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**Project Proposal**

Section: 04

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# **1 Introduction**

## **1.1 Purpose:**

The purpose of our project is to make a mobile application which is convenient to use and search for shops. The name of our application is “KHUJO”. We want to make things little bit easier for the users.

### **1.1.1 Vision Statement:**

The aim of this application is to help people from all backgrounds for finding an easy solution based on their search or their desired needs. This will help them to consume their time and use less effort.

### **1.1.2 Scope:**

This application has the scope for building a community where people can easily look for their desired shops. There will be database maintained also on the products of shops, co-ordinates of the shops. We will include simple English language for the understanding purpose. In further part, we will try to include other languages as well.

## **1.2 Document Convention:**

We will try to give the outlook as easier as possible. We will use different kinds of icons and options for making the application user friendly.

We will use Times New Roman for documents writings and use italic, highlighted or bold features for different purposes.

## **1.3 Project Scope:**

This project has the feature of Google Maps. So we can easily locate our desired shops. Most of the people are familiar with the Google Maps. That’s why we are using it. Currently we are developing our application for only Bashundhara Residential Area. Gradually we will broaden our range which will also help the people who are from other parts of Dhaka.

# **2. Overall Description**

## **2.1 Product Perspective:**

This product is going to be a follow-on member of a product family of an App ( a particular purpose) more precisely it’s going to be a mobile application (Android App). There are many useful mobile applications but ours app will be a helping hand for finding groceries and daily household things by just a tap. This product will help people in a certain area to find shops and our app will help them find the directions also. It will also provide other functions like reminder of events, can create list for what they want to buy later etc. In this we are using Google API for maps to find the shop location. Our app will guide the user to find the nearest shop. First of all user have to sign in. User can sign in via opening their own account via name and email. One thing to remember is whenever the app is running we have to turn on our GPS. Then he/she can select item from search bar and search for nearest shop to buy their desired items. Another function our app will have that is create list for next day or next week. So the app will remind the user to buy things and guide them. In this project, we will have a database management system for collecting shop’s details information. Database will be manually inserted for this short purpose. We are choosing Bashundhara Residential area for this project so we will have most rated shops information and data in our database system. So that user can know more about the shop and the prices.

## **2.2 Product Functions:**

The major features of our “**KHUJO” application are-**

* **User Registration:** Users have to register in our app with his/her name, email address. After giving the correct information user will have his/her own profile.
* **Login:** After registration step user now can login in to their profile to use our app. He/she can also login via gmail or facebook. But this feature is under development stage. We will highlight this part later.
* **Create list and Add items:** In this part user can create list and add items that he/she wants to buy right now or later. If he/she wants to buy later than they can put reminder notification in this app.
* **Search:** In search option user can search for any groceries or any household products. And can see the map for the desire shop.
* **Shop information:** For shop information our app will have a database system where user can see or search for shop information. So that they can have an idea about the shop and shop’s products.
* **Directions to desired shop:** After select all items user wants to buy then he/she can search for direction for going to the shop. Our app will assists user for the nearest shop and also for shortest path to choose for them.

## **2.3 Operating Environment:**

Our “**KHUJO**” project in based on mobile app so, we are going to established it in Android environment.

* Operating System: Android (Handset).
* Coding Language: Java.
* Tool Kit: Android 8.1 Oreo.
* IDE: Android studio.
* The Android SDK and add-ons such as the Google Maps SDK.
* 6. Fire-base for database management system.

All these tools are going to use to establish this project. Our app will work on android version only and handset smartphone.

# **3. Functional Requirements based on user interaction:**

This section includes the requirements that specify all the fundamental actions of the software system.

## **User class 1 –The User:**

**ID:** FR1

**TITLE:** User Registration- Mobile application

**Description:** Given that a user installed the application in mobile and open “**KHUJO**” in mobile, then the user should be able to register through the mobile application. The user must provide user-name, password and email address. The user can choose to provide facebook or google account account for user registration.

**RATIONAL:** In order for a user to register on the mobile application.

**DEPENDENCY:** None.

**ID:** FR2

**TITLE:** User login

**Description:** After registration, user should be able to log in to the “KHUJO”. The login information will be stored on the browser and in the future, registered user should be able to log in automatically. User will now log in from their Facebook or Google account.

**RATIONAL:** In order for a user to register on the mobile application.

**DEPENDENCY:** FR1

**ID:** FR3

**TITLE:** Retrieve password

**Description:** Given that a user has registered, then the user should be able to retrieve his/her password by email.

**RATIONAL:** In order for a user to retrieve his/her password.

**DEPENDENCY:** FR1.

**ID:** FR4

**TITLE:** Create list

**Description:** After successfully logging in to the mobile application, the rst page that is shown should be the create list page. The user should be able to create many list for shopping, User can add / remove items in the list for the purpose to search the shops nearby. User has to save the list.

**RATIONAL:** In order to create list for add items.

**DEPENDENCY:** FR2

**ID:** FR4

**TITLE:** Search by list

**Description:** Added items in the list will provide a search result for user to locate nearby shops. Based on saved item list application will conduct a search to locate shops nearby. The search result will provide user list of nearby shops name, location and other information according to priority of items. A user should be able to select multiple search items in one search. **RATIONAL:** In order to search for shopping items.

**DEPENDENCY:** FR2

**ID:** FR5

**TITLE:** Sorting results

**Description:** When viewing the results in a list, a user should be able to sort the results according to items availability, nearest shop.

**RATIONAL:** In order for a user to sort results in a list.

**DEPENDENCY:** FR2

**ID:** FR6

**TITLE:** View shop information

**Description:** User can be able to see not only nearest shops name but also shops information such as About shop , list of items , availability of items , contact number address , view map on google map.

**RATIONAL:** In order to view shop information.

**DEPENDENCY:** FR2, FR5

**ID:** FR7

**TITLE:** View shop direction on map

**Description:** Users are provided with the shop direction and also shortest route on google map. So that user can able to see the shop direction from their location.

**RATIONAL:** In order to view shop location.

**DEPENDENCY:** FR2, FR5, FR6

**ID:** FR8

**TITLE:** Web application - No match found

**Description:** If no match is found the user should be informed but kept on the search page in order to get the possibility to conduct a new search right away. **RATIONAL:** In order for user to conduct a new search if no match is found. **DEPENDENCY:** FR2

# **4. Non- functional Requirements:**

The requirements in this section we provide a detailed specification of the user interaction with the software and measurements placed on the system performance.

## **4.1 Performance requirements:**

The smoothness of the system should be very high. User should not be wait too long to just see the search result. Real time should be very low. Search result should be very relevant to the searched keywords.

## **4.2 Safety Requirements:**

Personal data stored of a user should be very safe from another user. Only administrator will be able to take steps if there is any concern.

## **4.3 Scalability:**

Size of the system should be enough to accommodate hundreds of users.

## **4.4 Availability:**

Mobile application should be able to access from any place.

# **5. Constraints:**

## **5.1 SCALE:**

The application's need of active mobile data communication and an android operator mobile phone.

## **5.2 MUST:**

Android mobile phone, Internet connection, Database.

## **5.3 PLAN:**

IOS, Web application.

# **6. Security:**

## **6.1 Communication Security:**

**GIST:** Security of the communication between the system and server. **SCALE:** The messages should be encrypted for log-in communications, so others cannot get user-name and password from those messages.

**METER:** Attempts to get user-name and password through obtained messages on 1000 log-in session during testing.

**MUST:** 100Communication Messages: Every exchanged of information between client and server.

## **6.2 Admin Login Account Security:**

**GIST:** Security of accounts.

**SCALE:** If an admin tries to log in to the web portal with a non-existing account then the admin should not be logged in. The admin should be noti ed about log-in failure.

**METER:** 1000 attempts to log-in with a non-existing user account during testing.

## **6.3 User Create Account Security:**

**GIST:** The security of creating account for users of the system.

**SCALE:** If a user wants to create an account and the desired username is occupied, the user should be asked to choose a different user name.

# **7. Monetization:**

Our application “**KHUJO**” needs to be monetized is certain ways. Whenever we are creating an application for market, we need to think about the costing and the monitoring methods.

If we take 5% from the shop owners, in monthly basis for advertising the shop or we can take yearly basis subscription charges. We can choose the most convenient transaction way such as BKash or Rocket on this purpose. If we add advertisements we can also make some earnings from there.

# **8. Business Strategy:**

For business purpose, every application needs attention of users. On that case, we need marketing. The idea need to be presented in such way that the users feel the necessity of using this application. So we will be needed good advertising and solid marketing strategy.

# **9. Release Plan:**

The requirements are divided into three releases based on the prioritization and their dependencies. The three different releases are assembled so that each would work as a fully functional application. In the first release the requirements that build up the foundation of the mobile application were included, together with the most highly prioritized requirements and their dependencies. The second release also includes important requirements. However, these requirements are not vital for a functional application. They are more suited to act as additional features that can contribute to making the software product more attractive. The third release includes the requirements that can be afforded to discard if the project gets delayed or overruns the budget.