# Chapter 2.4: SRS (Software Requirement Specification)

Software requirement specification is a detailed description on how the software is being developed which have fulfilled its functional and non-functional requirements. This is made based on the agreement between customer and contractors. This document includes all the necessary requirement that are required for the project development. A good SRS defines how the software will interact with all internal modules, hardware, communication with other programs and human user interactions with wide range of real-life scenarios.

# Chapter 2.4.1: Functional Requirements

In the terms of software engineering and system engineering, functional requirement defines a function of a system or its components where functions are described as a specification of behavior between outputs and inputs. There is various functional requirement in my project and some of them are listed in the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **Functional Requirement** | **Data Required** | **Rational** | **Dependency** |
| F1 | Admin Signup | Name, Username, Password, Email, Phone number | Admin Login Data |  |
| F2 | Admin Login | Username, Password | Security and privacy | F1 |
| F3 | Add Category | Name, Type | Category Add | F1, F2 |
| F4 | User Signup | Name, Username, Password, Email, Phone number | User Login Data |  |
| F5 | User Login | Username, Password | Security and Privacy | F4 |
| F6 | Upload Products | Name, Price, Quality, Type, Details | Uploading product information | F1, F2, F3, F4, F5 |
| F7 | View Products | Name, Price, Quality, Type, Details | View product information | F1, F2, F3, F4, F5 |
| F8 | Update Products | Name, Price, Quality, Type, Details | Update product information | F1, F2, F7, F4, F5 |
| F9 | Delete Products | Name, Price, Quality, Type, Details | Delete Product | F1, F2, F7, F4, F5 |
| F10 | Manage Profile | Name, Username, Password, Email, Phone number | Update or change personal details | F1, F4, F2, F5 |
| F11 | Chat with admin | Username, Message | Interaction with admin | F4, F5 |
| F12 | Chat with customer | Message, Name, Phone number | Interaction with product owner | F4, F5, F7 |
| F13 | View User Details | Name of user, Username, Email | Get data of users and their interaction with system | F1, F2 |
| F14 | Manage Users | Name of user, Username, Email | Suspend and delete unwanted and untrusted users | F1, F2, F13 |
| F15 | Buy Products | Name, Email, Phone number, Payment method detail, Username | Buying product through the software | F4, F5, F7 |
| F16 | Book Products | Name, Email, Phone Number, Username | Book the product listed in the site | F4, F5, F7 |
| F17 | Booking Cancellation | Product name, Name, Email, Phone number, Username | Cancel the booked item | F4, F5, F10, F16 |
| F18 | Deploy Message when product is booked or bought | Name of user, Username, Phone number, Time, Message | Informs the product owner about the transaction | F1, F2 |

# Chapter 2.4.2: Non-Functional Requirements

In system and requirement engineering, a non-functional requirement is a requirement that specifies criteria used to judge the operation of the system rather specific behavior. This is also known as quality attributes of a system. This is very important for a system to make it secure, user-friendly, reliable, effective and more reliable. Some of the non-functional requirements are:

|  |  |  |
| --- | --- | --- |
| **ID** | **Title** | **Description** |
| 1 | Security | This is very important requirement for developing a software which can be done by using strong password and encryption algorithms. |
| 2 | Performance | This measures how fast and effective the system is. By using the latest technology, we can increase the performance of the system |
| 3 | User-friendly | The system developed should be easily usable and accessible. High user interface makes it more usable and user-friendly. |
| 4 | Reliability | The developed system must be reliable and there should be no failures while operating. |
| 5 | Availability | The system should be easily available and accessible by all. |
| 6 | Scalable | The system much scale according to the devices it is used on as well as any operating system. This make the system more robust and adaptive to large market. |
| 7 | Data Integrity | The data and information should be secured and only admin should be allowed to delete and change the data in the system. |
| 8 | Maintainability | The system should be maintained in regular interval |
| 9 | Recoverability | The system should be recoverable if any problem occurs during any process |
| 10 | Manageability | The system should be easy to manage |

# Chapter 2.4.3: MoSCoW Prioritization

Prioritization is the process of arrangement of the requirements and features according to their order of importance. MoSCoW is a prioritization technique for helping to understand and manage priorities. The letters stand for

* Must have
* **S**hould Have
* **C**ould Have
* **W**on’t have.

This prioritization allows us to know what features are the must in the system and what features are less needed for the system. Some of the priority order for the requirement are shown below:

|  |  |  |  |
| --- | --- | --- | --- |
| S.N. | Features | Prioritization | Rational |
| 1 | User/ Admin registration | Must have | For registration in the system by user and admin |
| 2 | User/ Admin Login | Must have | To login in the system by user and admin |
| 3 | Upload/ update/ delete / view Products | Must have | To upload, update, delete and view product |
| 4 | Manage Users | Should have | To manage users |
| 5 | Manage Profile | Should have | For handling the profile data of the user |
| 6 | Chat with Customer | Would have | To chat with the customer |
| 7 | View User details | Would have | To display the user details |
| 8 | Chat with admin | Would have | To chat with the admin |
| 9 | Inform information on product transaction | Must have | To send message after transaction of product |
| 10 | Book and buy products | Must have | To book and buy the product |
| 11 | Security | Must have | Fundamental Function within the system |
| 12 | User-friendly and reliable | Must have | Fundamental function within the system |
| 13 | Data Integrity | Must have | Fundamental function within the system |
| 14 | Availability | Must have | Fundamental function within the system |
| 15 | Scalable | Must have | Fundamental function within the system |
| 16 | Performance | Must have | Fundamental function within the system |
| 17 | Booking Cancellation | Should have | For cancelling the product that have been booked |
| 18 | Add Category | Must have | To sort base on the what category the product type is |
| 19 | Manage Users | Should have | To suspend and delete the users from the system |
| 20 | Manage Profile | Must have | To manage the profile of user |
| 21 | Manageability | Must have | Fundamental function within the system |
| 22 | Recoverability | Must have | Fundamental function within the system |
| 23 | Maintainability | Must have | Fundamental function within the system |

# Chapter 2.4.4: Hardware software Specification

For the system some specific hardware and software are required for the development and design of the project. Below are the list of hardware and software required for the project:

**Hardware Specification**

* Processor: Celeron 500MHz or any Pentium processor
* Ram: 4GB or higher
* Hard Disk: 100Gb or higher
* Display Type: Standard VGA or SVGA card
* Peripherals: Keyboard, Mouse

**Software Specification**

* Operating system: Windows 7 or higher, Linux
* Front-end: Bootstrap 4.0.0
* Back-end: PHP, MySQL, XAMPP 7.3.2