The Exchange Platform

Software Requirements Specification

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Revision History

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Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Signature	Printed Name	Title	Date

Contents

1. Introduction

This document is to specify the complete description of the application for the CS-258 project. It is an agreement between client and developer about the product to be developed. Through this document, the workload needed for development, validation, and verification will ease and proceed in an organized way. This document describes functionality, interface, dependencies, performance and assumptions of the application to be developed. Therefore, the intended reader group for the software requirement specification is the client and the users.

1.1 Purpose

This document is a software requirement specification (SRS) for the application of the exchange platform. This project is regarding the development of an application for buying and selling various kinds of products. The application is supposed to be a collaborative platform for people to sell the products they no longer need and buy the products at a reasonable price and within a shorter duration of time.

1.2 Scope

This project is intended to ease buying and selling and to create a convenient and easy to use application for people of IIT Indore who want to sell or purchase products. There is no proper application which allows students or staff in our campus to sell their commodities when no longer needed to other people in campus who need them. ALSO, we will add a feedback section to make exchange experience more transparent.

1.3 References

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1.4 Overview

We are going to focus on describing the system concerning product perspective, product functions, assumptions and dependencies in the following document. Additionally, user requirements for performance and ease of navigation will be enclosed.

2. General Description

This section gives background information about specific requirements of the application service to be developed, in brief. Although we will not describe every requirement in detail, this section will describe the factors that affect the final product.

2.1 Product Perspective

This application is eventually intended for the use of people at IIT Indore who wish to sell their products or buy the same. A user will be required to register on the application before using it. The users can register only through their college email id, thus assuring that this facility will be available only to the people in the campus.

There will be two sections in the application-buy and sell. For selling, the users will be able to post the details of their product (photo, current condition of product, price they are willing to sell it for etc.). For buying, the user can select the desirable product and contact the owner through his/her email id or any other contact info provided.

Currently, there is no such exchange platform available in the IITI campus, thus our application will benefit the people at IIT Indore.

2.2 Product Functions

Functions are provided to the buyers and sellers. The buyer will be provided with the function of choosing a product and can add multiple products to their cart. They can also interact with owners of the product through the contact information provided. Meanwhile, the seller can upload information about his/her product and price he/she would like to sell it for. Note that buyers and sellers cannot use the application without registering on it.

2.3 User Characteristics

This application is eventually intended for the use of the IIT Indore community especially students. An easy to use interface is incorporated which would not require them to know about the underlying lines of codes required to create the application. Also, there will be a help section to guide the users. There can be two types of users-buyers and sellers. An easy to use UI will help them understand the functioning of the application.

2.4 General Constraints, Assumptions And Dependencies

One of the main assumptions while building this application is that the seller will remove his/her product after the sale. enough space for storage of content of the application will be required on the system on which application will be running.

<u>Required softwares</u> are Flutter, Firebase and Dart Language.

The application will be optimized for various platforms including Android and IOS.

3. Specific Requirements

With this section and later, we will describe the requirements of the application in detail. We will categorize requirements in the following sections, which are namely external interface requirements, functional requirements, and non-functional requirements.

3.1 External Interface Requirements

The application will be the main User Interface for the users. Through the application, a user will be able to sell/buy any product. Additionally, the admin will have some elevated privileges and will be able to moderate this process.

3.2 Functional Requirements

A detailed structure of the various pages with their functionalities has been discussed below.

3.2.1. Sign-Up Page

Functionality: This page will help the users to register on our application which is mandatory for accessing our website. For those who have already registered, there will be an option for going to the Login Page.

Use Case Name:	Sign-Up
Priority	Essential

Basic Features	• registration through institute email id • option of login page for those who already have an account

3.2.2. Login Page

Functionality: This page will help already existing users to login to their accounts. It will also have an option for new users to take them to SignUp Page to create a new account. Moreover, if the user forgets his/her password, then a "Forget Password" will help them reset the password.

Use Case Name:	Login
Priority	Essential
Basic Features	• Login through institute email id • Option of sign-up page for those who don't have an account • An option for "Forgot Password" is provided.

3.2.3. Buy/Sell Page

Functionality: This page will be having five options-first will redirect to the sell page if user wants to sell the product, second will redirect to the buy page if user wants to buy the products, third will redirect to remove page to remove the information and pictures about the product, fourth will redirect to the cart page if user wants to see the products that he/she will select to see it later and fifth will redirect to the feedback page in case user wants to add the feedback about the procedure .

Use Case Name:	List Of Options

Priority	Essential
Basic Features	• Choice among buying, selling, removing a product, displaying the products in cart or feedback

3.2.4. Sell Page

Functionality: This page will create a form to fill all the details of the product that users want to sell. Details include a picture of the product in possession, price that the seller wants, name and information about the product. Users will also have to choose the pre-available category in which his/her product will be displayed. Information of the seller will also be recorded for future use during the transaction.

Use Case Name:	Sell
Priority	Essential
Basic Features	• Quick navigation to category of the product to be sold is provided • Picture of the item for selling can be uploaded • Different sections for adding name of the seller, information about the product and price of product is provided

3.2.5. Buy Page

Functionality: This page will display all the categories available for the customer from which he/she can select the category of the product that he/she wants to buy.

Use Case Name:	List Of Categories

Priority	Essential
Basic Features	• List of all the categories available for customer to buy from

3.2.6. Remove Page

Functionality: All the items uploaded by the user for sale will be displayed on the remove page. The user will be able to select multiple items to remove them. Once the user clicks on the remove button, the selected items will be removed and the message stating the same will be displayed.

Use Case Name:	L List of items uploaded
Priority	Essential
Basic Features	• List of all the items uploaded by user for sale. • Option for selecting the item to be removed

3.2.7. Category Page

Functionality: This page will contain a list of all the products in the category the user has selected. Each product will have an image, name and price mentioned from which he/she can select the desirable product.

Use Case Name:	List of Products
Priority	Essential

Basic Features	• List of all the products available in that category • Product name , price and one picture of the product will be shown for each product.

3.2.8 Product Page

Functionality: All the information available of the particular product will be displayed. The option for information about the owner of the product will also be available.

Use Case Name:	Product
Priority	Essential
Basic Features	• All the details regarding the product will be displayed. • An option of seller details will be provided to establish a contact between buyer and seller

3.2.9. Seller's Information Page

Functionality: This page will provide contact information like name, contact number, institute email id of the owner of the selected product. Also, there will be the option of Add To The Cart which will allow buyers to select the products they want to buy.

Use Case Name:	Seller's Information
Priority	Essential

Basic Features	• Name, contact number, institute email id of the seller will be available. • Option of Add to The Cart

3.2.10. Cart Page

Functionality: This page will display the products shortlisted by the users for buying. This will allow users to select multiple products.

Use Case Name:	Products Selected
Priority	Essential
Basic Features	• Will display the products selected by the users for buying.

3.2.11. Feedback Page

Functionality: The motive behind this page is to collect the user feedback and improve our application from time to time. The feedback will only be visible to us and not to the users.

Use Case Name	Feedback
Priority	Moderate
Basic Features	• users can provide their feedback for the better functioning of the application. • The feedback will be received by us and will help in the improvement of application.

3.3. Non-Functional Requirements

3.3.1 Performance

The application is mainly created by using flutter and firebase which are open-source projects developed by google. These tools are known for faster app development process and striking user interface. We provide for a user-friendly UI which does not hinder the performance of the application, hence ensuring high performance.

3.3.2 Availability

The application being created will readily be accessible to all its potential seekers as it will be put on the play store. However, the system needs to fulfil certain REQUIREMENTS. These requirements have already been written about in Section 2.4 and should be revisited for further clarity.

3.3.3 Security

every user's profile will be secured by the password. Also, only the contact information provided by the user will be displayed, hence, users can choose the contact details to be displayed. Also, any kind of information about the transaction between any two users will not be available to other users.

3.3.4 Maintainability

The application will be developed using flutter and firebase which are open source projects and support rapid app development, and hence contributions of various other programmers and thereby remains updated. Competent documentation should assist a new programmer to understand the functionality added by each code and the goals we aspire to achieve.

3.3.5 Portability

As already mentioned, the application is to be developed using flutter and firebase, hence it will be super portable and can be run on various platforms.

3.3.6 Logical Database Requirements

We shall use the databases to store the product details according to the categories so that relevant information can be displayed. Also, databases will be used to store the user information and sign-up details.

THE END