## 2.4 SRS

A software requirements specification (SRS) is a description of a software system to be developed. It lays out functional and non-functional requirements, and may include a set of use cases that describe user interactions that the software must provide. All the devices and resources needed for the development of the project falls under SRS. It also differs from the development methodology used and the type of software which should be developed.

## 2.4.1 Functional Requirements

A functional requirement is a declaration of the intended function of a system and its components. It may contain calculations, technical details or data manipulation or other functionality which define what a system is supposed to achieve. The different functions and features which are included in my system are shown in the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FR ID** | **FR Description** | **Data required** | **Rational** | **Dependency** |
| FR1 | Admin signup | Name, username, password, email, phone number | Admin login data. |  |
| FR2 | Admin login | Username, password | Security and privacy. | FR1 |
| FR3 | Upload Bikes | Name, price, quality,  details | Uploading  Bikes for Rents | FR1, FR2 |
| FR4 | View Bikes | Name, price, quality, details | View the model of  Bikes available. | FR1, FR2 |
| FR5 | Update Bikes | Name, price, quality, details | Updating the data of Bikes | FR1, FR2, FR4 |
| FR6 | Delete Bikes | Name, price, quality, details | Deleting data of Bikes | FR1, FR2, FR4 |
| FR7 | View user details | Name of user,  username, email | Get data of users and their interaction with the system. | FR1, FR2 |
| FR8 | Types of bikes | Name,  time, schedule | Inform users about upcoming | FR1, FR2 |
| FR9 | Manage users | Name of user,  username, email | Suspend and delete unwanted and untrusted users. | FR1, FR2, FR7 |
| FR10 | User registration | Name, username, password, email, phone number | Users login data. |  |
| FR11 | User login | username, password | Security and privacy. | FR10 |
| FR12 | View booked  Bikes | Username, time,  date | View time of booked bikes by which user. | FR10, FR11 or FR1, FR2 |
| FR13 | Deploy message about payment completion | Date, time,  username, email | Generating the message about the payment to users | FR10, FR11, FR12 |
| FR14 | Book bikes for rents | Date, time,  username | Book the bikes for specified date and time | FR10, FR11, FR12 |
| FR15 | Manage profile | Name, username, password, email, phone number, | Update and change the personal data and details of user. | FR10, FR11 |
| FR16 | Chat with admins | Username, message. | Chat by users with admin for informative purpose. | FR10, FR11 |

## 2.4.2 Non-functional Requirements

It is a requirement which specifies a criterion that can be used to judge the operation of a system, rather than a specific behavior. It offers a constraint to the system behavior and quality attributes. It ensures the usability and efficiency of the entire system. Some of the non-functional requirements are:

|  |  |  |
| --- | --- | --- |
| **ID** | **NFR Title** | **NFR Description** |
| 1 | Security | It is the most precious requirement in system development which can be protected by use of strong password and encryption of algorithms. |
| 2 | Performance | Using of up-to-date and modern technology benefits in enhancing the system. It is the measure of how fast and effective a system is. |
| 3 | User friendly | The developed system should be easily usable and accessible. High user interface makes it more usable and user-friendly. |
| 4 | Reliability | The developed system should be highly reliable. There must not be any failures in operating the website. |
| 5 | Availability | The system should be available and accessible easily. Search engine optimization of the website makes it easier available towards the users. |
| 6 | Scalable | The system must be scalable in all the devices, browsers and versions of operating system. It makes the system robust and adaptive to large market. |
| 7 | Data Integrity | The data and content of the website must be secured. Only admins should be allowed to change and delete the data in the website. |

## 2.4.3 Prioritization

It is the process of arranging the requirements and features according to their importance in the system. In my project there are many requirements and features, by using the MoSCoW prioritization I have arranged the requirements as must have, should have, could have and would have. Some of the priority for the requirement are:

|  |  |  |
| --- | --- | --- |
| **S.N.** | **Features** | **Prioritization** |
| 1 | User/Admin registration | Must have |
| 2 | User/Admin Login system | Must have |
| 3 | Upload/update/delete Bikes | Must have |
| 4 | Manage users | should have |
| 5 | Inform users about payments | must have |
| 6 | Chat with admins | Would have |
| 7 | Manage profile | Could have |
| 8 | Book bikes for rents | Must have |
| 9 | Security | Must have |
| 10 | View user details | Would have |
| 11 | Reliability | Must have |
| 12 | Availability | Must have |

## 2.4.4 Hardware/Software Specification

There were some hardware and software specification while designing and development of a project. The hardware and software specification for my project is provided below:

**Hardware Specifications:**

* Processor: Celeron 1000MHz or any Pentium processor
* RAM: 2GB or higher
* Hard disk: 30 GB or higher
* Display type: Standard VGA or SVGA card
* Peripherals: keyboard, mouse.

**Software Specification:**

* Operating system: windows 7 or higher
* Front-end: bootstrap, JavaScript
* Back-end: PHP, MySQL, XAMPP