Cairo University  
Faculty of Computers and Artificial Intelligence

**CS251**

**Intro. to Software Engineering**

YAO SWE

Software Requirements Specifications

Version 1.0

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| --- | --- | --- | --- |
| **ID** | **Name** | **Email** | **Mobile** |
| 20210502 | Yusuf Elsayed Abdelrahman Badr | [yusufbadr@yahoo.com](mailto:yusufbadr@yahoo.com) | 01063033085 |
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# Team

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| --- | --- | --- | --- |
| **ID** | **Name** | **Email** | **Mobile** |
| 20210502 | Yusuf Elsayed Abdelrahman Badr | [yusufbadr@yahoo.com](mailto:yusufbadr@yahoo.com) | 01063033085 |
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# Introduction

## Software Purpose

* **Summarize the purpose of the software**

## Software Scope

* **Any software could have too many components / Major features; but we should implement specific things...this is the scope**
* **In simple points, what is the software scope (focus on components / Major features, not tiny things)**

## Definitions, acronyms, and abbreviations

* **In a table, list all needed ones. Consider the audience**
* **Think as following: Document has abbreviation ATM... If audience doesn’t know it, let’s clarify it.**

Functional Requirements

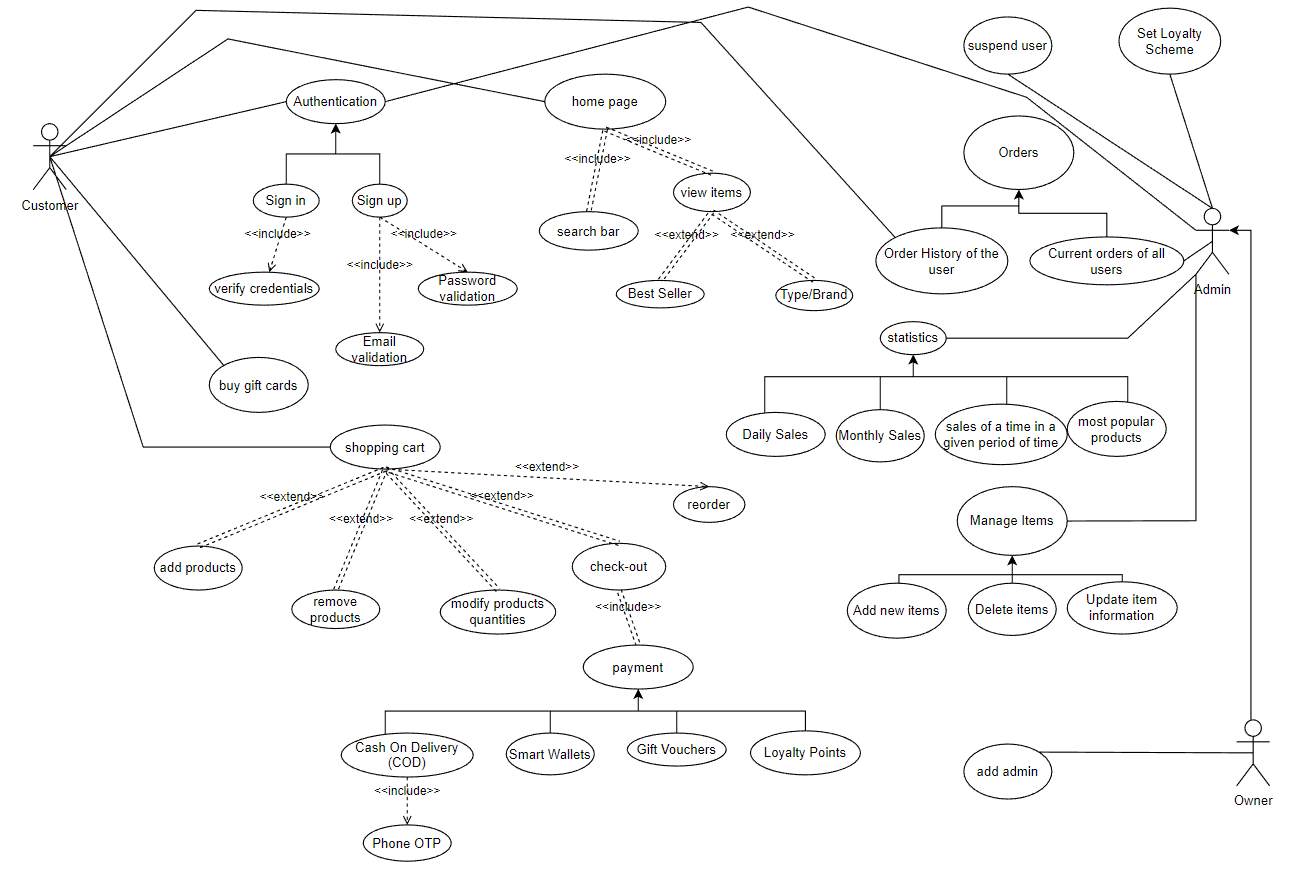
|  |  |
| --- | --- |
| Requirement ID | Statement |
| FR01 | Upon opening the website, the user shall see a homepage displaying best-seller products sold by the store along with a sign up/sign in button. |
|  | Each item will be composed of the following data:   * Name * Category * Description * Image * Brand * Price * Discount percentage if any |
| FR02 | Upon clicking on the sign up button, the user shall see a sign up page including personal information asked by the sign up page. These personal information fields are:   * E-mail * Password * Address |
| FR03 | The E-mail field should validate the following:   * Check if the Email exists and is valid * Check if the Email has never been used before for creating an account * Validate the account using a One Time Password(OTP) sent to the Email entered. Upon valid OTP, the registration is approved. * Otherwise, the registration is rejected and no account is created. |
| FR04 | The password field should adhere to secure password requirements |
| FR05 | Upon clicking on the sign in button, the user shall be prompted with two fields asking him to input his/her E-mail and password. |
| FR06 | The user shall view the products using the following categories:   * All items * Best-seller products * Type/Brand of candy |
| FR07 | There will be a search bar allowing the user to search for a specific product/brand. |
| FR08 | Upon logging in, the user will be able to add products to his/her shopping cart. |
| FR09 | The shopping cart shall have the following properties:   * Allows the user to change a product’s quantity, or remove an item * Validates that the quantity of a single sealed item is bound within a maximum of 50 units. * Validates that the weight of a single loose item is bound within a maximum of weight of 50 kilograms |
| FR10 | There will be a separate web page dedicated for the purchases of gift cards. |
| FR11 | In the checkout, there will be the following payment options:   * Cash On Delivery (COD) - can be used to pay for an order (or the remaining amount if any) * Smart Wallets – can be used to pay for an order (or the remaining amount if any) * One or more gift vouchers – the value of this/these vouchers shall be subtracted from the total sum. * Loyalty points can be redeemed to pay for an order or a part of an order. |
| FR12 | If Cash on Delivery (COD) is selected, the user should enter a valid phone number which is verified by a One Time Password (OTP) sent to the user to be entered to the system for successful verification. |
| FR13 | Upon a successful purchase, the user shall earn loyalty point according to the scheme decided by the admin. |
| FR14 | After successful payment, the user will be prompted to choose whether to use the shipping address on his/her profile or to enter another address. |
| FR15 | In the shipping cart, there shall be an option called ‘reorder’. Upon clicking on the reorder button, the user will be prompted to re-order the previous order with the same quantities. |
| FR16 | In the user profile, there will be a category called ‘Order History’. This will enable the user to view all of the his/her previous order activity/history. |
| FR17 | The system administrator will have a dedicated page to be able to manage items in the following ways   * Update catalogue with new items * Cancel items * Update item information |
| FR18 | The system administrator will have a dedicated page to view the following information about the system:   * Order made by users * Statistics about the following:   + Daily sales   + Monthly sales   + Sales of a time in a given period of time   + Most popular products |
| FR19 | The system administrator will have the privileges to do the following each in a dedicated page:   * Set a loyalty points scheme * Suspend a user |

Non-Functional Requirements

|  |  |
| --- | --- |
| Non-Functional requirements ID | Statement |
| Performance | Every panel should take about 3 seconds to load |
| Scalability | The site should support up to 1000 simultaneous users without experiencing a drop in performance |
| Resource usage | -The website shouldn’t use more than 50 mb of the memory  - system must consume less than 2% of the CPU’s time when run on a 1.8GHz machine under a certain operating system. |
| Maintainability | -The code should be well-organized and easy to understand, with clear documentation. -The site should be tested regularly to ensure that it is working properly. |
| Reliability | The server shouldn’t suffer more than one failure in 4 months. |
| availability | The site should be available 95% of the time and its down time shouldn’t exceed 20 mins in 20 years span |
| Recovery from failure | The system should be recovered within 12 hours of failure |
| Computing platform | The website should be working on every browser on every operating system |
| Development process | Our approach in the development should be agile |

# System Models

## Use Case Model



## Enriched User Stories

* **Using below table template, for each requirement write an enriched user story specifying the details of each use case and showing the interaction to implement this use case.** 
  + **If one requirement is so big, you could divide it to more than one user story.**
  + **If some requirements are not major, you could plugin them in other user stories.**
* **Flow of events should be very detailed**
* **User Story #1**

|  |  |
| --- | --- |
| **User Story ID** | US #1 |
| **User Story Name** |  |
| **Actors** |  |
| **Description** | **As** a …..  **I like** to be able to …..  **So** ………….. |
| **Per condition** |  |
| **Post condition** |  |
| **Acceptance Criteria** | **Describe when we can decide that this user story is correctly implemented and accepted. For example:**  **Given** I’m a logged-out system user and I’m on the Sign-In page  **When** I fill in the “Username” and “Password” fields with my authentication credentials and I click the Sign-In button  **Then** the system signs me in |

* **Scenarios**

**Normal Scenario**

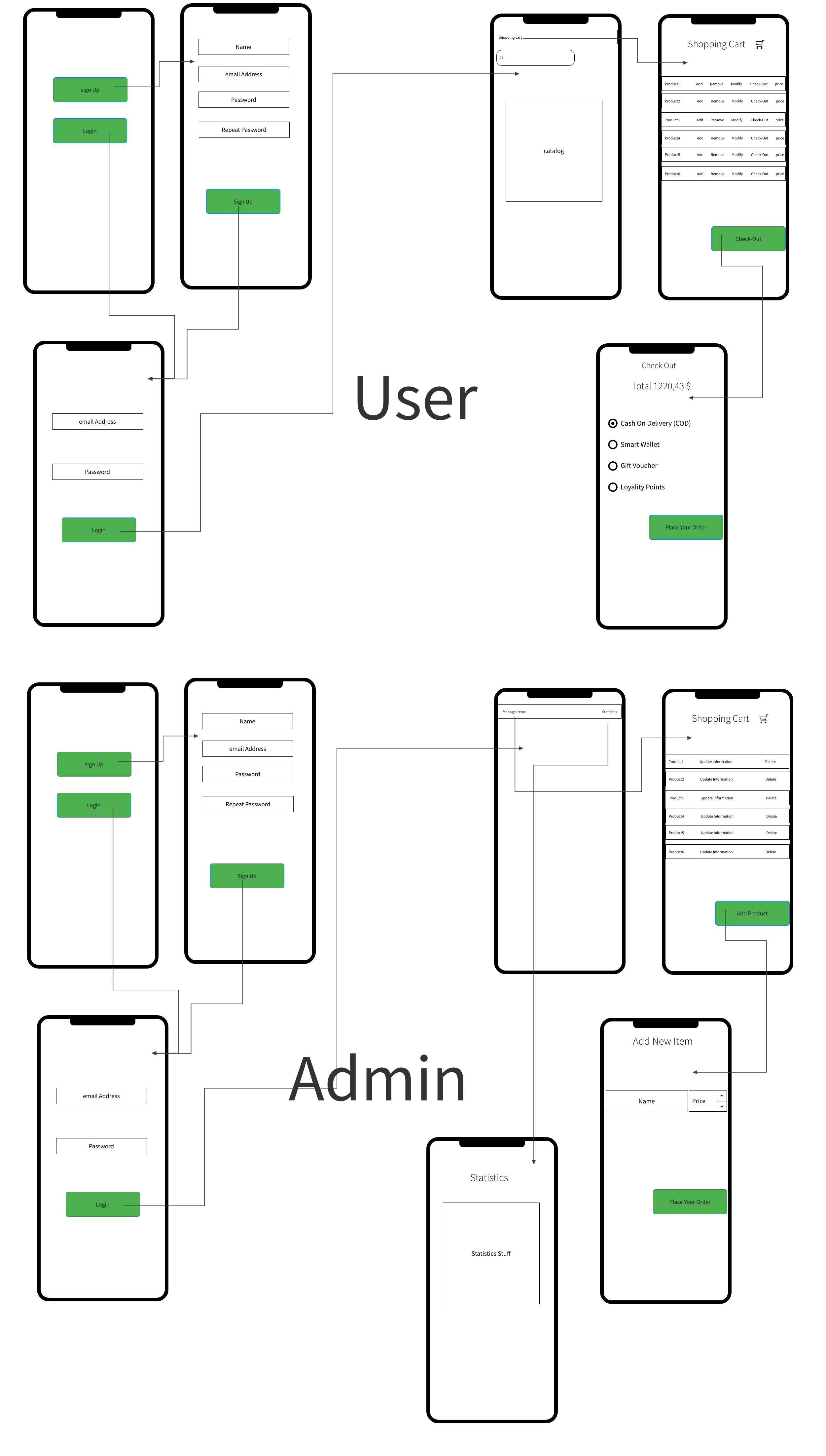
|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| 1- User Enter Card and Password.  2- Click **Submit** |  |
|  | 3- System Verify user data  4- System displays list of Mobile companies |
| 5- User Select Vodafone from the list |  |
|  | 6- System retrieves Vodafone bills |
| 7- And so on |  |
|  |  |
|  |  |
|  |  |

**Exceptional Scenario**

|  |  |
| --- | --- |
| **Actor Action** | **System Response** |
| 1- User Enter Card and Password.  2- Click **Submit** |  |
|  | 3- Card is invalid  4- Systems rejects card and displays an error message |
|  |  |
|  |  |

* **Screen Design**

**NEXT PAGE: SCREEN DESIGN**



* **Data Dictionary:**

| **Element Label** | **Type/Length** | **Data Validation / Business Rule** |
| --- | --- | --- |
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* **User Story #2**

|  |  |
| --- | --- |
| **User Story ID** | US #2 |
| **User Story Name** |  |
| **Actors** |  |
| **Description** | **As** a …..  **I like** to be able to …..  **So** ………….. |
| **Per condition** |  |
| **Post condition** |  |
| **Acceptance Criteria** | **Describe when we can decide that this user story is correctly implemented and accepted. For example:**  **Given** I’m a logged-out system user and I’m on the Sign-In page  **When** I fill in the “Username” and “Password” fields with my authentication credentials and I click the Sign-In button  **Then** the system signs me in |

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## System Navigation Map

* **Draw a navigation map that show how the screens are related (See example at** <https://stuff.mit.edu/afs/sipb/project/android/docs/training/design-navigation/wireframing.html>)

# Tools

* app.diagrams.net

# Ownership Report

|  |  |
| --- | --- |
| Student | Items he created |
| Yusuf Elsayed Abdelrahman Badr | Functional Requirements, Use Case Diagram |
|  |  |
|  |  |