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Lab 9

Recycler view

1. Activity\_main.xml
2. <?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"  
    android:padding="10dp">  
     
    <androidx.recyclerview.widget.RecyclerView  
    android:id="@+id/recylerview"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:background="@color/white"  
    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">  
     
    </androidx.recyclerview.widget.RecyclerView>  
     
    <com.google.android.material.floatingactionbutton.FloatingActionButton  
    android:id="@+id/floatingActionButton2"  
    android:layout\_width="68dp"  
    android:layout\_height="55dp"  
    android:clickable="true"  
    app:layout\_constraintBottom\_toBottomOf="parent"  
    app:layout\_constraintEnd\_toEndOf="parent"  
    app:layout\_constraintHorizontal\_bias="0.997"  
    app:layout\_constraintStart\_toStartOf="parent"  
    app:layout\_constraintTop\_toTopOf="@+id/recylerview"  
    app:layout\_constraintVertical\_bias="0.986"  
    app:srcCompat="@android:drawable/ic\_menu\_add" />  
     
      
   </androidx.constraintlayout.widget.ConstraintLayout>

2.MainActivity.java

1. package com.example.recyclerview;  
     
   import androidx.appcompat.app.AppCompatActivity;  
   import androidx.recyclerview.widget.LinearLayoutManager;  
   import androidx.recyclerview.widget.RecyclerView;  
     
   import android.os.Bundle;  
   import android.widget.LinearLayout;  
     
   import java.util.ArrayList;  
   import java.util.List;  
     
   public class MainActivity extends AppCompatActivity {  
    RecyclerView recyclerView;  
    LinearLayoutManager layoutManager;  
    List<Modal>userList;  
    Adapter adapter;  
     
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.*activity\_main*);  
     
    initData();  
    initRecyclerView();  
     
    }  
     
    private void initData() {  
    userList = new ArrayList<>();  
    userList.add(new Modal(R.drawable.*msd*,"MS Dhoni","07:20","I am Captain Cool","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*vk*,"Virat Kohli","18:20","I am King Kohli","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*rohit*,"Rohit Sharma","15:45","I am Hitman","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*kl*,"KL Rahul","01:20","I am Mr.Klass","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*bumrah*,"Jasprit Bumrah","10:20","I am Boom Boom Bumrah","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*bhuvi*,"Bhubaneswar Kumar","10:20","I am Swing King","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*pandya*,"Hardik Pandya","10:20","I am KungFu Pandya","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*chahal*,"Yuzi Chahal","10:20","I am Spin Wizard","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*jaddu*,"Ravindra Jadeja","10:20","I am Sir Jadeja","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*sky*,"SuryaKumar Yadav","10:20","I am SKY ","-----------------------------------------------------------------------------------------------------"));  
     
    userList.add(new Modal(R.drawable.*pant*,"Rishab Pant","10:20","I am Superman Pant","-----------------------------------------------------------------------------------------------------"));  
     
    }  
     
    private void initRecyclerView() {  
    recyclerView = findViewById(R.id.*recylerview*);  
    layoutManager = new LinearLayoutManager(this);  
    layoutManager.setOrientation(RecyclerView.*VERTICAL*);  
    recyclerView.setLayoutManager(layoutManager);  
    adapter=new Adapter(userList);  
    recyclerView.setAdapter(adapter);  
    adapter.notifyDataSetChanged();  
    }

}

3.Itemdesign.xml

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 xmlns:app="http://schemas.android.com/apk/res-auto">  
  
 <RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="95dp"  
 android:background="@color/white">  
  
 <androidx.cardview.widget.CardView  
 android:id="@+id/cardView"  
 android:layout\_width="60dp"  
 android:layout\_height="60dp"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="20dp"  
 app:cardCornerRadius="60dp">  
  
 <ImageView  
 android:id="@+id/imageview1"  
 android:layout\_width="60dp"  
 android:layout\_height="60dp"  
 android:scaleType="centerCrop"  
 android:src="@drawable/msd">  
  
 </ImageView>  
  
 </androidx.cardview.widget.CardView>  
  
 <TextView  
 android:id="@+id/textview1"  
 android:layout\_width="192dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginLeft="21dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_toRightOf="@id/cardView"  
 android:text="MS DHONI"  
 android:textColor="@color/black"  
 android:textSize="20sp" />  
  
 <TextView  
 android:id="@+id/textview2"  
 android:layout\_width="69dp"  
 android:layout\_height="26dp"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginStart="312dp"  
 android:layout\_marginLeft="19dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginBottom="60dp"  
 android:layout\_toRightOf="@id/textview1"  
 android:text="12:12AM"  
 android:textColor="@color/black"  
 android:textSize="12sp" />  
  
 <TextView  
 android:id="@+id/textview3"  
 android:layout\_width="190dp"  
 android:layout\_height="32dp"  
 android:layout\_below="@id/textview1"  
 android:layout\_marginLeft="21dp"  
 android:layout\_marginTop="-2dp"  
 android:layout\_toRightOf="@id/cardView"  
 android:text="I am captain cool"  
 android:textColor="@color/black"  
 android:textSize="15sp" />  
  
 <TextView  
 android:id="@+id/textview4"  
 android:layout\_width="match\_parent"  
 android:layout\_height="20dp"  
 android:layout\_below="@id/cardView"  
 android:layout\_marginLeft="5dp"  
 android:layout\_marginTop="5dp"  
 android:layout\_toRightOf="@id/cardView"  
 android:text="-----------------------------------------------------------------------------------------------------"  
 android:textColor="#CDC7C7"  
 android:textSize="12sp" />  
  
 <Button  
 android:id="@+id/del"  
 android:layout\_width="91dp"  
 android:layout\_height="58dp"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginStart="303dp"  
 android:layout\_marginTop="37dp"  
 android:layout\_marginEnd="18dp"  
 android:layout\_marginBottom="0dp"  
 android:text="X" />  
 </RelativeLayout>  
  
</RelativeLayout>

4.Modal.java

package com.example.recyclerview;  
  
public class Modal {  
  
 private int imageview1;  
 private String textview1;  
 private String textview2;  
 private String textview3;  
 private String textview4;  
  
 Modal(int imageview1,String textview1,String textview2,String textview3,String textview4){  
 this.imageview1 = imageview1;  
 this.textview1 = textview1;  
 this.textview2 = textview2;  
 this.textview3 = textview3;  
 this.textview4 = textview4;  
 }  
  
 public int getImageview1() {  
 return imageview1;  
 }  
  
 public String getTextview1() {  
 return textview1;  
 }  
  
 public String getTextview2() {  
 return textview2;  
 }  
  
 public String getTextview3() {  
 return textview3;  
 }  
  
 public String getTextview4() {  
 return textview4;  
 }  
}

5.Adapter.java

package com.example.recyclerview;  
  
import android.view.LayoutInflater;  
import android.view.View;  
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<Modal> userList;  
 public Adapter(List<Modal>userList){this.userList=userList;}  
 @NonNull  
 @Override  
 public Adapter.viewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {  
 View view = LayoutInflater.*from*(parent.getContext()).inflate(R.layout.*itemdesign*,parent,false);  
 return new viewHolder(view).linkAdapter(this);  
 }  
  
 @Override  
 public void onBindViewHolder(@NonNull Adapter.viewHolder holder, int position) {  
 int resource = userList.get(position).getImageview1();  
 String name = userList.get(position).getTextview1();  
 String msg = userList.get(position).getTextview3();  
 String time = userList.get(position).getTextview2();  
 String line = userList.get(position).getTextview4();  
  
 holder.setData(resource,name,msg,time,line);  
  
 }  
  
 @Override  
 public int getItemCount() {  
 return userList.size();  
 }  
  
 public class viewHolder extends RecyclerView.ViewHolder {  
  
 private ImageView imageView;  
 private TextView textView;  
 private TextView textView2;  
 private TextView textView3;  
 private TextView textView4;  
 private Adapter adapt;  
  
 public viewHolder(@NonNull View itemView) {  
 super(itemView);  
  
 imageView = itemView.findViewById(R.id.*imageview1*);  
 textView = itemView.findViewById(R.id.*textview1*);  
 textView2 = itemView.findViewById(R.id.*textview2*);  
 textView3 = itemView.findViewById(R.id.*textview3*);  
 textView4 = itemView.findViewById(R.id.*textview4*);  
 itemView.findViewById(R.id.*del*).setOnClickListener(view -> {  
 adapt.userList.remove(getAdapterPosition());  
 adapt.notifyItemRemoved(getAdapterPosition());  
  
 });  
 }  
  
 public viewHolder linkAdapter(Adapter adapt){  
 this.adapt = adapt;  
 return this;  
 }  
  
 public void setData(int resource, String name, String msg, String time, String line) {  
 imageView.setImageResource(resource);  
 textView.setText(name);  
 textView3.setText(msg);  
 textView2.setText(time);  
 textView4.setText(line);  
 }  
 }  
}