Project Report

"Android Application for Seating Arrangement"

Contents:-

Introduction:-

Seating Arrangement is an android application mainly designed for generate seating for students in the University.it is based on firebase database, so students can access updates from anywhe1re with internet facility. There is an existing web application for seating but we can access easily using mobile application.

For generating seating there will be admin.There are 3 different modes 1.Regular 2.Remedial 3.AddUser

1.General: This is for comman exams for all the students.

Admin will provide subjects for respective branches and also date and time to genearate seating.

2.Remedial: This is for remedial exams admin will provide list of student id numbers and their subjects to generate seating.

3.AddUser: This is for add user details to the firebase.Admin will provide list of student details of particular year.

Students can check their seating using their credentials.

Development Tools:-

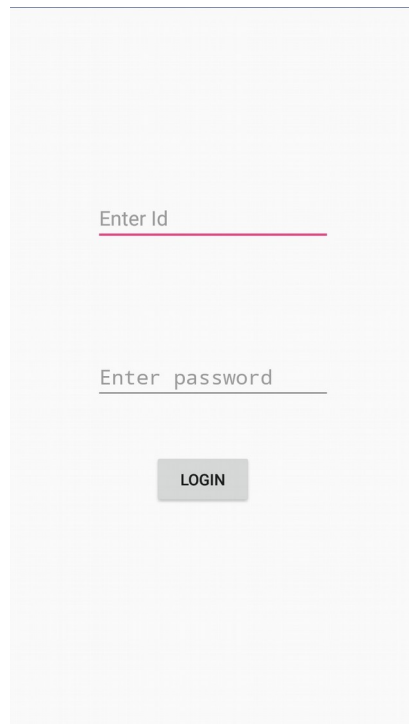Android Studio, Firebase.

System Requirements:-

Intel i5 processor,

operating system (Windows).

Features:-

Easy to access using mobile application with internet.

Screens with Source Code:-

1.Login page for Student and Adminstrator

Login.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">


    <EditText
```

```
    android:id="@+id/userid"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="164dp"
    android:ems="10"
    android:hint="Enter Id"
    android:inputType="textPersonName" />

<EditText
    android:id="@+id/pwd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerInParent="true"
    android:ems="10"
    android:hint="Enter password"
    android:inputType="textPassword" />

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignTop="@+id/button3"
    android:onClick="LoginCheck"
    android:text="Login"
    android:layout_alignParentLeft="true" />
```

```
</RelativeLayout>
```

Login.java:

```java
package com.example.vidyasagarnaidum.rkv;

import android.content.Intent;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Gravity;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

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 java.io.Serializable;
import java.util.ArrayList;
import java.util.Iterator;
import java.util.List;

public class MainActivity extends AppCompatActivity {
    EditText e1,e2;
    DatabaseReference databaseReference;
    public static Student_Details users;
```

```java
   public static List<Student_Details> mylist=new
ArrayList<Student_Details>();
   @Override
   protected void onCreate(Bundle savedInstanceState) {
      Toast toast1 = Toast.makeText(getApplicationContext(),"on create
invoked ", Toast.LENGTH_SHORT);
      toast1.show();
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);
      e1 = (EditText) findViewById(R.id.userid);
      e2 = (EditText) findViewById(R.id.pwd);
      databaseReference=
FirebaseDatabase.getInstance().getReference("Student_Details");
   }


   public void LoginCheck(View view) {
      String user, pwd;
      user = e1.getText().toString();
      pwd = e2.getText().toString();
      if (user.equals("") || pwd.equals("")) {
         Toast toast = Toast.makeText(getApplicationContext(), "Enter
User id or Password", Toast.LENGTH_LONG);
         toast.show();
      }
      if (user.equals("a") && pwd.equals("a")) {
         Intent i = new Intent(getApplicationContext(), Admin2.class);
         startActivity(i);
      }
      else {
         String user_id = user;
         int f=0;
```

```java
        Iterator it = mylist.iterator();
        Student_Details userDetails = null;
        while (it.hasNext()) {
            userDetails = (Student_Details) it.next();


            if (((userDetails.getId()).equals(user_id)) &&
((userDetails.getPassword()).equals(pwd))) {
                f=1;
                Intent i = new Intent(getApplicationContext(), Student.class);
                i.putExtra("Object", (Serializable) userDetails);
                startActivity(i);


            }
        }
        if(f==0){
        Toast toast = Toast.makeText(getApplicationContext(), "Enter
Correct User id and Password", Toast.LENGTH_LONG);
        toast.show();}


    }
  }
  protected void onStart() {
    super.onStart();


    databaseReference.addListenerForSingleValueEvent(new
ValueEventListener() {


      @Override


      public void onDataChange(@NonNull DataSnapshot
dataSnapshot) {
```

```java
        for (DataSnapshot userSnapshot : dataSnapshot.getChildren()){
            Student_Details userDetails=
userSnapshot.getValue(Student_Details.class);
             mylist.add(userDetails);
        }
        Toast toast1 =
Toast.makeText(getApplicationContext(),"Internet connected .",
Toast.LENGTH_SHORT);
        toast1.show();
      }


      @Override
      public void onCancelled(DatabaseError databaseError)
      {


      }


    });
  }


  public void Forgot(View view) {


  }
}
```

2.Student seating arrangement details

	Student Detalis
ID number	R141034
Name	YEDDULASUBBIREDDYGARI ANIL KUMAR REDDY
Subjects	lda
Seating	S5 D6
Date	7-12-2018
Time	21:0
Branch	CSE
Mode	REGULAR

StudentView.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Student">
```

```xml
    <TextView
        android:id="@+id/textView6"
        android:layout_width="161dp"
        android:layout_height="33dp"
        android:layout_alignParentLeft="true"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_marginLeft="98dp"
        android:layout_marginStart="98dp"
        android:layout_marginTop="22dp"
        android:textSize="17dp"
        android:text="Your Seating Details"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/textView10"
        android:layout_width="320dp"
        android:layout_height="350dp"
        android:textSize="14dp"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true" />

</RelativeLayout>
```

StudentView.java:

```java
package com.example.vidyasagarnaidum.rkv;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
```

```java
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;

import java.io.Serializable;

public class Student extends AppCompatActivity {

    TextView textView10;
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_student);
        textView10=(TextView)findViewById(R.id.textView10);
        Intent i=getIntent();
        Student_Details done = (Student_Details)
i.getSerializableExtra("Object");
        String s="";
        s+="\n\n\n\n Id         : "+done.getId()+"\n Name        :
"+done.getName()+"\n Subjects     : "+done.getExams();
        s+="\n Seating      : "+done.getSeating()+"\n Date        :
"+done.getDate()+"\n Time        : "+done.getTime()+"\n Branch      :
"+done.getBranch()+"\n Mode        : "+done.getMode();
        textView10.setText(s);
    }


}
```
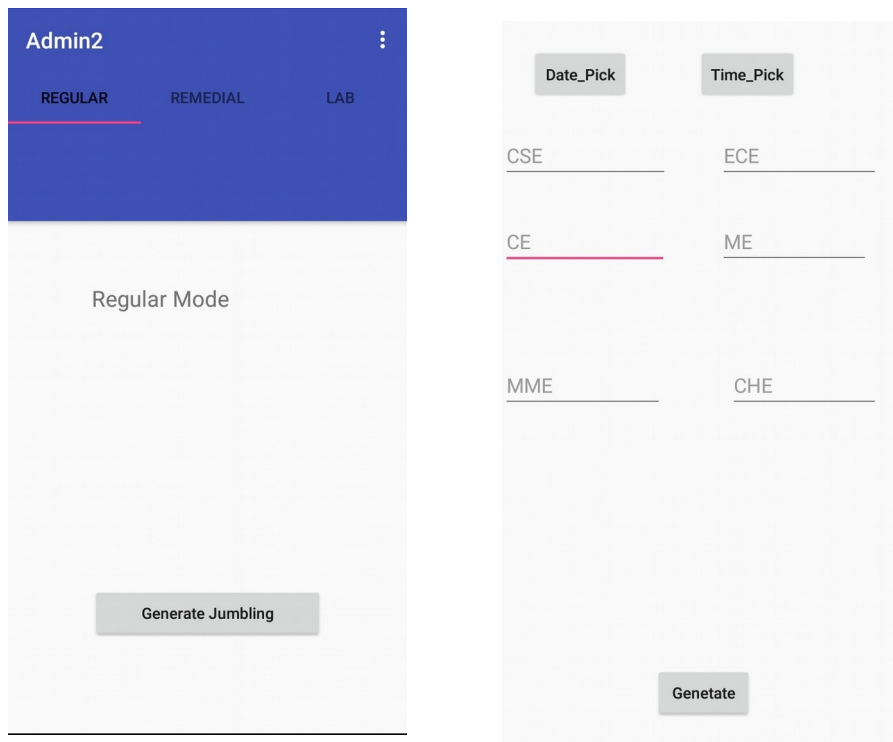
3.Regular mode seating generation

<u>**Regularview.xml:**</u>

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    >
    <Button
        android:id="@+id/button11"
        android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content"
         android:layout_alignParentLeft="true"
         android:layout_alignParentStart="true"
         android:layout_alignParentTop="true"
         android:layout_marginLeft="26dp"
         android:layout_marginStart="26dp"
         android:layout_marginTop="25dp"
         android:text="Date_Pick"
         android:textAllCaps="false" />


  <Button
       android:id="@+id/button12"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:layout_alignParentEnd="true"
       android:layout_alignTop="@+id/button11"
       android:layout_marginEnd="96dp"
       android:text="Time_Pick"
       android:textAllCaps="false"
       android:layout_alignParentRight="true"
       android:layout_marginRight="96dp" />



  <EditText
       android:id="@+id/edittextce"
       android:layout_width="148dp"
       android:layout_height="wrap_content"
       android:layout_alignParentStart="true"
       android:layout_alignParentTop="true"
       android:layout_marginTop="176dp"
```

```xml
    android:ems="10"
    android:hint="CE"
    android:inputType="textPersonName"

    android:layout_alignParentLeft="true" />

<EditText
    android:id="@+id/edittextme"
    android:layout_width="134dp"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignTop="@+id/edittextce"
    android:layout_marginEnd="32dp"
    android:ems="10"
    android:hint="ME"
    android:inputType="textPersonName"
    android:layout_alignParentRight="true"
    android:layout_marginRight="32dp" />

<EditText
    android:layout_alignParentLeft="true"
    android:id="@+id/edittextmme"
    android:layout_width="144dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_centerVertical="true"
    android:ems="10"
    android:hint="MME"
    android:inputType="textPersonName" />
```

```xml
<EditText
    android:id="@+id/edittextche"
    android:layout_width="134dp"
    android:layout_height="wrap_content"
    android:layout_alignEnd="@+id/edittextece"
    android:layout_centerVertical="true"
    android:ems="10"
    android:hint="CHE"
    android:inputType="textPersonName"
    android:layout_alignRight="@+id/edittextece" />

<EditText
    android:id="@+id/edittextcse"
    android:layout_width="149dp"
    android:layout_height="wrap_content"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_marginTop="99dp"
    android:ems="10"
    android:hint="CSE"
    android:inputType="textPersonName" />

<Button
    android:id="@+id/button29"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_centerHorizontal="true"
    android:layout_marginBottom="29dp"
```

```xml
        android:textAllCaps="false"
        android:text="Genetate" />

    <EditText
        android:id="@+id/edittextece"
        android:layout_width="143dp"
        android:layout_height="wrap_content"
        android:layout_alignStart="@+id/edittextme"
        android:layout_alignTop="@+id/edittextcse"
        android:ems="10"
        android:hint="ECE"
        android:inputType="textPersonName"
        android:layout_alignLeft="@+id/edittextme" />

    <Button
        android:id="@+id/button9"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignEnd="@+id/edittextmme"
        android:layout_alignRight="@+id/edittextmme"
        android:layout_below="@+id/edittextmme"
        android:layout_marginTop="67dp"
        android:textAllCaps="false"
        android:visibility="invisible"
        android:text="Select File" />

    <Button
        android:id="@+id/button10"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
        android:layout_alignBaseline="@+id/button9"
        android:layout_alignBottom="@+id/button9"
        android:layout_alignLeft="@+id/edittextme"
        android:layout_alignStart="@+id/edittextme"
        android:visibility="invisible"
        android:textAllCaps="false"
        android:text="Upload" />


</RelativeLayout>
```

Regular.java:

```
package com.example.vidyasagarnaidum.rkv;


import android.annotation.SuppressLint;
import android.content.Intent;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Pair;
import android.view.Gravity;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;


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;
```

```java
import java.util.ArrayList;
import java.util.Collections;
import java.util.Comparator;
import java.util.List;
import java.util.Random;


public class Regular_Data_Picker2 extends AppCompatActivity {



    Button b1;
    String date,time;
    int lcse,lece,lche,lmme,lme,lce;
    FirebaseDatabase firebasedatabase;
    DatabaseReference databaseReference;
    public static Student_Details users;
    public String CSE;
    public String ECE;
    public String ME;
    public String MME;
    public String CE;
    public String CHE,MODE;
    public static List<Student_Details> R14=new
ArrayList<Student_Details>();
    List<String> list=null,list2=null;
    int flag=0,flag1=0,flag2=0,flag3=0,flag4=0,flag5=0;
    @SuppressLint("WrongViewCast")
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_regular__data__picker2);
        firebasedatabase = FirebaseDatabase.getInstance();
```

```java
    Intent i=getIntent();
    Bundle extras = getIntent().getExtras();
    date=extras.getString("date");
    time=extras.getString("time");
    CSE=extras.getString("CSE");
    ECE=extras.getString("ECE");
    ME=extras.getString("ME");
    MME=extras.getString("MME");
    CE=extras.getString("CE");
    CHE=extras.getString("CHE");
    MODE=extras.getString("MODE");
    if(MODE.equals("REMEDIAL"))
    {
        list= (List<String>) extras.getSerializable("list");
        list2=list;
    }


    databaseReference = firebasedatabase.getReference();


    databaseReference =
FirebaseDatabase.getInstance().getReference("Student_Details");
    databaseReference.addListenerForSingleValueEvent(new
ValueEventListener() {


        public  List<Student_Details> cse=new
ArrayList<Student_Details>();
        public  List<Student_Details> ece=new
ArrayList<Student_Details>();
        public  List<Student_Details> me=new
ArrayList<Student_Details>();
        public  List<Student_Details> mme=new
ArrayList<Student_Details>();
```

```java
        public  List<Student_Details> che=new
ArrayList<Student_Details>();
        public  List<Student_Details> ce=new
ArrayList<Student_Details>();


        public void onDataChange(@NonNull DataSnapshot
dataSnapshot) {
            for (@NonNull DataSnapshot userSnapshot :
dataSnapshot.getChildren()) {
                Student_Details userDetails =
userSnapshot.getValue(Student_Details.class);
                if (MODE.equals("REGULAR")&&userDetails.getBranch() !
= null) {
                    if (userDetails.getBranch().equals("CSE")) {
                        cse.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("ECE")) {
                        ece.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("MME")) {
                        mme.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("ME")) {
                        me.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("CE")) {
                        ce.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("CH")) {
                        che.add(userDetails);
                    }
```

```java
                }
            else
            {

                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("CSE
")) {
                    cse.add(userDetails);
                }
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("ECE
")) {
                    ece.add(userDetails);
                }
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("MM
E")) {
                    mme.add(userDetails);
                }
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("ME"
)) {
                    me.add(userDetails);
                }
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("CE")
) {
                    ce.add(userDetails);
                }
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("CH")
) {
                    che.add(userDetails);
                }
```

```
                }
            }


            Pass(cse,ece,ce,me,mme,che);



            // Toast.makeText(Regular_Data_Picker2.this,"ce1 "+"
"+cse1.size(),Toast.LENGTH_SHORT).show();
            // cse=cse1;


        }


        public void onCancelled(DatabaseError databaseError) {


        }


    });
    // cse=cse1;
    //Toast.makeText(Regular_Data_Picker2.this, "ce1 " + " " +
cse.size(), Toast.LENGTH_SHORT).show();




    }
    public void Pass(List<Student_Details> cse,List<Student_Details>
ece,List<Student_Details> ce,List<Student_Details>
me,List<Student_Details> mme,List<Student_Details> che) {
        cse = randomize(cse, cse.size());
        ce = randomize(ce, ce.size());
        che = randomize(che, che.size());
```

```
    ece = randomize(ece, ece.size());

    me = randomize(me, me.size());

    mme = randomize(mme, mme.size());

    /* List<Pair<List<Student_Details>, Integer>> evin= new
ArrayList<Pair<List<Student_Details>, Integer>>();

    evin.add(new Pair<List<Student_Details>, Integer>(cse,new
Integer(cse.size())));

    evin.add(new Pair<List<Student_Details>, Integer>(ece,new
Integer(ece.size())));

    evin.add(new Pair<List<Student_Details>, Integer>(mme,new
Integer(mme.size())));

    evin.add(new Pair<List<Student_Details>, Integer>(ce,new
Integer(ce.size())));

    evin.add(new Pair<List<Student_Details>, Integer>(che,new
Integer(che.size())));

    evin.add(new Pair<List<Student_Details>, Integer>(me,new
Integer(me.size())));

    Collections.sort(evin,new Comparator<Pair<List<Student_Details>,
Integer>>() {

      @Override

      public int compare(Pair<List<Student_Details>, Integer> o1,
Pair<List<Student_Details>, Integer> o2) {

        if (o1.g > o2.getValue()) {

          return -1;

        } else if (o1.getValue().equals(o2.getValue())) {

          return 0; // You can change this to make it then look at the

          //words alphabetical order

        } else {

          return 1;

        }

      }

    });*/
```

```java
    String clas[] = {"G16", "G17", "G18", "F3", "F4", "F5", "F6", "F14",
"F15", "F16", "F17", "F18", "S3", "S4", "S5", "S6", "S7", "S8", "S15",
"S19", "S17", "S18"};

    lcse = cse.size();

    lece = ece.size();

    lche = che.size();

    lmme = mme.size();

    lme = me.size();

    lce = ce.size();

    Toast.makeText(Regular_Data_Picker2.this, "cse:" + lcse+"
ece:"+lece+" ce:"+lce+" me:"+lme+" "+" mme:"+lmme+" che:"+lche+" ",
Toast.LENGTH_SHORT).show();

    int csec = lcse, ecec = lece, cec = lce, mmec = lmme, mec = lme, chc
= lche, i = 0;

    //Toast.makeText(Regular_Data_Picker2.this, "hi:"+MME,
Toast.LENGTH_SHORT).show();

    for (i = 0; i < clas.length; i++) {

      for (int j = 0; j <6 ; j++) {//j<6

        for (int k = 0; k < 10; k++) {

          if ((k & 1) == 0) {

            if (mmec != 0) {


              Student_Details m = mme.get(lmme - mmec);

              Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k, MME,
date,time, MODE, m.getName());

              mmec--;

              Insert_into_Freebase(s, "MME");

            } else if (cec != 0) {

              Student_Details m = ce.get(lce - cec);

              Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k, CE,
date,time,MODE, m.getName());
```

```
                        cec--;

                        Insert_into_Freebase(s, "CE");

                } else if (csec != 0) {

                        Student_Details m = cse.get(lcse - csec);

                        Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k,
CSE,date,time, MODE, m.getName());

                        csec--;

                        Insert_into_Freebase(s, "CSE");

                }
        } else {

            if (chc != 0) {

                        Student_Details m = che.get(lche - chc);

                        Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k,CHE,
date,time, MODE, m.getName());

                        chc--;

                        Insert_into_Freebase(s, "CH");

                } else if (mec != 0) {

                        Student_Details m = me.get(lme - mec);

                        Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k, ME,
date,time,MODE, m.getName());

                        mec--;

                        Insert_into_Freebase(s, "MME");

                } else if (ecec != 0) {

                        Student_Details m = ece.get(lece - ecec);

                        Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k,
ECE,date,time, MODE, m.getName());

                        ecec--;

                        Insert_into_Freebase(s, "ECE");

                }
```

```
            }
        }
      }


    }
    Toast.makeText(Regular_Data_Picker2.this,"Jumbling generated .
",Toast.LENGTH_SHORT).show();
  }
  /*
  public void readData(Firebase ref, final OnGetDataListener listener) {
    listener.onStart();
    ref.addListenerForSingleValueEvent(new ValueEventListener() {
      @Override
      public void onDataChange(DataSnapshot dataSnapshot) {
        listener.onSuccess(dataSnapshot);
      }


      @Override
      public void onCancelled(FirebaseError firebaseError) {
        listener.onFailure();
      }
    });


  }*/
  public static  List<Student_Details> randomize(List<Student_Details>
branch,int n) {


    Random r = new Random();
    for (int i = n - 1; i > 0; i--) {
```

```java
            int j = r.nextInt(i + 1);
            swapCells(branch,i,j);
        }
      return branch;
    }
  public static  void swapCells
        (List<Student_Details> objectList, int left, int right) {


     if(left!=right){
    Student_Details temp= objectList.get(left);
     objectList.set(left, objectList.get(right));
     objectList.set(right, temp);}


   }
   public void Insert_into_Freebase(final Student_Details
student_details,String str)
   {


      databaseReference.addValueEventListener(new ValueEventListener()
{
        @Override
        public void onDataChange(@NonNull DataSnapshot
dataSnapshot) {

//Toast.makeText(Regular_Data_Picker2.this,student_details.getSeating(),
Toast.LENGTH_SHORT).show();

databaseReference.child(student_details.getId()).setValue(student_details);
        }

        public void onCancelled(@NonNull DatabaseError databaseError)
{
```

```
        Toast x=Toast.makeText(Regular_Data_Picker2.this,"Failed to
Create Account",Toast.LENGTH_SHORT);

        x.setGravity(Gravity.TOP,Gravity.CENTER,5);

        x.show();

      }

    });

  }


}
```

4.Remedial mode seating generation

Remedial.xml:

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

```xml
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    >



<Button
    android:id="@+id/button11"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_marginLeft="26dp"
    android:layout_marginStart="26dp"
    android:layout_marginTop="25dp"
    android:text="Date_Pick"
    android:textAllCaps="false" />

<Button
    android:id="@+id/button12"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignTop="@+id/button11"
    android:layout_marginEnd="96dp"
    android:text="Time_Pick"
    android:textAllCaps="false"
    android:layout_alignParentRight="true"
    android:layout_marginRight="96dp" />
```

```
<EditText
    android:id="@+id/edittextce"
    android:layout_width="148dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_marginTop="176dp"
    android:ems="10"
    android:hint="CE"
    android:inputType="textPersonName"

    android:layout_alignParentLeft="true" />

<EditText
    android:id="@+id/edittextme"
    android:layout_width="134dp"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignTop="@+id/edittextce"
    android:layout_marginEnd="32dp"
    android:ems="10"
    android:hint="ME"
    android:inputType="textPersonName"
    android:layout_alignParentRight="true"
    android:layout_marginRight="32dp" />

<EditText
    android:layout_alignParentLeft="true"
```

```
        android:id="@+id/edittextmme"
      android:layout_width="144dp"
      android:layout_height="wrap_content"
      android:layout_alignParentStart="true"
      android:layout_centerVertical="true"
      android:ems="10"
      android:hint="MME"
      android:inputType="textPersonName" />

  <EditText
      android:id="@+id/edittextche"
      android:layout_width="134dp"
      android:layout_height="wrap_content"
      android:layout_alignEnd="@+id/edittextece"
      android:layout_centerVertical="true"
      android:ems="10"
      android:hint="CHE"
      android:inputType="textPersonName"
      android:layout_alignRight="@+id/edittextece" />

  <EditText
      android:id="@+id/edittextcse"
      android:layout_width="149dp"
      android:layout_height="wrap_content"
      android:layout_alignParentLeft="true"
      android:layout_alignParentStart="true"
      android:layout_alignParentTop="true"
      android:layout_marginTop="99dp"
      android:ems="10"
      android:hint="CSE"
```

```
        android:inputType="textPersonName" />


    <Button
        android:id="@+id/button29"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="29dp"
        android:textAllCaps="false"
        android:text="Genetate" />


    <EditText
        android:id="@+id/edittextece"
        android:layout_width="143dp"
        android:layout_height="wrap_content"
        android:layout_alignStart="@+id/edittextme"
        android:layout_alignTop="@+id/edittextcse"
        android:ems="10"
        android:hint="ECE"
        android:inputType="textPersonName"
        android:layout_alignLeft="@+id/edittextme" />


    <Button
        android:id="@+id/button9"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignEnd="@+id/edittextmme"
        android:layout_alignRight="@+id/edittextmme"
        android:layout_below="@+id/edittextmme"
```

```
        android:layout_marginTop="67dp"
        android:textAllCaps="false"
        android:visibility="invisible"
        android:text="Select File" />


    <Button
        android:id="@+id/button10"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@+id/button9"
        android:layout_alignBottom="@+id/button9"
        android:layout_alignLeft="@+id/edittextme"
        android:layout_alignStart="@+id/edittextme"
        android:visibility="invisible"
        android:textAllCaps="false"
        android:text="Upload" />


</RelativeLayout>
```

Remedial.java:

```
package com.example.vidyasagarnaidum.rkv;


import android.annotation.SuppressLint;
import android.content.Intent;
import android.support.annotation.NonNull;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Pair;
import android.view.Gravity;
```

```java
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;


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 java.util.ArrayList;
import java.util.Collections;
import java.util.Comparator;
import java.util.List;
import java.util.Random;


public class Regular_Data_Picker2 extends AppCompatActivity {



    Button b1;
    String date,time;
    int lcse,lece,lche,lmme,lme,lce;
    FirebaseDatabase firebasedatabase;
    DatabaseReference databaseReference;
    public static Student_Details users;
    public String CSE;
    public String ECE;
    public String ME;
    public String MME;
    public String CE;
```

```java
    public String CHE,MODE;
    public static List<Student_Details> R14=new
ArrayList<Student_Details>();
    List<String> list=null,list2=null;
    int flag=0,flag1=0,flag2=0,flag3=0,flag4=0,flag5=0;
    @SuppressLint("WrongViewCast")
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_regular__data__picker2);
        firebasedatabase = FirebaseDatabase.getInstance();
        Intent i=getIntent();
        Bundle extras = getIntent().getExtras();
        date=extras.getString("date");
        time=extras.getString("time");
        CSE=extras.getString("CSE");
        ECE=extras.getString("ECE");
        ME=extras.getString("ME");
        MME=extras.getString("MME");
        CE=extras.getString("CE");
        CHE=extras.getString("CHE");
        MODE=extras.getString("MODE");
        if(MODE.equals("REMEDIAL"))
        {
            list= (List<String>) extras.getSerializable("list");
            list2=list;
        }

        databaseReference = firebasedatabase.getReference();

        databaseReference =
FirebaseDatabase.getInstance().getReference("Student_Details");
```

```java
    databaseReference.addListenerForSingleValueEvent(new
ValueEventListener() {


        public  List<Student_Details> cse=new
ArrayList<Student_Details>();
        public  List<Student_Details> ece=new
ArrayList<Student_Details>();
        public  List<Student_Details> me=new
ArrayList<Student_Details>();
        public  List<Student_Details> mme=new
ArrayList<Student_Details>();
        public  List<Student_Details> che=new
ArrayList<Student_Details>();
        public  List<Student_Details> ce=new
ArrayList<Student_Details>();


        public void onDataChange(@NonNull DataSnapshot
dataSnapshot) {
            for (@NonNull DataSnapshot userSnapshot :
dataSnapshot.getChildren()) {
                Student_Details userDetails =
userSnapshot.getValue(Student_Details.class);
                if (MODE.equals("REGULAR")&&userDetails.getBranch() !
= null) {
                    if (userDetails.getBranch().equals("CSE")) {
                        cse.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("ECE")) {
                        ece.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("MME")) {
                        mme.add(userDetails);
                    }
                    if (userDetails.getBranch().equals("ME")) {
```

```
                    me.add(userDetails);
                }
            if (userDetails.getBranch().equals("CE")) {
                ce.add(userDetails);
            }
            if (userDetails.getBranch().equals("CH")) {
                che.add(userDetails);
            }


        }
        else
        {

            if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("CSE
")) {
                cse.add(userDetails);
            }
            if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("ECE
")) {
                ece.add(userDetails);
            }
            if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("MM
E")) {
                mme.add(userDetails);
            }
            if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("ME"
)) {
                me.add(userDetails);
            }
```

```
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("CE")
) {

                ce.add(userDetails);

            }
                if
(list.contains(userDetails.getId())&&userDetails.getBranch().equals("CH")
) {

                che.add(userDetails);

            }

          }

        }


        Pass(cse,ece,ce,me,mme,che);



        // Toast.makeText(Regular_Data_Picker2.this,"ce1 "+"
"+cse1.size(),Toast.LENGTH_SHORT).show();
        // cse=cse1;



      }


      public void onCancelled(DatabaseError databaseError) {


      }


    });
    // cse=cse1;
    //Toast.makeText(Regular_Data_Picker2.this, "ce1 " + " " +
cse.size(), Toast.LENGTH_SHORT).show();
```

```java
    }
    public void Pass(List<Student_Details> cse,List<Student_Details>
ece,List<Student_Details> ce,List<Student_Details>
me,List<Student_Details> mme,List<Student_Details> che) {
        cse = randomize(cse, cse.size());
        ce = randomize(ce, ce.size());
        che = randomize(che, che.size());
        ece = randomize(ece, ece.size());
        me = randomize(me, me.size());
        mme = randomize(mme, mme.size());
        /* List<Pair<List<Student_Details>, Integer>> evin= new
ArrayList<Pair<List<Student_Details>, Integer>>();
        evin.add(new Pair<List<Student_Details>, Integer>(cse,new
Integer(cse.size())));
        evin.add(new Pair<List<Student_Details>, Integer>(ece,new
Integer(ece.size())));
        evin.add(new Pair<List<Student_Details>, Integer>(mme,new
Integer(mme.size())));
        evin.add(new Pair<List<Student_Details>, Integer>(ce,new
Integer(ce.size())));
        evin.add(new Pair<List<Student_Details>, Integer>(che,new
Integer(che.size())));
        evin.add(new Pair<List<Student_Details>, Integer>(me,new
Integer(me.size())));
        Collections.sort(evin,new Comparator<Pair<List<Student_Details>,
Integer>>() {
            @Override
            public int compare(Pair<List<Student_Details>, Integer> o1,
Pair<List<Student_Details>, Integer> o2) {
                if (o1.g > o2.getValue()) {
                    return -1;
                } else if (o1.getValue().equals(o2.getValue())) {
```

```
                return 0; // You can change this to make it then look at the
                //words alphabetical order
            } else {
                return 1;
            }
        }
    });*/
    String clas[] = {"G16", "G17", "G18", "F3", "F4", "F5", "F6", "F14",
"F15", "F16", "F17", "F18", "S3", "S4", "S5", "S6", "S7", "S8", "S15",
"S19", "S17", "S18"};
    lcse = cse.size();
    lece = ece.size();
    lche = che.size();
    lmme = mme.size();
    lme = me.size();
    lce = ce.size();
    Toast.makeText(Regular_Data_Picker2.this, "cse:" + lcse+"
ece:"+lece+" ce:"+lce+" me:"+lme+" "+" mme:"+lmme+" che:"+lche+" ",
Toast.LENGTH_SHORT).show();
    int csec = lcse, ecec = lece, cec = lce, mmec = lmme, mec = lme, chc
= lche, i = 0;
    //Toast.makeText(Regular_Data_Picker2.this, "hi:"+MME,
Toast.LENGTH_SHORT).show();
    for (i = 0; i < clas.length; i++) {
        for (int j = 0; j <6 ; j++) {//j<6
            for (int k = 0; k < 10; k++) {
                if ((k & 1) == 0) {
                    if (mmec != 0) {


                        Student_Details m = mme.get(lmme - mmec);
                        Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k, MME,
date,time, MODE, m.getName());
```

```
                    mmec--;
                    Insert_into_Freebase(s, "MME");
              } else if (cec != 0) {
                    Student_Details m = ce.get(lce - cec);
                    Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k, CE,
date,time,MODE, m.getName());
                    cec--;
                    Insert_into_Freebase(s, "CE");
              } else if (csec != 0) {
                    Student_Details m = cse.get(lcse - csec);
                    Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k,
CSE,date,time, MODE, m.getName());
                    csec--;
                    Insert_into_Freebase(s, "CSE");
              }
          } else {
              if (chc != 0) {
                    Student_Details m = che.get(lche - chc);
                    Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k,CHE,
date,time, MODE, m.getName());
                    chc--;
                    Insert_into_Freebase(s, "CH");
              } else if (mec != 0) {
                    Student_Details m = me.get(lme - mec);
                    Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k, ME,
date,time,MODE, m.getName());
                    mec--;
                    Insert_into_Freebase(s, "MME");
              } else if (ecec != 0) {
```

```
                    Student_Details m = ece.get(lece - ecec);

                    Student_Details s = new Student_Details(m.getId(),
m.getPassword(), m.getBranch(), clas[i] + " " + (char) (j + 65)+k,
ECE,date,time, MODE, m.getName());

                    ecec--;

                    Insert_into_Freebase(s, "ECE");
                }
            }
        }
    }



    }
    Toast.makeText(Regular_Data_Picker2.this,"Jumbling generated .
",Toast.LENGTH_SHORT).show();
  }
  /*
  public void readData(Firebase ref, final OnGetDataListener listener) {
    listener.onStart();
    ref.addListenerForSingleValueEvent(new ValueEventListener() {
      @Override
      public void onDataChange(DataSnapshot dataSnapshot) {
        listener.onSuccess(dataSnapshot);
      }


      @Override
      public void onCancelled(FirebaseError firebaseError) {
        listener.onFailure();
      }
    });
```

```java
   }*/
   public static  List<Student_Details> randomize(List<Student_Details>
branch,int n) {


      Random r = new Random();
      for (int i = n - 1; i > 0; i--) {


         int j = r.nextInt(i + 1);
         swapCells(branch,i,j);
      }
      return branch;
   }
   public static  void swapCells
         (List<Student_Details> objectList, int left, int right) {


      if(left!=right){
      Student_Details temp= objectList.get(left);
       objectList.set(left, objectList.get(right));
       objectList.set(right, temp);}


   }
   public void Insert_into_Freebase(final Student_Details
student_details,String str)
   {


      databaseReference.addValueEventListener(new ValueEventListener()
{
         @Override
         public void onDataChange(@NonNull DataSnapshot
dataSnapshot) {
```

```java
//Toast.makeText(Regular_Data_Picker2.this,student_details.getSeating(),
Toast.LENGTH_SHORT).show();


databaseReference.child(student_details.getId()).setValue(student_details);
        }


        public void onCancelled(@NonNull DatabaseError databaseError)
{
          Toast x=Toast.makeText(Regular_Data_Picker2.this,"Failed to
Create Account",Toast.LENGTH_SHORT);
          x.setGravity(Gravity.TOP,Gravity.CENTER,5);
          x.show();
        }
      });
    }



}
```

5.Add Student Details:

Addusers.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent">


    <Button
        android:id="@+id/button6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_alignParentStart="true"
        android:layout_marginBottom="202dp"
        android:layout_marginStart="14dp"
        android:text="Choose File"
        android:textAllCaps="false"
```

```xml
    android:layout_alignParentLeft="true"
    android:layout_marginLeft="14dp" />

<Button
    android:id="@+id/button7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignTop="@+id/button6"
    android:layout_marginEnd="92dp"
    android:text="Upload"
    android:textAllCaps="false"
    android:layout_alignParentRight="true"
    android:layout_marginRight="92dp" />

<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_marginStart="99dp"
    android:layout_marginTop="162dp"
    android:text="hellow"
    android:layout_alignParentLeft="true"
    android:layout_marginLeft="99dp" />

<Button
    android:id="@+id/button8"
    android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content"
            android:layout_alignParentBottom="true"
            android:layout_marginBottom="102dp"
            android:layout_toEndOf="@+id/button6"
            android:text="Add_User"
            android:layout_toRightOf="@+id/button6" />
</RelativeLayout>
```

Addusers.java

```java
package com.example.vidyasagarnaidum.rkv;


import android.content.Intent;
import android.graphics.Bitmap;
import android.net.Uri;
import android.os.Bundle;
import android.os.Environment;
import android.provider.MediaStore;
import android.support.annotation.Nullable;
import android.support.v4.app.Fragment;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

import java.io.BufferedReader;
import java.io.File;
import java.io.FileInputStream;
```

```java
import java.io.IOException;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.net.URI;
import java.util.Locale;



import static android.app.Activity.RESULT_OK;
import static android.os.Environment.getExternalStorageDirectory;
import static android.widget.Toast.LENGTH_SHORT;

public class tab3_fragment extends Fragment  {
    private static final int PICK_IMAGE_REQUEST=234;
    public String filePath=null;
    TextView textView5;
    public View onCreateView(LayoutInflater inflater, @Nullable
ViewGroup container, @Nullable Bundle savedInstanceState) {
        View view=inflater.inflate(R.layout.fragment3, container,false);
        Button button = (Button) view.findViewById(R.id.button6);
        Button button2 = (Button) view.findViewById(R.id.button7);
        Button button3 = (Button) view.findViewById(R.id.button8);
        ImageView image = (ImageView) view.findViewById(R.id.image);
        textView5=(TextView)  view.findViewById(R.id.textView5);
        button.setOnClickListener(new View.OnClickListener()
        {
          @Override
          public void onClick(View v)
          {
              showFileChooser();
```

```java
        }
    });
    button3.setOnClickListener(new View.OnClickListener()
    {
        @Override
        public void onClick(View v)
        {
            Intent i=new
Intent(getContext().getApplicationContext(),User_Details.class);
            startActivity(i);
        }
    });
    button2.setOnClickListener(new View.OnClickListener()
    {
        @Override
        public void onClick(View v)
        {
            // Toast.makeText(getContext(),"file exist
"+filePath,Toast.LENGTH_LONG).show();
            if(filePath==null)
                Toast.makeText(getContext(),"select the  file
first ..!!",Toast.LENGTH_LONG).show();
            else {
                try {

                    //String
sdcard=String.valueOf(filePath).replaceAll("sdcard","sdcard/");
                    String a="";
                    int j;
                    for(j=filePath.length()-1;filePath.charAt(j)!='/';j--)
                    {
```

```
                    a=filePath.charAt(j)+a;
            }
            //Toast.makeText(getContext(), "file name "+ a,
Toast.LENGTH_LONG).show();
            String line="",xx="";
            FileInputStream fileInputStream = new FileInputStream
(new File(filePath));
            InputStreamReader inputStreamReader = new
InputStreamReader(fileInputStream);
            BufferedReader bufferedReader = new
BufferedReader(inputStreamReader);


            while ( (line = bufferedReader.readLine()) != null )
            {
               xx=xx+"\n"+line;
            }
            textView5.setText(xx);
         } catch (Exception e) {


            Toast.makeText(getContext(), "file not accesible " + e,
Toast.LENGTH_LONG).show();
            }
         }
       }
    });
    return view;



  }
  public void display(String value) {

    textView5.setText(value);
```

```java
    }
    private void showFileChooser() {
        Intent intent = new Intent();
        intent.setType("text/plain");
        intent.addCategory(Intent.CATEGORY_OPENABLE);
        intent.setAction(Intent.ACTION_GET_CONTENT);
        startActivityForResult(Intent.createChooser(intent, "Select File"),
PICK_IMAGE_REQUEST);


    }


    //handling the image chooser activity result


    public void onActivityResult(int requestCode, int resultCode, Intent
data) {


        if (requestCode == PICK_IMAGE_REQUEST && resultCode ==
RESULT_OK && data != null && data.getData() != null) {
            // filePath = String.valueOf(data.getData());


            Uri uri = data.getData();
            String type = data.getType();
            if (uri != null)
            {
                String path = uri.toString();
                if (path.toLowerCase().startsWith("file://"))
                {
                    // Selected file/directory path is below
                    path = (new File(URI.create(path))).getAbsolutePath();


                }
```

```
        Toast.makeText(getContext(),"file has selected and path is
"+path,Toast.LENGTH_LONG).show();

        filePath=path;




    }
  }
 }
}
```

Reference:-

https://www.stackoverflow.com

https://www.devoloper.android.com

https://www.javatpoint.com

https://firebase.google.com/docs/database/android/start

Future Scope:-

    Implimentation in Web for more functionalities.

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