

Software Requirements Specification

for

On-line Sales Portal(OSP)

Version 1.0 approved

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Revision History

Name Date Reason For Changes Version			

1. Introduction

1.1 Purpose

The Software Requirements Specification (SRS) will provide a detailed description of the requirements for the Online Sales Portal (OSP). This SRS will allow for a complete understanding of what is to be expected of the OSP to be constructed i.e., features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. The clear understanding of the OSP and its functionality will allow for the correct software to be developed for the end user and for the development and maintenance of the future stages of the project. This SRS provides the foundation of the project from this SRS, the OSP can be designed, constructed, tested and maintained.

1.2 Document Conventions

The document has been written in Arial font with font size of 11. Important points and heading are indicated in bold and font size of 13. Some of the important points regarding the software are also italicized and underlined.

1.3 Intended Audience and Reading Suggestions

This document is intended for the companies who are involved in setting up a platform where people can buy or sell products like in OLX. The document includes a detailed description of how the software works along with some diagrams so that it becomes clearer to the reader. Through the rest of the document, one becomes familiarized with the scope of this portal- from their purpose, benefits and business strategies. The context and origin of the product as well as its basic functionality are then explained in relevant detail along with an analysis of its different classes, design and implementation. We then detail the interface requirements, build analysis models and examine system features and non functional requirements

1.4 Product Scope

This software system will be an On-Line Sales Portal for some Company. This system is designed to make an online platform on the web where different persons can buy or sell products to each other. There is an option for Customer Login where different people can login to buy or sell their product. Moreover, there is a scope for manager login which is restricted to specific persons. Manager is responsible for the control of the entire buy and sell systems. There are various categories of items that can be bought or sold. Moreover, the manager has the right to add or remove these categories. The manager can also remove the product of poor categories. If the manager suspects any customer to be a fraud, he can remove his items he has uploaded to sell online and delete his account. The system also contains a relational database containing a list of customers, buyers, sellers and items.

1.5 References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

2. Overall Description

2.1 Product Perspective

This system is designed to make an online platform on the web where different persons can buy or sell products to each other. There is an option for Customer Login where different people can login to buy or sell their product. The customers who are involved in buying and selling, can negotiate the price for an item between them and buy products. There is also an option for online money transactions if the deal is confirmed. Moreover, there is a scope for manager login which is restricted to specific persons. Manager is responsible for the control of the entire buy and sell systems. There are various categories of items that can be bought or sold. Moreover, the manager has the right to add or remove these categories. The manager can also remove the poor product. If the manager suspects any customer to be a fraud, he can remove his items he has uploaded to sell online and delete his account. The system also contains a relational database containing a list of customers who are buyers or sellers, items, requests, orders, addresses and categories. The system contains two actors namely registered users and managers . All of them can communicate through online portals.

2.2 Product Functions

- A customer can buy or sell an item over the platform
- To upload an item, the customer has to give specifications about the items, discussed later (Section 3), and a price for the item.
- If a buyer is interested in purchasing an item, he can raise a request and his desired price with a message to the seller
- The raised price is negotiable and if both groups come into terms, items can be

- purchased.
- System ensures that negotiation is confidential and the price is not known to other users.

2.2.1 For Users (basic features)

- Basic account registration where users can buy and sell.
- Sign In after registering
- Request a product for a price
- Accept or reject an offer
- Account Details
- Search Browser (To search required items)
- Search Filter (through category)
- View pending, accepted and rejected requests
- View orders
- Upload their products
- Negotiate price

2.2.2 For Manager

- Authorizing the Sales and Requests
- Updating Product Information
- Managing categories of products
- Updating the information regarding Sellers and Buyers
- Monitoring transactions (In case of errors)

2.3 User Classes and Characteristics

The user classes that will use this product are people who are interested in buying and selling products online. It may also include second hand product buying and selling. Such people will be most frequently using this system. Also people who want to start their business similar to Flipkart or Amazon may also use this system to a great extent, where they can only sell their products.

2.4 Operating Environment

Since it is an online portal software, it requires internet connection and a background server as the only hardware platform to operate. Also there should be a database system available to keep the record of different customers and products.

We chose SQLite, a relational database, which is the default database for Django projects. But for commercial use, we recommend a robust database like SQL or MongoDB etc.

2.5 Design and Implementation Constraints

In order to create good software design, constraints and other contingencies need to be addressed. In this section we will enumerate considerations that must be made when creating this project.

- Must be coded efficiently enough to run well on provided server hardware

- Client side code and/or web pages must be able to run efficiently on low end hardware
- The database will be created and maintained in a way that makes it of reasonable size.

2.6 User Documentation

Brief description and a simple go through of SRS document would be sufficient for understanding the working of the On-line Sales Portal. Along with this, a user's manual which shows the portal through pictures would be handy for quick references to the various features that the portal has.

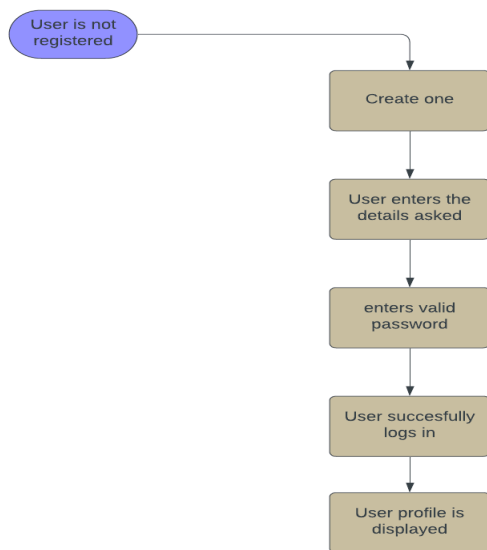
2.7 Assumptions and Dependencies

- Since the whole portal is implemented in the English Language, the users of this portal are expected to be comfortable with the basics of the English Language.
- The users are supposed to know the basics of using Mobile Phone, Laptop or other similar devices from which they use the portal.
- A product that is either sold or already bought by a customer cannot be returned in any case as this is beyond this project scope and can be implemented in future.

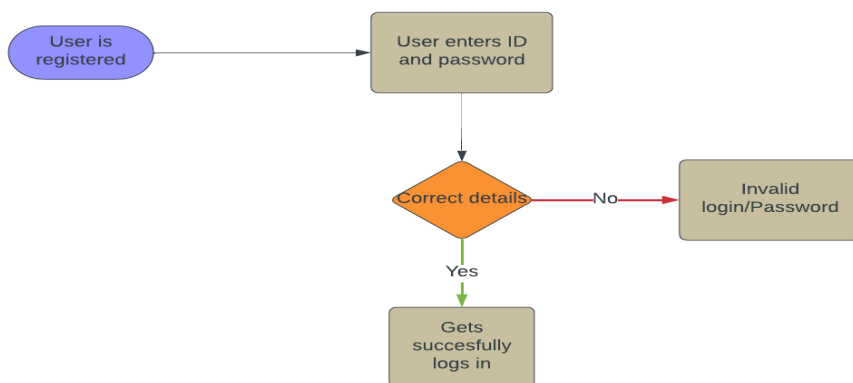
3. External Interface Requirements

3.1 User Interfaces

Activity flow diagram for unregistered user



Activity flow diagram for registered user



3.2 Hardware Interfaces

The Software is supported on any web based browser. Apart from that a hardware is required on the server side to support database software like MySQL, which is required to store all the information regarding sales and purchase of products. All the data entered by the different users are stored in the server of the company, using SQL as an intermediate software.

We chose SQLite database for testing purposes. But it is not recommended for production purposes. So maintaining a robust database like SQL is important.

3.3 Software Interfaces

All the web pages of this portal are majorly built using development tools like JavaScript, Bootstrap and Django template language etc. This online sales portal is accessible through the internet on any Operating System like Unix, Linux, Mac, Windows, etc.

Initially the user can register as a Customer or as a Manager. In order to make a request for buying Login is necessary. User can now Login as a Customer or as Manager, for this he has to provide UserId and Password. This userid and password will be validated from the database.

Objects will be created accordingly in the database on signup if details provided are correct.

As soon as a Customer Object is created, Customer can add his items in the database, request for a product, negotiate with the seller, purchase if the seller accepts the request. Sellers also can negotiate on price, accept or reject requests. These functions will be performed in the database file when a change happens.

Similarly, As soon as a Manager Object is created, the Manager can add/remove categories, review an item and remove a customer from the database. In this case functions will be called for functionalities like deletion of an account, remove categories, remove product, etc..

3.4 Communications Interfaces

Communications are done through email and in website messages.

4. System Features

4.1 Account Registration

Stimulus: Click "Create one" Button

REQ-1. The system shall allow a non-registered user to create a secure account.

REQ-2. The system shall require the following information if the user is manager: Username and password.

REQ-3. The system shall require the following information if the user is a customer: Name,city,street,Telephone number,Email.

REQ-4. The system will mail a unique username and password.

REQ-5. The system shall store the information in the database.

4.2. Sign in

The users have to log into their account whenever they want to use the sales portal.

REQ-1. The system shall require a username and password from the user.

REQ-2. The system will verify the username and password, and the user will be considered "logged-in".

4.3. Search

The users can search for the item of their choice on the search bar.

4.4 AddItem

The sellers can add items on the Sales Portal which are for sale.

Stimulus: Click "Sell" Button

REQ-1. The system shall allow a registered and logged-in seller to add items they want to sell.

REQ- 2 The user shall be prompted to fill in a form with all details associated with the class 'Item' : Category of the item , Photo of the item , price for selling, Age of the item(if not new), city, and specific information about that product.

REQ-3. The system shall allow the user to enter their payment acceptance details like bank account number , IFSC Code etc.

4.5. Update Account Information

The users can update their account information on the sales portal so as to provide their most recent credentials.

Stimulus: Click "Profile" Button

REQ-1. The system shall allow a user to update the information in their account.

REQ-2. The user shall be allowed to view and change their name, mailing address, billing address, payment information.

REQ-3. The user shall be able to change their password by entering the old one once, and a new one twice

4.6.View Requests made by user

The user can view the list of requests made and their status whether they are accepted, rejected and pending

Stimulus: Click "My requests" Button

REQ-1. The system shall allow a registered and logged-in user to view requests made with their account.

REQ-2. The system shall display the item details.

REQ-3. The system shall make items available to buy if the request is accepted by the seller.

4.7.View Orders made by user

The user can view the list of orders made earlier and if accepted requests by seller

Stimulus: Click "My orders" Button

REQ-1. The system shall allow a registered and logged-in user to view orders made with their account.

REQ-2. The system shall display the item details.

REQ-3. The system shall make items available to buy as the request is accepted by the seller.

4.8.View Products uploaded by user

The user can view the list of products uploaded

Stimulus: Click "My products" Button

REQ-1. The system shall allow a registered and logged-in user to view products uploaded.

REQ-2. The system shall display the item details when clicked on uploaded details.

4.9.View deliveries to be done by user

The user can view the orders to be delivered

Stimulus: Click "My deliveries" Button

REQ-1. The system shall allow a registered and logged-in user to view deliveries to be done.

REQ-2. The system shall display the account details to which the product to be delivered.

4.10.View requests received by user

The user can view the requests received for the product which user has uploaded

Stimulus: Click "Use requests" Button

REQ-1. The system shall allow a registered and logged-in user to view requests received.

REQ-2. The system shall allow users to respond to the requests received .

4.11. Account Logout

The user can log out of their account after use.

Stimulus: Click "Logout" Button

REQ-1. The system shall allow the registered and logged-in user to exit his/her account, so that access to operations requiring a user to be logged in are now disabled.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

5.2 Safety Requirements

Any misleading or incorrect details regarding the items added to the portal will lead to a temporary or permanent ban of the customer responsible.

Once the item is purchased the order cannot be canceled/changed and a refund cannot be issued.

5.3 Security Requirements

Certain rules are made to set the password strong so that it cannot be guessed by the attacker. These rules include ensuring that the password contains a sufficient number of characters and contains not only lowercase letters but also capitals, numbers, and in some cases, symbols.

The system also uses third party payment API .Users will need to follow the security requirements as mentioned by the payment application.

5.4 Software Quality Attributes

The system is adaptable and can run on any web based platform. The software is very robust in the sense that the manager has the power to change the software from On-line sales portal to shopping portal like Flipkart and OLX, just by removing all the sellers and selling branded products. The manager can add and remove item categories from the portal, which makes it flexible too.

5.5 Business Rules

The manager of the system can manage buyers and sellers of the system. If he finds somebody corrupt, that is, if someone is selling fake items (items that don't even exist), or someone is

involved in a fake money transaction, the manager has the power to remove such customers from the system and block them permanently.

6. Other Requirements

Items sold by sellers should match industry standards.

Licensing requirements: Applicable

Legal, Copyright and Other notices: All rights reserved by our organization.

Appendix A: Glossary

SRS

A software requirements specification (SRS) is a comprehensive description of the intended purpose and environment for the software under development. The SRS fully describes what the software will do and how it will be expected to perform.

Server

A server is a computer or computer program which manages access to a centralized resource or service in a network.

UML

The Unified Modeling Language (UML) is a general-purpose, developmental, modeling language in the field of software engineering that is intended to provide a standard way to visualize the design of a system.

API

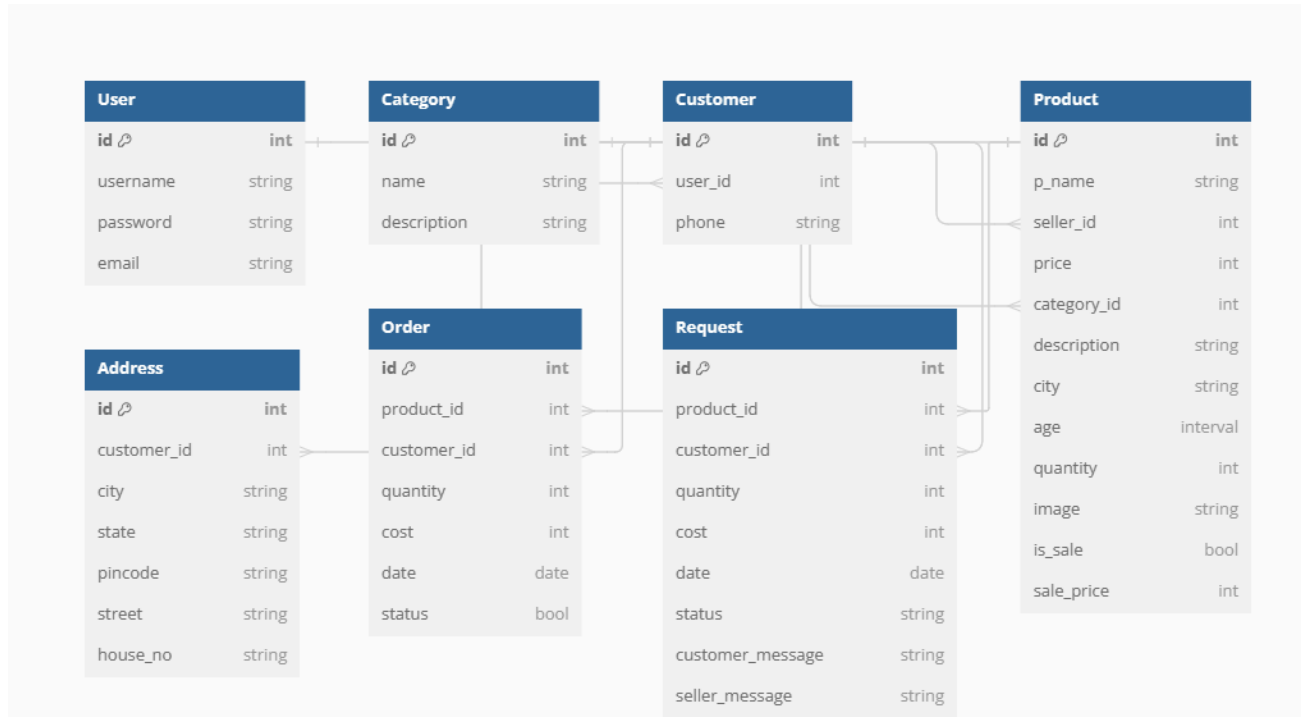
API is an acronym for Advanced Programming Interface. It is a set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application, or other service.

HTTP

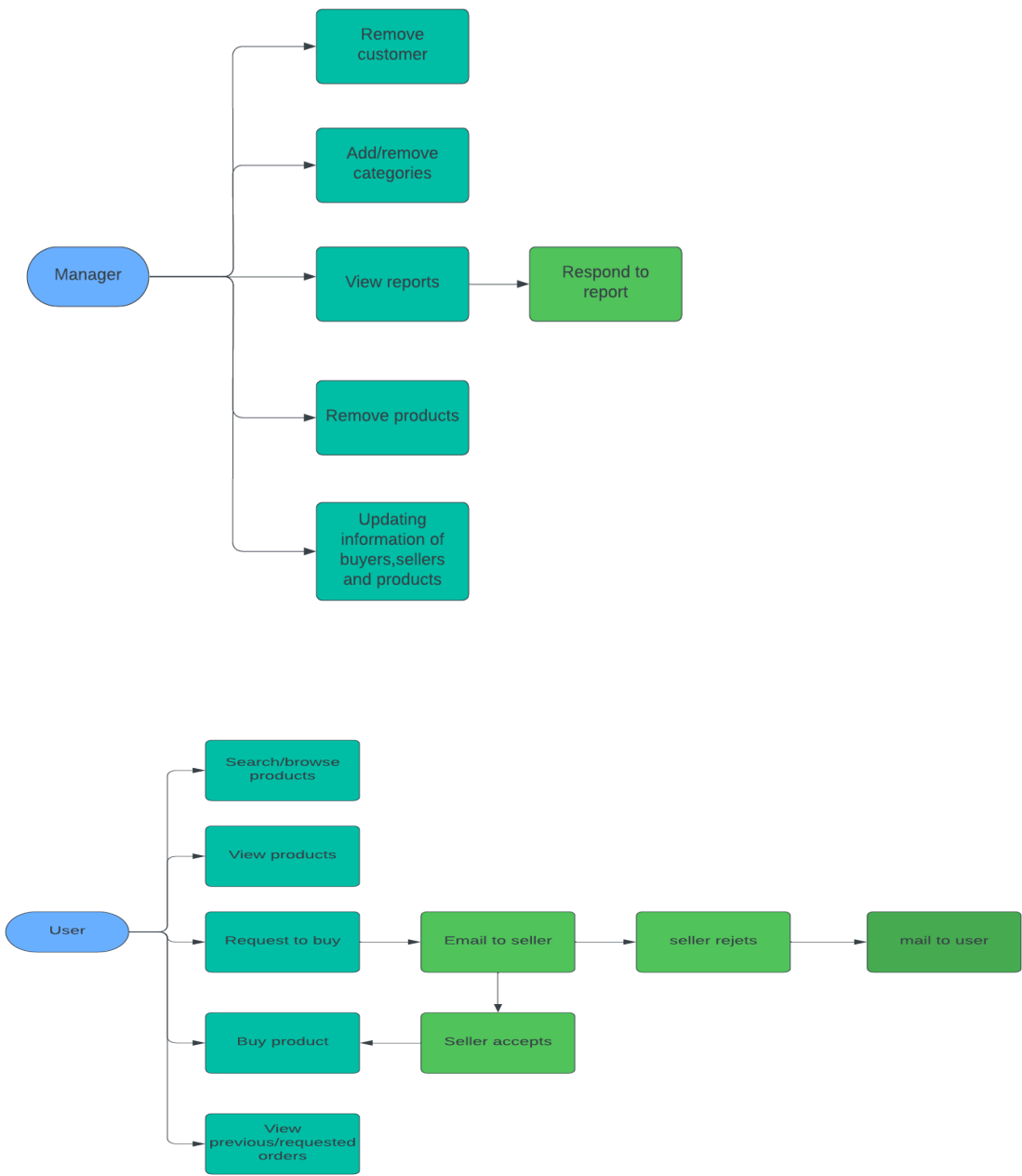
HTTP means HyperText Transfer Protocol. HTTP is the underlying protocol used by the World Wide Web and this protocol defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands.

Appendix B: Analysis Models

Class diagram



Data Flow diagrams



Use case diagram

