**Mobile Application Development**

* **Practical 8: Recycle View**

**CODE:**

**Andriod\_manifest.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.recycleview"**>  
  
 <**uses-permission android:name="android.permission.CALL\_PHONE"**/>  
 <**application  
 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.RecycleView"**>  
 <**activity android:name=".MainActivity"  
 android:exported="true"**>  
 <**intent-filter**>  
 <**action android:name="android.intent.action.MAIN"** />  
  
 <**category android:name="android.intent.category.LAUNCHER"** />  
 </**intent-filter**>  
 </**activity**>  
 </**application**>  
  
</**manifest**>

**Activity\_main.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout  
 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"**>  
  
 <**androidx.recyclerview.widget.RecyclerView  
 android:id="@+id/recyclerView"  
 android:layout\_width="417dp"  
 android:layout\_height="729dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Activity\_raw.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout 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/mainLayout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_margin="10dp"  
 android:background="#D6F4F8"  
 android:orientation="vertical"**>  
  
 <**androidx.cardview.widget.CardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="MissingConstraints"**>  
  
 <**androidx.constraintlayout.widget.ConstraintLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
 <**ImageView  
 android:id="@+id/myImageView"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:layout\_margin="10dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:srcCompat="@drawable/ic\_launcher\_background"  
 tools:ignore="VectorDrawableCompat"** />  
  
 <**TextView  
 android:id="@+id/myText1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="10dp"  
 android:text="Name"  
 android:textSize="20sp"  
 android:textStyle="bold"  
 app:layout\_constraintStart\_toEndOf="@+id/myImageView"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/myText2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="Enrollment Number"  
 android:textSize="14sp"  
 app:layout\_constraintStart\_toStartOf="@+id/myText1"  
 app:layout\_constraintTop\_toBottomOf="@+id/myText1"** />  
  
 <**TextView  
 android:id="@+id/myText3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="Email"  
 android:textSize="14sp"  
 app:layout\_constraintStart\_toStartOf="@+id/myText2"  
 app:layout\_constraintTop\_toBottomOf="@+id/myText2"** />  
  
 <**TextView  
 android:id="@+id/myText4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="Phone"  
 android:textSize="14sp"  
 app:layout\_constraintStart\_toStartOf="@+id/myText3"  
 app:layout\_constraintTop\_toBottomOf="@+id/myText3"** />  
  
 </**androidx.constraintlayout.widget.ConstraintLayout**>  
 </**androidx.cardview.widget.CardView**>  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**MainActivity.java**

**package** com.example.recycleview;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** androidx.recyclerview.widget.LinearLayoutManager;  
**import** androidx.recyclerview.widget.RecyclerView;  
**import** android.os.Bundle;  
**public class** MainActivity **extends** AppCompatActivity {  
 RecyclerView **recyclerView**;  
 String **s1**[], **s2**[], **s3**[], **s4**[];  
 **int images**[] = {R.drawable.***principal***,R.drawable.***kkimg***, R.drawable.***avn***,  
 R.drawable.***cav***, R.drawable.***kkr***, R.drawable.***hardi***,  
 R.drawable.***scan00031***, R.drawable.***passport***, R.drawable.***vra***,  
 R.drawable.***urv***};  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **recyclerView** = findViewById(R.id.***recyclerView***);  
 **s1** = getResources().getStringArray(R.array.***names***);  
 **s2** = getResources().getStringArray(R.array.***Interest***);  
 **s3** = getResources().getStringArray(R.array.***emails***);  
 **s4** = getResources().getStringArray(R.array.***phone***);  
 MyAdapter myAdapter = **new** MyAdapter(**this**, **s1**, **s2**, **s3**,**s4**, **images**);  
 **recyclerView**.setAdapter(myAdapter);  
 **recyclerView**.setLayoutManager(**new** LinearLayoutManager(**this**));  
  
 }  
}

**Myadepter.java**

**package** com.example.recycleview;  
  
**import** android.annotation.SuppressLint;  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.net.Uri;  
**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** androidx.annotation.NonNull;  
**import** androidx.constraintlayout.widget.ConstraintLayout;  
**import** androidx.recyclerview.widget.RecyclerView;  
**public class** MyAdapter **extends** RecyclerView.Adapter<MyAdapter.MyViewHolder> {  
  
  
 String **data1**[], **data2**[], **data3**[], **data4**[];  
 **int images**[];  
 Context **context**;  
 **public** MyAdapter(Context ct, String s1[], String s2[], String s3[], String s4[],  
 **int** img[]) {  
 **context** = ct;  
 **data1** = s1;  
 **data2** = s2;  
 **data3** = s3;  
 **data4** = s4;  
  
 **images** = img;  
 }  
 @NonNull  
 @Override  
 **public** MyViewHolder onCreateViewHolder(@NonNull ViewGroup parent,  
 **int** viewType) {  
 LayoutInflater inflater = LayoutInflater.*from*(**context**);  
 View view = inflater.inflate(R.layout.***my\_row***, parent, **false**);  
 **return new** MyViewHolder(view);  
 }  
 @Override  
 **public void** onBindViewHolder(@NonNull MyViewHolder holder,  
 @SuppressLint(**"RecyclerView"**) **final int** position) {  
 holder.**mytext1**.setText(**data1**[position]);  
 holder.**mytext2**.setText(**data2**[position]);  
 holder.**mytext3**.setText(**data3**[position]);  
 holder.**mytext4**.setText(**data4**[position]);  
  
 holder.**myImage**.setImageResource(**images**[position]);  
  
 holder.**mainLayout**.setOnClickListener(view ->  
 Toast.*makeText*(**context**,  
 **"Click on "**+**data1**[position],  
 Toast.***LENGTH\_SHORT***).show());  
 }  
  
 @Override  
 **public int** getItemCount() {  
 **return images**.**length**;  
 }  
 **public static class** MyViewHolder **extends** RecyclerView.ViewHolder {  
  
 TextView **mytext1**;  
 TextView **mytext2**;  
 TextView **mytext3**;  
 **private** TextView **mytext4**;  
 ImageView **myImage**;  
 ConstraintLayout **mainLayout**;  
 **public** MyViewHolder(@NonNull View itemView) {  
 **super**(itemView);  
 **mytext1** = itemView.findViewById(R.id.***myText1***);  
 **mytext2** = itemView.findViewById(R.id.***myText2***);  
 **mytext3** = itemView.findViewById(R.id.***myText3***);  
 setMytext4(itemView.findViewById(R.id.***myText4***));  
 **myImage** = itemView.findViewById(R.id.***myImageView***);  
 **mainLayout** = itemView.findViewById(R.id.***mainLayout***);  
  
 }  
  
 **public** TextView getMytext4() {  
 **return mytext4**;  
 }  
  
 **public void** setMytext4(TextView mytext4) {  
 **this**.**mytext4** = mytext4;  
 }  
 }  
}

**Output**

