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**Mobile Computing**

**CS-855**

**ASSIGNMENT-3**

**PROJECT PROPOSAL**

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## **ABSTRACT:**

In this article, I will talk about a proposal for the development of an android application built on the concept of mobile computing. The application that I have decided to develop is called **Listings**. In this application, the user will be able to sell and buy products online. The user will have the facility of availability of options and many products from which they can choose. This project is straightforward and helps the user who is a buyer to overcome the struggle of hassling through the streets in search of the product. Moreover, assists the user who is a seller by providing them a platform to place and promote their products in public.

*Index Terms-* android, e-commerce, buy, sell, CS-855

## **MOTIVATION:**

The task given by my professor was to make an android based application project. The android application which I have decided to make is an e-commerce android application. Everyone wants the ease to buy and sell the products that they want with as much comfort and efficiency as possible. There are many e-commerce websites and applications that are already in the market that cover this area, for example, Facebook Marketplace, which is a consolidation of products from the region that the user lives in, which makes it feasible for the user to navigate through the option and prices that they currently have on the products they want in the region. Although this is a great stage for the promotion and purchase of a product, the problem with this sort of integrated application is, it being a social media platform. This type of integrated platform with these features can lead to distractions, leading to loss of time and energy for the user.

Therefore, my goal with this android application is to create a platform, which will help the user by giving them a dedicated place to buy and sell products. It will help them finding the solutions of buying and selling the products without spending a lot of time and energy. Thus, it will be feasible and efficient.

## **PROJECT PROPOSAL:**

### **1) Project Overview:**

**'Listings'** will be an android based e-commerce application. The goal of this project is to develop an application that runs on an android platform. The application will provide its users with the ability to buy and sell their products.

This platform will be a dedicated platform for the user who wants to buy the products. This will be executed by providing them with the ability to navigate through the products. The products will be on the user interface with their price and region location. The user will be able to compare the prices of the products. The card view design of the user interface will help to accomplish this task. The card view design of the interface will have the image as well as the price and location of the product.

For the users who want to sell their products, this android application will behave as a dedicated platform to place their products in the public. The users who are selling the products will have the ability to update their product's prices, image, name, and location according to their wishes.

## 2) **Material Requirement:**

Below is the list of requirements for the implementation and development of this android application:

### **For Development:**

- A computer system, which is capable to support and run android studios.
- Android Studios software.
- Coding language – Java, XML.
- An android device or emulator (android KitKat or above version).

### **For User Implementation:**

- An android device (with at least android KitKat or above).
- The ability of the device to connect to the internet.
- The ability of the device to run applications.

## 3) **Components of Project:**

This section of the proposal will give a brief description of the components of the project:

- Mobile application
- Backend (Server)

### **Mobile Application:**

The mobile application will be an android based application that will be capable of running on the android version of KitKat and above. This application is going to be build using android studios software, with Java and XML as coding languages.

The activities on this mobile application will be as follows:

1. Splash screen- To display the name of the application.
2. Register and Login activity- To register and login into the application.
3. Navigation drawer- This shows the option to navigate between different activities.
4. About activity- This shows the description of the application.
5. Search bar- To search the product by name.
6. Upload button- To take to the page to upload the item that the user wants to sell.
7. Profile- Shows the details of the user and allows them to edit the details.

### **Backend(Server):**

The backend of this android application works by storing the information that the user has uploaded in the application, for example, the images and details of the products. The backend server will be a common server that will manage all the data. For the backend server, the Google Firebase platform is going to be used. This backend server will store and update the data in real-time.

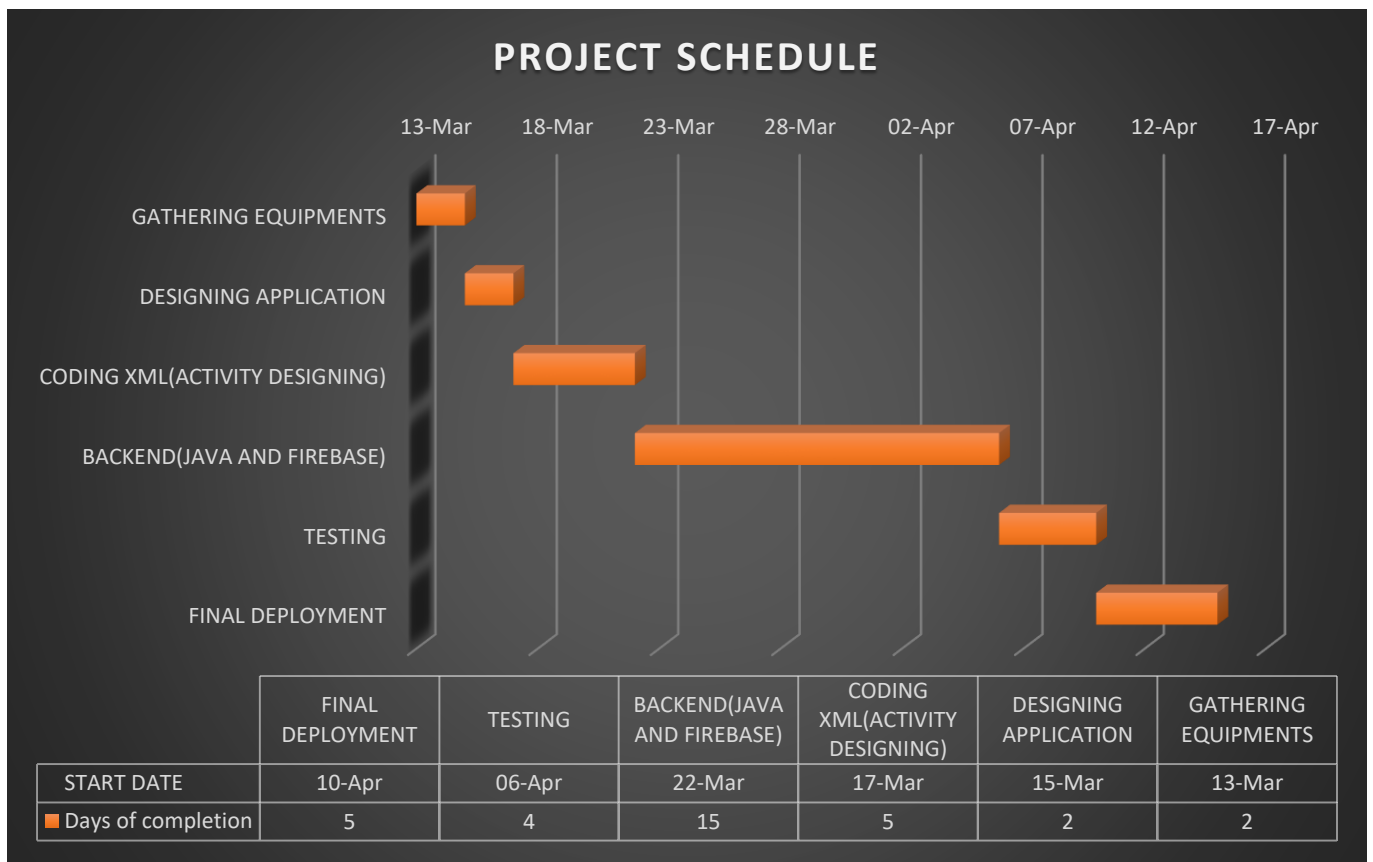
## 4) **Scheduling :**

The list below outlines the timeline of developing the project:

- **Milestone #1:**
  - Gather the required equipment.
  - Due 14<sup>th</sup> March 2021.

- **Milestone #2:**
  - Design the rough sketches of the activities.
  - Due 16<sup>th</sup> March 2021.
- **Milestone #3:**
  - Complete with designing of Activities in the XML.
  - Due 21<sup>st</sup> March 2021.
- **Milestone #4:**
  - Add functionalities using Java.
  - Add the backend server functionality (Firebase).
  - Due 5<sup>th</sup> April 2021.
- **Milestone #5:**
  - Testing of the all the functionalities.
  - Fixing bugs.
  - Due 9<sup>th</sup> April 2021.
- **Goal Milestone:**
  - Final testing of the application.
  - Complete documentation.
  - Due 14<sup>th</sup> April 2021.

Below is the Gantt chart with the visual depiction of the Milestones:



## **POTENTIAL RISKS:**

Some of the potential risks of this e-commerce applications are:

- 1) There is always a risk of security breaches if the user somehow leaks the username and passwords of their account.
- 2) There is a potential risk of cyber attack.
- 3) The personal information like a phone number and email are necessary for this application in order for the user to communicate with a buyer or a seller. At the same time putting these numbers in public can also be a cause of potential risk.

## **SUMMARY:**

For the project which was assigned by the professor, I have decided to make an e-commerce android application named '**Listings**'. In this proposal I have described the goals, scope, deliverables, milestones, and potential risks involved in this project. The entire workflow of the development of the project is described in this proposal. By this project I intend to demonstrate the knowledge of what I have learned in the class, and using that I want to deploy a project to solve some real-world problems. This project once completed and if it works according to the plan will make it more efficient for the user to buy and sell the products online.