

THE EXCHANGE PLATFORM

SOFTWARE REQUIREMENTS SPECIFICATION

VERSION 1.0

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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

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DATE

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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

[HTTPS://KRAZYTECH.COM/PROJECTS/SAMPLE-SOFTWARE-REQUIREMENTS-SPECIFICATIONSRS-REPORT-AIRLINE-DATABASE](https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database)

<https://krify.co/how-to-make-buy-and-sell-marketplace-mobile-app-like-letgo/>

<https://www.bmc.com/blogs/software-requirements-specification-how-to-write-srs-with-examples/>

<https://clearbridgemobile.com/how-to-build-a-mobile-app-requirements-document/#Constraints>

<https://futureworktechnologies.com/how-development-cost-make-create-app-build-craigslist>

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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.

REQUIRED SOFTWARES 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

USE CASE NAME:	SIGN-UP
PRIORITY	ESSENTIAL

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BASIC FEATURES	1.REGISTRATION THROUGH INSTITUTE EMAIL ID 2.OPTION OF LOGIN PAGE FOR THOSE WHO ALREADY HAVE AN ACCOUNT
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3.2.2. LOGIN PAGE

USE CASE NAME:	LOGIN
PRIORITY	ESSENTIAL
BASIC FEATURES	1. LOGIN THROUGH INSTITUTE EMAIL ID 2. OPTION OF SIGN-UP PAGE FOR THOSE WHO DON'T HAVE AN ACCOUNT 3. AN OPTION FOR "FORGOT PASSWORD" IS PROVIDED.

3.2.3. BUY/SELL PAGE

USE CASE NAME:	LIST_OF_PURPOSE
PRIORITY	ESSENTIAL
BASIC FEATURES	CHOICE AMONG BUYING ,SELLING , REMOVING A PRODUCT OR FEEDBACK

3.2.4. SELL PAGE

USE CASE NAME:	SELL
PRIORITY	ESSENTIAL
BASIC FEATURES	1. QUICK NAVIGATION TO CATEGORY OF THE PRODUCT TO BE SOLD IS PROVIDED 2. PICTURE OF THE ITEM FOR SELLING CAN BE UPLOADED 3. DIFFERENT SECTIONS FOR ADDING NAME OF THE SELLER, INFORMATION ABOUT THE PRODUCT AND PRICE OF PRODUCT IS PROVIDED

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3.2.5. BUY PAGE

USE CASE NAME:	LIST_OF_CATEGORIES
PRIORITY	ESSENTIAL
BASIC FEATURES	LIST OF ALL THE CATEGORIES AVAILABLE FOR CUSTOMER TO BUY FROM

3.2.6. CATEGORY PAGE

USE CASE NAME:	LIST_OF_PRODUCTS
PRIORITY	ESSENTIAL
BASIC FEATURES	<ol style="list-style-type: none">1. LIST OF ALL THE PRODUCTS AVAILABLE IN THAT CATEGORY2. PRODUCT NAME , PRICE AND ONE PICTURE OF THE PRODUCT WILL BE SHOWN FOR EACH PRODUCT.

3.2.7. PRODUCT PAGE

USE CASE NAME:	PRODUCT
PRIORITY	ESSENTIAL
BASIC FEATURES	<ol style="list-style-type: none">1. ALL THE DETAILS REGARDING THE PRODUCT WILL BE DISPLAYED.2. AN OPTION OF SELLER DETAILS WILL BE PROVIDED TO ESTABLISH A CONTACT BETWEEN BUYER AND SELLER

3.2.8. SELLER'S INFORMATION PAGE

USE CASE NAME:	SELLER'S_INFO
PRIORITY	ESSENTIAL
BASIC FEATURES	<ol style="list-style-type: none">1. NAME,CONTACT NUMBER,INSTITUTE EMAIL ID OF THE SELLER WILL BE AVAILABLE.2. BUY IT OPTION FOR THE REMOVAL OF SOLD PRODUCTS.

3.2.9. FEEDBACK PAGE

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 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

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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