

# 19BIT0292 Bhaumik Tandan

# **ASSIGNMENT-1**

# MOBILE APPLICATION DEVELOPMENT

- Q1. Connection with Firebase database (Online / Youtube Reference)
- Q2. Swipe Functionality (View, swipe to Delete, Archieve)

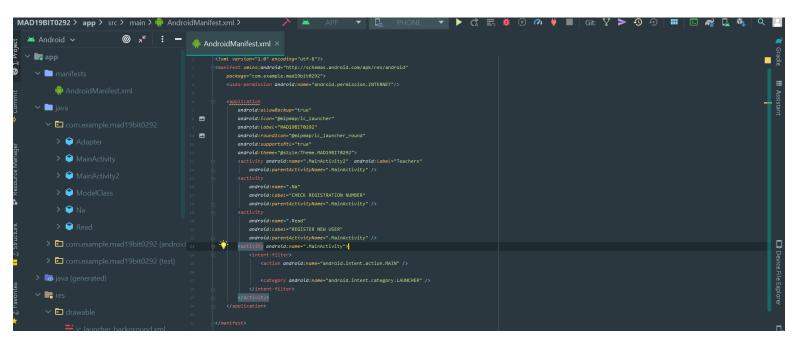
BOTH THE ABOVE HAS BEEN IMPLEMENTED ON THE SAME APPLICATION

**CLICK HERE FOR GITHUBB LINK OF THE CODE** 

**CLICK HERE FOR APK OF APP** 

#### **ANDROID MANIFEST.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   package="com.example.mad19bit0292">
    <uses-permission android:name="android.permission.INTERNET"/>
    <application</pre>
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.MAD19BIT0292">
        <activity android:name=".MainActivity2" android:label="Teachers"</pre>
            android:parentActivityName=".MainActivity" />
            android:name=".Na"
            android:Label="CHECK REGISTRATION NUMBER"
            android:parentActivityName=".MainActivity" />
            android:name=".Read"
            android:Label="REGISTER NEW USER"
            android:parentActivityName=".MainActivity" />
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
 /manifest>
```

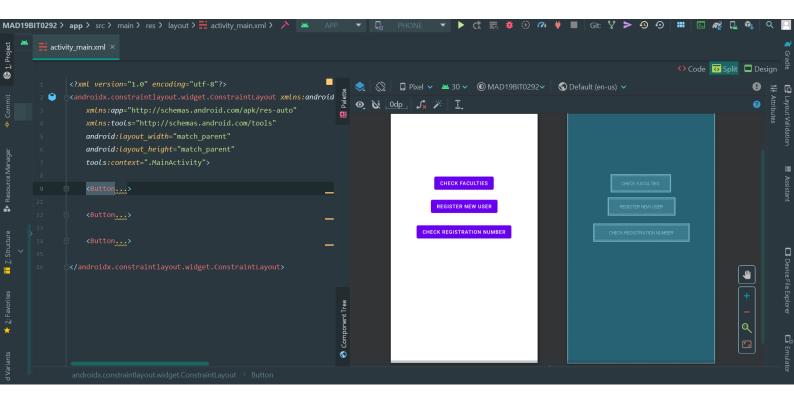


## MainActivity.java

```
package com.example.mad19bit0292;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
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;
public class MainActivity extends AppCompatActivity {
```

## activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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">
    < Button
        android:id="@+id/button3"
        android:layout width="wrap content"
       android:Layout height="wrap content"
        <u>android:onClick</u>="cf"
       android:text="Check Faculties"
        app:layout_constraintBottom_toBottomOf="parent"
       app:layout_constraintEnd_toEndOf="parent
       app:layout_constraintHorizontal_bias="0.497"
       app:layout_constraintStart_toStartOf="parent"
       app:layout_constraintTop_toTopOf="parent"
       app:layout_constraintVertical_bias="0.301" />
    < Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
       android:layout height="wrap content"
       android:onClick="red"
        android:text="Check Registration Number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:Layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.496"
        app:layout_constraintStart_toStartOf="parent"
       app:layout_constraintTop_toTopOf="parent" />
    < Button
        android:id="@+id/button"
        android:Layout_width="wrap_content"
        android:layout_height="wrap_content"
       android:onClick="wr"
       android:text="REGISTER NEW USER"
       app:layout constraintBottom toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout constraintVertical bias="0.396" />
</androidx.constraintlayout.widget.ConstraintLayout>
```



# Na.java

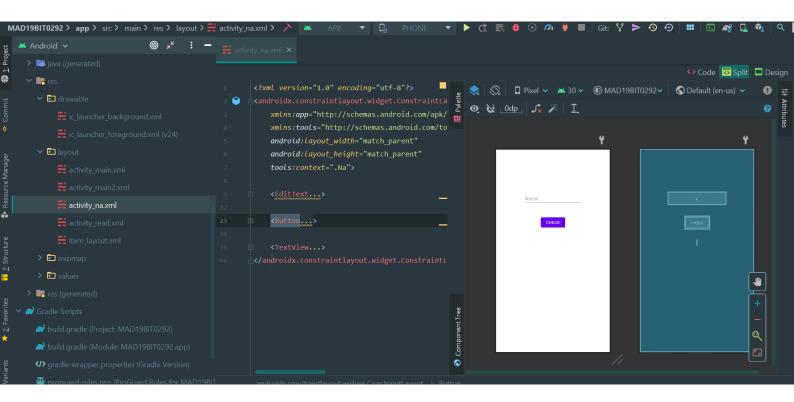
```
package com.example.mad19bit0292;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast:
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
public class Na extends AppCompatActivity {
   FirebaseDatabase database = FirebaseDatabase.getInstance("https://mad19bit0292-4a203-default-rtdb.asia
```

```
outheast1.firebasedatabase.app/");
  public void reg(View v)
      EditText f=(EditText) findViewById(R.id.n);
      String name=f.getText().toString();
      DatabaseReference myRef = database.getReference(name);
      myRef.addValueEventListener(new ValueEventListener() {
          @Override
          public void onDataChange(DataSnapshot dataSnapshot) {
               String value = dataSnapshot.getValue(String.class);
              Log.d(name, "Value is: " + value);
              TextView f=(TextView) findViewById(R.id.o);
              f.setText(value);
          @Override
          public void onCancelled(DatabaseError error) {
              Log.w(name, "Failed to read value.", error.toException()); });
  @Override
  protected void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity na);
```

```
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```

# activity\_na.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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=".Na">
    <<u>EditText</u>
       <u>android:id="@+id/n"</u>
        android:Layout_width="wrap_content"
        android:layout_height="wrap_content"
       android:ems="10"
       android:hint="Name"
       android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:Layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.225" />
   <<u>Button</u>
        android:id="@+id/button"
        android:layout width="wrap content"
       android:layout height="wrap content"
       android:onClick="reg"
        android:text="Check"
        app:layout constraintBottom toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
```



# Read.java CODE

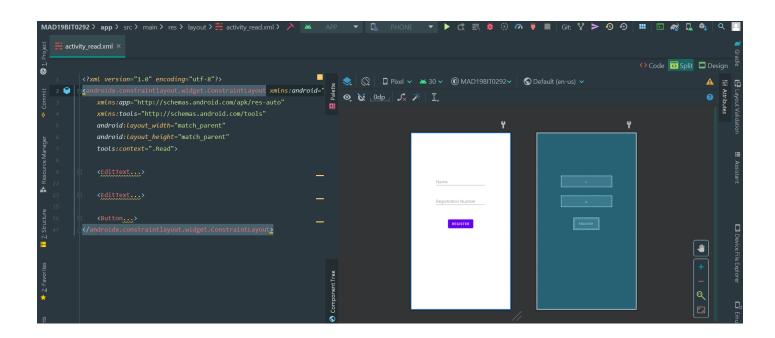
```
package com.example.mad19bit0292;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
public class Read extends AppCompatActivity {
   FirebaseDatabase database = FirebaseDatabase.qetInstance("https://mad19bit0292-4a203-
default-rtdb.asia-southeast1.firebasedatabase.app/");
   public void reg(View v)
       EditText f=(EditText) findViewById(R.id.n);
       String name=f.getText().toString();
       f=(EditText) findViewById(R.id.rn);
       String rgno=f.getText().toString();
       DatabaseReference myRef = database.getReference(name);
       myRef.setValue(rgno);
       Context context = getApplicationContext();
       CharSequence text = "Registered";
       int duration = Toast.LENGTH SHORT;
       Toast toast = Toast.makeText(context, text, duration);
       toast.show();
  }
   @Override
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_read);
```



# activity\_read.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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=".Read">
    <EditText
        android:id="@+id/n"
        android:layout_width="wrap_content"
       android:Layout height="wrap content"
       android:ems="10"
        android:inputType="textPersonName"
        android:hint="Name"
       app:layout constraintBottom toTopOf="@+id/rn"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.497"
        app:layout constraintStart toStartOf="parent"
```

```
app:layout constraintTop toTopOf="parent"
       app:layout constraintVertical bias="0.832" />
   <EditText
      android:id="@+id/rn"
       android:Layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:Layout marginTop="260dp"
       android:ems="10"
      android:hint="Registration Number"
       android:inputType="textPersonName"
       app:layout_constraintEnd_toEndOf="parent"
       app:layout_constraintHorizontal_bias="0.497"
       app:layout_constraintStart_toStartOf="parent"
      app:Layout_constraintTop_toTopOf="parent" />
      android:id="@+id/button"
       android:Layout width="wrap content"
       android:layout_height="wrap_content"
      android:onClick="reg"
      android:text="Register"
       app:layout_constraintBottom_toBottomOf="parent"
       app:layout constraintEnd toEndOf="parent"
       app:layout_constraintStart_toStartOf="parent"
       app:layout_constraintTop_toBottomOf="@+id/rn"
      app:layout constraintVertical bias="0.124" />
/androidx.constraintlayout.widget.ConstraintLayout>
```



# ModelClass.java

## **CODE**

```
package com.example.mad19bit0292;
public class ModelClass {
   private int imageResource;
   private String title;
   private String body;
   public ModelClass(int imageResource, String title, String body)
       this.imageResource = imageResource;
       this.title = title;
       this.body = body;
   public int getImageResource() {
       return imageResource;
   _}
   public String getTitle() {
       return title;
   public String getBody() {
       return body;
```

```
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```

# Adapter.java

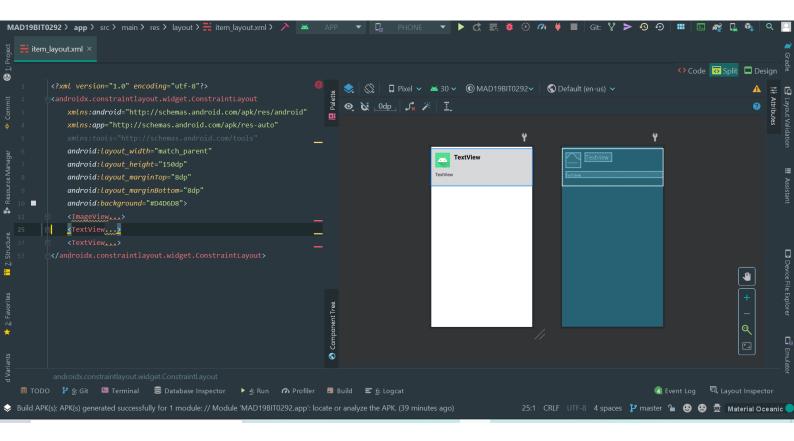
```
package com.example.mad19bit0292;
import android.view.LayoutInflater;
<u>import android.view.View;</u>
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;
import java.util.List;
public class Adapter extends RecyclerView.Adapter<Adapter.Viewholder> {
   private List<ModelClass> modelClassList;
   public Adapter(List<ModelClass> modelClassList)
       this.modelClassList = modelClassList;
   @NonNull
   @Override
   public Viewholder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
       <u>View view =</u>
               LayoutInflater.from(parent.getContext()).inflate(R.layout.item Layout,parent,false)
       return new Viewholder(view);
   @Override
   public void onBindViewHolder(@NonNull Viewholder holder, int position) {
       int resource = modelClassList.get(position).getImageResource();
       String title = modelClassList.get(position).getTitle();
       String body = modelClassList.get(position).getBody();
       holder.setData(resource, title,body);
   @Override
   public int getItemCount() {
       return modelClassList.size();
```

# item\_layout.xml

#### <u>CODE</u>

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
   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="150dp"
   android:layout marginTop="8dp"
   android:layout_marginBottom="8dp"
   android:background="#D4D6D8">
   <ImageView</pre>
       android:id="@+id/imag_view"
       android:Layout width="60dp"
       android:Layout_height="60dp"
       android:Layout marginStart="16dp"
       android:Layout marginTop="16dp"
       android:layout marginBottom="555dp"
       app:layout constraintBottom toBottomOf="parent"
       app:Layout_constraintEnd_toEndOf="parent"
       app:layout_constraintHorizontal_bias="0.0"
       app:layout constraintStart toStartOf="parent"
       app:layout_constraintTop_toTopOf="parent"
       app:layout constraintVertical bias="0.0"
       app:srcCompat="@mipmap/ic launcher" />
    <TextView
       android:id="@+id/title"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:Layout marginLeft="16dp"
       android:Layout marginTop="16dp"
       android:text="TextView"
       android:textColor="#000000"
       android:textSize="26dp"
       android:textStyle="bold"
       app:layout_constraintStart_toEndOf="@+id/imag_view"
        app:Layout constraintTop toTopOf="parent" />
```

```
<TextView
      android:id="@+id/body"
      android:layout_width="0dp"
      android:layout_height="wrap_content"
      android:layout_marginStart="16dp"
      android:layout_marginTop="16dp"
      android:Layout marginBottom="16dp"
      android:text="TextView"
      android:textColor="#000000"
      android:textSize="18sp"
      app:layout_constraintBottom_toBottomOf="parent"
      app:layout_constraintEnd_toEndOf="parent"
      app:layout_constraintHorizontal_bias="1.0"
      app:Layout_constraintStart_toStartOf="parent"
      app:layout_constraintTop_toBottomOf="@+id/imag_view"
      app:layout_constraintVertical_bias="0.0" />
<u>/androidx.constraintlayout.widget.ConstraintLayout></u>
```



# MainActivity2.java

#### <u>CODE</u>

```
package com.example.mad19bit0292;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.ItemTouchHelper;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Toast;
import java.util.ArrayList;
import java.util.List;
public class MainActivity2 extends AppCompatActivity
   private RecyclerView recyclerView;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
       setContentView(R.layout.activity main2);
       recyclerView = findViewById(R.id.re);
       <u>LinearLayoutManager layoutManager = new LinearLayoutManager(this);</u>
       layoutManager.setOrientation((LinearLayoutManager.VERTICAL));
       recyclerView.setLayoutManager(layoutManager);
       final List<ModelClass> modelClassList = new ArrayList<>();
       modelClassList.add(new
               ModelClass(R.drawable.ic_Launcher_background, "Prof. Sumit Yadav", "Associate Professor Grade
1\nSchool of Information Technology"));
               modelClassList.add(new ModelClass(R.drawable.ic_Launcher_background,"Dr. ABDUL GAFFAR
H","Assistant Professor Sr. Grade 2\nSchool of Bio Sciences"));
                        modelClassList.add(new ModelClass(R.drawable.ic Launcher background, "Ms. ADLA
PADMA", "Assistant Professor (Junior)\nSchool of Information Technology"));
```

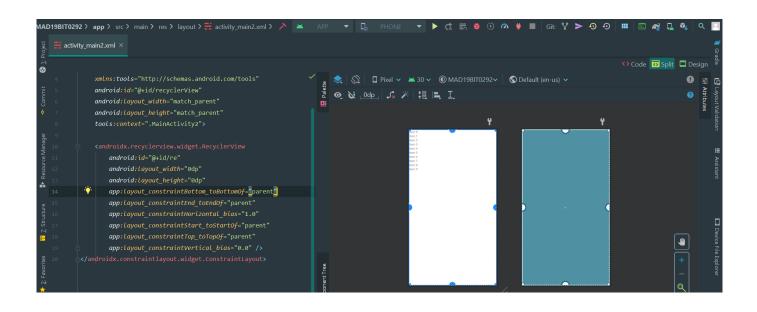
```
modelClassList.add(new ModelClass(R.drawable.ic Launcher background,"Dr.
ANANDAVEL K", "Associate Professor Grade 1\nSchool of Mechanical Engineering"));
                                        modelClassList.add(new
<u> ModelClass(R.drawable.ic_Launcher_background,"Ms. ANJALI","Assistant Professor (Junior)\nSchool of Advanced</u>
Sciences"));
                                              modelClassList.add(new
<u>ModelClass(R.drawable.ic_launcher_background,"Dr. ARUNKUMAR PALANIAPPAN","Assistant Professor\nCentre</u>
Molecular Theranostics"));
                                                       modelClassList.add(new
ModelClass(R.drawable.ic_launcher_background,"Dr. BALAJI BALAKRISHNAN", "Assistant Professor Grade 1
nSchool of Bio Sciences"));
                                                                modelClassList.add(new
<u> ModelClass(R.drawable.ic_launcher_background,"Dr. CHELLATAMILAN T","Associate Professor Grade 1\nSchool of</u>
Information Technology"));
                                                                        modelClassList.add(new
ModelClass(R.drawable.ic_Launcher_background,"Dr. DHANABAL R", "Assistant Professor Sr. Grade 1\nSchool
of Electronics Engineering"));
        final Adapter adapter = new Adapter(modelClassList);
       recyclerView.setAdapter(adapter);
       adapter.notifyDataSetChanged();
       new ItemTouchHelper(new ItemTouchHelper.SimpleCallback(0,ItemTouchHelper.LEFT) {
                                        @Override
                                        public boolean onMove(@NonNull RecyclerView recyclerView, @NonNull
                                                RecyclerView.ViewHolder viewHolder, @NonNull
RecyclerView.ViewHolder target) {
                                            return false;}
           @Override
           public void onSwiped(@NonNull RecyclerView.ViewHolder viewHolder, int direction)
                modelClassList.remove(viewHolder.getAdapterPosition());
                adapter.notifyDataSetChanged();
<u>Toast.makeText(MainActivity2.this,"Removed"+viewHolder.getAdapterPosition(),Toast.LENGTH_SHORT).show();</u>
       }).attachToRecyclerView(recyclerView);
       new ItemTouchHelper(new ItemTouchHelper.SimpleCallback(0,ItemTouchHelper.RIGHT) {
           @Override
           public boolean onMove(@NonNull RecyclerView recyclerView, @NonNull
                    RecyclerView.ViewHolder viewHolder, @NonNull RecyclerView.ViewHolder target) {
              return false;}
            @Override
            public void onSwiped(@NonNull RecyclerView.ViewHolder viewHolder, int direction)
```

```
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```

# activity\_main2.xml

#### **CODE**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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:id="@+id/recyclerView"
    android:Layout width="match parent"
   android:Layout height="match parent"
    tools:context=".MainActivity2">
    <androidx.recyclerview.widget.RecyclerView</pre>
       android:id="@+id/re"
       android:Layout_width="0dp"
       android:Layout height="0dp"
       app:layout_constraintBottom_toBottomOf="parent"
       app:layout constraintEnd toEndOf="parent"
       app:layout constraintHorizontal bias="1.0"
        app:Layout_constraintStart_toStartOf="parent"
       app:layout constraintTop toTopOf="parent"
        app:layout_constraintVertical_bias="0.0" />
 androidx.constraintlayout.widget.ConstraintLayout>
```



#### INITIAL STATE OF FIREBASE



# **AFTER OPENING THE APP**

CHECK FACULTIES

REGISTER NEW USER

#### **REGISTRATION**

← REGISTER NEW USER

**←** REGISTER NEW USER

**Bhaumik Tandan** 

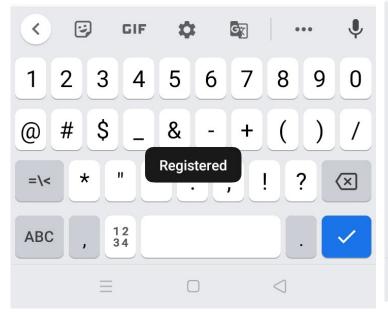
Rahul Gupta

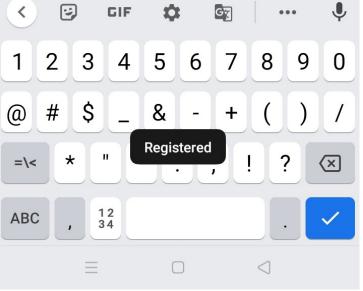
19BIT0292

19BCW0283

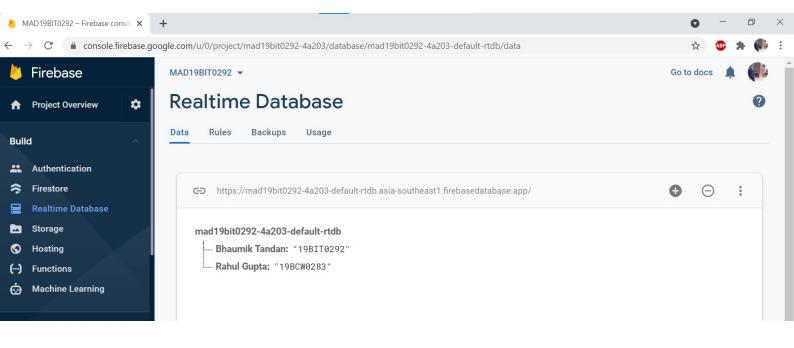
#### REGISTER

REGISTER

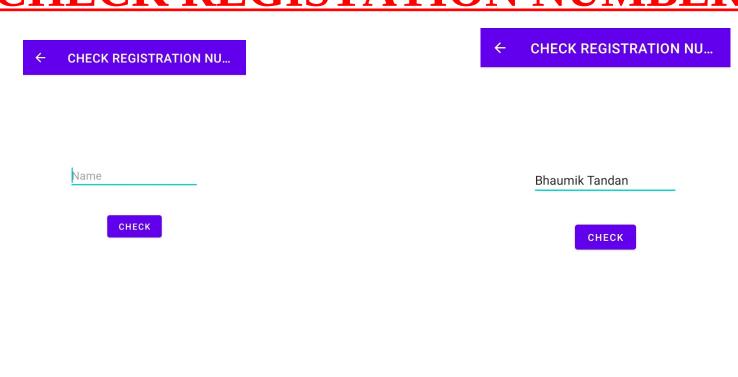




## **FIREBASE STATUS**



# **CHECK REGISTATION NUMBER**



#### **CLICK CHECK BUTTON**

← CHECK REGISTRATION NU...

← CHECK REGISTRATION NU...

Bhaumik Tandan

 $\equiv$ 

CHECK

19BIT0292

Rahul Gupta

**CHECK** 

19BCW0283



## **SWIPE ACTIVITY ON CLICKING**

#### **CHECK FACULTIES BUTTON**

← Teachers



**Prof. Sumit Yadav** 

Associate Professor Grade 1 School of Information Technology



Dr. ABDUL GAFFAR H

Assistant Professor Sr. Grade 2 School of Bio Sciences



Ms. ADLA PADMA

Assistant Professor (Junior)
School of Information Technology



Dr. ANANDAVEL K

Associate Professor Grade 1
School of Mechanical Engineering

Teachers

Assistant Professor (Junior)
School of Information Technology



Dr. ANANDAVEL K

Associate Professor Grade 1 School of Mechanical Engineering



Ms. ANJALI

Assistant Professor (Junior) School of Advanced Sciences



Dr. ARUNKUMAR PALANIAPPAN

Assistant Professor Centre Molecular Theranostics



Dr. BALAJI BALAKRISH

#### RIGHT SWIPE

**Teachers** 



**Prof. Sumit Yadav** 

Associate Professor Grade 1 School of Information Technology



Ms. ADLA PADMA

**Assistant Professor (Junior)** School of Information Technology



Dr. ANANDAVEL K

Associate Professor Grade 1 School of Mechanical Engineering



Assistant Professor Centre Molecular Theranostics  $\leftarrow$ **Teachers** 



**Prof. Sumit Yadav** 

Associate Professor Grade 1 School of Information Technology



Ms. ADLA PADMA

Assistant Professor (Junior) School of Information Technology



Dr. ANANDA

Associate Professor Grade School of Mechanical Engir



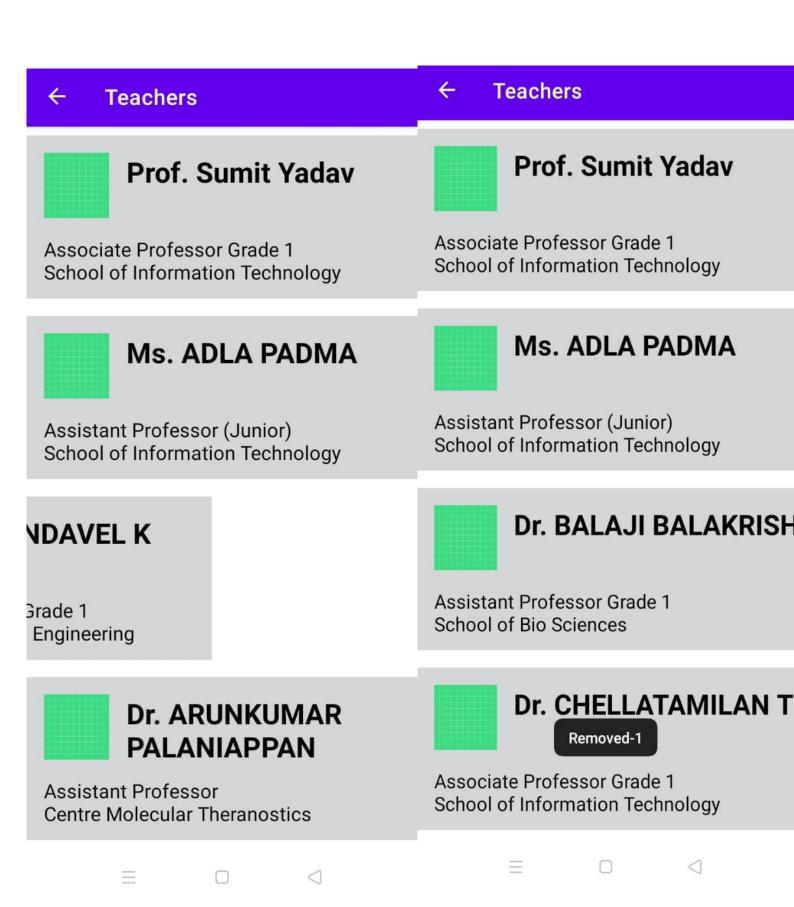
Dr. ARUNKUMAR **PALANIAPPAN** 

Assistant Professor Centre Molecular Theranostics

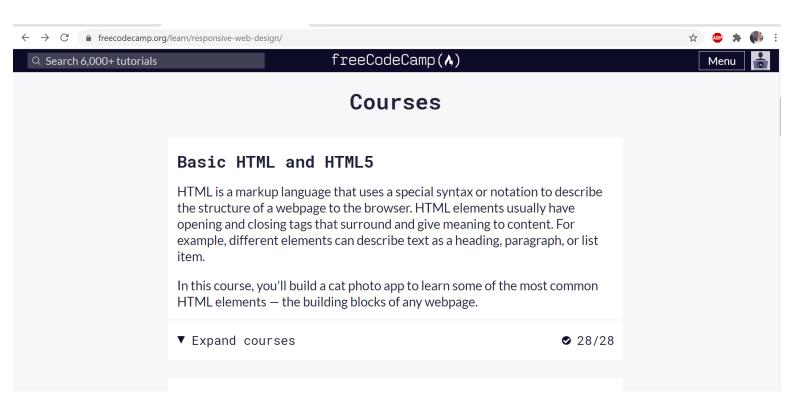
 $\equiv$   $\Box$ 

1

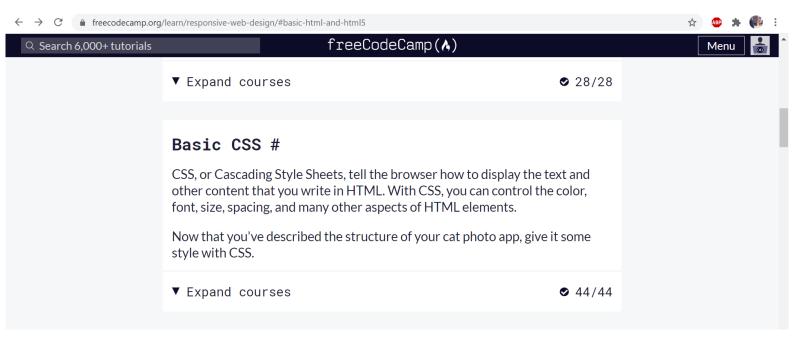
#### LEFT SWIPE



#### **Q3. HTML (Completion Screen)**



#### **Q4.** CSS (Completion Screen)



#### **CERTIFICATE**

# freeCodeCamp(♠)

Issued May 6, 2021

This certifies that

#### Bhaumik Tandan

has successfully completed the freeCodeCamp.org

#### Responsive Web Design

Developer Certification, representing approximately 300 hours of coursework.

Quincy Larson

Executive Director, freeCodeCamp.org

Verify this certification at

https://freecodecamp.org/certification/fccb15721cb-2066-4b77-b850-e4a0265fe1c7/responsive-web-design