

**DEPARTMENT OF COMPUTER AND INFORMATION
SYSTEMS ENGINEERING**

COMPLEX ENGINEERING PROBLEM

COMPUTER ENGINEERING WORKSHOP
(CS-219)

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REPORT

Introduction:

By this project we have been able to sharpen our critical thinking and problem-solving skills. We've discovered a lot of new tricks and methods for implementing our ideas.

Problem statement:

Develop a GUI (Graphical User Interface) based project in-cooperating the basic concepts of Mobile Development using Android OS.

Project description:

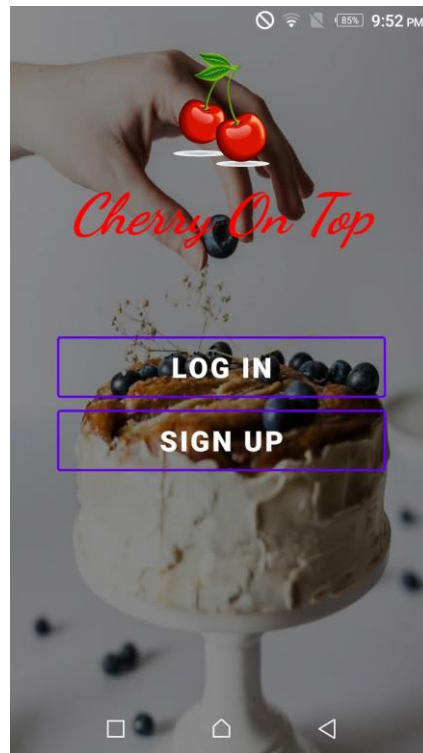
The objective of the assigned CEP was to show how effectively one can work with Mobile Development using Android Studio.

The database that has been used in the project is “**Firestore Realtime Database**”.

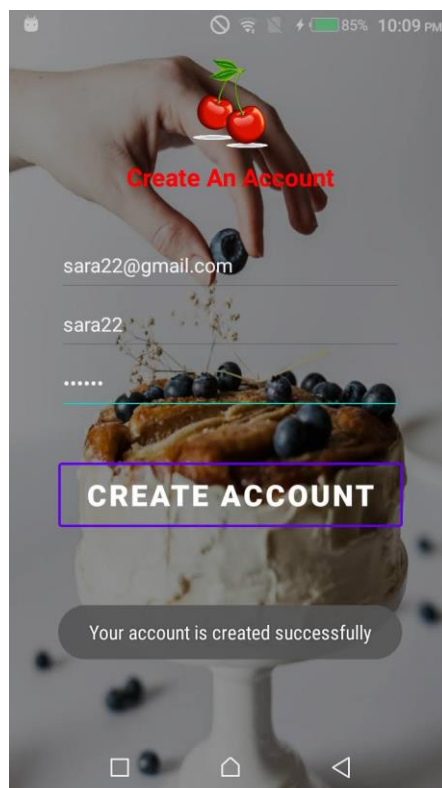
This GUI based mobile application, named as “**Cherry On Top**”, is an online bakery which works as a medium for selling bakery items. The program functions like any e-commerce platform, and allows customers to make individual accounts, add items to their cart, change existing items in cart, and checkout items from the cart.

Flow of the application:

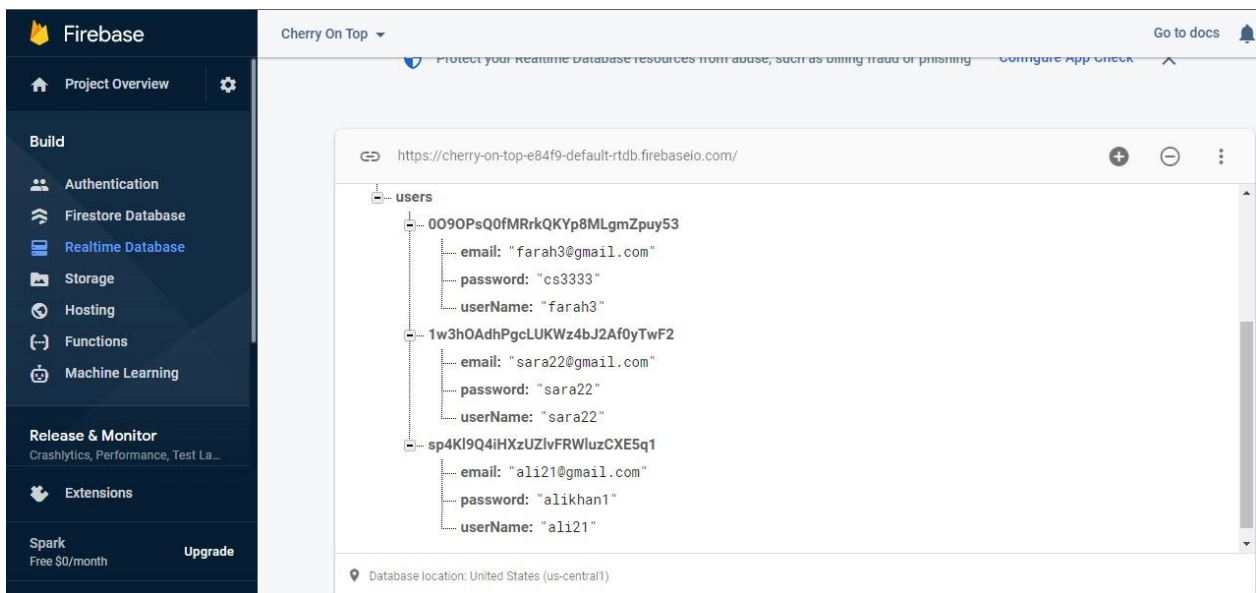
1. The application starts off with a splash screen. It appears when the customers open the app on their mobile device. When the loading is finished, they'll be taken to a more functional screen where they can complete actions. The purpose of the Splash Screen is to quickly display a beautiful screen while the application fetches the relevant content from the database.
2. The Login screen is the first screen to open up and it allows a customer to sign in using an existing account.



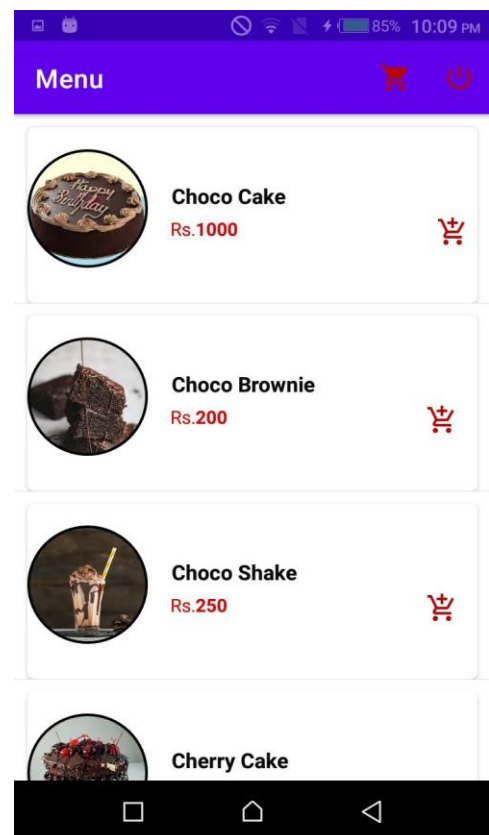
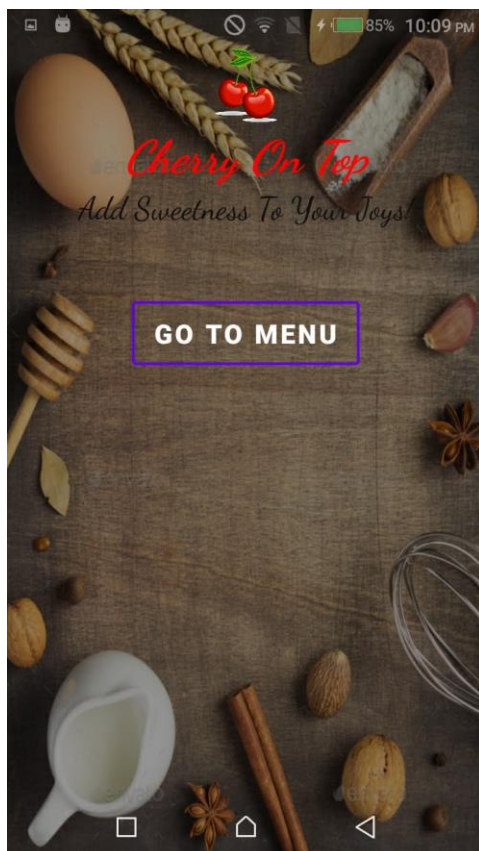
3. Should the customer decide to make a new account, the 'create an account' button enables him/her to do so by opening up a new screen.



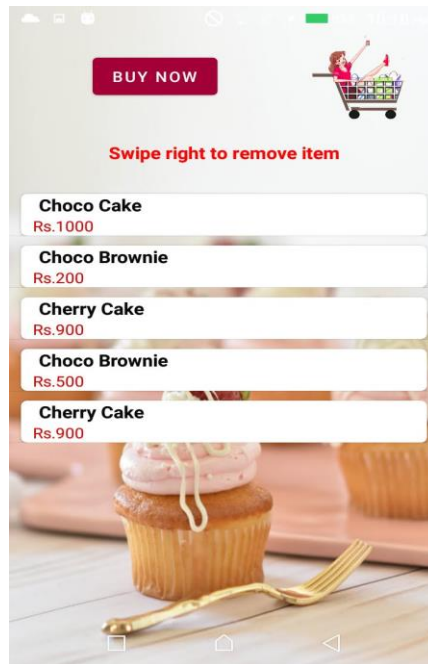
4. The data and all provided customer details of the existing account and at the time of creating a new account, are stored in a the database.



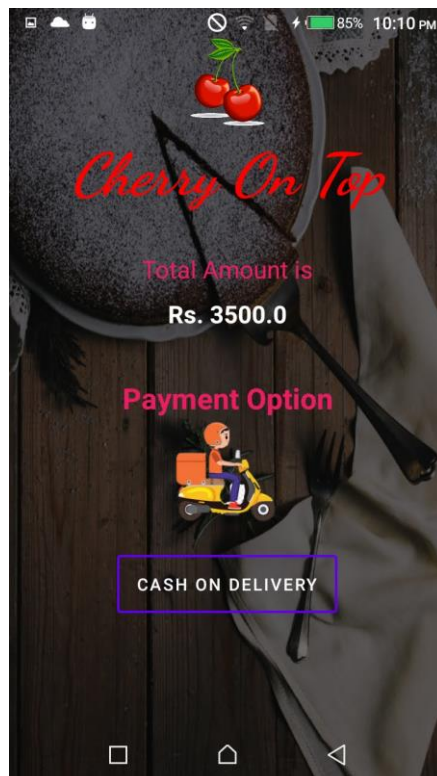
5. Once at the main store screen i.e. the menu, the customer can purchase any amount of bakery items the application offers.



6. These items are directly added to the cart by add to cart button. In the Cart screen, the customer can also alter the quantities of items in the cart. The data of items added to cart is saved immediately in the database.



7. After this, the app displays a total bill in the end. The payment method is cash on delivery.



8. After the shopping is done, the customer can logout from the account.

Conclusion:

The main aim of this app is to design it with a user-friendly interface. This app provides detailed information on bakery products offered by the bakery such as cakes, cookies, brownies etc. The customers can order bakery items instantaneously across anywhere around the area, anywhere they want. So, after downloading this bakery app, customers can enjoy their favorite bakery products at their home by a single finger tap.