**Designing And Developing of an Online Computer Mart (CMart)**

**“Software Requirements Specification (SRS) Document”**

Version 1.0



**Group ID: F200216FF3 (MC190407078)**

**Supervisor Name: Muhammad Qamar Usman**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 18/12/2020 | 1.0 | The purpose for this report is to give a point by point portrayal of the prerequisites and to examine the necessities for the undertaking of **"Designing and Development of an Online Computer Mart (CMart)".**  This phase drills down into details on the requirements and documents them thoroughly. It uses several different methods and sources to find and collect data. | MC190407078 |

**Table of Contents**

1. [Scope (of the project) page#4](#scope)
2. [Functional Requirements Non Functional requirements page#5](#FRNFR)
3. [Use Case Diagram page#8](#UCD)
4. [Usage Scenarios page#9](#UCS)
5. [Adopted Methodology](#Adopted) page#18
6. [Work Plan (Use MS Project to create Schedule/Work Plan)](#Gantt) page#20

**“Scope of Project”**

The scope of this project is to develop an Online Computer Mart (CMart) site which has a very broad scope in many ways because it provides great flexibility as compare to manual systems. Peoples can buy easily computer accessories by online. It enables sellers offer one item at a time or multiple lots of the same item. In simple words, online Computer Marts run much like local Computer Marts, however following the scenes, there is progressing information assortment. Just like local Computer Mart, there are product manger and buyers. Customers are pay online for what they purchase on at Online Computer Mart CMart. But that is where the similarities between online and local Computer Marts end.

On User Interface a product manager, guest or buyer will be required to register before he / she can buy or sell item(s). Admin Interface login is required to manage the customers / items. Admin will look up the assorted unwanted customers and product manager and then block their account permanently. Setting up an online email account separate from your main email account is recommended to help you track the progress of the sale and prevent spam from coming into your main account.

The order for each Computer Mart closes at the scheduled time. In the case of sales of multiple items, come first have first rule will be allowed to buy said items. If no one buys an item within two weeks, the product manger will delete said item from website product list. At the successful Computer Mart, the buyer and product manger communicate, usually by email, to arrange for payment and delivery of the items. For example, (www.daraz.com) makes publically available the data on all ongoing, recently saled and recently closed items. For each items, it has included complete data, as well as the information about the customers, saled item and the sale format.

The product manger an email messages are sent to the admin for the saled result. This message typically includes the name of the item and the details of the owner, depending on email is sent.

Buyers may have several payment options depending on the sale platform, including Fast Cash, Credit / Debit card or Cash on delivery. However, you are required to implement cash on delivery option.

This online website project will be developed using ASP.NET / PHP Technologies, SQL Server, MySQL, CSS, IIS. The database will store all information about the users and various bids and items along with their respective categories.

“**Functional and non Functional Requirements”**

1. **Functional Requirements:**

Functional requirements of the Online Computer Mart (CMart) will be as follows:-

1. The system shall provide convenient interface for User Registration, Product Search and Payment.
2. A guest user can only view electronic products related to computers. For any kind of shopping he / she must have to register.
3. The system shall be capable to generate invoice bill and Customer shall be able to pay it online.
4. The system shall provide Password Recovery facility through customer email id.
5. The customer shall be able to trace his / her order later on. Administrator shall also be able to trace any order easily.
6. The search interface shall be convenient to search any Product.
7. Every order shall be allocated a unique identifier (ORDER\_ID) which the user shall be able to copy to the account’s permanent storage area.
8. Both admin and customer shall have different views. i.e. Administrator View and User View.
9. Customer shall be able to get notifications on his / her email id.
10. **Non-Functional Requirements:**

Non-Functional requirements of the Online Computer Mart (CMart) will be as follows:-

**I. Responsive / Performance:**

Performance is estimated in terms of accuracy, efficiency and speed of executing given instructions. In online website project provides shopping online computer related items facility from their homes. Online Computer Mart (CMart) should be fast and should provide the better user experience. This website be capable of allowing maximum users and will provide a better response time.

**ii. User Friendly:**

This online website project (CMart) should have a user friendly interface. It should provide a user interface that can be used by anyone, even if they have no deep knowledge of it. This website should have elements that are easy to access, understand, and use to facilitate those actions.

**iii. Efficiency:**

This online website should do more than allow users to use it. It should support the user. When using tools on the website, the user should feel the system is coherent, compact, sequential, and logical. This website should perform business related tasks with fast analysis and processing. It should provide required reports both text-based and graphical very efficiently. The website should be capable of supporting multiple users at a time without affecting the performance.

**iv. Maintainability:**

This online website (CMart) should be very simple and easily maintainable by adding any further features in the future allow making change easier and more affordable, avoiding change that is not necessary and should allow performing a successful repair action within a given time. Also configuration and content management should be easy.

**v. Portability:**

This online website should be dealing with portability issues equally between browsers and operating systems. System specifications can be different so portability (browser portability, server side portability) should be kept in mind. The System should be technology independent and platform independent.

**vi. Reliability:**

The online website should ensure that it is reliable. System should be able to complete its on-going operations in spite of any error or problem within defined response time. The ability of our system to behave consistently in a user-acceptable manner when operating within the environment for which the system was intended. For example, our system will be able to update process must roll back all related updates in the database when any update fails.

**vii. Accessible:**

This online website (CMart)) should be Accessible from different devices. This website should remove the barriers that prevent access to websites by people with disabilities.

**viii. Availability:**

This online website stores a lot of information about user, cmart products and check in are available. Therefore, provide it should deliver services when requested and should be available for use 24 hours per day, 365 days per year.

**ix. Secured and Restorable:**

The online website should protect all the online assets need to be protected. Also it should allow keeping application and data backups. Disaster recovery should be managed easily. In our application, the proper login system will be created because we‘ll secure our application from hacking and unauthorized persons.

**x. Capacity and scalability:**

The System should be capable of supporting multiple users at a time, data processing and concurrent user capacities. The application should allow management to add more Users.

**xi . Integrity:**

This online cmart application can easily maintain accurate and authentic data.

**“Use Case Diagram”**



“**Usage Scenarios”**

|  |  |
| --- | --- |
| **Use Case Title:** | **Login** |
| **Use Case ID:** | **1** |
| **Function ID:** | **1** |
| **Action** | **Login to website** |
| **Description:** | This Use Case will allow members to login into the site / system. It will have to enter his / her Username and Password to get login into the system. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * User has a Valid Username and Password. * Buyer must have registered account in the application before login. |
| **Task Sequence:** | 1. Member will click on “Login” Button that display on front page. 2. Member will enter his / her Username and Password. 3. Member will click on “Login” button. 4. System will verify the data attributes. 5. System will allow the member to login into the system after a successful verification of data attributes entered by the user. |
| **Post Conditions:** | * Member logged into the system successfully. * Member re-directed to his / her panel based on his / her role in the system. |
| **Alternative Paths:** | None |
| **Exceptions:** | * User can reset his / her password if he / she have forgotten the password. |
| **Authority:** | Admin, Product Manager, User |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Registration** |
| **Use Case ID:** | **2** |
| **Function ID:** | **2** |
| **Description:** | This Use Case will allow the only Users to make a registration to get facilities provided by this website. User will have to fill a form containing all the necessary information which is needed to complete the registration process. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * User has a Valid Mobile / Email Address. |
| **Task Sequence:** | 1. User will click on “Registration” Button. 2. System will show a registration form and will ask the user to fill all the required fields. 3. User will provide / fill all the required fields including the optional fields. 4. After filling the form, the user will click on “Register” button. 5. System will validate the required data attributes. 6. System will save all the information provided by the user into the database if the information provided by the user is correct. 7. System will send a verification email to user’s personal email. 8. User will complete the verification process. 9. System will mark the registration process complete after a successful verification. |
| **Post Conditions:** | * The Registration was successful. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Guest |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Search for CMart Items** |
| **Use Case ID:** | **3** |
| **Function ID:** | **3** |
| **Description:** | This Use Case will allow the user to search for the computer mart products or items in Designing and Development of an Online Computer Mart (CMart). Users can search the item so they can see what products / items are available in website. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. |
| **Task Sequence:** | 1. User will click on “Search” button. 2. System will display a search form with different filter options available and will ask the user to fill. 3. User will use filter for better search experience. 4. User will fill the form and clicks on “Search” button. 5. System will display the search results. |
| **Post Conditions:** | * User has searched the Product / Item successfully. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | User, Guest |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Purchase CMart Item** |
| **Use Case ID:** | **4** |
| **Function ID:** | **4** |
| **Description:** | Customer can view complete details after clicking on a particular CMart items and customer can add this item into their cart and after login can checkout as well. After checkout customer gets shopping receipt on his/her email. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * User has a Valid Username and Password. * User should be Logged In. |
| **Task Sequence:** | 1. Run the application and login. 2. User will click on “Purchase” button. 3. Choose a Cmart item. 4. Add to cart. 5. Choose the payment method. 6. System will allow the user to purchase said item online if the verification process gets success. |
| **Post Conditions:** | * User has purchased item from website successfully. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Product Manager, User |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Manage CMart Items** |
| **Use Case ID:** | **5** |
| **Function ID:** | **5** |
| **Description:** | This Use Case will allow managing Computer Mart (CMart) Items. Product manger can add a new product / item in Online Computer Marts items product list, update the existing product / item or can delete / remove an existing product / item. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * Product manager has a Valid Username and Password. * Product manager is Logged In. |
| **Task Sequence:** | 1. Manager will click on “Products / Items” button.  2. System will display all the products / items available.  3. Product manager will manage the products / items.  3.1. View details of existing product / item.  3.2. It will add a new product / item.  3.3. It will update the details of existing product / item.  3.4. It will delete / remove an existing product / item.  4. System will save the changes made by the manager  5. System will display a success message to the manager after successful management of product / item. |
| **Post Conditions:** | * Product manager has managed the products / items successfully. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Admin, Product Manger |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

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| --- | --- |
| **Use Case Title:** | **Manage Users** |
| **Use Case ID:** | **6** |
| **Function ID:** | **6** |
| **Description:** | This Use Case will allow the only Admin to manage the users. Admin will look up the assorted unwanted / fraud users and then block that customers account permanently. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * User has a Valid Username and Password. * User is Logged In. |
| **Task Sequence:** | 1. Admin will click on “Manage Users” button. 2. System will display all the users available in Design and Development of Online Computer Mart (CMart) Website with their status. 3. Admin will manage the users.    1. Admin will block a user.    2. Admin will Active a user. 4. System will save the changes made by the Admin. |
| **Post Conditions:** | * Admin has managed the users successfully. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Admin |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Allocate 4 Digit Number** |
| **Use Case ID:** | **7** |
| **Function ID:** | **7** |
| **Description:** | This Use Case will allow the admin to allocate a 4-digit number to the authorized users to get access for buying. Admin must allocate a four-digit code for valid buyers in order to save from the frauds / unwanted customers. |
| **Pre-Conditions:** | • System should be connected with the database.  • Application should be running properly.  • User has a Valid Username and Password.  • user gain the verification code before registration |
| **Task Sequence:** | 1. Admin will click on “Allocate Number” button. 2. System will display the allocation number form to the Admin and will ask for a 4-digit number to allocate. 3. Admin will enter the 4-digit number for allocation. 4. System will save that 4-digit number for verification of users before participation for purchase. |
| **Post Conditions:** | * Admin has allocated a 4-digit number successfully. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Admin |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Recover Password** |
| **Use Case ID:** | **8** |
| **Function ID:** | **8** |
| **Description:** | This Use Case will allow the user to recover password through Email. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * User has a Valid Username. |
| **Task Sequence:** | 1. User will click on “Recover Password” button. 2. System will display form to provide registered email address. 3. User will fill the form and click on “Recover” button. 4. System will send a verification email to that email address. 5. User will verify using that email. 6. User will recover the password. |
| **Post Conditions:** | * User has recovered password successfully. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Admin, Product Manager, User |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

|  |  |
| --- | --- |
| **Use Case Title:** | **Change Password** |
| **Use Case ID:** | **9** |
| **Function ID:** | **9** |
| **Description:** | The Use Case is to allow the User to change password. User will be able to password online. |
| **Pre-Conditions:** | * System should be connected with the database. * Application should be running properly. * User is logged into the system. |
| **Task Sequence:** | 1. User clicks on “Change Password” button which displays on the page. 2. System will display the change password form to fill. 3. User will fill the form by entering old password and new password and will press “Change” button which displays on the page. 4. System will save the information provided by the User. |
| **Post Conditions:** | * User has changed his / her password in a successful way. |
| **Alternative Paths:** | None |
| **Exceptions:** | None |
| **Authority:** | Admin, Product Manager, User |
| **Modification history:** | 1.0 |
| **Author:** | **F200216FF3 (MC190407078)** |

**“Adopted Methodology”**

According to the requirement, for making our software we adopted the methodology **“VU process model”**. The description of which is given below:

**VU Process Model:**

It is the combination of waterfall methodology and spiral methodology. It is also known as hybrid approach of system development. It has five phases and which are Gathering and Analyzing requirement, Planning, Analysis and Design, Development and Final report.

Essentially, Water Fall Model is a framework for software development in which development proceeds sequentially through a series of phases, starting with system requirements analysis and leading up to product release and maintenance, whereas the key characteristics of spiral model is risk management at regular stages in the entire software development cycle.

**Diagram:**



**Why are we using VU Process Model Methodology?**

Following are the basic reasons for choosing VU Process Model for our project:

Our project is divided into different phases which we have to complete in sequence and submit to our supervisor. In the requirement phase the system goals, services and constrains are established after discussion with user. The planning phase is synchronized effort to find all the potential roadblocks and draft a robust plan to tackle each. This phase usually involves a lot of brainstorming within software development team as well as with respective client. It maximizes the quality of system and minimizes any risks and errors.

If Supervisor suggests improvement then we will make improvement in that phase. This process will be adopted due to the spiral nature of VU Process model. When the phase is well-improved and well worked-out, and also accepted by our Supervisor then we will proceed to next phase. This will be done due to the waterfall nature of the VU Process model. Hence both models are suppressed in single form

and that will be our VU process model. It will provide error free result as each step is done in a sequence.

**“Work Plan (Use MS Project to create Schedule/Work Plan)”**

Start  
Tue 26/11/20

Finish  
Tue 06/04/21

26 Nov, 20

13 Dec, 20

23 Dec, 20

01 Jan, 21

12 Jan, 21

25 Jan, 21

07 Feb, 21

27 Feb, 21

07 Mar, 21

20 Mar, 21

01 Apr, 21

**Designing and Development of an Online Computer Mart (CMart)**

Thu 26/11/20 - Tue 06/04/21

**SRS**

Thu 26/11/20 - Fri 18/12/20

**Design**

Sat 19/12/20 - Mon 18/01/21

**Test Phase**

Tue 19/01/21 - Thu 04/02/21

**Final Deliverable**

Fri 05/02/21 - Tue 06/04/21

**Today**

