Software Requirements Specification
for
TechshopJU

Prepared by

Abdul Mukit (2592)

6, March 2021

Contents

Revision History

Revision	Date	Author(s)	Description
1.0	6.05.2021	A.Mukit	Chapter 1 - Introduction
2.0	10.12.2021	A.Mukit	Chapter 2 - Overall Description
3.0	09.01.2022	A.Mukit	Chapter 3 - Requirements
4.0	not yet published		Finale Version

Chapter 1

Introduction

From the beginning of civilization, man is trying to develop science and technology to reduce effort. In this way human invented difference device and tools for the betterment of life. Invention of electricity make our life dynamically upgraded. Diference electronic component is used to work in a integrated platform. Internet of things make the life better. In this project we create an e-commerce site to make these component avail to users doorstep.

1.1 Purpose

Basic purpose of TechshopJu is to make electronic component such as Arduino, Raspberry pi, NodeMCU, available to remote users. So that they can make their own Iot environment themselves.

1.2 Intended Audience

This system audience may vary in different form. Typical audience are:

- Developers / Admin
- Project Manager
- Tester
- General User

1.3 Intended Use

- Developers: Developers are the team that organize the overall management of the project. As user's requirement the create create the interface of the projects, make it effective and perform future maintenance.

- Project Manager: Product manager communicate with business analyst and configure the requirements of the products.

- Tester: In each iteration of software development life cycle, after developer developer a version of the product, tester perform test in the product and check the functionality of the products.

- General User: General user are the end-user of the software. They use the SRS to specify what they need the developer to do. They use the final outcome of the software and get benefited from it.

1.4 Product Scope

Basically this is Mobile application e-commerce system. We build this application in android framework for the availability of most of the users.

Benefits of this application are:

- User can order product from online.

- User can monitor latest information of products.

- User can search for a product

- User can order their PCB.

Objective of this application are:

- Inspire user to develop Internet of Things projects.

- Simplify user's daily work.

1.5 Risk Definition

- Product is lost in the shipment

- User provide an incorrect PCB schemetic.

- User authentication interrupt.

Chapter 2

Overall Description

We are going to build an e-commerce mobile platform inspired from techshopbd.com. Initially user need to authenticate this application. The Login page appear for users verification. If user dont hava an account, they can create one in the create_account section.

After successful authentication, user is redirected to product catalogue. It display a list of product along with Image and Price. By clicking in the product item, user will send to Product_Detail_Activity where he can place order of the product.

User can also save a product to wish list & cart for future reference. User can also order PCB for his project int the PCB section

If Admin is logged in, He will go to CURD section where he can

- add a product

- view catalogue

- update product information

- remove a product from database

Firebase is used to govern the database of this project.

2.1 User Classes and Characteristics

Different kind of use can use this app.

- Students of Computer Science or Electrical Department for performing his projects.

- It firm executive.

- Research Assistant in IoT fields.

- General use who is interested to make his home smart.

2.2 Operating Environment

- Operating System: Windows, Linux, Mac

- Database: Firebase

- Platform: Android

2.3   Constraints

- We have to develop the application in Java language.

- The system must operate clearly in users environment (Android).

- We have to finish this project within January 2022

2.4   Assumptions

- User can read and write in English

- User must have internet access to get data from cloud.

- User must be familiar in operating android application.

Chapter 3

Requirements

3.1 Functional Requirements

3.1.1 Create Account

- **As a new user,**
  I want to register an account to the system
  so that I can access the system.
  Confirmation / Acceptance

  - User have to input a his personal Gmail id, user name, contact no to register.
  - Password must be at least 8 character along with letters and numbers and special character.
  - After registration, user will redirect to product catalogue.

  Failure Criteria

  - User provide an invalid email.
  - Password is failed to follow the criteria.
  - User already have existing account on that email, redirect to login page.

3.1.2 Login

- **As a registered user,**
  I want to login to the system at first
  so that I can view my dashboard.
  Confirmation / Acceptance

  - User have to input his registered mail, password.
  - After verification, Dashboard view will be available to the user.

  Failure Criteria

  - User have slow network connection.
  - Internet connection failed
  - User give wrong id or password as input.

3.1.3 Admin CRUD

- **As a admin,**
  I want to Add a new product, Read product from database, Update product information, and Delete a product

  Confirmation / Acceptance

  - After authentication, admin is redirected to add product page
  - Admin input product name, price, product description, and Image of product.
  - admin can view list of products in catalogue
  - admin can update any info of product
  - admin can remove a product from database.

  Failure Criteria

  - Admin input invalid price for the product.
  - Communication error occurred.
  - Admin has no internet access

3.1.4 Product Details

- **As a user,**
  I want to go to product detail page where i can place order.

  Confirmation / Acceptance

  - After clicking a product in the catalogue user is redirected to this page.
  - User can pace order by clicking order button

  Failure Criteria

  - Connection interrupt.
  - Product is not available anymore.

3.1.5 Order

- **As an user,**
  I want Order a product
  so that I can get it in hand.

  Confirmation / Acceptance

  - User need to provide his contact no , address, email, and other information.
  - User need to choose payment methods (Cash-on-delevary / bkash)

  Failure criteria

  - User provide wrong address or contact no.
  - User provide wrong Txn Id if he choose bKash

3.1.6 Order PCB

- **As a user,**
  I want to order PCB for my projects.

  Confirmation / Acceptance

    - User need to define the layer of the pcb (single / double).
    - User need to choos if he want green masking in his PCB.
    - User need to define the dimension of the PCB
    - User need to upload his PCB schematic in PDF format

  Failure Criteria

    - Schematic malfunctioning
    - PCB is not rectangular sized.

3.2 Non Functional Requirements

3.2.1 Performance Requirments

- System must not accumulate with large number of users.

- Response to any kind of interaction must take no longer than 5 seconds to appear on the screen.

3.2.2 Security Requirments

- System will use secure database

- Normal users can just read or write information but they can not edit or modify existing information.

- Admin have full access to the system

3.2.3 Safety Requirements

- System use must not cause any harm to human users.

Appendices

Appendix A

Glossary