VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum - 590018

A Mini Project report on

"RESTAURANT SUGGESTIONS APP"

submitted in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

in

INFORMATION SCIENCE & ENGINEERING

by

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Certificate

This is to Certified that the project work entitled **"Restaurant Suggestions App"** carried out by **Mr. Krubasagare K (1CR19IS185), Mr. Ronald Ryan G (1CR19IS121), and Mr. Puneeth S (1CR19IS110)** in partial fulfillment for the award of Bachelor of Engineering in **Information Science & Engineering** of the Visvesvaraya Technological University, Belgaum during the year **2021-22**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.
The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide	Signature of HoD	Signature of Principal
Mrs. Akhilaa	**Dr. Farida Begam**	**Dr. Sanjay Jain**
Assistant Professor	Professor & Head	Principal
Department of ISE	Department of ISE	CMRIT,
CMRIT	CMRIT	Bengaluru - 37

External Viva

	Name of the Examiners	Institution	Signature with Date
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Declaration

We, **Krubasagare K (1CR19IS185), Ronald Ryan G (1CR19IS121), and Puneeth S (1CR19IS110)** bonafide students of **CMR Institute of Technology**, Bangalore, hereby declare that the dissertation entitled, **"Restaurant Suggestions App"** has been carried out by us under the guidance of **Mrs. Akhilaa**, Assistant Professor, CMRIT, Bangalore, in partial fulfillment of the requirements for the award of the degree of Bachelor of Engineering in Information Science & Engineering, of the Visvesvaraya Technological University, Belgaum during the academic year 2018-2019. The work done in this dissertation report is original and it has not been submitted for any other degree in any university.

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Abstract

The Restaurant Suggestions App is an Android application which shows you delicious dishes in restaurants in your area, recommended by some of the people who have already tried it. This project use Android Studio as an IDE. There will be two types of login methods one is "User", another one is "Admin". The Admin can add restaurants and the users can see the restaurant and give a suggestion which will be referred by other users. Later on, the user can also rate their suggestions.

Keywords: *Android Studio, Admin, User.*

Table of Contents

List of Figures

Chapter 1

Preamble

A preamble is a brief introduction to a report.

1.1 Introduction

Android is the ideal platform for developing such an application due to the wide variety of devices it supports. This Android app supports basic functionality like viewing suggestions of other users that have tried the food items, adding new restaurants so that users can add suggestions of food items of that restaurant.

1.2 Existing System details updated

The First Activity Contains a Scroll view that provides the connection to basic activities. If they are a new user they can register by clicking "Register Here" button. Once they register they can then login and the list of restaurants will be displayed. When the user clicks on a restaurant, they will then be navigated to another layout where details of the restaurant will be shown. Once the user tries a food item in the restaurant they can then give a review for it. And they can also rate the review.

1.2.1 Drawbacks

Only Android mobile users can use this application. The app doesn't include any functionalities for checking whether the restaurants added by the admin actually exist in real life or not. The UI doesn't contain images specific to each added restaurant but a generic image for every restaurant. This might lead to usability issues.

1.3 Proposed System

The user will be prompted to either "Sign In" or "Register". If they click on the "Register" button, they can register using their credentials. Certain constraints are imposed upon the data entered by the user. If all constraints are satisfied, then the user will be successfully registered into the application's database. The user can either register as a normal "User" or as an "Admin". The "Admin" has special privileges such as adding a restaurant, changing the role of registered user to a "Critic", viewing the list of registered users, et cetera. Else if the user clicks on the "Sign In" button, they would have to enter their credentials. If the corresponding credentials exist in the database, then they would be directed to the list of restaurants page. By clicking on any one of the restaurants from the list, they can read the full description of the restaurant and they would also have the option of clicking on one of the 2 buttons of either "View Suggestions" or "Add Suggestions". Once they add a suggestion of their own, they can then add a rating out of 5 stars to their own suggestion by clicking on the "View Suggestions" button. If the user is converted to a "Critic" then they won't be able to see the option of "View Suggestions" when they click on a restaurant from the existing list.

1.4 Plan of Implementation

We consider using Android Studio for the development of the project.

1.5 Problem Statement

Picking is, as you'd expect, a major action in the food consumption process. Unfortunately, it's prone to a wealth of errors that can cost you time and money if you don't make the right decisions in time. Multiple instances of the most common problems we've noticed at the order picking stage are only due to the inability to decide on a timely basis.

1.6 Objective of the Project

This application will help users to order the best food from a restaurant even if they visit for the first time. It will save a lot of money to the user. It will also be helpful for the restaurant owners to gain customers.

Chapter 2

System Design

2.1 Database

A simple SQLite database is used for the process of storing all the data required for the functioning of the app. The data is stored in the form of relational tables. The code is used to create or open the database in private mode. After opening the MySQL database, all the usual MySQL operations can be performed on the database.

2.2 HomeActivity.java

This is the first activity of the application. This activity is responsible for the functionality to be performed if the user chooses any one of the options in the home page. It's responsible for the redirection to specific activities on the basis of the user's input. From the onCreate() method, we have inflated the XML layout. The database handler is defined as a public static variable so that it can be accessed from all other activities without the need of declaration and initialization.

2.3 Review Adapter

The custom adapter Review Adapter extends Android's BaseAdapter and implements its methods. This adapter is used for the process of maintenance of the records/data concerned with the ratings and suggestions that the users give to a particular establishment such as appending of the suggestions, updation of rating, et cetera.

2.4 Profile Activity

This activity is responsible for the storage and updation of the details specific to a user. The user can edit the credentials that they have provided by going to the "View

Profile" page. This activity makes sure that the details hence updated are displayed as well as stored accordingly in the database.

Chapter 3

Implementation

3.1 Output

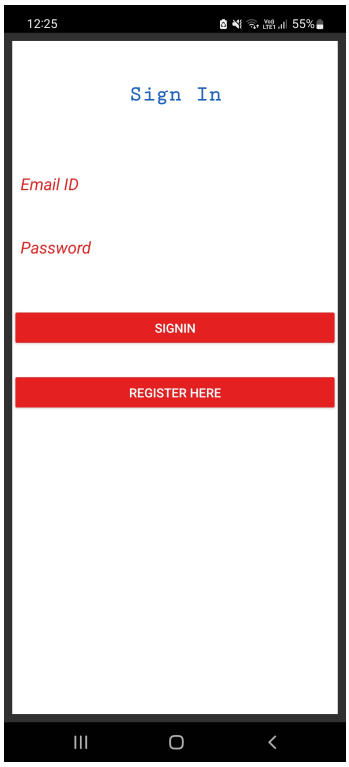


Figure 3.1: Sign In Page

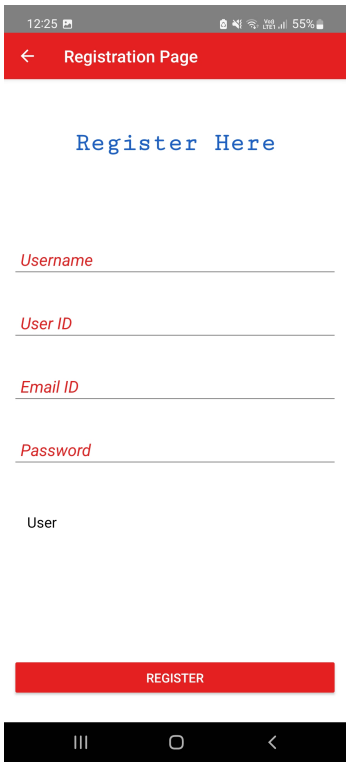


Figure 3.2: Register Screen

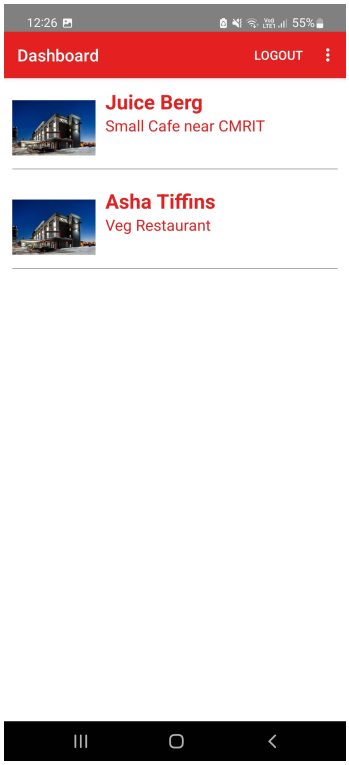


Figure 3.3: Restaurants List

Figure 3.4: Restaurant Details

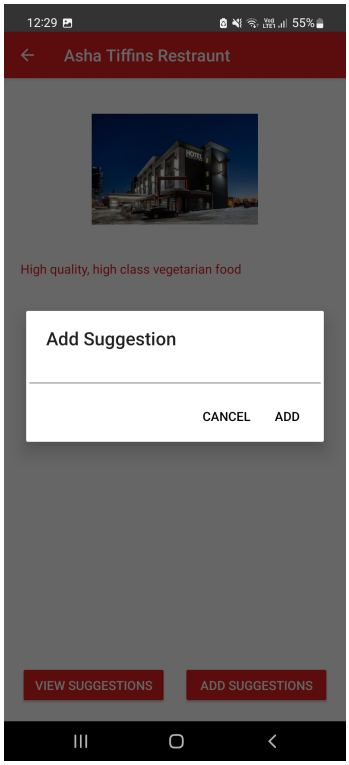


Figure 3.5: Add Suggestion Dialog

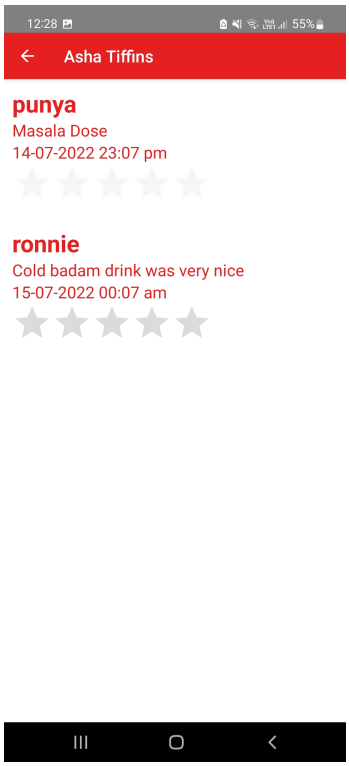


Figure 3.6: Reviews

Figure 3.7: Profile Screen

Figure 3.8: Add New Restaurant

Figure 3.9: Users List

```
import ...

class DatabaseHandler extends SQLiteOpenHelper {

    private static final int DATABASE_VERSION = 1;
    protected static final String DATABASE_NAME = "RestroDataBase";
    public static final String USER_INFO_TABLE_NAME = "UserInfoTable";
    public static final String RESTRO_INFO_TABLE_NAME = "RestroInfoTable";
    public static final String REVIEW_INFO_TABLE_NAME = "ReviewInfoTable";



    public DatabaseHandler(Context context) {
        super(context, DATABASE_NAME,  factory: null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        String sql = "CREATE TABLE " +USER_INFO_TABLE_NAME+
                "( " +
                Util.ID+" TEXT, " +
                Util.USER_ID+" TEXT, " +
                Util.USER_USER_NAME+" TEXT, " +
                Util.USER_EMAIL_NAME+" TEXT PRIMARY KEY, " +
                Util.USER_PASSWORD+" TEXT, " +
                Util.USER_TYPE+" TEXT ) ";
```

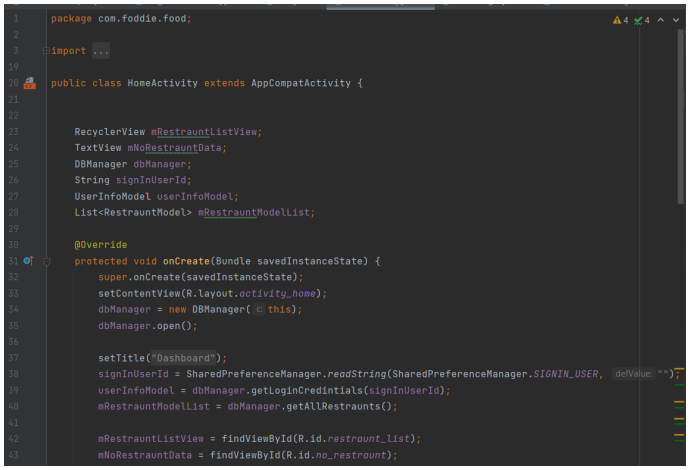
Figure 3.10: DatabaseHandler-(a)

```
        String restro_sql = "CREATE TABLE " +RESTRO_INFO_TABLE_NAME+
                "( " +
                Util.RESTRO_ID+" TEXT PRIMARY KEY, " +
                Util.RESTRO_NAME+" TEXT, " +
                Util.RESTRO_SMALL_DESC+" TEXT, " +
                Util.RESTRO_DESC+" TEXT, " +
                Util.RESTRO_CREATE_BY+" TEXT, " +
                Util.RESTRO_CREATE_DATE+" TEXT) ";

        String review_sql = "CREATE TABLE " +REVIEW_INFO_TABLE_NAME+
                "( " +
                Util.REVIEW_ID+" TEXT PRIMARY KEY, " +
                Util.REVIEW_COMMENT+" TEXT, " +
                Util.REVIEW_RATING+" TEXT, " +
                Util.RESTRO_ID+" TEXT, " +
                Util.REVIEW_DATE+" TEXT, " +
                Util.REVIEW_GIVEN_BY_EMAIL+" TEXT, " +
                Util.REVIEW_GIVEN_BY+" TEXT) ";

        db.execSQL(sql);
        db.execSQL(restro_sql);
        db.execSQL(review_sql);

    }
```

Figure 3.11: DatabaseHandler-(b)

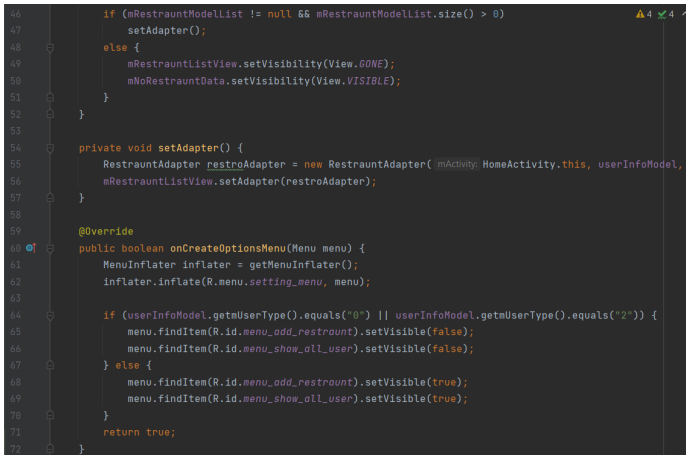
```
    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        String sql = "DROP TABLE IF EXISTS "+USER_INFO_TABLE_NAME;
        String restro_sql = "DROP TABLE IF EXISTS "+RESTRO_INFO_TABLE_NAME;
        String review_sql = "DROP TABLE IF EXISTS "+REVIEW_INFO_TABLE_NAME;
        db.execSQL(sql);
        db.execSQL(restro_sql);
        db.execSQL(review_sql);
        onCreate(db);
    }

    public SQLiteDatabase getReadableObject() { return this.getReadableDatabase(); }
}
```

Figure 3.12: DatabaseHandler-(c)



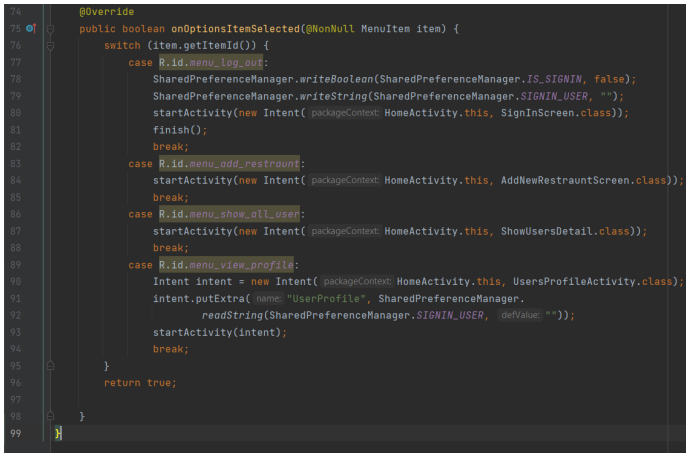
```
package com.foddie.food;

import ...

public class HomeActivity extends AppCompatActivity {


    RecyclerView mRestrauntListView;
    TextView mNoRestrauntData;
    DBManager dbManager;
    String signInUserId;
    UserInfoModel userInfoModel;
    List<RestrauntModel> mRestrauntModelList;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);
        dbManager = new DBManager( c: this);
        dbManager.open();

        setTitle("Dashboard");
        signInUserId = SharedPreferenceManager.readString(SharedPreferenceManager.SIGNIN_USER,  defValue: "");
        userInfoModel = dbManager.getLoginCredintials(signInUserId);
        mRestrauntModelList = dbManager.getAllRestraunts();

        mRestrauntListView = findViewById(R.id.restraunt_list);
        mNoRestrauntData = findViewById(R.id.no_restraunt);
```

Figure 3.13: Home Activity-(a)



```
        if (mRestrauntModelList != null && mRestrauntModelList.size() > 0)
            setAdapter();
        else {
            mRestrauntListView.setVisibility(View.GONE);
            mNoRestrauntData.setVisibility(View.VISIBLE);
        }
    }

    private void setAdapter() {
        RestrauntAdapter restroAdapter = new RestrauntAdapter( mActivity: HomeActivity.this, userInfoModel,
        mRestrauntListView.setAdapter(restroAdapter);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater = getMenuInflater();
        inflater.inflate(R.menu.setting_menu, menu);

        if (userInfoModel.getmUserType().equals("0") || userInfoModel.getmUserType().equals("2")) {
            menu.findItem(R.id.menu_add_restraunt).setVisible(false);
            menu.findItem(R.id.menu_show_all_user).setVisible(false);
        } else {
            menu.findItem(R.id.menu_add_restraunt).setVisible(true);
            menu.findItem(R.id.menu_show_all_user).setVisible(true);
        }
        return true;
    }
```

Figure 3.14: Home Activity-(b)



```
    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        switch (item.getItemId()) {
            case R.id.menu_log_out:
                SharedPreferenceManager.writeBoolean(SharedPreferenceManager.IS_SIGNIN, false);
                SharedPreferenceManager.writeString(SharedPreferenceManager.SIGNIN_USER, "");
                startActivity(new Intent( packageContext: HomeActivity.this, SignInScreen.class));
                finish();
                break;
            case R.id.menu_add_restraunt:
                startActivity(new Intent( packageContext: HomeActivity.this, AddNewRestrauntScreen.class));
                break;
            case R.id.menu_show_all_user:
                startActivity(new Intent( packageContext: HomeActivity.this, ShowUsersDetail.class));
                break;
            case R.id.menu_view_profile:
                Intent intent = new Intent( packageContext: HomeActivity.this, UsersProfileActivity.class);
                intent.putExtra( name: "UserProfile", SharedPreferenceManager.
                        readString(SharedPreferenceManager.SIGNIN_USER,  defValue: ""));
                startActivity(intent);
                break;
        }
        return true;

    }
}
```

Figure 3.15: Home Activity-(c)

Chapter 4

Conclusion

Finally, we would like to conclude that we have successfully dealt with the problem that we wanted to resolve at the beginning of this project. The main motivation behind this application is to let the user get the best experience that a restaurant could provide. Making decisions is itself a troublesome task to do. Now there is no need to waste time on deciding what to order. Deciding about food becomes more finicky as nobody wants to eat something and regret it later. You don't want to second guess the punch and zest of the food you have ordered.

4.1 Future Scope

The overall market for online food application is picking up high from the base of smartphones being used. The expanding pervasiveness of cell phones for ordinary working has empowered the food business to use this medium for growing client base. Cafés, restaurants, food joints, and owners and franchisees of eateries selling services are utilizing food app as a creative method to draw in clients. Considering technology trends, it creates a need to go for mobile app development for the food business section that is anything but difficult to pursue and are outwardly engaging is likewise boosting the market's development. These applications are totaled stage that goes about as a mediator among cafés and clients and enable clients to access single or various eateries. Parts of the food industry including agriculture, online food service, and much more. Since the growth of the food industry is assured, anxious promoters can invest their money in the food industry will reap benefits. Under food service, there are many places where these promoters can invest money in.

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