# **Software Requirements Specification**

# **for**

# **College Mart (A online free advertisement application)**

Version 1.0 approved

Prepared by Anay Yadav, Naved Ahmed, Suryakant

NIIT UNIVERSITY

20 September 2016

SRS Documentation

# Introduction

## Purpose

The purpose of this project is to implement a web portal to ease the trade between students as they’ll have exact information and complete knowledge of what all is available at that time. Cheaper rates and chance to earn some money will be a big plus.

## Document Conventions

The whole document has larger bold fonts for the headings and sub-headings. Headings have been numerically ordered and so are the sub-headings. It has italics characters for labeling and describing any diagram if there are some.

## Intended Audience and Reading Suggestions

The SRS Documentation is meant for project managers. Development team, marketing staff, investors etc. It bears a complete and apt description of the service as well as its features.

Overall description of software

External interface requirements

System features

Other nonfunctional requirements

Other requirements

And this is the order the srs should be read

## Product Scope

The product is intended for any college, university or institution. Each institution will have its own web portal to buy/sell/rent reusable books and utilities. This product can be used by the students as well as the faculty and support staff of that particular institution. We can think of a large number of products that can be sold on this web portal. For example, bucket, quilt, blanket, table lamp, night lamp, speakers etc. Also, books.

## References

IEEE Software Engineering Standards Committee, “IEEE Std. 830-1998, IEEE Recommended Practice for Software Requirements Specifications, October 20, 1998.

# Overall Description

## Product Perspective

The product is a web based application providing the members of any institution to buy/sell products and books. This is a unique system where the same individual can be a buyer as well as the seller.

## Product Functions

1. The user makes an account with our web application
2. The user enters his/her details(name, email, mobile number etc)
3. The user is given the freedom to buy/sell products
4. He can set the price of his product that he wants to sell as well as buy other products by seeing their price set by other users.
5. If he wants to buy an item he can do so by searching it from our database and as soon as he find the desired product , the seller’s contact details such as email address and mobile number will be provided so that he can contact him, meet him do the necessary negotiation and buy the product of his choice.
6. User can also enjoy some benefits or discounts if he is a regular user and has made frequent uploads or purchases.

## User Classes and Characteristics

The several classes that can be a user of this service are students, admin staff, faculty, support staff. Virtually all the members of an institution residing together in the same campus. Most frequent and important user being the students.

## Operating Environment

The software will be platform independent as it is a web based application that will use technologies like html, css, javascript etc that can be rendered in the web browser of any device.

## Design and Implementation Constraints

Implementation of the website will be a moderately difficult task as the developer has to keep in mind a lot of points such as smoothness of the website, loading speed, weight of the website among other features. Also, the web portal has to be platform independent so accordingly technology will have to be used. Right after a product is sold, it has to be manually removed from the inventory by the user who had uploaded that particular product. Without this, there will be problems like, users buying products that are not actually there but have been already sold. This can also be looked after by implementing a one more attribute that says if the product is available or sold. But that will bring in a lot of redundancy.

## User Documentation

This web application is made with utmost care and latest technology to ease the user experience and make the interface more elegant. Hence, no user manual or any kind of documentation is provided.

## Assumptions and Dependencies

We make some assumptions in order to run the web portal in the most appropriate way. Some of them being, the details of the products provided by the users will be very clear and distinct so that there isn’t any ambiguity or confusion when someone looks up for products to buy. We also assume that there will be an automatic balance between availability of products and frequent sail of products so that the website runs smoothly.

# External Interface Requirements

## User Interfaces

The user interface uses latest technologies like HTML 5, CSS3, javascript, jQuery, bootstrap3, AJAX and JSON. So that the user gets a speedy and smooth experience while using the website, At the same time, the website bears an elegant look.

## Hardware Interfaces

The hardware used can be any device that supports a web browser. This will essentially be a website. So the hardware can be a mobile phone, tablet, laptop or a desktop.

## Software Interfaces

The device will make use of a web browser to send requests to our server database. It can run on any Operating System like android, iOS, MacOS, Windows, Linux etc.

## Communications Interfaces

The user will provide email-ids, room numbers, or bank account details to ease the communication as well as the trade of goods. The communication between the clients and our server and database for the website will take place in a highly secure manner with encryption to avoid sql injection or hacking of any kind. This is a website and hence the communication will take place through the use of ISPs that provide internet connectivity.

# System Features

**User sign-up**: The buyer or seller can make an account to upload their products or look for an available library of products.

**User login**: The user can log in every time they open the website using their login credentials given at the time of signing up.

**Search:** the user can search from a vast number of products using the search bar.

**Contact** : several methods of contacting are there like direct interaction by finding the room number, or phone number or email address.

**Upload**: user can upload multiple items that they want to sell.

**Feedback**: Feedback feature for every product bought so the new user can get an idea about the quality of the products available.

**Suggestions**: space for suggestions also provided.

* FR01: The students shall be able to view the source code for the entire application.
* FR02: The students shall be able to, individually, view and understand the code for all pieces on the UI.
* FR03: The students shall be able to debug the application’s source code using Firebug, which is an online tool to inspect, edit, and monitor HTML, CSS, and JavaScript requests directly on the web

## User: View Categories and items

### **Description and Priority**

The user will have access to all the pages of the web application as well as buy available products as a guest user. He can only upload products for sale after creating an account.

4.2.2 Functional Requirements

* FR04: The users shall be able to view the categories on the application’s home page.
* FR05: The users shall be able to view items in different categories.
* FR06: The users shall be able add items for ADD.
* FR07: The users shall be able to view more information about an item.
* FR08: The users shall be able to browse through the available items.

## User: View Saved Items:

### **Description and Priority**

4.2.2 Functional Requirements

* FR09: The users shall be able to view the items added to the saved items list.
* FR010: The users shall be able to continue viewing items .
* FR011: The users shall be able to delete items from the saved items list.

## Login/User Authentication

### **Description and Priority**

No description as such.

4.2.2 Functional Requirements

* FR012: The users shall login or register using the user authentication form.
* FR013: The users shall not login or register if the information is incomplete or invalid.

## User: Place Advertisement

### Description and Priority

The users can post an advertisement on his profile.

4.2.3 Functional Requirements

* FR014: The users shall place an ADD by completing the information in the advertisement form.
* FR015: The users shall not be able to place an advertisement if the information in the advertisement form is invalid or incomplete.

## Admin: View User Information

### Description and Priority

The admin can see the database and can changes in the UI.

4.2.2 Functional Requirements

* FR016: The administrator shall be able to view all the users’ information that place the advertisement form.
* FR017: The administrator shall be able to delete items from the main page of the OLA application.

# Other Nonfunctional Requirements

## Performance Requirements

The product is developed using latest technologies like javascript and AJAX among others. These technologies ease the user experience and make the performance faster and smoother.

## Safety Requirements

We will have features that check if the user is a human or a robot. Also, the database will be protected from sql injections and all the user data will be written in encrypted form. Also the password given by users has to meet certain requirements to avoid hacking. There will also be a check to ensure the users don’t sell products to themselves to earn discounts.

## Security Requirements

The software will have login authentication. Encryption of all the valuable information. Private web server which will also have login credentials.

## Software Quality Attributes

Software will be up to date with the latest technologies. And, updates will be made as and when required to improve user experience. Also, maintenance checks will be made at a regular period and debugging will be done whenever required.

## Business Rules

We have kept a certain percentage of commission from every sale that takes place. This percentage will be very small to bother the user. Also, we will advertise and promote other bigger companies so the we can take ad revenue from them. Finally, at a later stage we will even implement sale of new product being delivered to the users’ doorsteps.

Use case diagram

