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"</pre>
   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

```
</mml 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"</pre>
```

```
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</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/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</pre>
        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</pre>
            android:layout width="match parent"
            android:layout height="match parent">
            <ImageView</pre>
                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[],
                     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





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