

Sheroes Cafe - Food Ordering Application

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Abstract - The project is aimed to help Sheroes Hangout cafe. Sheroes Hangout cafe is a cafe run by acid attack survivors. Here, acid attack survivors are called 'Sheroes' (i.e. She + Heroes). They are fighters, who have survived from the chemical burns they got after acid attack and the mental trauma they got. They are really an inspiration to many, who think that there is no hope in life. This cafe was initially inaugurated in Agra. It also has another location in Lucknow. In this cafe, the empowerment of the Sheroes happens. They get their confidence back, learn different skills, and many more. They conduct different workshops for the acid attack survivors, from these workshops they learn and grow. This project is designed to help these fighter and encourage their efforts. In this project we designed an android application to manage their food orders online. This will be the first food ordering application for Sheroes Hangout cafe. Here, customers will able to order food from their home or office or any place they desire. After, the order is ready, the user will be notified about it and he/she can collect the foo from the cafe. Also, the customer of the cafe can select dine-in option and reserve a table in cafe before they reach there. This application will save a lot of time as well as it will be easy or the cafe to manage the things such as viewing the analysis of the orders, managing the offers, etc. Also, the customer can contribute to cafe This application also aims to raise the awareness about the Sheroes Hangout cafe.

Key Words: Android, Food, Acid Attack Survivor, Sheroes, Feedback

1. INTRODUCTION

The Food Ordering App helps the business owners showcase their menu under different categories. Customers just need to select, enter the quantity and place order. This app gives an opportunity for restaurant businesses to skyrocket their business. Food delivery apps have spurted in magnitude and popularity since COVID-19 hit our home turfs. With social distancing becoming a solid norm, such apps are the need of the hour. They play both the fields; it works for consumers as it can't get better than food being delivered to your doorstep. To restaurants, it means an expansive reach and more business through such delivery platforms. The pandemic has really turned employees of such organizations into warriors of the modern world. Our aim is to provide a platform for the Sheroes Hangout Cafe to manage their orders online and save their customer's time by providing early order

feature. Also, to make people aware about the café through this android application. We also want to support the Sheroes Hangout Café during this COVID-19 situation. We also aim to give support to Sheroes Hangout Café by providing a contribution feature in the android application so that customer of the café will be able to contribute to the cafe by donating money, by becoming a volunteer or by any means.

1.1 Objectives

- To create an easy-to-use android application for ordering the food online and an interactive UI for the application.
- To provide an online platform to manage orders and save customers time while ordering the food.
- To help acid attack survivors and give customers of Sheroes Hangout Café an early order feature, so that they can enjoy their food once they reach the café.
- To spread awareness about Sheroes Hangout Café among the people.

To give them a helping hand by providing contribution feature in the android application so that the customers can contribute to help Sheroes Hangout

2. SYSTEM DESIGN

2.1 Proposed System

We proposed to create android application having an Interactive UI for Sheroes Hangout Café which is easy-to-use for the customers of the café. With the help of this application customer can save their precious time and order food from wherever they are. The application will give customers of Sheroes Hangout Café an early order feature, so that they can enjoy their food once they reach the café. Also the application will increase the awareness about the café and the acid attack survivors among the people. This Food Ordering Application will be consisting of three main parts such as to aware people about the Sheroes Hangout Café, to place order online/ Pre-order/ Book a table and Customers Contribution. Application has the modules such as Log in, Sign in, Introduction about café (cards), Food ordering functions (dine-in, take-away), admin functions (CURD operations), Donation, etc.

2.2 Flowchart

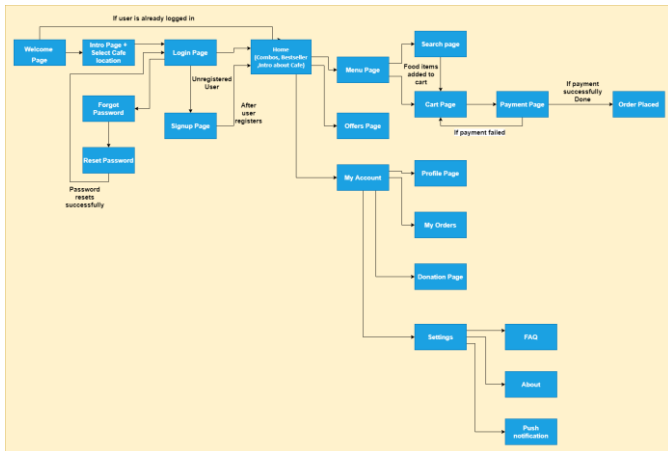


Fig -1: Flowchart

A flowchart is a diagram that depicts a process, system or computer algorithm. They are widely used in multiple fields to document, study, plan, improve and communicate often complex processes in clear, easy-to-understand diagrams. Here is the short description of the flowchart of the proposed application:

Admin:

- Managing the items of menu
- Managing the UI interface
- Managing the payments
- Managing the user

Restaurant:

- Reviewing the order of customer
- Confirming the order
- Update status of the order

Customer:

- Showing food items
- Ordering the food
- Select order type : Takeaway or Dine In
- Cancel the order
- Make payment
- Donate for the cafe

2.3 Technology Used

- Hardware :

The user needs to have an android phone to install the application and use it effectively to give orders and receive the notifications about the order they will place.



Fig -2: Android Phone

- Software :

The Android Studio is needed to develop the android application and the Firebase database to store the data. Both are open-source softwares. Firebase charges as per the user increase above the specified range.

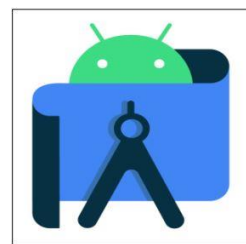


Fig -3: Android Studio



Fig -4: Firebase

3. IMPLEMENTATION

3.1 Modules Implemented

- Introduction: On this page you can see the services provided by the app. You can login from here or you can directly skip the login part and go to the home page.
- Register: If you are a new user you to enter your phone number and then have to enter the OTP to login. Then you have to enter your name and set a password. After that you'll be logged in successfully.
- Login: In login module you have to enter your phone number and then have to enter the OTP to login. They can also use option of logging in using password which you have entered during the registration process as a new user.[1]
- Forgot Password: If you forgot your password then you have to login using your mobile number and OTP.
- Home: On home page you can see information about the cafe. You will see the bestseller food items. Then you can also see the categories of food which will redirect you to that particular category food items. From here you can also select the order type as it is a Dine In or a Takeaway. If you choose Delivery it will

redirect you to Swiggy or Zomato based on your preference.

- Search: On Search page you can search an item by its name or category.[2]
- Menu: On menu page you can see all menu items in a list view and separated by categories. You just have to scroll or you can redirect yourself by that particular category using the menu button.

From Home, Search or Menu page you can add more than one item of more than one quantity to the cart. Then you can see one message on bottom as view cart when you add any item to the cart. It will redirect you to the cart page. [2]

- Cart: On the cart page you can see the Cafe location you have selected. You can also see the food items you have added in the cart. You can add delivery instructions, if any! You can see the total which includes CGST and SGST. Then you can see the order type also 25 as it is a Dine In or a Takeaway. While selecting the Dine-in option user can select the table available at the restaurant.
- Offers: User can see offers tab where multiple exciting offers will be displayed.[2]
- Payment: After adding menu items and applying the offer, user can proceed to place order by clicking the "Place order" button and the user will be directed to payment page where he/she can select the appropriate payment mode as listed in the application such as Gpay, UPI, Debit Card, etc.[1]
- My Orders: After the payment user can see the updates about the order placed under the "My Orders" tab. User can see the status as "Order Accepted", once the admin accept the order. "Preparing your Food", once the admin updates order is in progress. "Food is Ready", once the food is prepared and admin click the ready button. And finally "Order Completed", once the order is received by the customer. Customer can rate the order from this tab.
- Setting for User: User can update the profile details such as email, name, etc. Also user can see Donation option from which he/she can donate for the café.
- Setting for Admin: On setting page Admin can add, delete or update menu items. They can also manage the food categories. Admin gets notified when the new order is received and can manage the orders. Admin

can see daily and monthly analytics of orders in terms of graph and the admin can also see how many items are sold, total orders, net sale, average amount per bill, etc. Admin can manage the tables available at the café and update it in the application. Also, admin can send notification about exciting offers to the users. Admin can add another person as admin using "Add Admin Login" option available.[3]

3.2 Front-End : Android Studio

We have used Android Studio to develop the application for Seroes Hangout Café. Android Studio provides the fastest tools for building apps on every type of Android device. Structured code modules allow you to divide your project into units of functionality that you can independently build, test, and debug. Here are some snapshots of the code we built to develop the application.

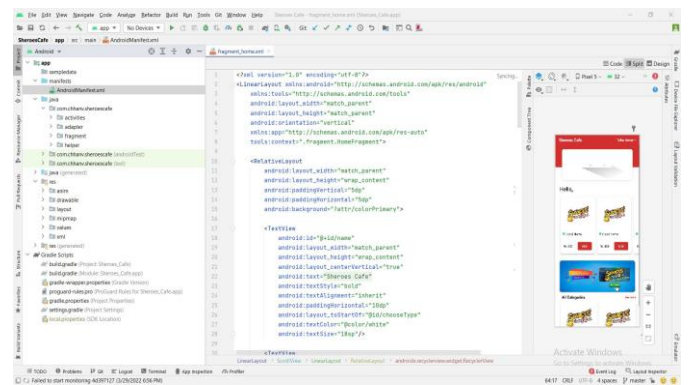


Fig -5: Building Home Screen

3.3 Back-End : Firebase

The Firebase Real-time Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in real-time. Firebase provides tools for tracking analytics, reporting and fixing app crashes, creating marketing and product experiment. Here are the snapshots of how Firebase helped us to store real-time data.

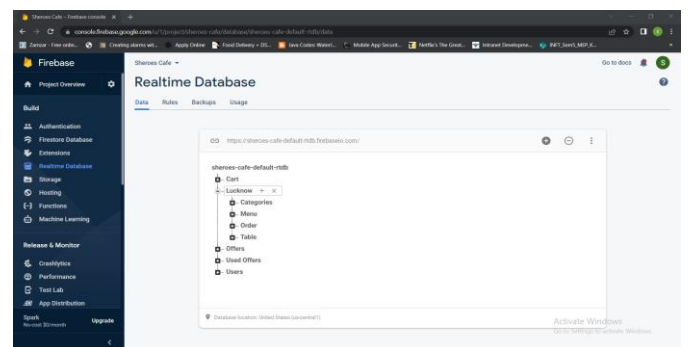


Fig -6: Real-time Database For Seroes Cafe

4. RESULT AND DISCUSSION

Following are the screenshots of the android application we developed for Seroes Hangout Café, a café run by acid attack survivors.

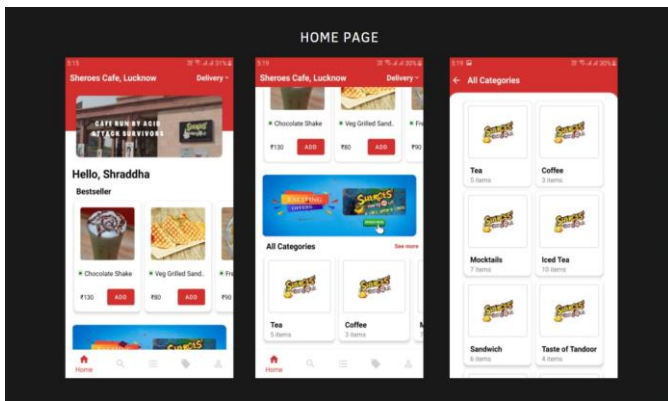


Fig -7: Home

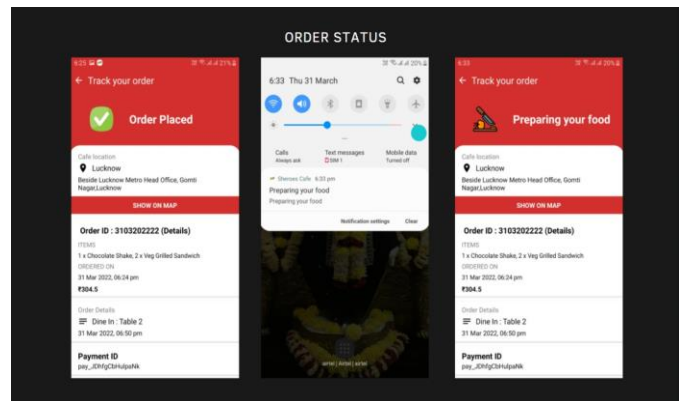


Fig -11: Order Status

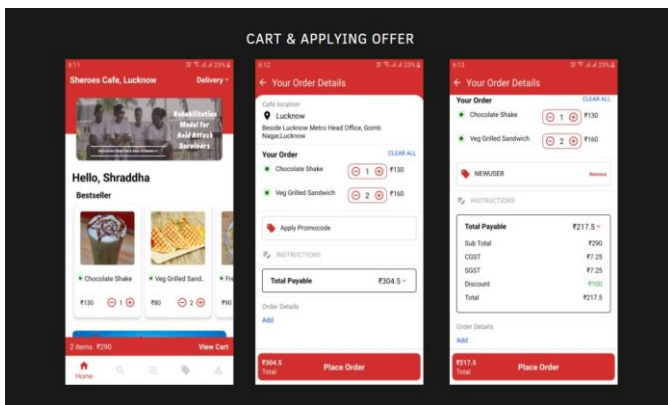


Fig -8: Cart & Applying Offer

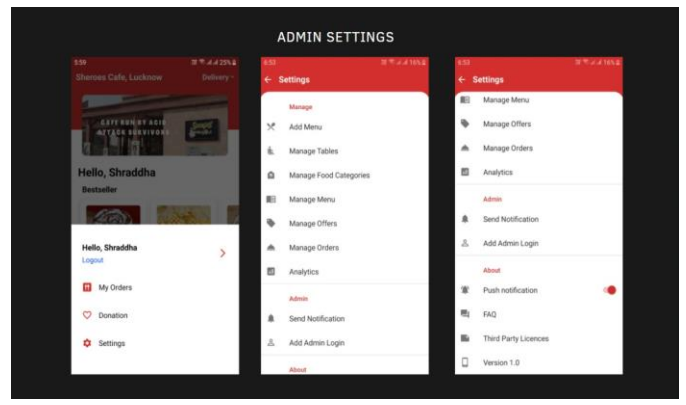


Fig -12: Admin Settings

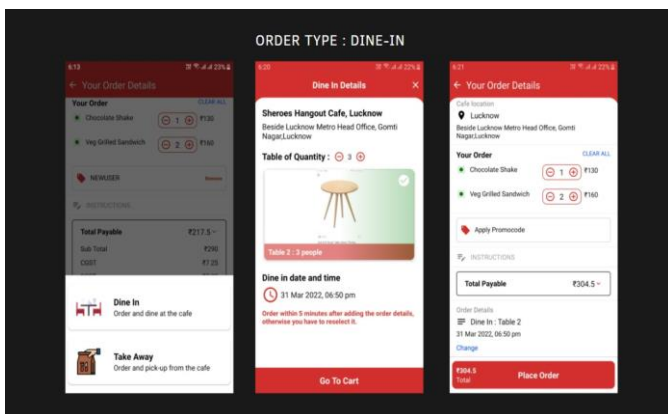


Fig -9: Order Type - Dine In

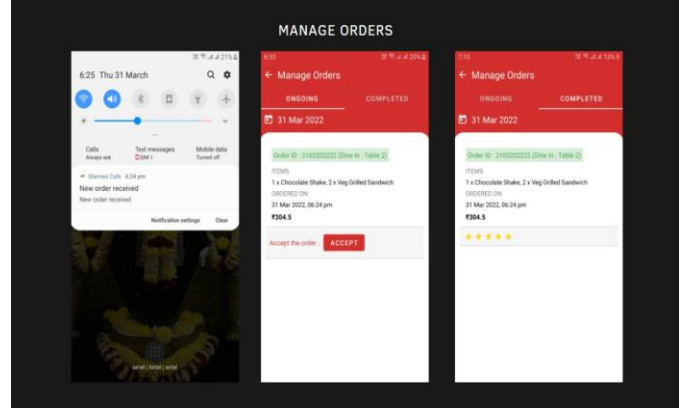


Fig -13: Manage Order

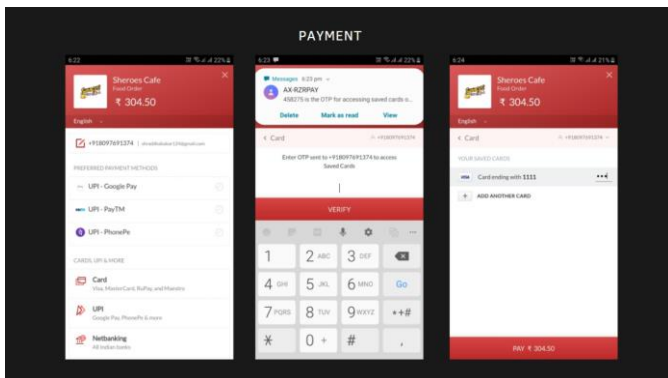


Fig -10: Payment

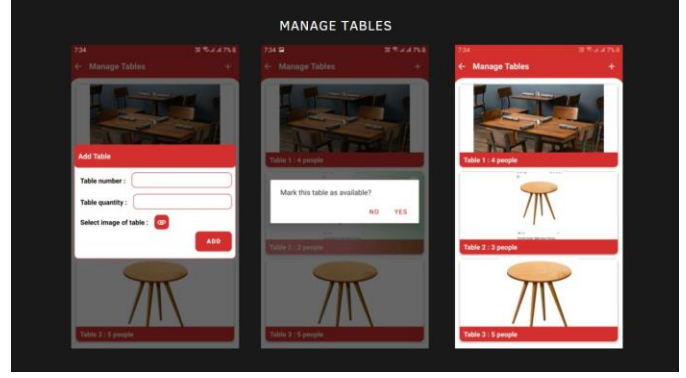


Fig -14: Manage Table



Fig -15: Analytics

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5. CONCLUSIONS & FUTURE SCOPE

Sheroes Hangout café will be using the application we developed using Android Studio and Firebase database. Customers of the café will be able to save their time by using early order feature i.e. Take-away option. Our one of the major aim to help the acid attack survivors will be also fulfilled. Customer will be donate for the café using the application and support the Sheroes. The application will help café to see the real-time analytics of the orders. The café can leverage the features provided by the application to increase the profit.

The online food ordering system is one of the most profitable marketing strategies for restaurant businesses. Online food ordering platforms also prevents missed orders due to busy phone lines or a lack of resources to monitor the phone. This Food Ordering Application can be proper marketing model for the Sheroes Hangout Café. Also we can add feature of membership of the café for the customers so that they can get different services than they get on regular basis. It can be used by their Agra branch as well. The application can be integrated with a Chatbot feature, if the customer has any query he/she can put their queries in the Chatbot and it will give quick answers to their queries. Also we can add feature in the admin panel like Performance monitoring, Reports and Analytics, Overall earnings, etc. After successful implementation of the android application as well as testing, we can go for making of an application for ios users of the Sheroes Hangout Café.

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