INTRODUCTION

This report consists of the details regarding the project done for Final Project Submission. The project is about building an android application which bestow its users the reliability to book the hotel on minimal price with 'book a ride' options.

Till yet, the application is focused only on booking hotels. As of now, the number of customers is growing rapidly and numbers of hotels are also very high, so that a customer must have some enhanced technology and mechanism to make all the process easy and fluent. Booking Hotel is very essential task and it should be easy. This application makes this very handy and facile.

Hence, here we come with the idea of making some superficial platform like an android application which is in reach of most of the common smart phone users. This application allows users to book hotel rooms through android phones. To use this application user may require android phone along with internet connection.

It's android application that allows you to make online hotel reservations. It owes its increasing popularity to:

- **Convenience** – saves you tons of time net surfing, talking to agents, phoning hotels, etc.

- **Security** – a user's privacy and financial information is protected.

- **Cost-effectiveness** – allows spotting deals and taking advantage of loyalty programs.

Chapter 1.
Frameworks and Platform

This chapter will describe in brief, all the frameworks and technologies which have been used throughout the development of the application. Talking on abstract, the application has been developed on Android SDK framework (Android Studio). It also uses the JDK framework. Further all the basic app development elements like JAVA, NoSQL and XML have also been used for comfortable and soothing user interface.

The following sections will be elaborating each of them in detail.

1.1. Android Studio

Android Studio is the official integrated development environment (IDE) for the Android platform. It was announced on May 16, 2013 at the Google I/O conference.

Android Studio was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014. The first stable build was released in December 2014, starting from version 1.0.

Based on JetBrains' IntelliJ IDEA software, Android Studio is designed specifically for Android development. It is available for download on Windows, macOS and Linux, and replaced Eclipse Android Development Tools (ADT) as Google's primary IDE for native Android application development.

1.1.1. Features

The following features are provided in the current stable version:

• Gradle-based build support

• Android-specific refactoring and quick fixes

• Lint tools to catch performance, usability, version compatibility and other problems

• ProGuard integration and app-signing capabilities

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• Template-based wizards to create common Android designs and components

• A rich layout editor that allows users to drag-and-drop UI components, option to preview layouts on multiple screen configurations

• Support for building Android Wear apps

• Built-in support for Google Cloud Platform, enabling integration with Firebase Cloud Messaging (Earlier 'Google Cloud Messaging') and Google App Engine

• Android Virtual Device (Emulator) to run and debug apps

1.2 Android SDK

The Android SDK (Software Development Kit) is a set of development tools used to develop applications for Android platform. The Android SDK includes the following:

• Required libraries

• Debugger

• An emulator

• Relevant documentation for the Android application program interfaces (APIs)

• Sample source code

• Tutorials for the Android OS

1.3. JAVA

Java is a general-purpose computer programming language that is concurrent, class-based, object-oriented and specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere" (WORA) meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of computer architecture. As of 2016, Java is one of the most popular programming languages in use, particularly for client-server web applications, with a reported 9 million developers. Java was originally developed by James

Gosling at Sun Microsystems (which has since been acquired by Oracle Corporation) and released in 1995 as a core component of Sun Microsystems' Java platform. The language derives much of its syntax from C and C++, but it has fewer low-level facilities than either of them.

1.4. JAVA Development Kit (JDK)

The Java Development Kit (JDK) is a software development environment used for developing Java applications and applets. It includes the Java Runtime Environment (JRE), an interpreter/loader (java), a compiler (javac), an archiver (jar), a documentation generator (javadoc) and other tools needed in Java development.

1.5. XML

In computing, Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The W3C's XML 1.0 Specification and several other related specifications - all of them free open standards define XML.

The design goals of XML emphasize simplicity, generality, and usability across the Internet. It is a textual data format with strong support via Unicode for different human languages. Although the design of XML focuses on documents, the language is widely used for the representation of arbitrary data structures such as those used in web services.

Several schema systems exist to aid in the definition of XML-based languages, while programmers have developed many application programming interfaces (APIs) to aid the processing of XML data.

1.6. NoSQL

The Firebase Real-time Database is a cloud-hosted database. Data is stored as JSON and synchronized in real-time to every connected client. When you build cross-platform apps with our iOS, Android, and JavaScript SDKs, all of your clients share one Real-time Database instance and automatically receive updates with the newest data.

A **NoSQL** (originally referring to "non SQL" or "non-relational") database provides a mechanism for storage and retrieval of data that is modelled in means other than the tabular relations used in relational databases. Such databases have existed since the late 1960s, but did not obtain the "NoSQL" moniker until a surge of popularity in the early twenty-first century, triggered by the needs of Web 2.0 companies such as Facebook, Google, and Amazon. NoSQL databases are increasingly used in big data and real-time web applications. NoSQL systems are also sometimes called "Not only SQL" to emphasize that they may support SQL-like query languages.

Motivations for this approach include: simplicity of design, simpler "horizontal" scaling to clusters of machines (which is a problem for relational databases), and finer control over availability. The data structures used by NoSQL databases (e.g. key-value, wide column, graph, or document) are different from those used by default in relational databases, making some operations faster in NoSQL. The particular suitability of a given NoSQL database depends on the problem it must solve. Sometimes the data structures used by NoSQL databases are also viewed as "more flexible" than relational database tables.

Chapter 2.

One-Time Password or PIN (OTP)

A **one-time password or pin** (**OTP**) is a password that is valid for only one login session or transaction, on a computer system or other digital device. OTPs avoid a number of shortcomings that are associated with traditional (static) password-based authentication; a number of implementations also incorporate two factor authentication by ensuring that the one-time password requires access to *something a person has* (such as a small keyring fob device with the OTP calculator built into it, or a smartcard or specific cellphone) as well as *something a person knows* (such as a PIN).

OTPs have been discussed as a possible replacement for, as well as enhancer to, traditional passwords. On the downside, OTPs are difficult for human beings to memorize. Therefore, they require additional technology to work.

OTP is used to authenticate the user to distinguish between valid and non-valid customers. This feature doesn't requires password to remember, you can login anytime, anywhere using your registered mobile number.

Our application uses this features with auto enabled function in which user doesn't have to enter OTP, the application will automatically detect the OTP and authenticate, if the user is already registered or it'll be directed to registration page for a new user.

Chapter 3.
System Analysis

In this chapter, we will discuss and analyise about the developing process of trip planner application including software requirement specification(SRS) and comparison between existing and proposed application. The functional and non functional requirement are included in SRS part to provide complete description and overview of system requirement before the developing process in carried out

3.1. System requirenments

3.1.1. Non functional requirements

Efficiency requirements

When a user meets this application, this application will easily allow the user to   access the hotels and book according to their need

Reliability requirement

The application should accurately perform user registration, validation and search their requirement.

Usability requirement

The application is designed for a user friendly environment so that the user can perform the various tasks easily and in an effective way

3.1.2. Functional requirements

1. Normal user

1.1. User login

Description of feature

This feature is used by the user to login into the application. They are required to entered the registered mobile number or to register for a new user before they are allowed to enter the application. The mobile number will be verified using OTP and if invalid the user is not allowed to enter the application

Functional requirements

- Mobile number is required for registered user
- An OTP will be sent to verify the user
- The system performs
- Autherization process which decides the user to access the application
- User must be able to logout after they finished using application

1.2. Register New User

Description of feature

This feature can be performed by all users to register new user to create account.

Functional requirements

- Application must be able to verify information
- Application must be able to delete information if information is wrong

1.3. Search for booking

Description of feature

This feature is found in the application once the user successfully login into their account. User can search hotels according to their requirement

Functional requirements

- Application must be able to search the database based on search type
- Application must be able to filter based on key word entered
- Application must be able to show the filtered result in table view.

3.1.3. Software requirement

Operating System- minimum supported SDK is 19 which is Android 4.4 (kitkat). Target SDK is 27 which is Android 8.1(Oreo) as it is most stable, latest and have more user database.

**Database-** Firebase NoSQL real-time database is used.

Development tools and programming language- JAVA is used to write whole backend code and XML is used for styling work and firebase is used for server side scripting.

Chapter 4.

Some chapters, coming next, will elaborate the graphical interface of the application by some screenshots from Moto E4 Plus (Android 8.1):

4.1. Splash Screen page

Splash Screen page of the application looks as it is depicted by the screenshot. The name of the application is displayed at the centre of the screen with circular progressive bar which check first if the internet option is enabled or not, if yes then it checks whether the previous user has logged out successfully or not, if not then it will lead to home page directly and if yes, then it'll redirect user to Intro Screen page where user will be shown some special services and facilities provided by our application.
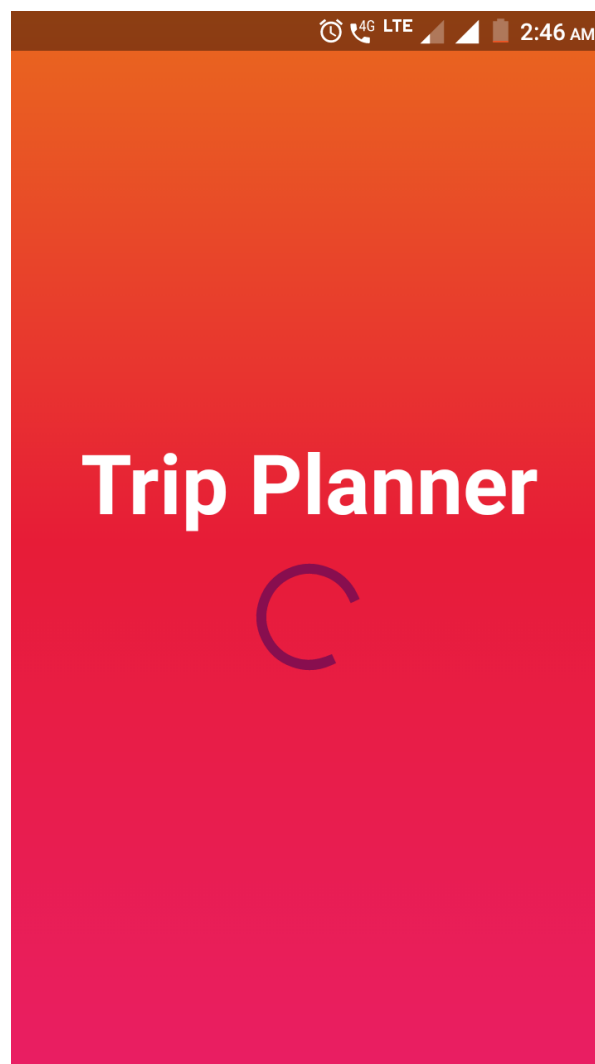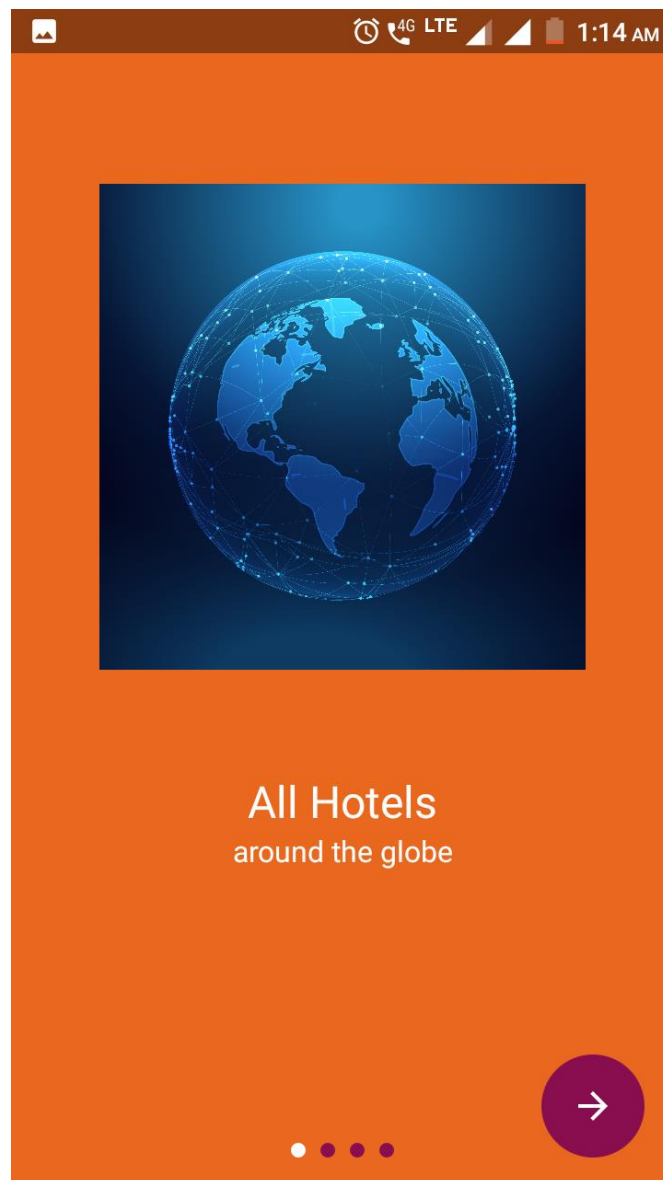
4.2. Intro Screen Page

Intro Screen page of the application looks as it is depicted by the screenshot. The facilities and services provided by the application is displayed at the centre of the screen. This is supported by skip option and swipe gesture to go to next page, back button.
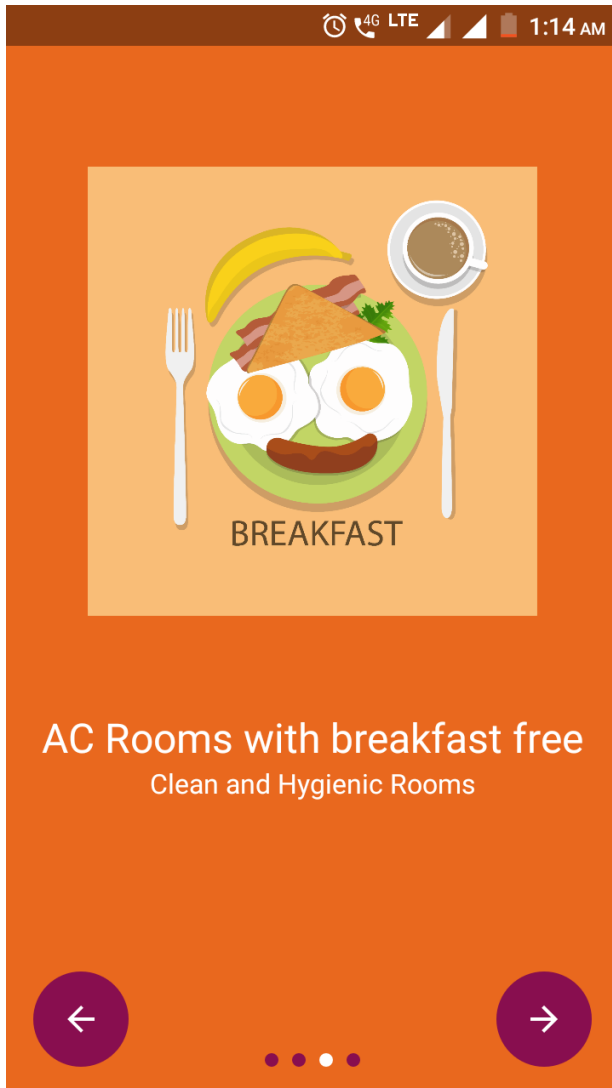
1ˢᵗ Intro Page

"All Hotels, Around the Globe"

2nd Intro Page

"Free Wi-fi"

3rd Intro Page

"AC Rooms with breakfast free"
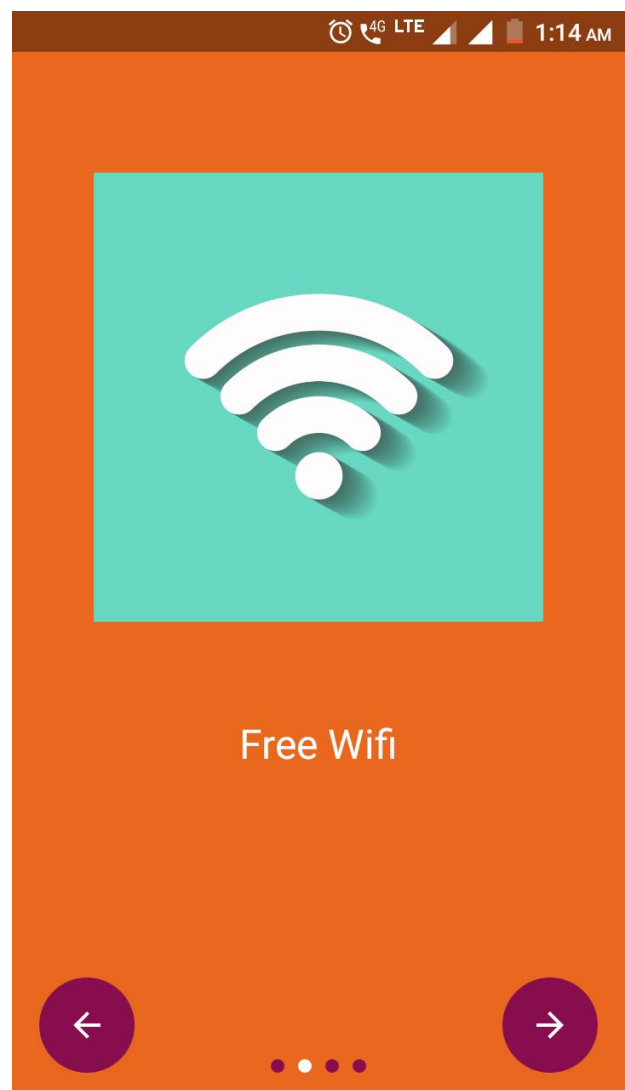
4th Intro Screen Page

"Book Anytime and pay at the time of checkout"

Check button or left swipe will lead user to our Login Page
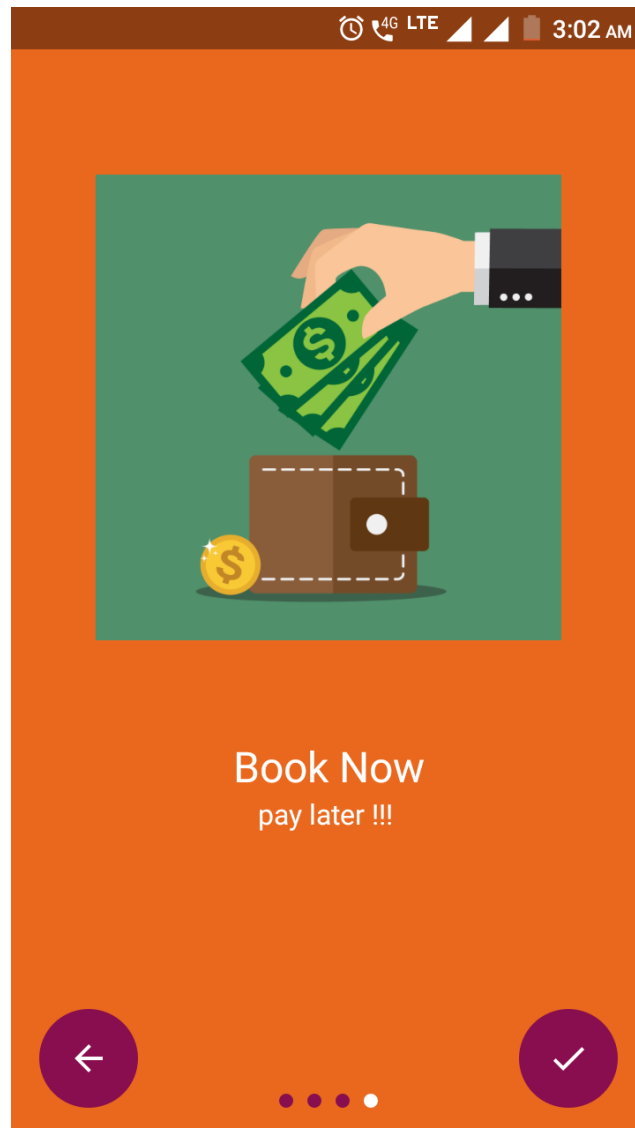
4.3. Login Page

Login page of the application looks as it is depicted by the screenshot.
The user will encountered with the Phone Number input textbox with country code box (flag) on left of textbox and verify button to obtain the OTP for further verification. Valid/Invalid icon will be active if the entered number is in correct form.

4.4. Verification Dialog box

When the user click on the verify button then the application will verify that whether the user is new or registered. And the OTP will be sent to the entered number. Application will automatically detect the OTP but if in case application is failed to detect OTP due to system protection then the user is required to enter the OTP manually. If t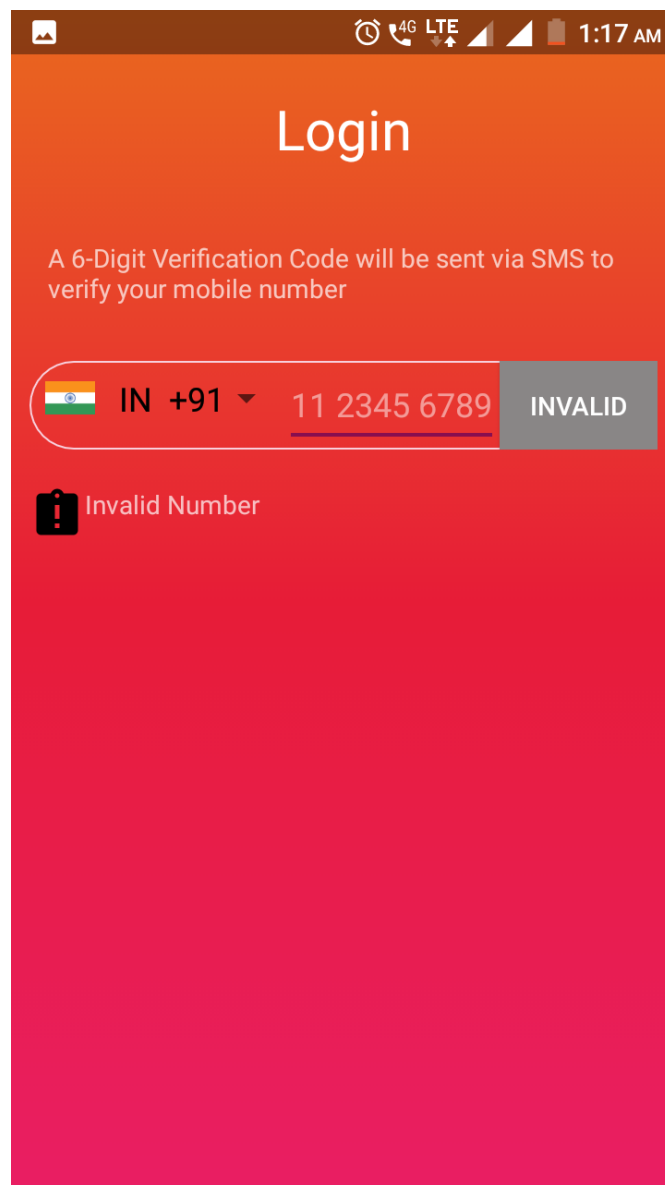he verification code is successfully sent to entered number then there will be a Toast to notify user that OTP has been successfully sent. It's also implemented with the resend button, if the OTP doesn't arrive in 60sec.Login Page will redirect user to the home page if user is already registered or it will step towards registration page.
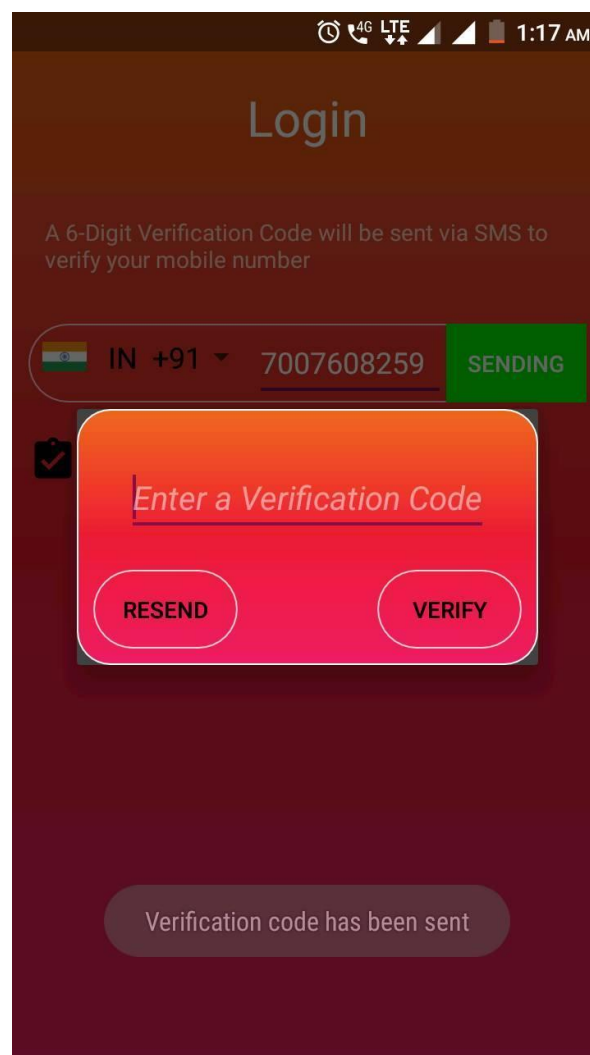
4.5. Registration Page

Registration Page is shown in the image below. It consists of different information that's mandatory for the user to complete the registration process. This page provides user to upload it's profile photo along with his name, email, gender and DOB. User need to click on Save button after entering the required information.

** The information provided by the user should be valid.

4.6. Home Page

Home page is shown below in the screenshot

- Username will be shown at the top of the search bar.
- Search box is there to search for the places, where user want to do booking which will lead to Search Activity
- Some popular are pinned for quick access.
- Recommended trips are also shown according to users customized search.
- Today's deals : Special offers are shown for the user
- Deal for you: special deals for different users
- We are also on whatsapp : for any queries
- A briefcase represents your current bookings
- Identity logo is for user profile
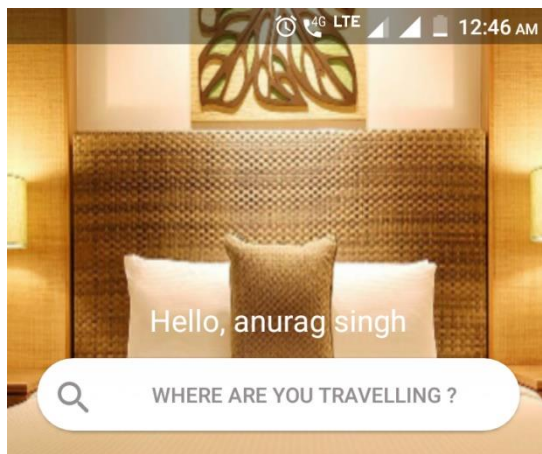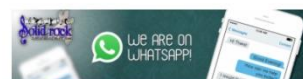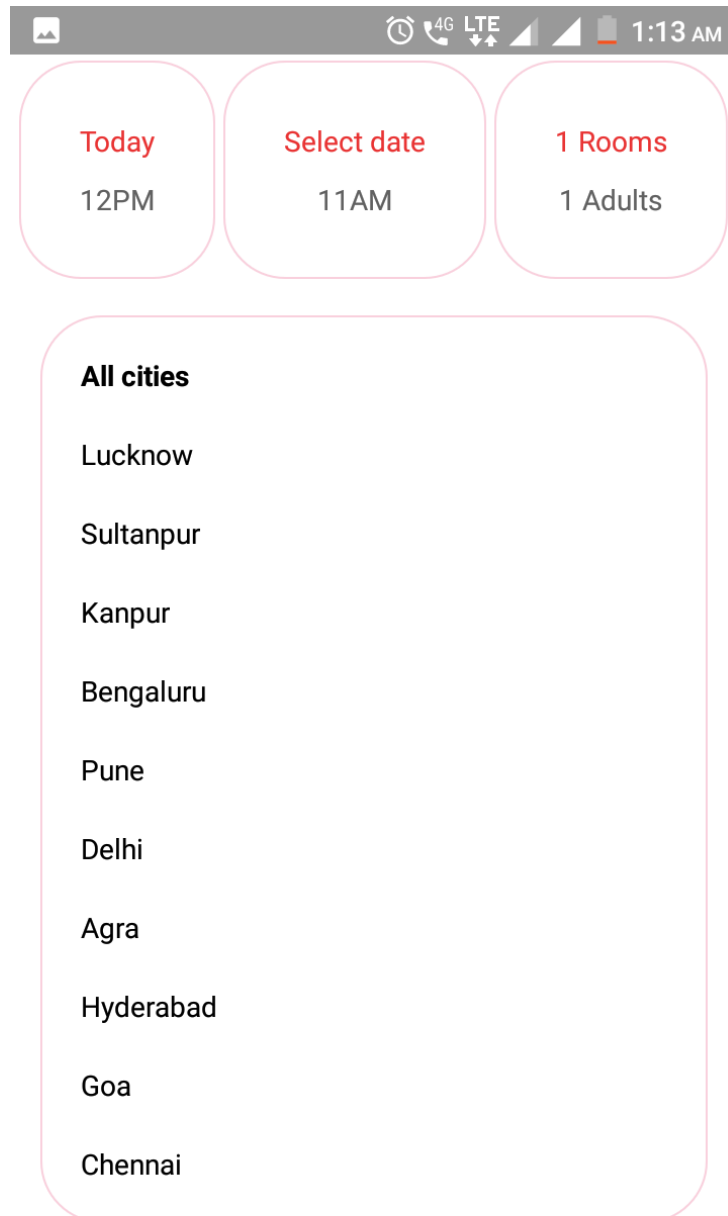
4.7. Search Localities

- Check in, check out and number of guests with number of rooms
- Some selected cities which are collaborating with us.

4.8. Booking process

Let us suppose the user want to book a hotel

in lucknow.

Step 1: Click on the Lucknow city icon.
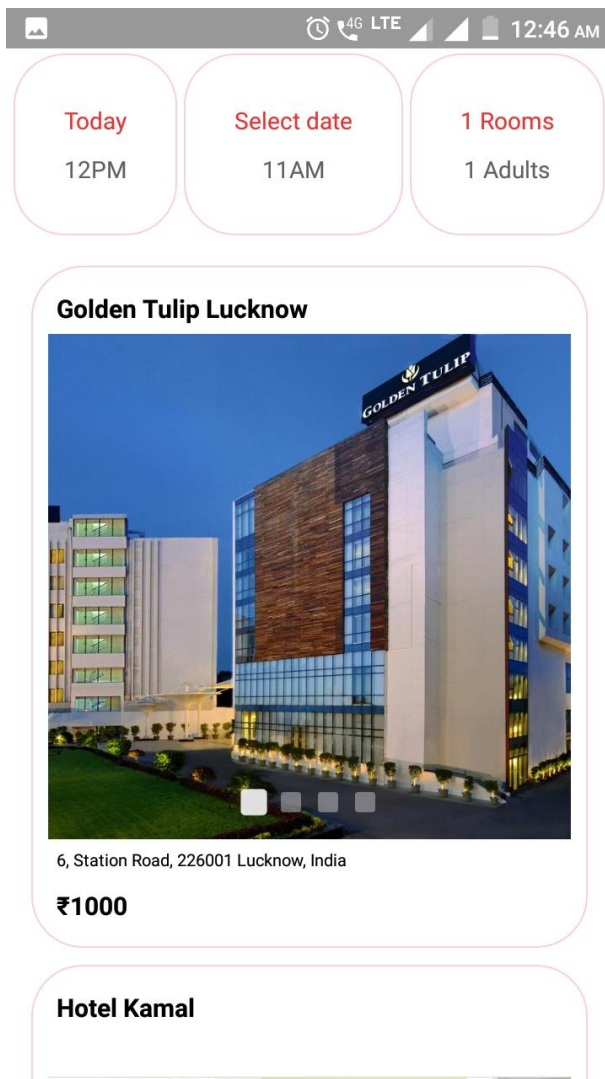
Step 2: Select the hotel along with arrival and departing date.
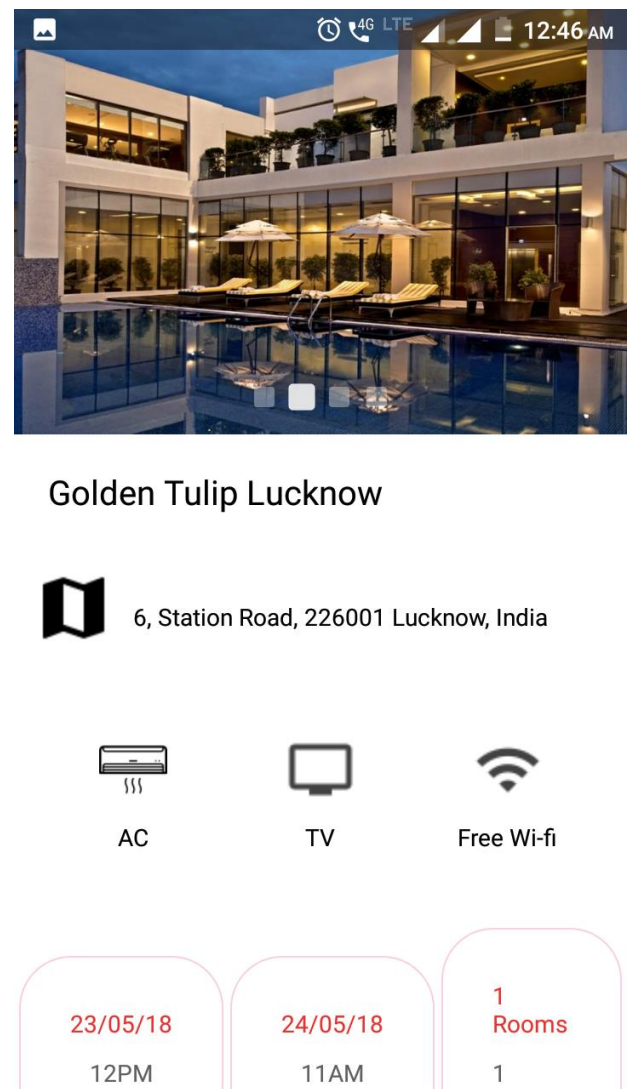
Step 3: The user can hire a bike at very nominal

charges and can change guest name at the time

of booking

AC   TV   Free Wi-fi 10 AM

| 23/05/18 | 24/05/18 | 1 Rooms |
| 12PM | 11AM | 1 Adults |

Hire a bike for ₹ 300/day

Yes   ⦿ No

Amount Payable   **₹1000**

Booking for   anurag singh

Important

* Unmarried couples are welcome

* Guests can check in using any local or outstation ID proof

BOOK ROOM

Step 4: The user have to click on "BOOK

ROOM" to confirm the booking

Golden Tulip Lucknow
6, Station Road, 226001 Lucknow, India
23/05/18 - 24/05/18 - 1 Rooms - 1 Adults
₹1000   pay on arrival
Booking for   anurag singh

Once the user click on book room the

Booking is confirmed and the user

Can see it later by clicking on the briefcase

Icon at the bottom of the home page

Press back to go to Home page

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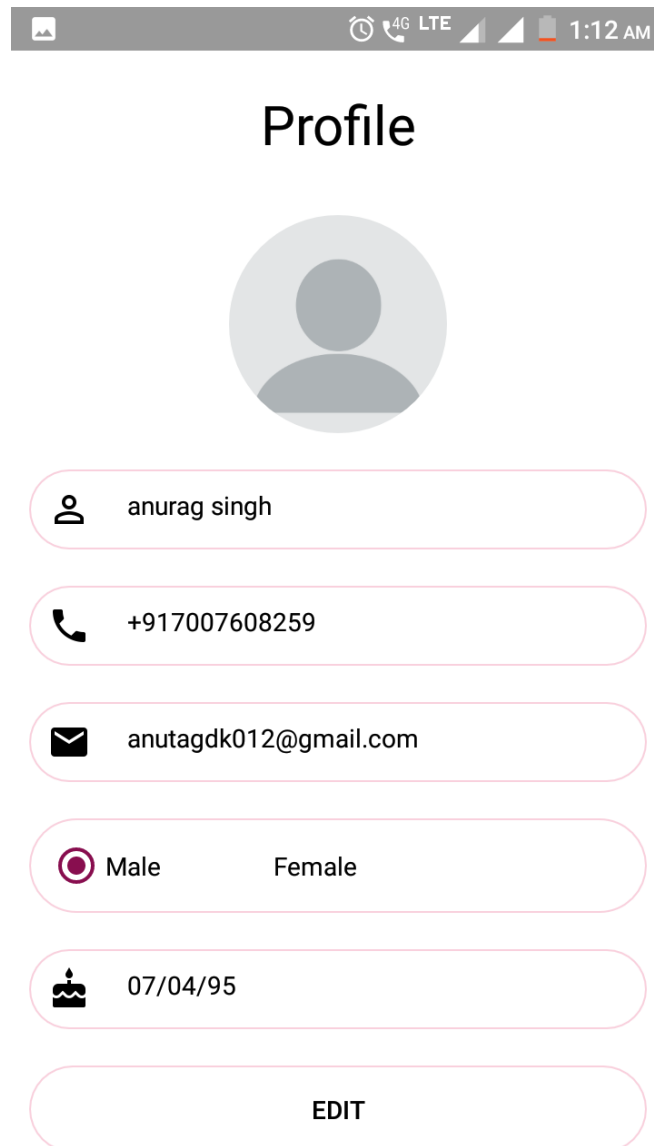
4.9. User Profile

- On clicking at the identity icon at the bottom of the home page the user enters the account section where user can perfrm different task regarding their profile, wallet balance, referral program.
- Different help and support services are also provided by the application which includes FAQs, and also user can chat with our customer support using whatsapp
- The user can also provide feedback regarding to their booking, their experience using the application for booking.
- The user can logout the session from the account section after booking by clicking logout button.

Hello, anurag singh

Account

Profile

Wallet

Invite and earn

Need Help?

FAQ's

Chat with us

Feedback us!

Feedback

LOGOUT
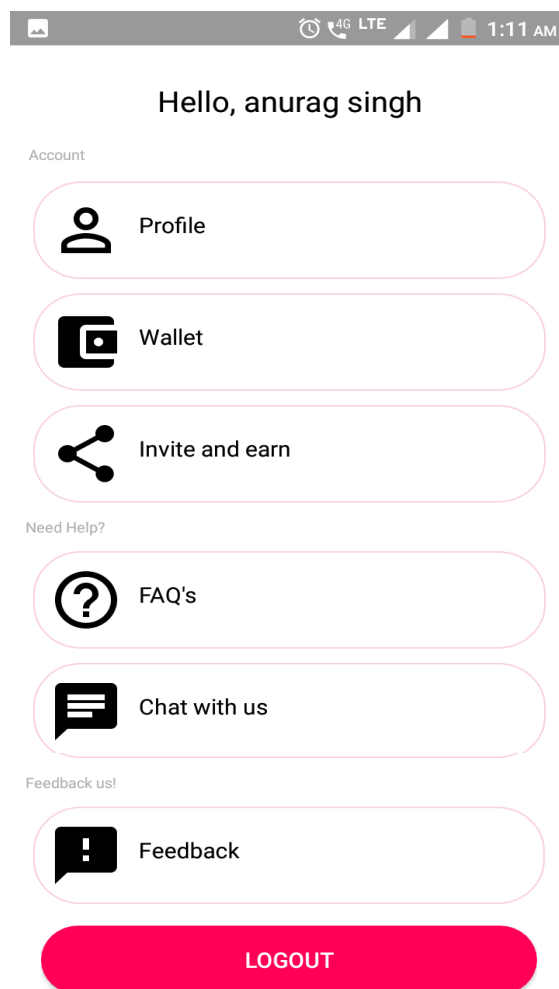
4.10. Profile page

When a user wants to change his personal details he is required to click on the profile section and user will be redirected to the profile page where he can easily make the changes.

**The user can modify the details after clicking on the edit button

4.11. Payments and Wallet

The application also supports different latest payment options based on paytm and UPIs which helps the user to make the payment without providing their confidential information to the application which leads to transparent payment gateway. The app also supports wallet which is credited with some cashback after every successful booking.
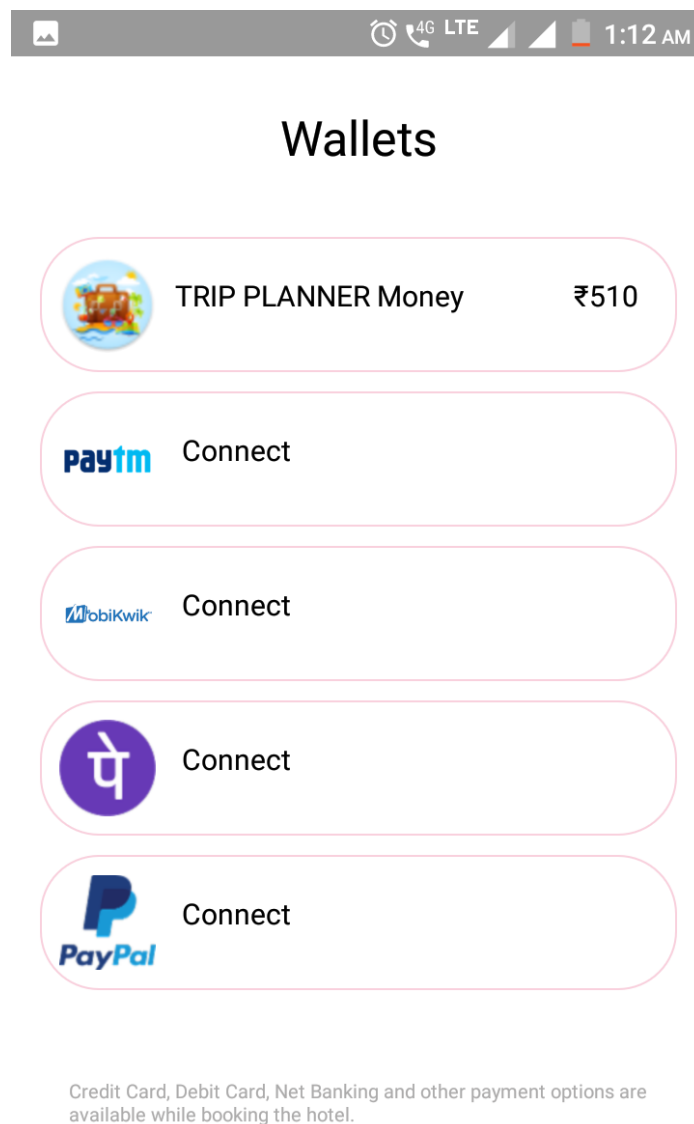
4.12. Refer and earn

A cool stuff in the application which provides the user to earn some extra cash by referring a friend to join trip planner. The referral commission is added to the account once the friend makes their first stay.
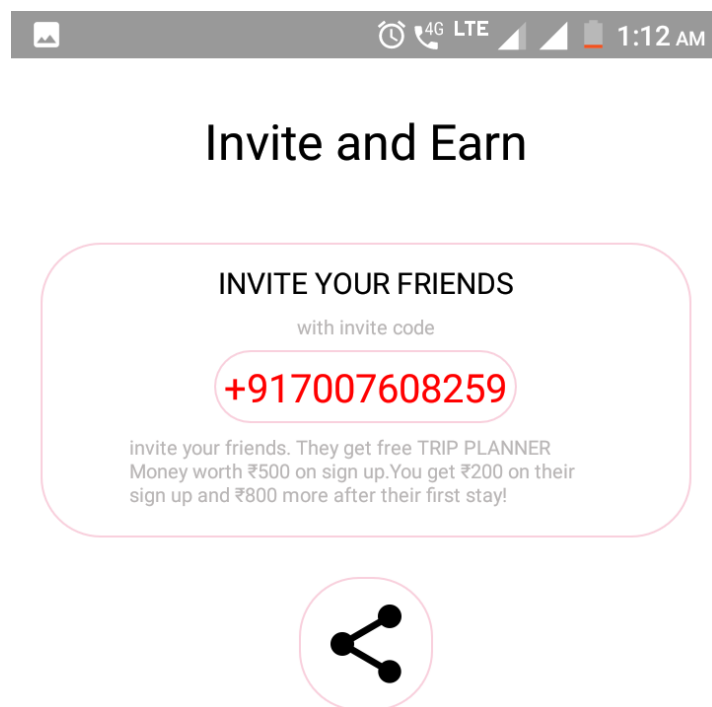
Chapter 5.

Data flow Diagram (DFD)
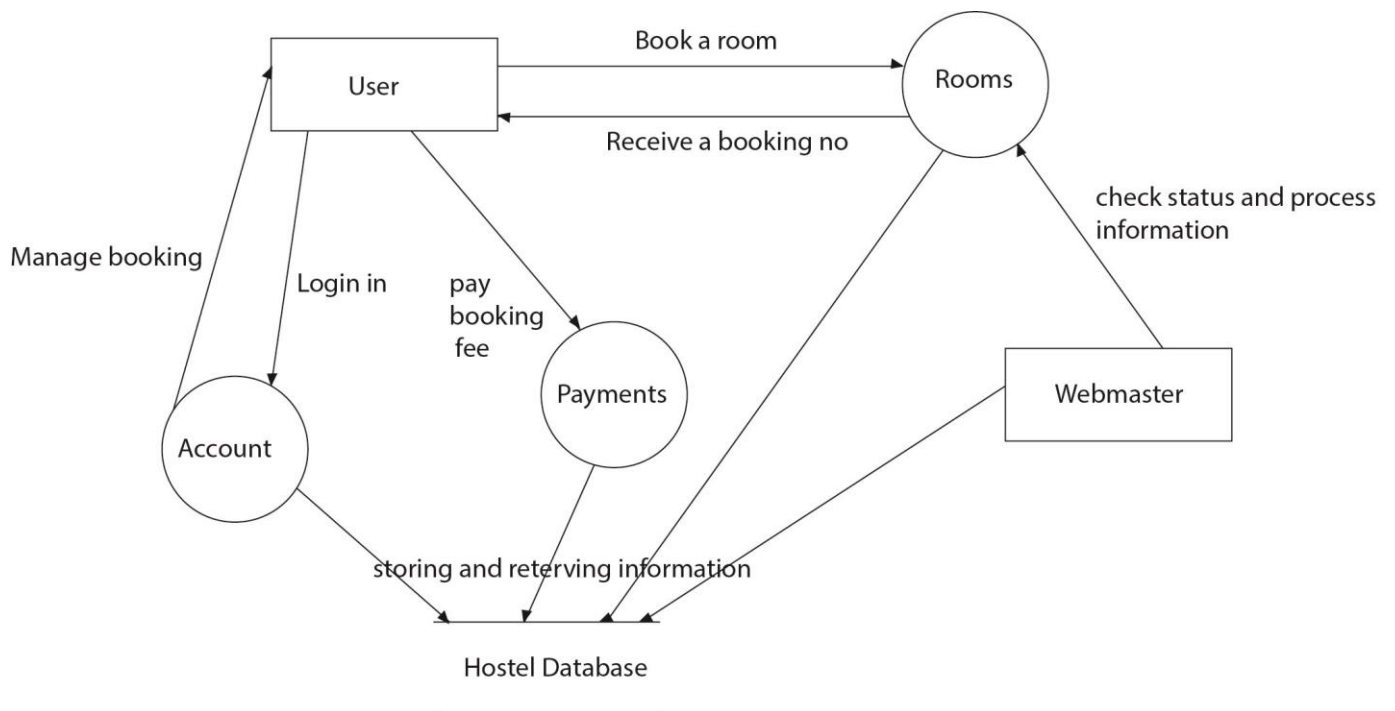
The above diagram shows the data flow diagram of hotel booking mobile app

Chapter 6.

Code

6.1. Back-End

6.1.1. Splash Activity

```java
package com.kfstudio.tripplanner;
import android.app.AlertDialog;
import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.net.Uri;
import android.os.Handler;
import android.provider.Settings;
import android.support.v4.app.TaskStackBuilder;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.ProgressBar;
import android.widget.Toast;

import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.karumi.dexter.Dexter;
import com.karumi.dexter.MultiplePermissionsReport;
import com.karumi.dexter.PermissionToken;
import com.karumi.dexter.listener.DexterError;
import com.karumi.dexter.listener.PermissionRequest;
import com.karumi.dexter.listener.PermissionRequestErrorListener;
import com.karumi.dexter.listener.multi.MultiplePermissionsListener;

import java.util.List;


public class SplashActivity extends AppCompatActivity {
    private Handler handler;
    private FirebaseAuth mAuth;
    private DatabaseReference demoRef;
    @Override
    protected void onStart() {
        super.onStart();
        setContentView(R.layout.splash_screen);
        ProgressBar spinner = findViewById(R.id.progressBar);
        spinner.setVisibility(View.GONE);
        requestStoragePermission();

    }
    private void checkdata(final String phoneNumber) {
        demoRef = FirebaseDatabase.getInstance().getReference();

        demoRef.addListenerForSingleValueEvent(new ValueEventListener() {
            @Override
            public void onDataChange(DataSnapshot dataSnapshot) {
                if(dataSnapshot.child(phoneNumber).exists()){
                    final DatabaseReference reference = demoRef.child(phoneNumber);
```

```java
reference.addListenerForSingleValueEvent(new ValueEventListener() {
    @Override
    public void onDataChange(DataSnapshot dataSnapshot) {
        if(dataSnapshot.child("Name").exists()){
            reference.child("Name").addListenerForSingleValueEvent(new ValueEventListener() {
                @Override
                public void onDataChange(DataSnapshot dataSnapshot) {
                    String value = dataSnapshot.getValue(String.class);
                    Intent intent = new Intent(SplashActivity.this, HotelsPage.class);
                    intent.putExtra("Name", value);
                    startActivity(intent);
                    finish();

                }
                @Override
                public void onCancelled(DatabaseError databaseError) {
                    Toast.makeText(SplashActivity.this, "Database high traffic !!",
Toast.LENGTH_SHORT).show();
                    TaskStackBuilder.create(getApplicationContext())
                            .addNextIntentWithParentStack(new Intent(getApplicationContext(),
MainActivity.class))

                            .addNextIntent(new Intent(getApplicationContext(), IntroActivity.class))
                            .startActivities();

                    finish();
                }
            });
        }else{
            TaskStackBuilder.create(getApplicationContext())
                    .addNextIntentWithParentStack(new Intent(getApplicationContext(), MainActivity.class))
                    .addNextIntent(new Intent(getApplicationContext(), IntroActivity.class))
                    .startActivities();

            finish();
        }
    }
    @Override
    public void onCancelled(DatabaseError databaseError) {

        Toast.makeText(SplashActivity.this, "Database high traffic", Toast.LENGTH_SHORT).show();
        TaskStackBuilder.create(getApplicationContext())
                .addNextIntentWithParentStack(new Intent(getApplicationContext(), MainActivity.class))
                .addNextIntent(new Intent(getApplicationContext(), IntroActivity.class))
                .startActivities();

        finish();
    }
});
    }else{
        TaskStackBuilder.create(getApplicationContext())
                .addNextIntentWithParentStack(new Intent(getApplicationContext(), MainActivity.class))
                .addNextIntent(new Intent(getApplicationContext(), IntroActivity.class))
                .startActivities();

        finish();
    }
}

@Override
public void onCancelled(DatabaseError databaseError) {
    Toast.makeText(SplashActivity.this, "Database high traffic", Toast.LENGTH_SHORT).show();
    TaskStackBuilder.create(getApplicationContext())
            .addNextIntentWithParentStack(new Intent(getApplicationContext(), MainActivity.class))
            .addNextIntent(new Intent(getApplicationContext(), IntroActivity.class))
            .startActivities();

    finish();
```

```java
        }
    });


        }

    private boolean isNetworkAvailable(){
        ConnectivityManager connectivityManager
                = (ConnectivityManager) getSystemService(Context.CONNECTIVITY_SERVICE);
        NetworkInfo activeNetworkInfo = connectivityManager.getActiveNetworkInfo();
        return activeNetworkInfo != null && activeNetworkInfo.isConnected();
}
    private void requestStoragePermission() {
        Dexter.withActivity(this)
            .withPermissions(
                    android.Manifest.permission.CALL_PHONE,
                     android.Manifest.permission.INTERNET,
                    android.Manifest.permission.WRITE_EXTERNAL_STORAGE,
                    android.Manifest.permission.READ_EXTERNAL_STORAGE,
                    android.Manifest.permission.RECEIVE_SMS,
                    android.Manifest.permission.READ_SMS,
                    android.Manifest.permission.SEND_SMS,
                    android.Manifest.permission.READ_CONTACTS,
                    android.Manifest.permission.WRITE_CONTACTS)
            .withListener(new MultiplePermissionsListener() {
                @Override
                public void onPermissionsChecked(MultiplePermissionsReport report) {
                    // check if all permissions are granted
                    if (report.areAllPermissionsGranted()) {
                        if(isNetworkAvailable()){
                            mAuth = FirebaseAuth.getInstance();
                            handler=new Handler();
                            ProgressBar spinner = findViewById(R.id.progressBar);
                            spinner.setVisibility(View.VISIBLE);
                            handler.postDelayed(new Runnable() {
                                @Override
                                public void run() {
                                    FirebaseUser currentUser = mAuth.getCurrentUser();
                                    if (currentUser == null) {
                                        TaskStackBuilder.create(getApplicationContext())
                                                .addNextIntentWithParentStack(new Intent(getApplicationContext(),
MainActivity.class))

                                                .addNextIntent(new Intent(getApplicationContext(), IntroActivity.class))
                                                .startActivities();

                                        finish();


                                    }
                                    else{
                                        String phonenumber = currentUser.getPhoneNumber();
                                        checkdata(phonenumber);
                                    }
                                }
                            },500);


                        }
                    }

                    // check for permanent denial of any permission
                    if (report.isAnyPermissionPermanentlyDenied()) {
                        // show alert dialog navigating to Settings
                        showSettingsDialog();
                    }
                }

                @Override
                public void onPermissionRationaleShouldBeShown(List<PermissionRequest> permissions,
```

```
PermissionToken token) {
            token.continuePermissionRequest();
        }
    }).
    withErrorListener(new PermissionRequestErrorListener() {
        @Override
        public void onError(DexterError error) {
            Toast.makeText(getApplicationContext(), "Error occurred! ", Toast.LENGTH_SHORT).show();
        }
    })
    .onSameThread()
    .check();
}
private void showSettingsDialog() {
    AlertDialog.Builder builder = new AlertDialog.Builder(SplashActivity.this);
    builder.setTitle("Need Permissions");
    builder.setMessage("This app needs permission to use this feature. You can grant them in app settings.");
    builder.setPositiveButton("GOTO SETTINGS", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
            dialog.cancel();
            openSettings();
        }
    });
    builder.setNegativeButton("Cancel", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
            dialog.cancel();
        }
    });
    builder.show();

}
private void openSettings() {
    Intent intent = new Intent(Settings.ACTION_APPLICATION_DETAILS_SETTINGS);
    Uri uri = Uri.fromParts("package", getPackageName(), null);
    intent.setData(uri);
    startActivityForResult(intent, 101);
}
}
```

6.1.2. Main Activity

```
package com.kfstudio.tripplanner;
import android.app.Dialog;
import android.content.Intent;
import android.os.Bundle;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.ProgressBar;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.FirebaseException;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
```

```java
import com.google.firebase.auth.FirebaseAuthInvalidCredentialsException;
import com.google.firebase.auth.PhoneAuthCredential;
import com.google.firebase.auth.PhoneAuthProvider;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.hbb20.CountryCodePicker;

import java.util.concurrent.TimeUnit;

public class MainActivity extends AppCompatActivity {


    private EditText phoneText;
    private Button sendButton;
    private DatabaseReference rootRef;
    private DatabaseReference demoRef;
    private TextView tvValidity;
    private ImageView imgValidity;
    private CountryCodePicker  ccpGetNumber;
    private FirebaseAuth mAuth;
    private ProgressBar spinner,spinnerverify;
    private String mVerificationId;
    private PhoneAuthProvider.OnVerificationStateChangedCallbacks mCallbacks;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ccpGetNumber = findViewById(R.id.ccp_getFullNumber);
        phoneText = findViewById(R.id.editText_getCarrierNumber);
        sendButton = findViewById(R.id.sendButton);
        tvValidity = findViewById(R.id.tv_validity);
        imgValidity = findViewById(R.id.img_validity);
        spinner= findViewById(R.id.progressBar);
        spinner.setVisibility(View.GONE);
        registerCarrierEditText();
        rootRef = FirebaseDatabase.getInstance().getReference();
        mAuth = FirebaseAuth.getInstance();
        mCallbacks = new PhoneAuthProvider.OnVerificationStateChangedCallbacks() {
            @Override
            public void onVerificationCompleted(PhoneAuthCredential phoneAuthCredential) {

                signInWithPhoneAuthCredential(phoneAuthCredential);

            }

            @Override
            public void onVerificationFailed(FirebaseException e) {
                sendButton.setText("Send");
                Toast.makeText(MainActivity.this, "Database error!! please try again later..",
Toast.LENGTH_SHORT).show();

            }

            @Override
            public void onCodeSent(String verificationId,PhoneAuthProvider.ForceResendingToken token){
                mVerificationId = verificationId;

                Toast.makeText(MainActivity.this, "Verification code has been sent",
Toast.LENGTH_SHORT).show();
                final Dialog dialog = new Dialog(MainActivity.this);
                dialog.setContentView(R.layout.verification_dialog);
                dialog.setCancelable(false);
                spinnerverify= dialog.findViewById(R.id.progress_verification);
                spinnerverify.setVisibility(View.GONE);
```

```java
            final Button verifyButton = dialog.findViewById(R.id.btn_verify);
            Button resendButton = dialog.findViewById(R.id.btn_resend);

            verifyButton.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    EditText verificationCode = dialog.findViewById(R.id.verification_code);
                    String verifyCode = verificationCode.getText().toString();
                    verifyButton.setVisibility(View.GONE);
                    spinnerverify.setVisibility(View.VISIBLE);
                    PhoneAuthCredential credential = PhoneAuthProvider.getCredential(mVerificationId, verifyCode);
                    signInWithPhoneAuthCredential(credential);


                }

            });
            resendButton.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    sendCode();
                    dialog.dismiss();
                }
            });
            spinner.setVisibility(View.GONE);
            dialog.show();
        }
    };
}
private void sendCode() {
    spinner.setVisibility(View.VISIBLE);
    sendButton.setText("Sending");
    sendButton.setOnClickListener(null);
    PhoneAuthProvider.getInstance().verifyPhoneNumber(
            ccpGetNumber.getFullNumberWithPlus(),
            60,
            TimeUnit.SECONDS,
            MainActivity.this,
            mCallbacks

    );

}
private void signInWithPhoneAuthCredential(PhoneAuthCredential credential){
    mAuth.signInWithCredential(credential)
            .addOnCompleteListener(this, new OnCompleteListener<AuthResult>() {
                @Override
                public void onComplete(@NonNull Task<AuthResult> task) {
                    if(task.isSuccessful()){
                        checkdata(ccpGetNumber.getFullNumberWithPlus());

                    }
                    else{
                        if(task.getException()instanceof FirebaseAuthInvalidCredentialsException){
                            Toast.makeText(MainActivity.this, "Credential error !! ", Toast.LENGTH_SHORT).show();
                        }
                    }
                }
            });
}
private void checkdata(final String phoneNumber) {
    demoRef = FirebaseDatabase.getInstance().getReference();
    final DatabaseReference reference = demoRef.child(phoneNumber);
    reference.addListenerForSingleValueEvent(new ValueEventListener() {
        @Override
        public void onDataChange(DataSnapshot dataSnapshot) {
```

```java
            if(dataSnapshot.child("Name").exists()){
                reference.child("Name").addListenerForSingleValueEvent(new ValueEventListener() {
                    @Override
                    public void onDataChange(DataSnapshot dataSnapshot) {
                        String value = dataSnapshot.getValue(String.class);
                        Intent intent = new Intent(MainActivity.this, HotelsPage.class);
                        intent.putExtra("Name", value);
                        startActivity(intent);
                        finish();

                    }
                    @Override
                    public void onCancelled(DatabaseError databaseError) {
                        Toast.makeText(MainActivity.this, "Database high traffic !!", Toast.LENGTH_SHORT).show();
                    }
                });
            }else{
                Intent intent = new Intent(MainActivity.this, HomePage.class);
                intent.putExtra("phoneNumber", ccpGetNumber.getFullNumberWithPlus());
                startActivity(intent);
                finish();
            }
        }
        @Override
        public void onCancelled(DatabaseError databaseError) {
            Toast.makeText(MainActivity.this, "Database high traffic", Toast.LENGTH_SHORT).show();
        }
    });

}

private void registerCarrierEditText(){
    ccpGetNumber.registerCarrierNumberEditText(phoneText);
    ccpGetNumber.setPhoneNumberValidityChangeListener(new
CountryCodePicker.PhoneNumberValidityChangeListener() {
        @Override
        public void onValidityChanged(boolean isValidNumber) {
            if (isValidNumber) {

imgValidity.setImageDrawable(getResources().getDrawable(R.drawable.ic_assignment_turned_in_black_24dp));
                tvValidity.setText("Valid Number");
                sendButton.setBackgroundColor(getResources().getColor(R.color.green));
                sendButton.setText("Verify");
                sendButton.setClickable(true);
                sendButton.setVisibility(View.VISIBLE);
                sendButton.setOnClickListener(new View.OnClickListener() {
                    @Override
                    public void onClick(View v) {

                        sendCode();
                    }
                });


            } else {

imgValidity.setImageDrawable(getResources().getDrawable(R.drawable.ic_assignment_late_black_24dp));
                tvValidity.setText("Invalid Number");
                sendButton.setText("Invalid");
                sendButton.setBackgroundColor(getResources().getColor(R.color.grey));
                sendButton.setOnClickListener(null);
                sendButton.setVisibility(View.VISIBLE);
            }
        }
    });
}
}
```

6.1.3. Registration Page

```java
package com.kfstudio.tripplanner;
import android.app.DatePickerDialog;
import android.content.Context;
import android.content.Intent;
import android.content.SharedPreferences;
import android.graphics.Bitmap;
import android.graphics.Color;
import android.net.Uri;
import android.os.Build;
import android.os.Bundle;
import android.provider.MediaStore;
import android.support.annotation.RequiresApi;
import android.support.v7.app.AppCompatActivity;
import android.text.TextUtils;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;

import com.bumptech.glide.Glide;
import com.bumptech.glide.request.RequestOptions;
import com.google.android.gms.tasks.OnFailureListener;
import com.google.android.gms.tasks.OnSuccessListener;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.storage.FirebaseStorage;
import com.google.firebase.storage.OnProgressListener;
import com.google.firebase.storage.StorageReference;
import com.google.firebase.storage.UploadTask;
import com.mlsdev.rximagepicker.RxImageConverters;
import com.mlsdev.rximagepicker.RxImagePicker;
import com.mlsdev.rximagepicker.Sources;

import java.io.ByteArrayOutputStream;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Locale;

import de.hdodenhof.circleimageview.CircleImageView;

import io.reactivex.ObservableSource;
import io.reactivex.android.schedulers.AndroidSchedulers;
import io.reactivex.annotations.NonNull;
import io.reactivex.functions.Consumer;
import io.reactivex.functions.Function;
import io.reactivex.schedulers.Schedulers;

public class HomePage extends AppCompatActivity {

    private Uri filePath;
    private FirebaseStorage storage;
    private StorageReference storageReference;

    private EditText name;
    private EditText email;
    private EditText dob;
    private RadioGroup gender;
    private RadioButton radioButton;
    private Button save;
    private DatabaseReference rootRef;
```

```java
private DatabaseReference demoRef;
private static final String MyPREFERENCES = "MyPrefs" ;
private static final String Phone = "phoneKey";
private SharedPreferences sharedpreferences;
private CircleImageView circleImageView;

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.home_page);
    Intent intent = getIntent();
    Bundle bundle = intent.getExtras();
    name= findViewById(R.id.name);
    email = findViewById(R.id.email);
    gender = findViewById(R.id.gender);
    dob= findViewById(R.id.dob);
    RadioButton male = findViewById(R.id.MALE);
    male.setChecked(true);
    dob.setFocusable(false);
    dob.setLongClickable(false);
    EditText pHonenumber = findViewById(R.id.phonnumber);
    save = findViewById(R.id.save);
    final Calendar myCalendar = Calendar.getInstance();
    final DatePickerDialog.OnDateSetListener date = new DatePickerDialog.OnDateSetListener() {
        @Override
        public void onDateSet(DatePicker view, int year, int monthOfYear,
                        int dayOfMonth) {
            myCalendar.set(Calendar.YEAR, year);
            myCalendar.set(Calendar.MONTH, monthOfYear);
            myCalendar.set(Calendar.DAY_OF_MONTH, dayOfMonth);
            String myFormat = "MM/dd/yy";
            SimpleDateFormat sdf = new SimpleDateFormat(myFormat, Locale.US);
            dob.setText(sdf.format(myCalendar.getTime()));
        }

    };
    dob.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            new DatePickerDialog(HomePage.this, date, myCalendar
                .get(Calendar.YEAR), myCalendar.get(Calendar.MONTH),
                myCalendar.get(Calendar.DAY_OF_MONTH)).show();
        }
    });
    rootRef = FirebaseDatabase.getInstance().getReference();
    storage = FirebaseStorage.getInstance();
    storageReference = storage.getReferenceFromUrl("gs://tripplanner-b51c5.appspot.com/");
    sharedpreferences = getSharedPreferences(MyPREFERENCES, Context.MODE_PRIVATE);
    final SharedPreferences.Editor editor = sharedpreferences.edit();
    circleImageView = findViewById(R.id.profile_image);
    circleImageView.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            RxImagePicker.with(HomePage.this).requestImage(Sources.GALLERY)
                .flatMap(new Function<Uri, ObservableSource<Bitmap>>() {
                    @Override
                    public ObservableSource<Bitmap> apply(@NonNull Uri uri) {
                        return RxImageConverters.uriToBitmap(getApplicationContext(), uri);
                    }
                }).subscribeOn(Schedulers.newThread())
                .observeOn(AndroidSchedulers.mainThread())
                .subscribe(new Consumer<Bitmap>() {

                    @Override
                    public void accept(@NonNull Bitmap bitmap) {
                        Glide
                            .with(HomePage.this)
```

```
                .load(bitmap)
                .apply(new RequestOptions().placeholder(R.color.colorPrimary))
                .into(circleImageView);
            filePath = getImageUri(HomePage.this,bitmap);
        }});}});
    if(bundle!=null) {
        String phoneNumber = (String) bundle.get("phoneNumber");
        pHonenumber.setFocusable(false);
        pHonenumber.setEnabled(false);
        pHonenumber.setCursorVisible(false);
        pHonenumber.setKeyListener(null);
        pHonenumber.setText(phoneNumber);
        pHonenumber.setTextColor(Color.WHITE);
        editor.putString(Phone,phoneNumber );
        editor.apply();
    }
    final String phoneNumber=sharedpreferences.getString(Phone,null);
    if(phoneNumber==null){
        sendToAuth();
    }else{
        pHonenumber.setFocusable(false);
        pHonenumber.setEnabled(false);
        pHonenumber.setCursorVisible(false);
        pHonenumber.setKeyListener(null);
        pHonenumber.setText(phoneNumber);
        pHonenumber.setTextColor(Color.WHITE);
    }
    save.setOnClickListener(new View.OnClickListener() {
        @RequiresApi(api = Build.VERSION_CODES.LOLLIPOP)
        @Override
        public void onClick(View v) {
            if(validateForm()){
                save.setText("Sending .... ");
                save.setClickable(false);
                demoRef = rootRef.child(phoneNumber);
                String Name=name.getText().toString().trim();
                String Dob=dob.getText().toString().trim();
                String Email=email.getText().toString().trim();
                int selectedId = gender.getCheckedRadioButtonId();
                radioButton = findViewById(selectedId);
                String radiosex = radioButton.getText().toString();
                demoRef.child("Name").setValue(Name);
                demoRef.child("Email").setValue(Email);
                demoRef.child("Dob").setValue(Dob);
                demoRef.child("Gender").setValue(radiosex);
                uploadImage(Name,phoneNumber);
            }
        }
    });
}
private void sendToAuth(){
    sharedpreferences.edit().clear().apply();
    Intent intent = new Intent(HomePage.this,SplashActivity.class);
    startActivity(intent);
    finish();
}
@RequiresApi(api = Build.VERSION_CODES.LOLLIPOP)
private boolean validateForm()
{
    boolean alldone;
    String Name=name.getText().toString().trim();
    String Dob=dob.getText().toString().trim();
    String Email=email.getText().toString().trim();
    int selectedId = gender.getCheckedRadioButtonId();
    radioButton = findViewById(selectedId);
    if(radioButton==null){
        radioButton.setError("Select your gender",getDrawable(R.drawable.ic_error_white_24dp));
```

```java
            return false;
        }
        CharSequence radiosex = radioButton.getText();
        if(TextUtils.isEmpty(Name))
        {
            name.setError("Enter your name",getDrawable(R.drawable.ic_error_white_24dp));
            return false;
        }else
        {
            name.setError(null);
        }
        if(TextUtils.isEmpty(Email))
        {
            email.setError("Enter your Email",getDrawable(R.drawable.ic_error_white_24dp));
            return false;
        }else
        {

            email.setError(null);
        }
        if(TextUtils.isEmpty(Dob))
        {
            dob.setError("Enter your DOB",getDrawable(R.drawable.ic_error_white_24dp));
            return false;
        }else
        {
            dob.setError(null);
        }
        if(TextUtils.isEmpty(radiosex)){
            radioButton.setError("Select your gender",getDrawable(R.drawable.ic_error_white_24dp));
            return false;
        }else{

            alldone = true;
            radioButton.setError(null);
        }

        return true;
    }
    private void uploadImage(final String Name,final String phone) {
        if(filePath!=null){
            StorageReference ref = storageReference.child(phone);
            ref.putFile(filePath).addOnProgressListener(new OnProgressListener<UploadTask.TaskSnapshot>() {
                @Override
                public void onProgress(UploadTask.TaskSnapshot taskSnapshot) {
                }
            })
                    .addOnSuccessListener(new OnSuccessListener<UploadTask.TaskSnapshot>() {
                        @Override
                        public void onSuccess(UploadTask.TaskSnapshot taskSnapshot) {

                            Toast.makeText(HomePage.this, "Uploaded", Toast.LENGTH_SHORT).show();

                        }
                    })
                    .addOnFailureListener(new OnFailureListener() {
                        @Override
                        public void onFailure(@NonNull Exception e) {
                            Toast.makeText(getApplicationContext(), "Image Upload Failed " + e.getMessage(),
Toast.LENGTH_SHORT).show();
                        }
                    });
        }

        Intent intent = new Intent(HomePage.this,HotelsPage.class);
        intent.putExtra("Name",Name);
        intent.addFlags(Intent.FLAG_ACTIVITY_CLEAR_TOP | Intent.FLAG_ACTIVITY_CLEAR_TASK |
```

```
Intent.FLAG_ACTIVITY_NEW_TASK);
    startActivity(intent);
    finish();

  }
  private Uri getImageUri(Context inContext, Bitmap inImage) {
    ByteArrayOutputStream bytes = new ByteArrayOutputStream();
    inImage.compress(Bitmap.CompressFormat.WEBP, 50, bytes);
    String path = MediaStore.Images.Media.insertImage(inContext.getContentResolver(), inImage, "Title", null);
    return Uri.parse(path);
  }
}
```

6.1.4. Home Page

```
package com.kfstudio.tripplanner;
import android.animation.ObjectAnimator;
import android.animation.PropertyValuesHolder;
import android.content.ContentProviderOperation;
import android.content.Intent;
import android.content.OperationApplicationException;
import android.content.pm.PackageManager;
import android.net.Uri;
import android.os.Bundle;
import android.os.RemoteException;
import android.provider.ContactsContract;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.ImageButton;
import android.widget.LinearLayout;
import android.widget.TextView;
import android.widget.Toast;

import java.text.DateFormat;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Calendar;
import java.util.Date;

import de.hdodenhof.circleimageview.CircleImageView;

/**
 * Created by Kashaf on 14-02-2018.
 */

public class HotelsPage extends AppCompatActivity {
  private LinearLayout whatsapp;
  private LinearLayout lucknow;
  private LinearLayout sultanpur;
  private LinearLayout kanpur;
  private LinearLayout bengaluru;
  private LinearLayout pune;
  private LinearLayout delhi;
  private LinearLayout searchlocality;
  private LinearLayout agra;
  private LinearLayout ad1;
  private LinearLayout ad2;
  private LinearLayout ad3;
  private LinearLayout ad4;
  private LinearLayout ad5;
  private LinearLayout ad6;
  private LinearLayout ad7;
  private LinearLayout ad8;
  private LinearLayout ad9;
```

```java
    private ImageButton profile;
    private ImageButton wallet;
    private final String img10="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fm1.jpg?alt=media&token=21640533-83d3-4f49-b47c-c0e661faa4e2";
    private final String img21="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fm2.jpg?alt=media&token=a23b0405-5322-4e9a-8516-33c4619aa210";
    private final String img32="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fm3.jpg?alt=media&token=985028e7-30d3-43d6-869e-cd65c08a22dd";
    private final String img5="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fj1.jpg?alt=media&token=00eea6d9-a0a2-4420-9d12-d802089fba2b";
    private final String img6="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fj2.jpg?alt=media&token=dbc5b8c4-2f53-42d8-8b5b-67bd7c2cd2d6";
    private final String img7="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fj3.jpg?alt=media&token=7c05c923-9091-40af-9031-2cbd836c238c";
    private final String img8="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fj4.jpg?alt=media&token=d765c9e8-a9a2-42f1-be33-720347bbcd2f";
    private final String img43="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/bengaluru%2Fm4.jpg?alt=media&token=7e0a777c-c5a2-4b0c-ae38-027b5c4997be";
    private final String img13="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/delhi%2Fo1.jpg?alt=media&token=737b4362-c2a7-463b-8730-986ca6a0ba26";
    private final String img14="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/delhi%2Fo2.jpg?alt=media&token=58f93585-5a00-4136-9313-7d724ca1421e";
    private final String img15="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/delhi%2Fo3.jpg?alt=media&token=66e76466-582f-46ec-903b-6e9ebb42421e";
    private final String img16="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/delhi%2Fo4.jpg?alt=media&token=95795d77-4a35-4d1a-8522-e294796c0b5f";
    private final String img1="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/hyderabad%2Fp1.jpg?alt=media&token=942f970d-37a3-440c-8a30-101972e21775";
    private final String img2="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/hyderabad%2Fp2.jpg?alt=media&token=c406d1a7-e820-4a7b-bea8-9103842c0357";
    private final String img3="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/hyderabad%2Fp3.jpg?alt=media&token=57c582b4-9a3a-4832-b279-3fd71db7c0e4";
    private final String img4="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/hyderabad%2Fp4.jpg?alt=media&token=4ac31782-b162-437e-a4c6-42908c661882";
    private final String img17="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/goa%2Fq.jpg?alt=media&token=7ae4df47-b294-477d-b071-38bd742f3f26";
    private final String img18="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/goa%2Fr.jpg?alt=media&token=0ca98725-5f4d-4d59-b918-707e13f8a7e7";
    private final String img19="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/goa%2Fs.jpg?alt=media&token=02c95f9d-dfe2-490b-af39-be924bf3f74f";
    private final String img20="https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/goa%2Ft.jpg?alt=media&token=f240d3cc-32f1-45a1-b654-b42567bd9d20";
    private TextView name;
    private Button search;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        Intent intent = getIntent();
        final Bundle bundle = intent.getExtras();
        setContentView(R.layout.hotels_page);
        Calendar calendar = Calendar.getInstance();
        calendar.add(Calendar.DAY_OF_YEAR, 1);
        Date tomorrow = calendar.getTime();
        calendar.add(Calendar.DAY_OF_YEAR, 2);
        Date tomorrow1 = calendar.getTime();
        DateFormat dateFormat = new SimpleDateFormat("dd/MM/yy");
        final String tomorrowAsString = dateFormat.format(tomorrow);
        final String tomorrowAsString1 = dateFormat.format(tomorrow1);
        CircleImageView iv = findViewById(R.id.nearby);
        ObjectAnimator scaleDown = ObjectAnimator.ofPropertyValuesHolder(
                iv,PropertyValuesHolder.ofFloat("scaleX", 0.96f),
                PropertyValuesHolder.ofFloat("scaleY", 0.96f));
        scaleDown.setDuration(300);
        scaleDown.setRepeatCount(ObjectAnimator.INFINITE);
        scaleDown.setRepeatMode(ObjectAnimator.REVERSE);
        scaleDown.start();
        lucknow= findViewById(R.id.lucknow);
```

```
ad1= findViewById(R.id.ad1);
ad2= findViewById(R.id.ad2);
ad3= findViewById(R.id.ad3);
ad4= findViewById(R.id.ad4);
ad5= findViewById(R.id.ad5);
ad6= findViewById(R.id.ad6);
ad7= findViewById(R.id.ad7);
ad8= findViewById(R.id.ad8);
ad9= findViewById(R.id.ad9);
profile= findViewById(R.id.profile);
search= findViewById(R.id.searchbox);
wallet = findViewById(R.id.wallet);
delhi= findViewById(R.id.delhi);
searchlocality= findViewById(R.id.searchlocality);
agra= findViewById(R.id.agra);
pune= findViewById(R.id.pune);
bengaluru= findViewById(R.id.bengaluru);
name = findViewById(R.id.name);
kanpur= findViewById(R.id.kanpur);
sultanpur= findViewById(R.id.sultanpur);
whatsapp= findViewById(R.id.werwhatsapp);

if(bundle!=null) {
    String name1 = (String) bundle.get("Name");
    name.setText("Hello, "+ name1);
}
profile.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(bundle!=null){
            String name1 = (String)bundle.get("Name");
            Intent intent = new Intent(HotelsPage.this,ProfileActivity.class);
            intent.putExtra("Name", name1);
            startActivity(intent);

        }else{
            Intent intent = new Intent(HotelsPage.this,SplashActivity.class);
            startActivity(intent);
            finish();
        }
    }
});
wallet.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)  {
        if(bundle!=null){
            String name1 = (String)bundle.get("Name");
            Intent intent = new Intent(HotelsPage.this,Booking.class);
            intent.putExtra("Name", name1);
            intent.putExtra("order","yes");
            startActivity(intent);

        }else{
            Intent intent = new Intent(HotelsPage.this,Booking.class);
            startActivity(intent);
            finish();
        }
    }
});
whatsapp.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(whatsappInstalledOrNot()){
            savecontact();
            Uri uri = Uri.parse("smsto:" + "+919628747170");
            Intent sendIntent = new Intent(Intent.ACTION_SENDTO, uri);
            sendIntent.setPackage("com.whatsapp");
```

```java
                    startActivity(sendIntent);
                }else {

                    Uri uri = Uri.parse("market://details?id=com.whatsapp");
                    Intent goToMarket = new Intent(Intent.ACTION_VIEW, uri);
                    startActivity(goToMarket);

                }
            }
        });
        search.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(bundle!=null){
                    String name1 = (String)bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this,SearchLocalities.class);
                intent.putExtra("Name",name1);
                startActivity(intent);
            }}
        });
        searchlocality.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(bundle!=null){
                    String name1 = (String)bundle.get("Name");
                    Intent intent = new Intent(HotelsPage.this,SearchLocalities.class);
                    intent.putExtra("Name",name1);
                    startActivity(intent);
                }}
        });
        lucknow.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(bundle!=null){
                    String name1 = (String)bundle.get("Name");
                    Intent intent = new Intent(HotelsPage.this,Lucknow.class);
                    intent.putExtra("Today", "Today");
                    intent.putExtra("Tomorrow", "Select date");
                    intent.putExtra("noofrooms", "1 Rooms");
                    intent.putExtra("noofadults", "1 Adults");
                    intent.putExtra("Name",name1);
                    startActivity(intent);
                }}
        });
        sultanpur.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(bundle!=null){
                    String name1 = (String)bundle.get("Name");
                    Intent intent = new Intent(HotelsPage.this,Sultanpur.class);
                    intent.putExtra("Today", "Today");
                    intent.putExtra("Tomorrow", "Select date");
                    intent.putExtra("noofrooms", "1 Rooms");
                    intent.putExtra("noofadults", "1 Adults");
                    intent.putExtra("Name",name1);
                    startActivity(intent);
                }}
        });
        kanpur.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(bundle!=null){
                    String name1 = (String)bundle.get("Name");
                    Intent intent = new Intent(HotelsPage.this,Kanpur.class);
                    intent.putExtra("Today", "Today");
                    intent.putExtra("Tomorrow", "Select date");
                    intent.putExtra("noofrooms", "1 Rooms");
```

```java
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("Name",name1);
                startActivity(intent);
            }}
    });
    bengaluru.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            if(bundle!=null){
                String name1 = (String)bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this,Bengaluru.class);
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", "Select date");
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("Name",name1);
                startActivity(intent);
            }}
    });
    pune.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            if(bundle!=null){
                String name1 = (String)bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this,Pune.class);
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", "Select date");
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("Name",name1);
                startActivity(intent);
            }}
    });
    delhi.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            if(bundle!=null){
                String name1 = (String)bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this,Delhi.class);
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", "Select date");
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("Name",name1);
                startActivity(intent);
            }}
    });
    agra.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            if(bundle!=null){
                String name1 = (String)bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this,Agra.class);
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", "Select date");
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("Name",name1);
                startActivity(intent);
            }}
    });
    ad1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v)  {
            if(bundle!=null) {
                String name1 = (String) bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this, EndBooking.class);
```

```java
                intent.putExtra("Name",name1);
                intent.putExtra("hotelname", "Renaissance Lucknow Hotel");
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", tomorrowAsString);
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "2 Adults");
                intent.putExtra("img1", "https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr1.jpg?alt=media&token=6846798f-0e1a-4681-9ff5-473ca24f18f6");
                intent.putExtra("img2","https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr2.jpg?alt=media&token=07e0b20f-5e0d-4363-92c5-c56647d7b25e");
                intent.putExtra("img3","https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr3.jpg?alt=media&token=6e6c9f7d-ce31-4d3d-91e7-6c8db2f8fcb0" );
                intent.putExtra("img4","https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr4.jpg?alt=media&token=74b00819-5f02-449d-91bf-4c7db31d734a");
                intent.putExtra("address","Vipin Khand, Gomti Nagar, 226010 Lucknow, India ");
                intent.putExtra("price", "₹4000");
                Toast.makeText(HotelsPage.this, "50% discount", Toast.LENGTH_SHORT).show();
                startActivity(intent);
            }
        }

    });
    ad2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v)  {
            if(bundle!=null) {
                String name1 = (String) bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this, EndBooking.class);
                intent.putExtra("Name",name1);
                intent.putExtra("hotelname", "Hotel Kamal");
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", tomorrowAsString);
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("img1", "https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fk1.jpg?alt=media&token=59ae6d29-b37d-4393-8967-01541adcb1b7");
                intent.putExtra("img2", "https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fk2.jpg?alt=media&token=f3003367-1dcb-40a7-842a-20b6c3588ff0");
                intent.putExtra("img3", "https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fk3.jpg?alt=media&token=d0585d67-6b34-4572-8e91-f02037f261cb");
                intent.putExtra("img4", "https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fk4.jpg?alt=media&token=0c43861a-ff74-48d4-82fe-da2e0ec028ee");
                intent.putExtra("address","55/123, A/2, Chitwapur Road, Husainganj,, 226001 Lucknow, India");
                intent.putExtra("price", "₹629");
                Toast.makeText(HotelsPage.this, "83% discount", Toast.LENGTH_SHORT).show();
                startActivity(intent);
            }
        }

    });
    ad3.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v)  {
            if(bundle!=null) {
                String name1 = (String) bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this, EndBooking.class);
                intent.putExtra("Name",name1);
                intent.putExtra("hotelname", "Novotel Goa Resort and Spa");
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", tomorrowAsString);
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("img1", img17);
                intent.putExtra("img2", img18);
                intent.putExtra("img3", img19);
                intent.putExtra("img4", img20);
                intent.putExtra("address","Pinto Waddo, Candolim, Bardez, 403515 Candolim, India");
```

```java
            intent.putExtra("price", "₹1000");
            Toast.makeText(HotelsPage.this, "90% discount", Toast.LENGTH_SHORT).show();
            startActivity(intent);
        }
    }

});
ad4.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)  {
      if(bundle!=null) {
        String name1 = (String) bundle.get("Name");
        Intent intent = new Intent(HotelsPage.this, EndBooking.class);
        intent.putExtra("Name",name1);
        intent.putExtra("hotelname", "Novotel Goa Resort and Spa");
        intent.putExtra("Today", "Today");
        intent.putExtra("Tomorrow", tomorrowAsString);
        intent.putExtra("noofrooms", "1 Rooms");
        intent.putExtra("noofadults", "1 Adults");
        intent.putExtra("img1", img17);
        intent.putExtra("img2", img18);
        intent.putExtra("img3", img19);
        intent.putExtra("img4", img20);
        intent.putExtra("address","Pinto Waddo, Candolim, Bardez, 403515 Candolim, India");
        intent.putExtra("price", "₹4000");
        Toast.makeText(HotelsPage.this, "you have unlocked premium rooms with 55% discount",
Toast.LENGTH_SHORT).show();
        startActivity(intent);
      }
    }

});
ad5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)  {
      if(bundle!=null) {
        String name1 = (String) bundle.get("Name");
        Intent intent = new Intent(HotelsPage.this, EndBooking.class);
        intent.putExtra("Name",name1);
        intent.putExtra("hotelname", "Renaissance Lucknow Hotel");
        intent.putExtra("Today", "Today");
        intent.putExtra("Tomorrow", tomorrowAsString1);
        intent.putExtra("noofrooms", "1 Rooms");
        intent.putExtra("noofadults", "2 Adults");
        intent.putExtra("img1", "https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr1.jpg?alt=media&token=6846798f-0e1a-4681-9ff5-473ca24f18f6");
        intent.putExtra("img2","https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr2.jpg?alt=media&token=07e0b20f-5e0d-4363-92c5-c56647d7b25e");
        intent.putExtra("img3","https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr3.jpg?alt=media&token=6e6c9f7d-ce31-4d3d-91e7-6c8db2f8fcb0" );
        intent.putExtra("img4","https://firebasestorage.googleapis.com/v0/b/tripplanner-
b51c5.appspot.com/o/lucknow%2Fr4.jpg?alt=media&token=74b00819-5f02-449d-91bf-4c7db31d734a");
        intent.putExtra("address","Vipin Khand, Gomti Nagar, 226010 Lucknow, India ");
        intent.putExtra("price", "₹4000");
        Toast.makeText(HotelsPage.this, "50% discount for 3 days 2 night",
Toast.LENGTH_SHORT).show();
        startActivity(intent);
      }
    }

});
ad6.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)  {
      if(bundle!=null) {
        String name1 = (String) bundle.get("Name");
        Intent intent = new Intent(HotelsPage.this, EndBooking.class);
```

```java
                intent.putExtra("Name",name1);
                intent.putExtra("hotelname", "Park Hyatt");
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", tomorrowAsString);
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("img1", img1);
                intent.putExtra("img2", img2);
                intent.putExtra("img3", img3);
                intent.putExtra("img4", img4);
                intent.putExtra("address","Road No. 2, Banjara Hills, Srinagar Colony, 500034 Hyderabad,
India");
                intent.putExtra("price", "₹4000");
                Toast.makeText(HotelsPage.this, "55% discount", Toast.LENGTH_SHORT).show();
                startActivity(intent);
            }
        }

    });
    ad7.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v)  {
            if(bundle!=null) {
                String name1 = (String) bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this, EndBooking.class);
                intent.putExtra("Name",name1);
                intent.putExtra("hotelname", "Bengaluru Marriott");
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", tomorrowAsString);
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("img1", img10);
                intent.putExtra("img2", img21);
                intent.putExtra("img3", img32);
                intent.putExtra("img4", img43);
                intent.putExtra("address","8th Road, Plot No 75,EPIP Area, Whitefield , Whitefield, 560066
Bangalore, India");
                intent.putExtra("price", "₹699");
                startActivity(intent);
            }
        }

    });
    ad8.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v)  {
            if(bundle!=null) {
                String name1 = (String) bundle.get("Name");
                Intent intent = new Intent(HotelsPage.this, EndBooking.class);
                intent.putExtra("Name",name1);
                intent.putExtra("hotelname", "JW Marriott");
                intent.putExtra("Today", "Today");
                intent.putExtra("Tomorrow", tomorrowAsString);
                intent.putExtra("noofrooms", "1 Rooms");
                intent.putExtra("noofadults", "1 Adults");
                intent.putExtra("img1", img5);
                intent.putExtra("img2", img6);
                intent.putExtra("img3", img7);
                intent.putExtra("img4", img8);
                intent.putExtra("address","24/1 Vittal Mallya Road, 560001 Bangalore, India");
                intent.putExtra("price", "₹1499");
                Toast.makeText(HotelsPage.this, "pay ₹1499", Toast.LENGTH_SHORT).show();
                startActivity(intent);
            }
        }

    });
```

```java
ad9.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v)  {
        if(bundle!=null) {
            String name1 = (String) bundle.get("Name");
            Intent intent = new Intent(HotelsPage.this, EndBooking.class);
            intent.putExtra("Name",name1);
            intent.putExtra("hotelname", "The Oberoi");
            intent.putExtra("Today", "Today");
            intent.putExtra("Tomorrow", tomorrowAsString1);
            intent.putExtra("noofrooms", "1 Rooms");
            intent.putExtra("noofadults", "1 Adults");
            intent.putExtra("img1", img13);
            intent.putExtra("img2", img14);
            intent.putExtra("img3", img15);
            intent.putExtra("img4", img16);
            intent.putExtra("address","Dr. Zakir Hussain Marg, 110003 New Delhi, India");
            intent.putExtra("price", "₹999");
            Toast.makeText(HotelsPage.this, "pay now ₹999", Toast.LENGTH_SHORT).show();
            startActivity(intent);
        }
    }

});
}
private boolean whatsappInstalledOrNot() {
    PackageManager pm = getPackageManager();
    boolean app_installed;
    try {
        pm.getPackageInfo("com.whatsapp", PackageManager.GET_ACTIVITIES);
        app_installed = true;
    } catch (PackageManager.NameNotFoundException e) {
        app_installed = false;
    }
    return app_installed;
}
```

6.2. Front end coding

6.2.1. Login page

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:background="@drawable/sheetstyle"
    android:fitsSystemWindows="true">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"


        >
        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textSize="30dp"
            android:text="Login"
            android:textColor="#ffffff"
            android:textAlignment="center"
            android:padding="20dp"/>
</LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <TextView
            android:layout_margin="20dp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="A 6-Digit Verification Code will be sent via SMS to verify your mobile number"/>

    </LinearLayout>
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:orientation="horizontal"
        android:background="@drawable/button"
        android:layout_gravity="center"
        >
<com.hbb20.CountryCodePicker
        android:id="@+id/ccp_getFullNumber"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        app:ccp_hintExampleNumber="true"
        app:ccp_hintExampleNumberType="FIXED_LINE"
        app:ccp_selectionMemoryTag="getFullNumber"
        app:ccp_countryPreference="US,IN,NZ"
        app:ccpDialog_backgroundColor="#ffffff"
        />
    <EditText
        android:id="@+id/editText_getCarrierNumber"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:hint="Mobile Number     "
        android:inputType="phone"
        android:singleLine="true" />
        <Button
            android:id="@+id/sendButton"
```

```xml
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:onClick="sendCode"
            android:background="@drawable/button_green"
            android:textColor="#ffffff"
            android:clickable="true"
            android:focusable="true"
            android:text="Verify"
    />
</LinearLayout>
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
      android:orientation="horizontal"

        android:layout_gravity="center"
        >
    <ImageView
        android:id="@+id/img_validity"
        android:layout_width="30dp"
        android:layout_height="30dp"
        android:padding="0dp" />

    <TextView
        android:id="@+id/tv_validity"
        android:layout_width="match_parent"
        android:layout_height="match_parent" />
    </LinearLayout>
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:orientation="vertical">
            <ProgressBar
              style="?android:attr/progressBarStyleLarge"
              android:layout_width="wrap_content"
              android:layout_height="wrap_content"
              android:id="@+id/progressBar"
              android:layout_gravity="center"
              android:progressDrawable="@drawable/circular_progress_bar"
              />
        </LinearLayout>

</LinearLayout>
```

6.2.2. Home page

```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"

    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <android.support.design.widget.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"

android:background="@drawable/purple_royal_bedroom_white_columns_crystal_chandelier_turfted_headboard"
        >

        <android.support.design.widget.CollapsingToolbarLayout
            android:layout_width="match_parent"
            android:layout_height="340dp"
            app:contentScrim="?attr/colorPrimary"
            app:expandedTitleTextAppearance="@style/TextAppearance.AppCompat.Title"
            app:layout_scrollFlags="scroll|exitUntilCollapsed"
            app:titleEnabled="false"
            >
            <TextView
                android:id="@+id/name"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Hello, Kashaf"
                android:textColor="#FFFF"
                android:textSize="20dp"
                android:layout_gravity="center_horizontal|bottom"
                android:layout_marginBottom="120dp"/>

            <Button
                android:id="@+id/searchbox"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_gravity="center_horizontal|bottom"
                  android:layout_marginBottom="60dp"
                android:layout_marginEnd="20dp"
                android:layout_marginStart="20dp"
                android:drawableLeft="@drawable/ic_search"
                android:paddingStart="10dp"
                android:text="where are you travelling ?"
                android:textColor="#938f8f"

                android:background="@drawable/button_search"
                />

        </android.support.design.widget.CollapsingToolbarLayout>
    </android.support.design.widget.AppBarLayout>

    <android.support.v4.widget.NestedScrollView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        app:behavior_overlapTop="40dp"
        app:layout_behavior="@string/appbar_scrolling_view_behavior">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
```

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```
                        android:orientation="vertical"
                        android:background="#ffffff"
                    >
                    <HorizontalScrollView
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        >
                    <LinearLayout
                        android:layout_width="match_parent"
                        android:layout_height="110dp"
                        android:orientation="horizontal"
                        android:background="#FFFF"
                        android:padding="5dp">
                        <LinearLayout
                            android:id="@+id/sultanpur"
                            android:layout_width="match_parent"
                            android:layout_height="match_parent"
                            android:orientation="vertical"
                            android:padding="5dp">
                        <de.hdodenhof.circleimageview.CircleImageView
                            xmlns:app="http://schemas.android.com/apk/res-auto"
                            android:background="@drawable/gpscircle"
                            android:id="@+id/nearby"
                            android:layout_width="60dp"
                            android:layout_height="60dp"
                            android:src="@drawable/ic_action_location_2"
                            app:border_width="1dp" />
                        <TextView
                            android:layout_width="wrap_content"
                            android:layout_height="30dp"
                            android:textAlignment="center"
                            android:text="Nearby"
                            android:paddingTop="0dp"
                            android:textColor="#938f8f"
                            android:layout_gravity="bottom|center_horizontal"/>
                        </LinearLayout>
                        <LinearLayout
                            android:id="@+id/lucknow"
                            android:layout_width="match_parent"
                            android:layout_height="match_parent"
                            android:orientation="vertical"
                            android:padding="5dp">
                                <de.hdodenhof.circleimageview.CircleImageView
                                    xmlns:app="http://schemas.android.com/apk/res-auto"

                                    android:layout_width="60dp"
                                    android:layout_height="60dp"
                                    android:src="@drawable/charbagh"
                                    app:border_width="1dp" />
                                <TextView
                                    android:layout_width="wrap_content"
                                    android:layout_height="30dp"
                                    android:textAlignment="center"
                                    android:text="Lucknow"
                                    android:paddingTop="0dp"
                                    android:textColor="#938f8f"
                                    android:layout_gravity="bottom|center_horizontal"/>
                        </LinearLayout>
                        <LinearLayout
                            android:id="@+id/kanpur"
                            android:layout_width="match_parent"
                            android:layout_height="match_parent"
                            android:orientation="vertical"
                            android:padding="5dp">
                            <de.hdodenhof.circleimageview.CircleImageView
                                xmlns:app="http://schemas.android.com/apk/res-auto"
```

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```xml
            android:layout_width="60dp"
            android:layout_height="60dp"
            android:src="@drawable/kanpur_city"
            app:border_width="1dp" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="30dp"
            android:textAlignment="center"
            android:text="Kanpur"
            android:paddingTop="0dp"
            android:textColor="#938f8f"
            android:layout_gravity="bottom|center_horizontal"/>
    </LinearLayout>
    <LinearLayout
        android:id="@+id/bengaluru"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        android:padding="5dp">
        <de.hdodenhof.circleimageview.CircleImageView
            xmlns:app="http://schemas.android.com/apk/res-auto"

            android:layout_width="60dp"
            android:layout_height="60dp"
            android:src="@drawable/bangalore"
            app:border_width="1dp" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="30dp"
            android:textAlignment="center"
            android:text="Bengaluru"
            android:paddingTop="0dp"
            android:textColor="#938f8f"
            android:layout_gravity="bottom|center_horizontal"/>
    </LinearLayout>
    <LinearLayout
        android:id="@+id/pune"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        android:padding="5dp">
        <de.hdodenhof.circleimageview.CircleImageView
            xmlns:app="http://schemas.android.com/apk/res-auto"

            android:layout_width="60dp"
            android:layout_height="60dp"
            android:src="@drawable/pune_background_image_768x768"
            app:border_width="1dp" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="30dp"
            android:textAlignment="center"
            android:text="Pune"
            android:paddingTop="0dp"
            android:textColor="#938f8f"
            android:layout_gravity="bottom|center_horizontal"/>
    </LinearLayout>
    <LinearLayout
        android:id="@+id/delhi"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        android:padding="5dp">
        <de.hdodenhof.circleimageview.CircleImageView
            xmlns:app="http://schemas.android.com/apk/res-auto"
            android:layout_width="60dp"
            android:layout_height="60dp"
```

```xml
                    android:src="@drawable/delhi_red_fort"
                    app:border_width="1dp" />
                <TextView
                    android:layout_width="wrap_content"
                    android:layout_height="30dp"
                    android:textAlignment="center"
                    android:text="Delhi"
                    android:paddingTop="0dp"
                    android:textColor="#938f8f"
                    android:layout_gravity="bottom|center_horizontal"/>
            </LinearLayout>
            <LinearLayout
                android:id="@+id/agra"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:orientation="vertical"
                android:padding="5dp">
                <de.hdodenhof.circleimageview.CircleImageView
                    xmlns:app="http://schemas.android.com/apk/res-auto"

                    android:layout_width="60dp"
                    android:layout_height="60dp"

android:src="@drawable/private_tour_day_trip_to_agra_from_delhi_including_taj_mahal_agra_in_new_delhi_412815"
                    app:border_width="1dp" />
                <TextView
                    android:layout_width="wrap_content"
                    android:layout_height="30dp"
                    android:textAlignment="center"
                    android:text="Agra"
                    android:paddingTop="0dp"
                    android:textColor="#938f8f"
                    android:layout_gravity="bottom|center_horizontal"/>
            </LinearLayout>
            <LinearLayout
                android:id="@+id/searchlocality"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:orientation="vertical"
                android:padding="5dp">
                <de.hdodenhof.circleimageview.CircleImageView
                    xmlns:app="http://schemas.android.com/apk/res-auto"

                    android:layout_width="60dp"
                    android:layout_height="60dp"
                    android:src="@drawable/ic_action_arrow_right"
                    app:border_width="1dp" />
                <TextView
                    android:layout_width="wrap_content"
                    android:layout_height="30dp"
                    android:textAlignment="center"
                    android:text="More "
                    android:paddingTop="0dp"
                    android:textColor="#938f8f"
                    android:layout_gravity="bottom|center_horizontal"/>
            </LinearLayout>

        </LinearLayout>
        </HorizontalScrollView>
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="125dp"
```

```xml
            android:orientation="vertical"
            android:background="#FFF">
            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:textColor="#938f8f"
                android:text="Recommended trip"
                android:padding="5dp"/>

    <HorizontalScrollView
        android:layout_width="match_parent"
        android:layout_height="90dp">
            <LinearLayout
                android:layout_width="wrap_content"
                android:layout_height="90dp"
                android:orientation="horizontal"
                android:background="#FFF"

                >
            <LinearLayout
                android:id="@+id/ad1"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:orientation="vertical"

                >
            <ImageView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:src="@drawable/hip_hop_closet_coupon_code"
                android:background="#FFFF"
                android:paddingStart="5dp"
                android:paddingEnd="5dp"/>


            </LinearLayout>
            <LinearLayout
                android:id="@+id/ad2"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:orientation="vertical"

                >
            <ImageView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:src="@drawable/asd"
                android:background="#FFFF"
                android:paddingStart="5dp"
                android:paddingEnd="5dp"/>


            </LinearLayout>
            <LinearLayout
                android:id="@+id/ad3"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:orientation="vertical"

                >
            <ImageView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:src="@drawable/airasia_school_holidays_promotion_2017"
                android:background="#FFFF"
                android:paddingStart="5dp"
                android:paddingEnd="5dp"/>
```

```xml
                </LinearLayout>
            </LinearLayout>
        </HorizontalScrollView>
            </LinearLayout>

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="160dp"
                android:orientation="vertical"
                android:background="#FFF">
                <TextView
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:textColor="#938f8f"
                    android:text="Today's Deal"
                    android:padding="5dp"/>

                <HorizontalScrollView
                    android:layout_width="match_parent"
                    android:layout_height="132dp">
                    <LinearLayout
                        android:layout_width="wrap_content"
                        android:layout_height="132dp"
                        android:orientation="horizontal"
                        android:background="#FFF"

                        >
                        <LinearLayout
                            android:id="@+id/ad4"
                            android:layout_width="wrap_content"
                            android:layout_height="wrap_content"
                            android:orientation="vertical"

                            >
                            <ImageView
                                android:layout_width="wrap_content"
                                android:layout_height="wrap_content"
                                android:src="@drawable/kabayan_monumento_premium_room_promo"
                                android:background="#FFFF"
                                android:paddingStart="5dp"
                                android:paddingEnd="5dp"/>


                        </LinearLayout>
                        <LinearLayout
                            android:id="@+id/ad5"
                            android:layout_width="wrap_content"
                            android:layout_height="wrap_content"
                            android:orientation="vertical"

                            >
                            <ImageView
                                android:layout_width="wrap_content"
                                android:layout_height="wrap_content"
                                android:src="@drawable/asdasd"
                                android:background="#FFFF"
                                android:paddingStart="5dp"
                                android:paddingEnd="5dp"/>


                        </LinearLayout>
                        <LinearLayout
                            android:id="@+id/ad6"
                            android:layout_width="wrap_content"
                            android:layout_height="wrap_content"
```

```xml
            android:orientation="vertical"

            >
        <ImageView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:src="@drawable/download"
            android:background="#FFFF"
            android:paddingStart="5dp"
            android:paddingEnd="5dp"/>


        </LinearLayout>
    </LinearLayout>
</HorizontalScrollView>
</LinearLayout>
<LinearLayout
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="vertical"
android:background="#FFF">
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textColor="#938f8f"
    android:text="Deal for you"
    android:padding="5dp"/>

<HorizontalScrollView
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="200dp"
        android:orientation="horizontal"
        android:background="#FFF"

        >
        <LinearLayout
            android:id="@+id/ad7"
            android:layout_width="wrap_content"
            android:layout_height="200dp"
            android:orientation="vertical"
            >
            <ImageView
                android:layout_width="wrap_content"
                android:layout_height="200dp"
                android:src="@drawable/dubai"
                android:background="#FFFF"/>


        </LinearLayout>
        <LinearLayout
            android:id="@+id/ad8"
            android:layout_width="wrap_content"
            android:layout_height="200dp"
            android:orientation="vertical"
            >
            <ImageView
                android:layout_width="wrap_content"
                android:layout_height="200dp"
                android:src="@drawable/untitlmaldivesed_1"
                android:background="#FFFF"
                />

        </LinearLayout>
        <LinearLayout
```

```xml
                android:id="@+id/ad9"
                android:layout_width="wrap_content"
                android:layout_height="200dp"
                android:orientation="vertical"
            >
            <ImageView
                android:layout_width="wrap_content"
                android:layout_height="200dp"
                android:src="@drawable/duba"
                android:background="#FFFF"
                />

        </LinearLayout>
    </LinearLayout>
  </HorizontalScrollView>

</LinearLayout>
    <LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:background="#FFF">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textColor="#938f8f"
        android:text="we are also on whatsapp"
        android:padding="5dp"/>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="horizontal"
            android:layout_gravity="center_horizontal"
            android:background="#FFF"

            >
            <LinearLayout
                android:id="@+id/werwhatsapp"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:orientation="vertical"
                android:layout_gravity="center|center_horizontal"
                android:padding="5dp">

                <ImageView
                    android:layout_width="match_parent"
                    android:layout_height="wrap_content"
                    android:background="#FFFF"
                    android:src="@drawable/whatsapp_bannerv02" />
            </LinearLayout>

        </LinearLayout>
    </LinearLayout>
        <RelativeLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="horizontal"

            android:layout_marginTop="2dp"
            >
        <ImageButton
            android:id="@+id/profile"
            android:paddingTop="2dp"
            android:paddingEnd="15dp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
```

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```xml
            android:background="#FFFFFF"
            android:src="@drawable/ic_perm_identity_black_36dp"
            android:layout_alignParentEnd="true"/>
        <ImageButton
            android:id="@+id/wallet"
            android:paddingTop="2dp"
            android:paddingStart="15dp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="#FFFFFF"
            android:layout_alignParentStart="true"
            android:src="@drawable/ic_card_travel_black_36dp"/>
        </RelativeLayout>
      </LinearLayout>
    </LinearLayout>
  </android.support.v4.widget.NestedScrollView>
</android.support.design.widget.CoordinatorLayout>
```

<u>CONCLUSION</u>

The application is focused only on booking hotels. As of now, the number of customers is growing rapidly and numbers of hotels are also very high, so that a customer must have some enhanced technology and mechanism to make all the process easy and fluent. Booking Hotel is very essential task and it should be easy. This application makes this very handy and facile. Hence, here we come with the idea of making some superficial platform like an android application which is in reach of most of the common smart phone users. This application allows users to book hotel rooms through android phones. To use this application user may require android phone along with internet connection.

<u>REFERENCES</u>

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