North South University

Department of Electrical & Computer Engineering

Project Proposal

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Project Name: E-Medicine App

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INTRODUCTION

As covid-19 enters Bangladesh, it has affected many people. So, the government announced lockdown. Now, sick people are helpless. They can't go out to see doctors or even buy their necessary medicine. There are many people live in city alone. So, it's hard for them to buy medicine from a physical shop. Now here, the E-medicine app will make their life easy. In 2020, it's rare to find someone without a smartphone. So, as people are already using smartphone on a daily basis why not make their life easier by letting them buy medicine online using an E-medicine application?

In this project, I will be developing an E-Medicine Application for Android. Any user can download this app for free and use it for their online medicine purchases. Not only medicines, the app will have a section where people can order for necessary item for babies like Diaper, Baby oil, Shampoo etc. This will help the single parents a lot by not going to a shop. The app will benefit a store to increase their number of sales, help the helpless and most importantly, develop an effective tool to help the healthcare system.

FEATURES

- A welcome page, where a user can **Sign in** or **Join** from their devices.
- Clicking any of them will take them to a **Sign in** or **Sign up** page where they can sign in with their **Existing Account** or **Register** an account for new users.
- The user must **Verify** their account information.
- After a successful login or a registration, the user will be redirected to the **Main Landing Page** from where they will be shown **Medicine Suggestion** based on popularity.
- The user can **Manually Search** and select **Quantity** of the medicine.
- There will be a **Category** menu bar, where a user can find or view different types of medicines.
- There will be a **Cart Tab** where the user can view his/her added to cart items
- The cart tab will show the **Shipping** and **Handling** and **Total Prices** of the added medicines.
- There will be an option for **Cash on Delivery**. If a user selects this, he/she needs to confirm his/her local address again.
- There will also be an option for **Pay Online** which the user can pay with their **Debit card** or **Bkash**.
- For Cash on delivery user must **Verify** their **Phone Number**. Without a registered phone number, no user can order anything by cash on delivery.

- After confirming, an **Automated Email** will be sent to their email address confirming their order and delivery time.

TECHNOLOGY

The application will be developed by Android Studio. Android Studio is the official integrated development environment for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development.

Frontend

For the frontend we will be using XML and Java. XML is a markup language much like HTML used to describe data. In Android we use xml for designing our layouts because xml is lightweight language so it doesn't make our layout heavy. It also gives a more premium user interface and smoother experience.

Backend

For the backend we will be using Firebase. Firebase is a platform developed by Google for creating mobile and web applications.

Database

We will also be using the Firebase for Database. It has a Realtime Database feature. The Firebase Realtime Database is a cloud-hosted database. Data is stored as JSON and synchronized in Realtime to every connected client.

Payment method

We will have Cash on delivery payment method along with other online payment like Bkash and will be using API to ensure that users can pay using their Debit card.

Monetization

As an online application, I will add Google AdSense to monetize the application to help me with the fund for its future development.

HIGHLIGHTS AND ET CETERA

There are many other features of this application which makes this application super user friendly. There are many middle aged and old Diabetes patients who cannot get their insulins and other medicines in time. So, it will be easy for them just to order medicines and get them by their doorsteps.

User Profile

There will be a profile page for every registered user to access their information, where they can track record of all their orders and pending orders. It will also save the carted item if someone accidently close the application or the app crashes. From the page, they can edit all their personal information like email, mobile number, username and password in case something needs to change.

Quick Registration

Without an account one can access this app and browse and add medicines to the cart. This feature is really good is some cases as if someone is in hurry for looking for certain medicines which he/she is not finding anywhere. They can just search and if they find they add the item to the cart and it will ask them to register. They can just register with mobile phone or email and customize their profile later from profile page. If they don't find the item they can just leave and save their valuable time. There is no need to create an account just to browse. So, Quick Registration is must for the user experience.

Search Bar

The app will have an enhanced search bar for user to easily search from the homepage without going to category every single time.

Rating System

This feature will be for the shop rating, in terms of their approach to the customer for example, the behavior, delivery and condition of medicine. If a user is pleased by their services, they may rate them within 1-5 star.

Reward System

For every 1000BDT purchase, a user will receive a coupon of 50-100 BDT off, which they can use later for buying another item. But the item must be more than 500 taka or the coupon will not work. Also, there will be a yearly coupon and many occasional rewards for users.

References: Google, YouTube (Coding Cafe).