**Software Requirements Specification**

**for**

**ReCell**

**(A website for selling and buying used SmartPhones)**

**Version 1.0**

**Prepared by AkashVerma, Saurav Phate**

**Project Group NO. 38**

**12 August 2023**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to define the requirements for the development of a website that facilitates the buying and selling of used smartphones. The website will provide a user-friendly interface for sellers to list their smartphones, and for buyers to browse and purchase those listings.

**1.2 Scope**

The website will act as an intermediary platform for sellers and buyers, providing a convenient and secure environment for smartphone transactions. It will not handle the physical shipment of products or monetary transactions but will connect sellers and buyers, allowing them to communicate and complete transactions independently.

**2. System Overview**

The "ReCell" website aims to connect sellers and buyers of used smartphones. Sellers can create listings for their unused smartphones, providing relevant details such as phone specifications, condition, and price. Buyers can browse through the listings, compare options, and make purchases.

**3. Functional Requirements**

**3.1 User Roles**

The system will have two main user roles: Sellers and Buyers.

**3.2 Seller Functionality**

**3.2.1 Registration and Login:**

- Sellers can create an account on the website to list smartphones for sale.

- Sellers can register with the website using their email address or contact number.

- They can log in securely to access their seller dashboard.

**3.2.2 Create Listing:** Sellers can create listings for the mobile phones they wish to sell. Each listing should include:

- Mobile phone details (brand, model, specifications, condition, etc.)

- Price

- Contact information (optional)

- Upload images of the mobile phone

**3.2.3 Edit and Delete Listings:** Sellers can edit or remove their listings as needed.

**3.2.4 View Sales History:** Sellers can view the history of their sold items and the corresponding transaction details.

**3.3 Buyer Functionality**

**3.3.1 Registration and Login:**

- Buyers can create an account on the website to browse and purchase smartphones.

- Buyers can register with the website using their email address or contact number.

- They can log in to access their buyer dashboard.

**3.3.2 Browse Listings:**

- Buyers can search for smartphones based on specific criteria such as brand, model, condition, price range, and location.

- Images of the smartphone will be displayed to provide visual representation.

- Buyers can view multiple listings per page and navigate through pages.

- The website will provide filtering options to refine search results according to the buyer's preferences.

**3.3.3 View Listing Details:** Buyers can view detailed information about a listing, including phone specifications, condition, price.

**3.3.4 Place Order:** Buyers can add desired smartphones to their cart and proceed to checkout. They can select their preferred payment method and provide shipping details.

**3.3.5 Order History:** Buyers can view their order history, including the status of their purchases and transaction details.

**4. Non-Functional Requirements**

**4.1 User Interface (UI):** The user interface of the website will be intuitive and user-friendly, allowing both sellers and buyers to navigate and interact easily. It should include:

**4.1.1 Seller Registration Interface**

- The seller registration interface will prompt sellers to enter required information and complete the registration process.

**4.1.2 Seller Listing Creation Interface**

- The seller listing creation interface will allow sellers to input details, upload images, and create comprehensive listings for their smartphones.

**4.1.3 Buyer Registration Interface**

- The buyer registration interface will prompt buyers to enter required information and complete the registration process.

**4.1.4 Smartphone Search and Filtering Interface**

- The smartphone search and filtering interface will provide buyers with options to search and filter listings based on specific criteria.

**4.1.5 Smartphone Listing Display Interface**

- The smartphone listing display interface will present smartphone listings and associated details in an organised and visually appealing manner.

**4.1.6 Purchase and Contact Interface**

- The purchase and contact interface will enable buyers to initiate contact with sellers using the provided contact information.

**4.2 Security:**

- User data should be encrypted, and secure authentication and authorization mechanisms should be in place.

- User accounts, personal information, and transactions should be secured using encryption and appropriate security protocols.

- The website should implement necessary measures to prevent unauthorised access and protect user data privacy.

**4.3 Performance:**

- The website should be responsive and provide a seamless user experience for both sellers and buyers.

- The website should be capable of handling multiple concurrent user interactions without significant performance degradation.

- The system should be able to handle a large number of simultaneous users and listings without significant performance degradation.

**4.4 Payment Integration:** Integration with a secure payment gateway to facilitate seamless transactions.

**4.5 Search and Filtering:** The search and filtering functionality should provide accurate and fast results.

**4.6 Data Storage:** Reliable and scalable database storage for user profiles, listings, orders, and transaction history.

**4.7 Privacy:** Sellers' and buyers' personal information should be handled according to privacy regulations.

**5. System Architecture**

The system will be based on a client-server architecture. The client side will consist of web browsers, while the server side will consist of web servers, application servers, and databases.

**6. Technologies Used**

Frontend: HTML5, CSS3, JavaScript, React.js

Backend: Spring Boot

Database: MySQL

Softwares: Spring Tool Suits, VS Code, Mysql Workbanch

Payment Gateway Integration: Razorpay