Project Report

Prepared By: Team Cross Platform Mobile Application for RC Drone Kits,

Prepared For : Al Amin Mahfuz

Course: Programming for mobile device Sessional

Team Members	ID
Ramisha E anjum	19104034
Fahad Ahmed	19204006
Md Ziaur Reza Joy	19204030
Farhun Arif Chodwdhury	19204031

Objective

Cross-platform app development is one of the most popular software creation trends. Statista claims that around a third of developers utilise cross-platform technologies and frameworks, while the rest stick to native apps. It shouldn't come as a surprise - employing this method allows businesses to save time, money, and resources. Our Main objective is to bring RC Drone Kit market to the hands of Young Students, Engineering Freshman and the ones who is interested in Making Drones.

Purpose & Motivation

Demand for smartphones with the heterogeneous platform in the current mobile market: Android, iOS, Symbian, Windows Phone, BlackBerry, and others. In additions Competition among the diverse operating system triggers the developers to add new features.To enhance customer engagement by adding a mobile application to your business. harness some common effort that would give results in a much lesser time and therefore at a lesser cost.

Introduction

Our project is developed using the most competitive language of current time "Dart" which is a client-optimised programming language for apps on multiple platforms. It is developed by Google and is used to build mobile, desktop, server, and web applications. We have used an open-source UI software development kit "Flutter" as the framework and "Firebase" as the backend. Now a days, it is very hard for the people of Bangladesh to find the correct place to buy drone kits through mobile app and build their own personal drone. So we have brought a solution to this problem at your door step. With our app, people will be able to order all the necessary parts needed to make a complete RC Drone with a very low price. The User Interface Design has been designed using "Adobe XD". Our app is an E-Store where users can register and order RC Drone Kits to their doorstep.

Features

- Supports On Both Android, IOS & Google fuchsia
- UI Designed By Adobe XD
- Secure Login / Register
- Digitalised Product Management System
- Advanced Searching Option
- Saved Product List Option
- Add To Cart List Option
- Simple Ordering System
- Fast Delivery System (Cash On Delivery)

Sub-Systems

Our project has been divided into five subsystems:

- **User Account Management System-**

Login Page-

First the app will initialise and the login page will appear. The login page has two custom inputs, the 'login' button and the 'Create New Account' button at the bottom. First input will take the email and the second will take the password from the user. If the user is already registered to our account database, it will directly head to the homepage. If not, it will pop up that

Error User Login-

"There is no user record corresponding to this identifier. The user may have been deleted". By closing the dialog and hitting the Create New Account button at the bottom will take the user to the account registration page.

Create New Account-

The account registration page contains five custom inputs, a 'Create New Account' button, and 'Back To Login' button at the bottom of the page. This will store all the user data in firebase database.

OTP Authentication-

While Connecting to the firebase for Creating new account a user must fill-up the OTP that is send in his number.

- ## Homepage Management System

Homepage-

Anyone can easily create a new account and head to the homepage where the user will get four tabs at the bottom, a home, search, saved and the logout button. At the top we have added three buttons, track your order, the cart and Order confirmation button. In the home tab we get to see the list of our products which are directly accessed from the Firebase Cloud Fire-store through firebase services. The admin will easily be able to update or delete any content or information directly from the database using the Firebase Console.

- ## Advance Search Management System

Search Page-

In the search tab we will add an advance searching option. It will have a custom input at the top, where the user can search any product by its name either in capital letter, small letter or by hint. At the center it will display a text saying 'Search Results', if the user have not searched any product yet.

Product Search Result-

After searching a product by its product name, the database will automatically smart detect the product content and its price from the list, and display it as shown in the figure.

Product Info Page-

The user can open any product from the home tab, search or from the saved tab and it will take the user to the product page. The product page contains the product image, name, price and its description at the top. At the bottom left corner we will add a button that will save the product in the database as saved lists of the registered user and display it in the saved tab. At the bottom right corner we will be adding an Add To Cart button which will add the product in the database as Add To Cart list of the registered user and display it in the cart page.

Saved Product Page-

The saved tab shows the list of the saved products with price from the database.

- ## Order & Delivery Management System

Add To Cart Page-

The cart page will display the list of the added products showing the total price of all the products. The user will also be able to remove any product from the list. At the bottom it will display the total price.

Order Confirmation Page-

In the order confirmation page, the user will be able to update his or her delivery address and can choose options for immediate delivery or to schedule the delivery, then add users name and contact number. We will only accept payments via cash on delivery for customer satisfaction purpose. The user can easily cancel the order from the doorstep. At the bottom we have a Confirm Order button, which will notify the admin with the

delivery details of the user for the delivery process to start. After confirming the order, it will take the user to the order tracking page.

- **Track order**

The order tracking page will show the order number and the status of the order. The admin will keep updating the status from the database. At the bottom we have a Back To Homepage button that will take the user back to the Homepage.
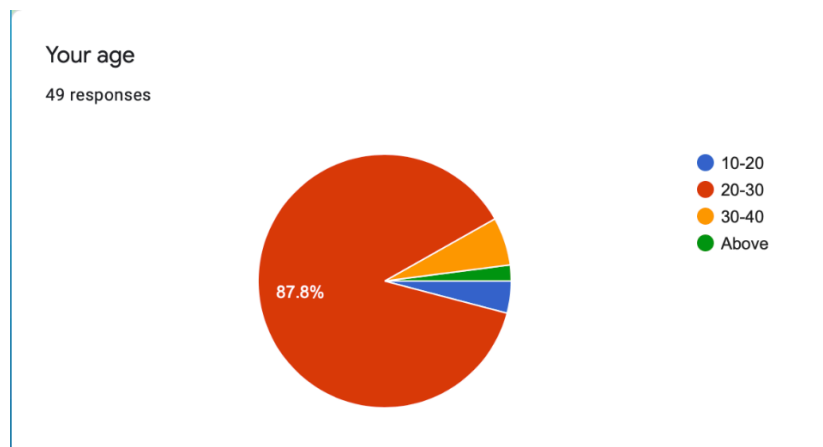
Competitors

As Flutter itself is a newly Software Development kit, There Is no direct Competitor for this app.
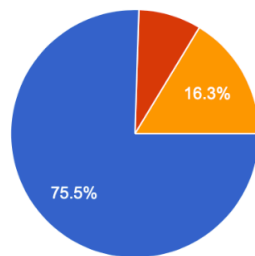Few websites like :
UAV & Drone Kits – RobotShop
RC Drone Parts (kingsdrone.com)

Potential Users

What is your current occupation?

49 responses

- Student
- Professional
- Employed
- Unemployed
- Other

16.3%

75.5%

User Interface Using Figma