read what list is selected to be deleted and delete it from the database.

#### *3.2.5.3.8.4 Outputs*

The system will show the new compare list.

### 3.3 Performance Requirements

The requirements of the times performance are outlines below indicating an upper limit for the response times of specific functions:

<b>Functions</b>	<b>Time(s)</b>
<b>Search</b>	<b>3</b>
<b>Retrieve data</b>	<b>5</b>
<b>Display reports</b>	<b>5</b>
<b>Add data</b>	<b>3</b>
<b>Delete data</b>	<b>3</b>
<b>Login</b>	<b>3</b>
<b>Payment Methods</b>	<b>6</b>
<b>Compare</b>	<b>2</b>
<b>Customer Service</b>	<b>5</b>

### 3.4 Design Constraints

The system will display error messages upon occurrence of certain errors and success messages in cases where smooth execution was observed. The interaction between user and then website will be easy, and no technical skills will be required. GUI will be user friendly with understandable texts and preview of functions where is needed.

### 3.5 Software System Attributes

#### 3.5.1 Reliability

The system will be thoroughly tested for errors so that a high level of reliability is achieved.

#### 3.5.2 Availability

In the case of an error or malfunction all data shall be available on the system's server and shall be recovered easily.

### **3.5.3 Security**

The system will provide security as only registered and authenticated users will have access to the system's database or the server

### **3.5.4 Maintainability**

Documentation files for all phases of the product development life cycle will be available. These files will provide a clear explanation of how the website was designed and how the website works. The system will be scalable and will support the addition of extra functionalities.

### **3.5.5 Portability**

The system will be a website, so it can be used from any device with connection to the internet.

## **3.6 Logical Database Requirements**

- data frequency of use
- data accessing
- data entities
- data relationships
- data constraints
- data retention

## **3.7 Other Requirements**

Fast Internet, Buildings, Staff, Laundries for clean space and keep the machines clean and backup

## 4. SPECIFICATIONS DIAGRAMS

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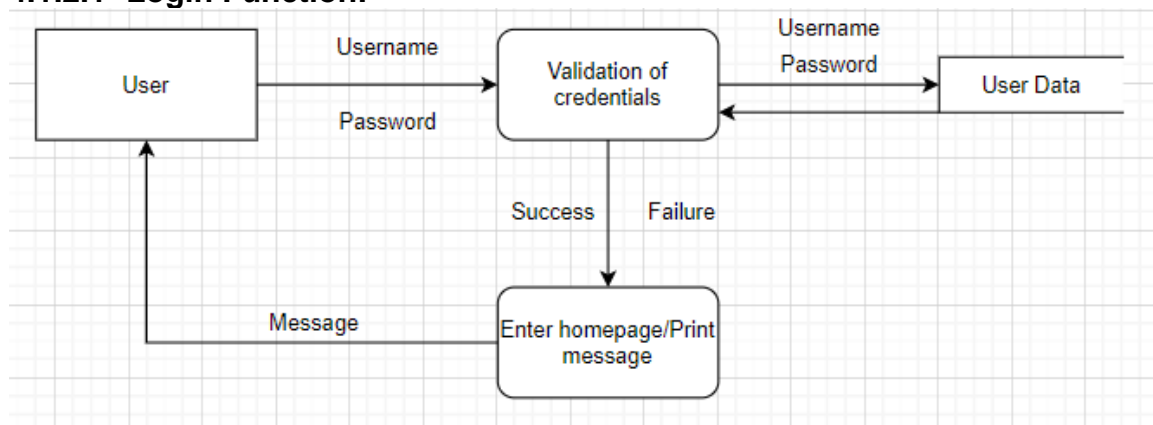
### 4.1 Data Flow Diagrams

#### 4.1.1 Purpose and Intended audience:

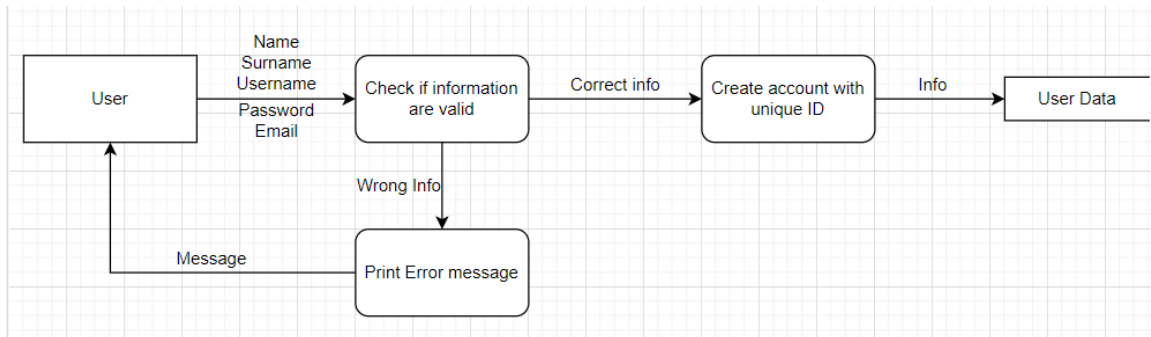
The purpose of this specification and its intended audience is to make is easily understandable for the customer and users on how the below functions work and show the way information flows through a process or system. It visually represents systems and processes that would be hard to describe in a chunk of text.

#### 4.1.2 Detailed Functions:

##### 4.1.2.1 Login Function:

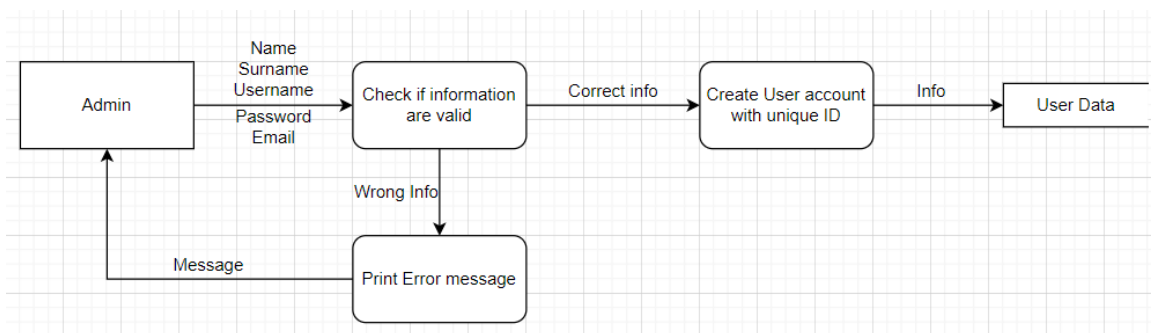


#### 4.1.2.2 Register Function:

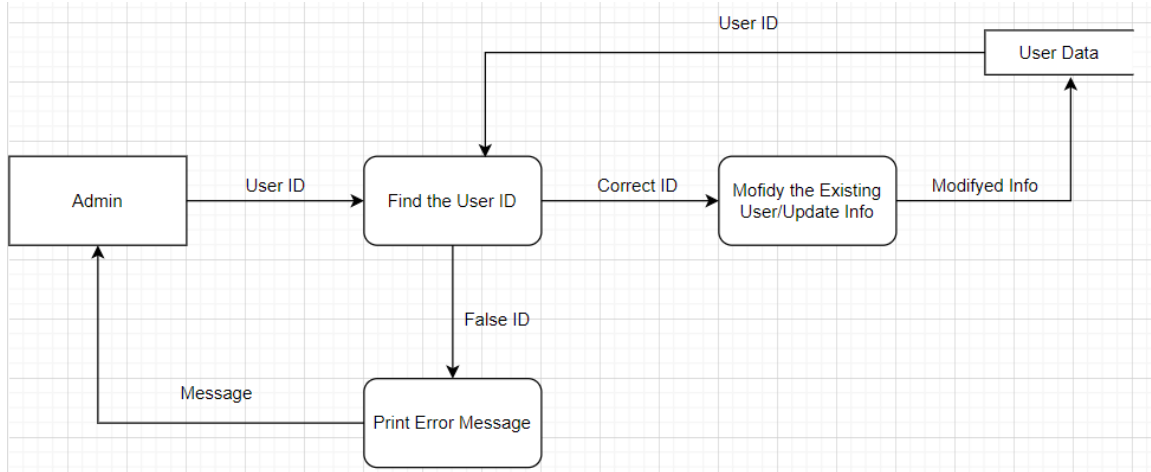


#### 4.1.2.3 User Management Functionalities :

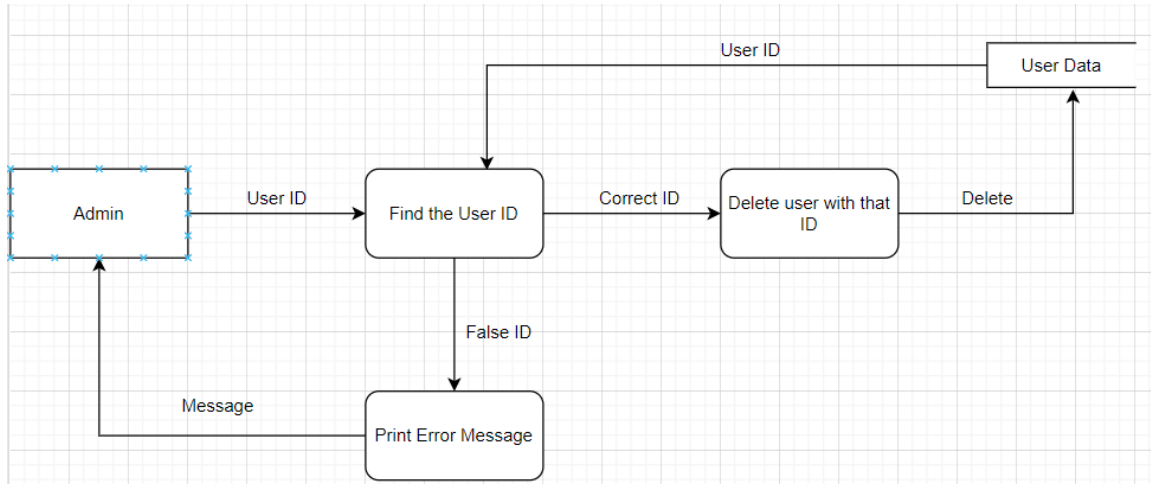
##### 4.1.2.3.1 ADD A NEW USER:



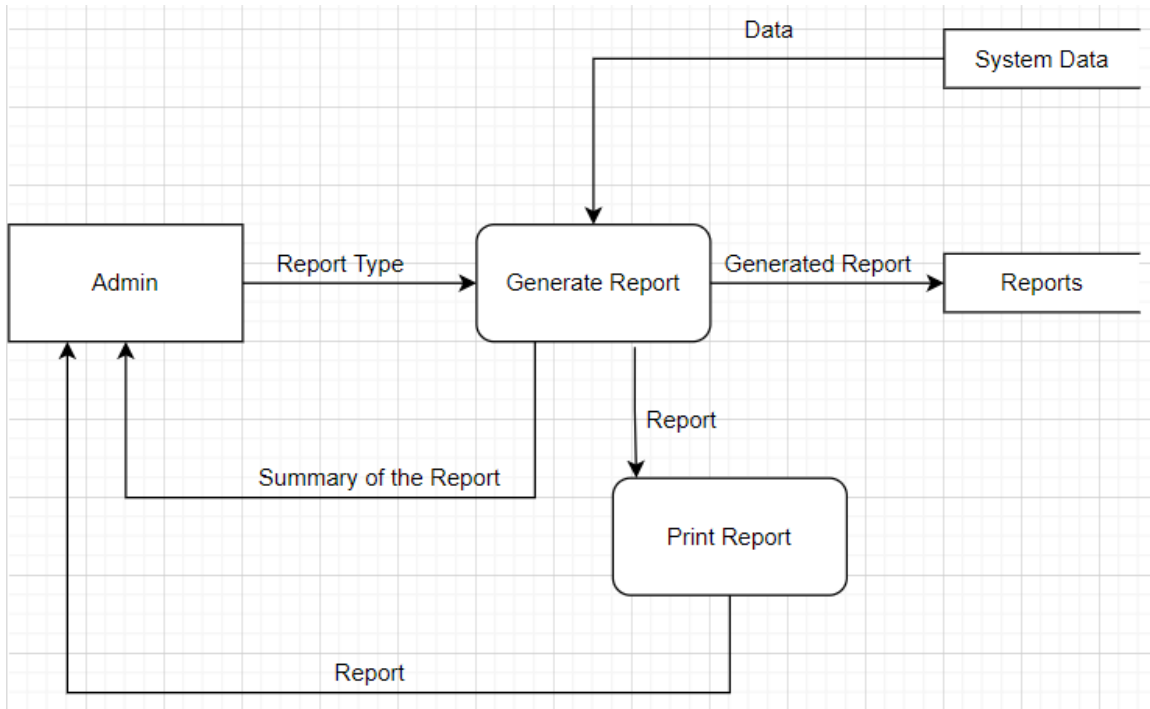
## 4.1.2.3.2 MODIFY AN EXISTING USER:



## 4.1.2.3.3 DELETE AN EXISTING USER:

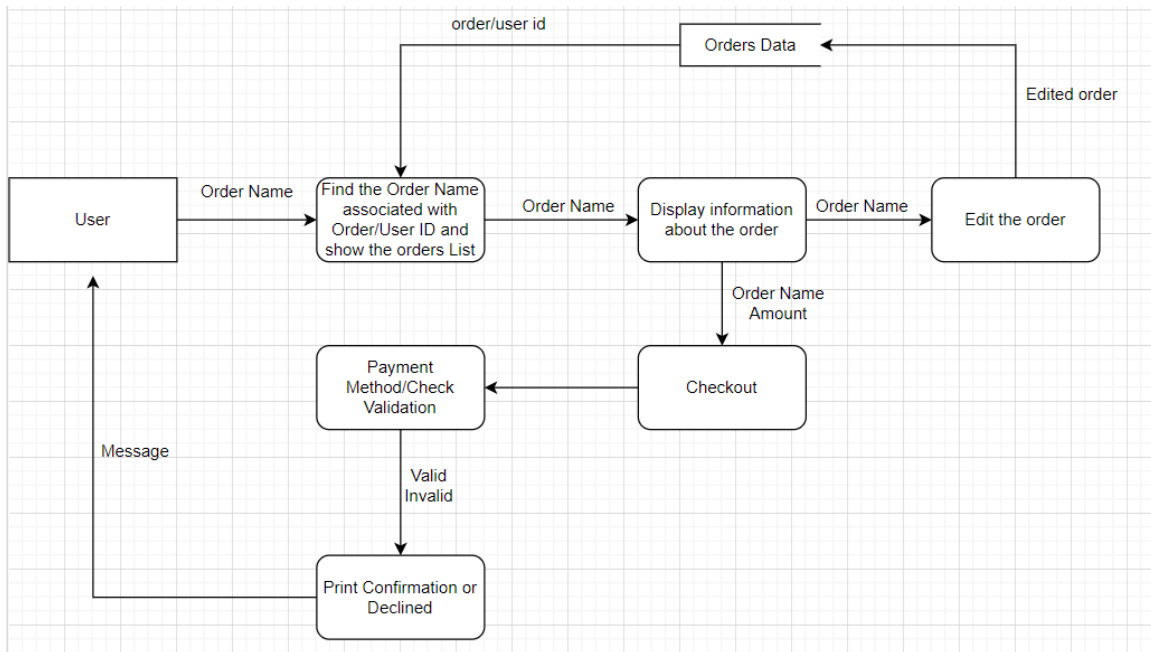


#### 4.1.2.4 Report Management Functionalities :

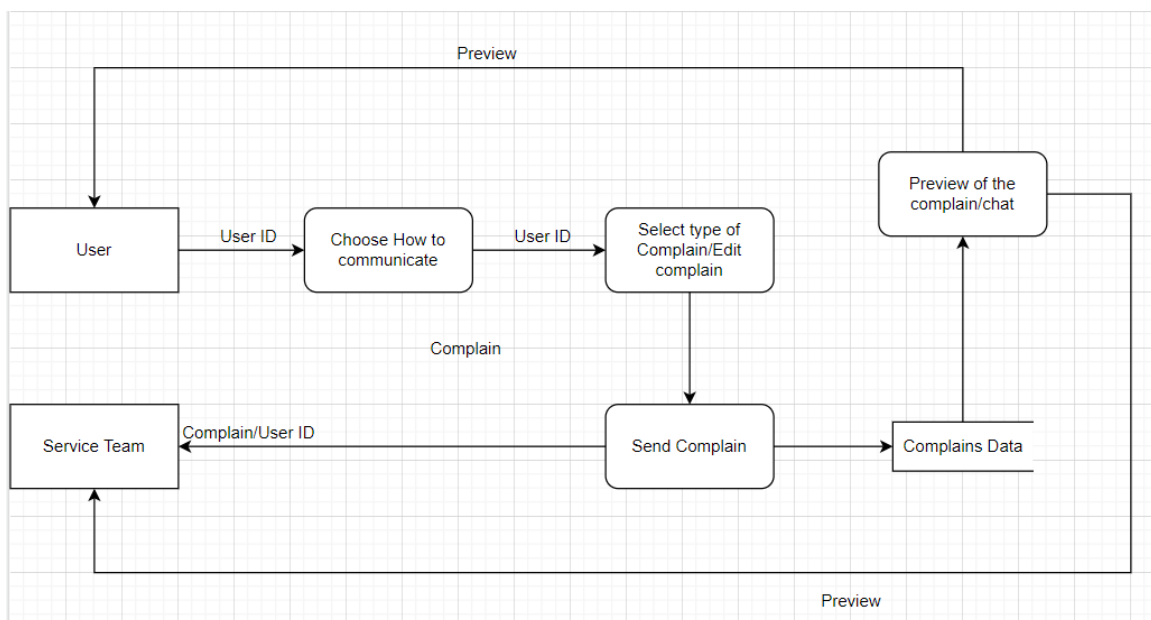




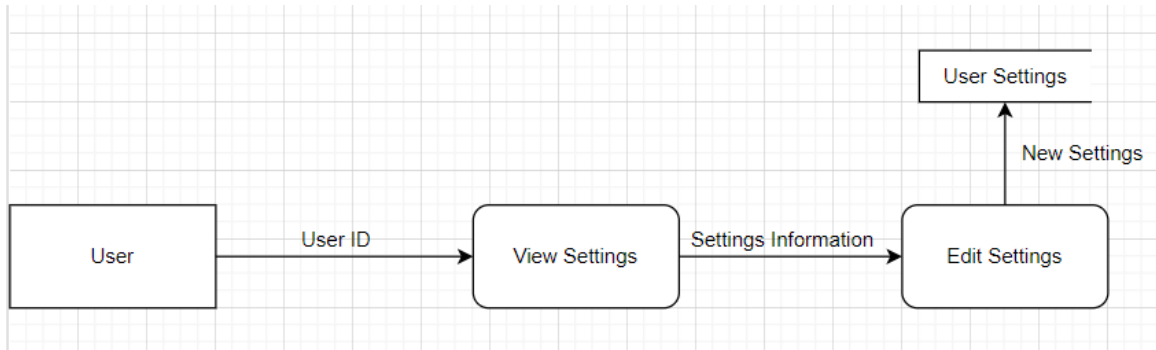
#### 4.1.2.5 Orders Management Functionalities:



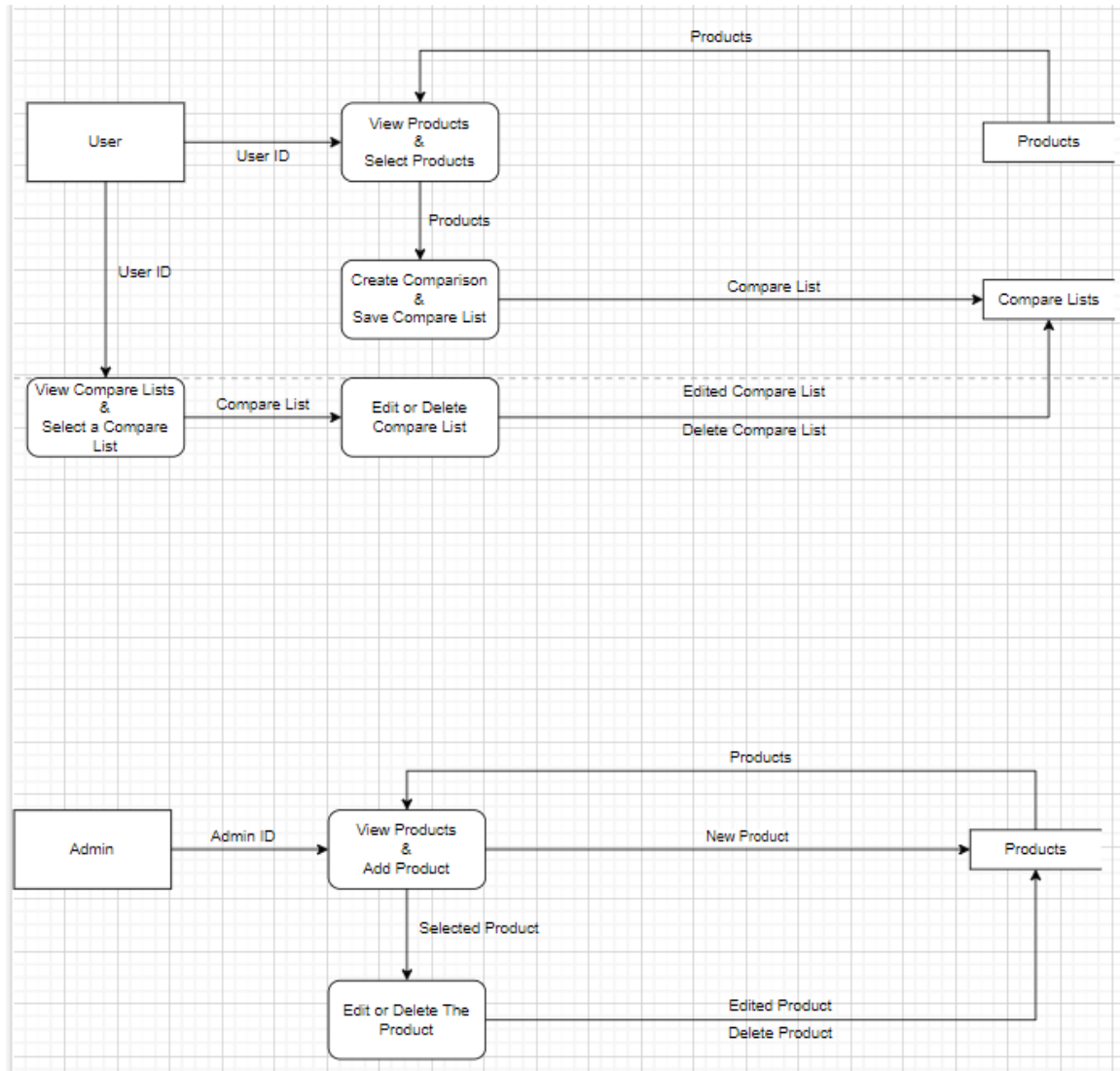
#### 4.1.2.6 Customer Service Functionalities:



#### 4.1.2.7 System Overall Setting Functionalities:



#### 4.1.2.8 Product Management Functionalities :

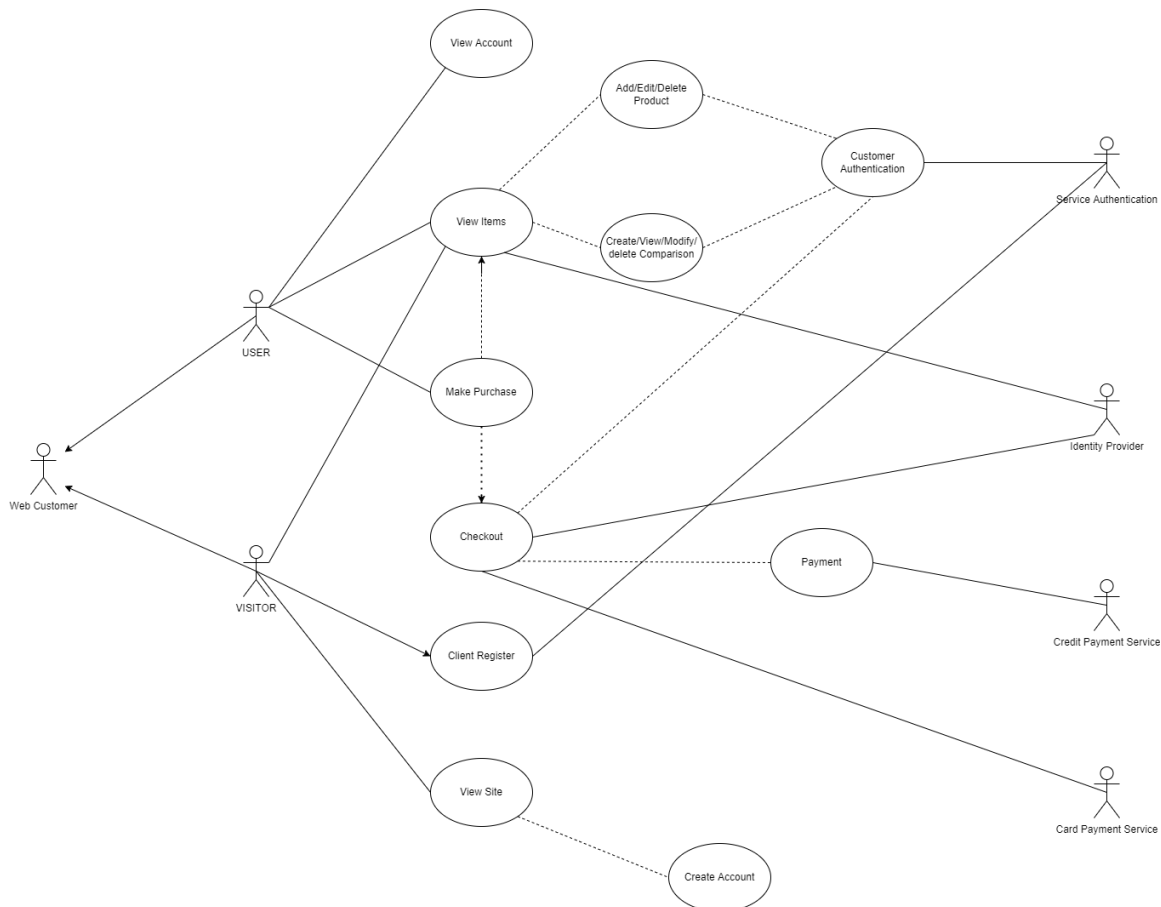


## 4.2 Use Case Diagrams

A use case diagram is a graphical depiction of a user's possible interactions with a system. A use case diagram shows various use cases and different types of users the system has and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses. The actors are often shown as stick figures.

Use-case diagrams illustrate and define the context and requirements of either an entire system or the important parts of the system. You can model a complex system with a single use-case diagram or create many use-case diagrams to model the components of the system. You would typically develop use-case diagrams in the early phases of a project and refer to them throughout the development process.

User:

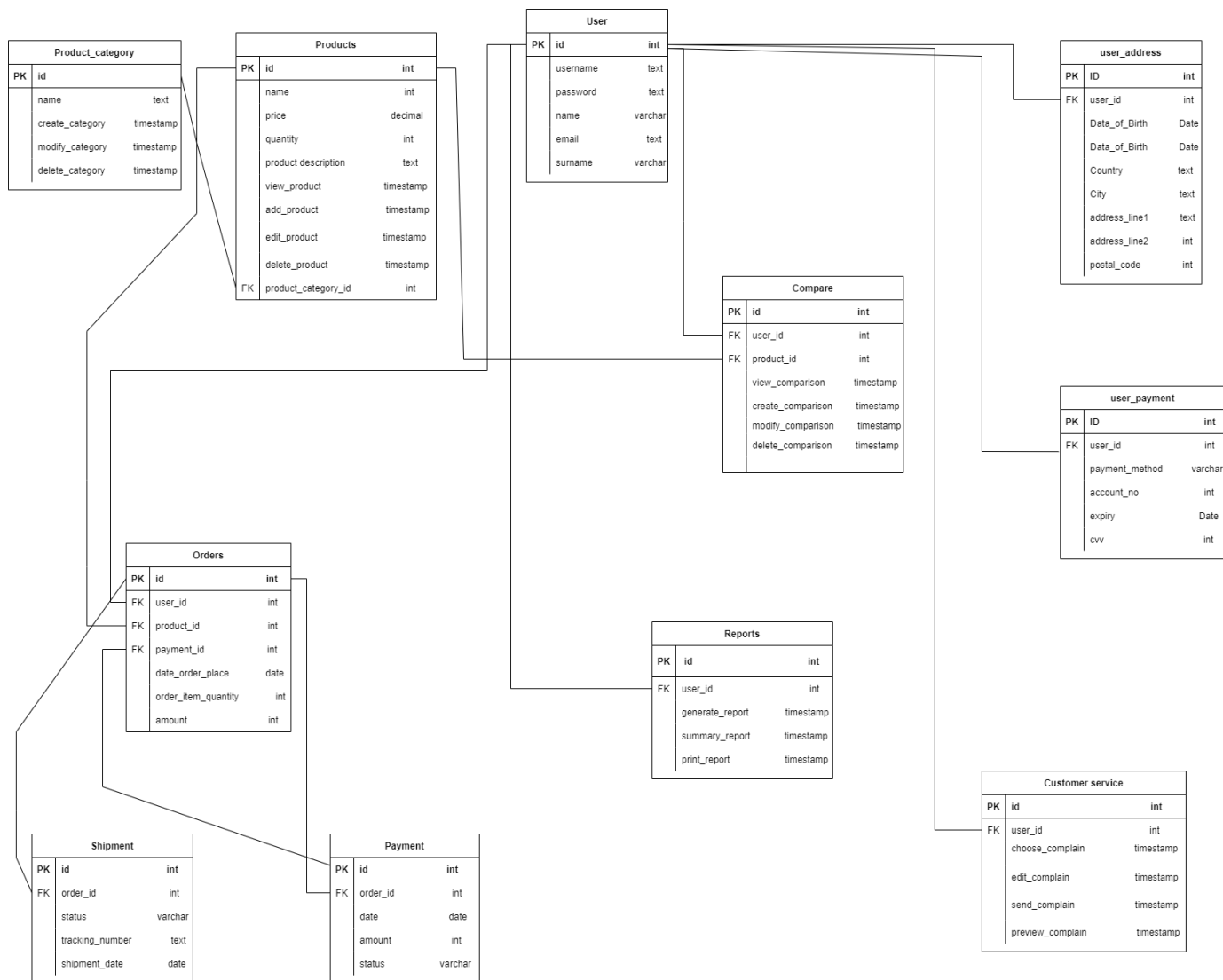


Admin:



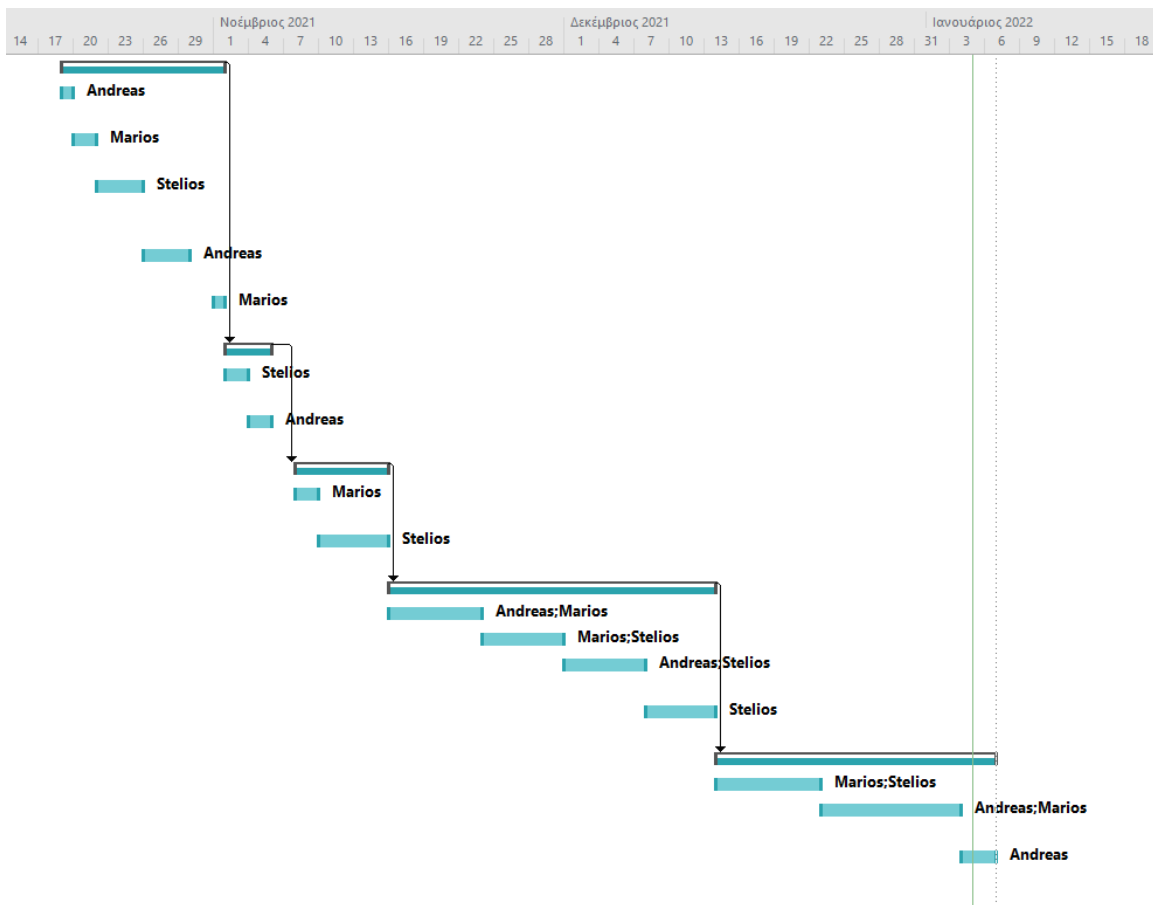
## 4.3 Data Relation Diagrams

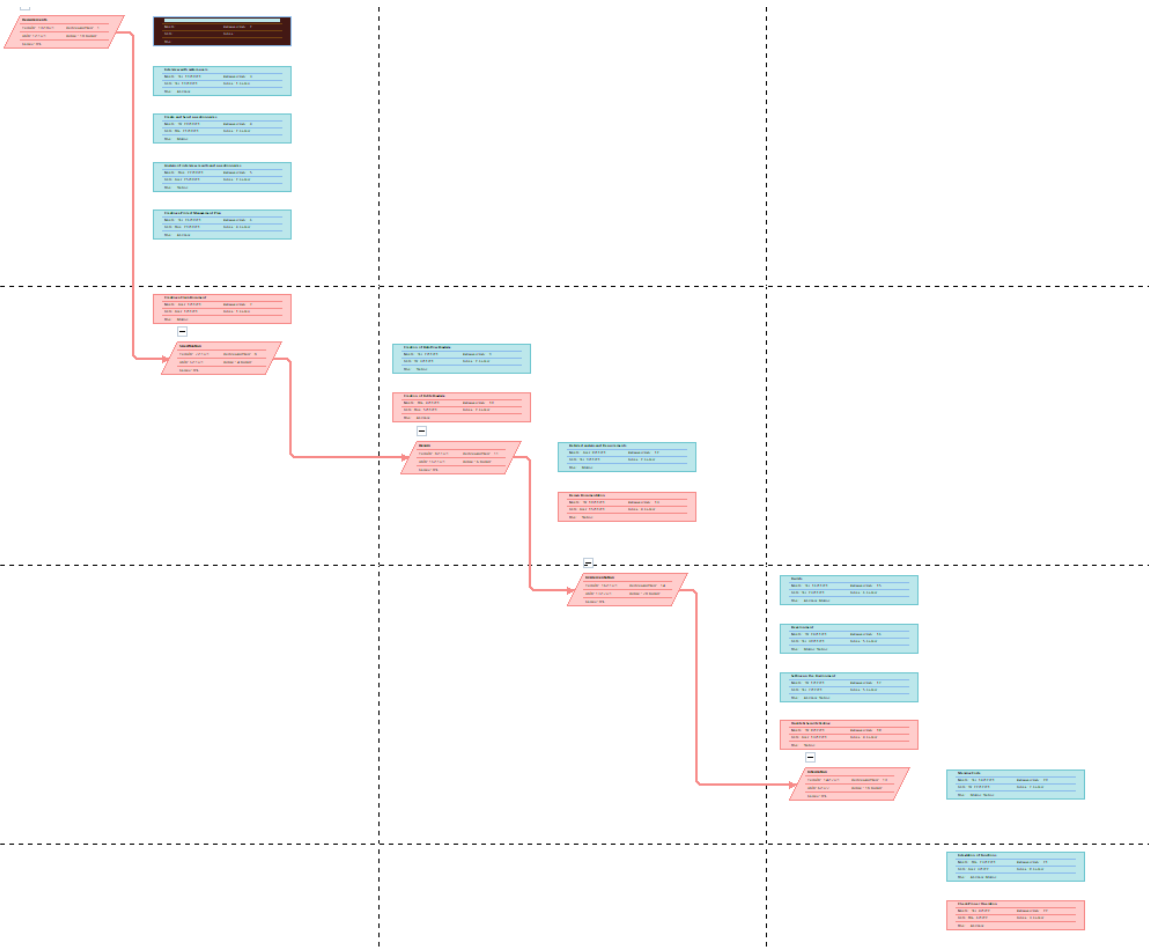
An Entity Relationship model (or ER model) describes interrelated things of interest in a particular area of knowledge. A basic ERD model consists of types of entities that sort things out and define relationships that can exist between entities.



## 5. GANTT CHART

A Gantt chart is a type of bar chart that illustrates a project schedule. The chart lists the tasks to be performed on the vertical axis, and time intervals on the horizontal axis. The width of the horizontal bars in the graph shows the duration of each activity. Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project. Terminal elements and summary elements constitute the work breakdown structure of the project. Gantt charts also show the dependency relationships between activities.







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