# ANDROID STUDIO – 2

## Multiple select item RecyclerView

1. Gradle file

// Recycler view  
implementation 'com.android.support:appcompat-v7:29.0.0'  
implementation 'com.android.support:design:29.0.0'

1. Create new class Adapter.java
2. Create new layout – recycler\_layout.xml
3. Create new Model class
4. MainActivity.java

package com.example.selectmultipleitems;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.recyclerview.widget.LinearLayoutManager;  
import androidx.recyclerview.widget.RecyclerView;  
  
import android.content.res.Resources;  
import android.content.res.TypedArray;  
import android.os.Bundle;  
import android.view.View;  
  
import java.util.ArrayList;  
  
public class MainActivity extends AppCompatActivity implements Adapter.ChnageStatusListener {  
 private RecyclerView recyclerView=null;  
 private Adapter adapter=null;  
 private ArrayList<Model> models;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 buildResources();  
 recyclerView=(RecyclerView)findViewById(R.id.*recyclerView*);  
 RecyclerView.LayoutManager manager=new LinearLayoutManager(this,LinearLayoutManager.*VERTICAL*,false);  
 recyclerView.setLayoutManager(manager);  
 adapter=new Adapter(models,MainActivity.this,this);  
 recyclerView.setAdapter(adapter);  
 }  
  
 private void buildResources() {  
 Resources resources=getResources();  
 if(models==null&& resources!=null){  
 String[] text=resources.getStringArray(R.array.*text*);  
 TypedArray image=resources.obtainTypedArray(R.array.*image*);  
 models=new ArrayList<>();  
 for(int i=0;i<text.length;i++){  
 Model model=new Model();  
 model.setText(text[i]);  
 model.setImage(image.getResourceId(i,R.mipmap.*ic\_launcher*));  
 model.setSelect(false);  
 models.add(model);  
 }  
 }  
 }  
  
 @Override  
 public void onItemChangeListener(int position, Model model) {  
 try{  
 models.set(position,model);  
  
 }catch (Exception e){  
  
 }  
 }  
  
  
 public void setBtnDelete(View v) {  
 updateList();  
 }  
  
 private void updateList() {  
 ArrayList<Model> temp=new ArrayList<>();  
 try{  
 for(int i=0;i<models.size();i++){  
 if(!models.get(i).isSelect()){  
 temp.add(models.get(i));  
 }  
 }  
  
 }catch (Exception e){  
  
 }  
 models=temp;  
 if(models.size()==0){  
 recyclerView.setVisibility(View.*GONE*);  
 }  
 adapter.setModel(models);  
 adapter.notifyDataSetChanged();  
 }  
}

1. Activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
  
 <androidx.recyclerview.widget.RecyclerView  
 android:id="@+id/recyclerView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="400dp"  
 />  
 <Button  
 android:id="@+id/delete"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Delete"  
 android:onClick="setBtnDelete"  
 />  
</LinearLayout>

1. Adapter.java

package com.example.selectmultipleitems;  
  
import android.content.Context;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.ImageView;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.annotation.NonNull;  
import androidx.recyclerview.widget.RecyclerView;  
  
import java.util.ArrayList;  
  
public class Adapter extends RecyclerView.Adapter<Adapter.ViewHolder> {  
 public interface ChnageStatusListener{  
 void onItemChangeListener(int position,Model model);  
 }  
  
 ArrayList<Model> models;  
 Context mContext;  
 ChnageStatusListener chnageStatusListener;  
  
 public void setModel(ArrayList<Model> models){  
 this.models=models;  
 }  
  
 public Adapter(ArrayList<Model> models, Context mContext, ChnageStatusListener chnageStatusListener) {  
 this.models = models;  
 this.mContext = mContext;  
 this.chnageStatusListener = chnageStatusListener;  
 }  
  
  
  
 @NonNull  
 @Override  
 public ViewHolder onCreateViewHolder(@NonNull ViewGroup viewGroup, int i) {  
 View v=LayoutInflater.*from*(viewGroup.getContext()).inflate(R.layout.*recycler\_layout*,viewGroup,false);  
 ViewHolder viewHolder=new ViewHolder(v);  
 return viewHolder;  
 }  
  
 @Override  
 public void onBindViewHolder(@NonNull final ViewHolder viewHolder, final int i) {  
  
  
  
 Model model=models.get(i);  
 if(model!=null){  
 viewHolder.text.setText(model.getText());  
 viewHolder.position=i;  
 viewHolder.image.setImageResource(model.getImage());  
 if(model.isSelect()){  
 viewHolder.view.setBackgroundColor(mContext.getResources().getColor(R.color.*colorAccent*));  
 }  
 else{  
 viewHolder.view.setBackgroundColor(mContext.getResources().getColor(R.color.*colorPrimary*));  
 }  
 }  
 viewHolder.view.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 Model model1=models.get(i);  
 if(model1.isSelect()){  
 model1.setSelect(false);  
 }else{  
 model1.setSelect(true);  
 }  
 models.set(viewHolder.position,model1);  
 if(chnageStatusListener!=null){  
 chnageStatusListener.onItemChangeListener(viewHolder.position,model1);  
 }  
 notifyItemChanged(viewHolder.position);  
  
 }  
 });  
  
  
  
 }  
  
 @Override  
 public int getItemCount() {  
 if(models!=null){  
 return models.size();  
 }  
 return 0;  
 }  
  
 public class ViewHolder extends RecyclerView.ViewHolder {  
 public ImageView image;  
 public TextView text;  
 public View view;  
 public int position;  
  
 public ViewHolder(@NonNull View itemView) {  
 super(itemView);  
 view=itemView;  
 image=itemView.findViewById(R.id.*image*);  
 text=itemView.findViewById(R.id.*text*);  
 }  
 }  
}

1. Model.java

package com.example.selectmultipleitems;  
  
public class Model {  
 private String text;  
 private int image;  
 private boolean isSelect;  
  
 public String getText() {  
 return text;  
 }  
  
 public void setText(String text) {  
 this.text = text;  
 }  
  
 public int getImage() {  
 return image;  
 }  
  
 public void setImage(int image) {  
 this.image = image;  
 }  
  
 public boolean isSelect() {  
 return isSelect;  
 }  
  
 public void setSelect(boolean select) {  
 isSelect = select;  
 }  
}

1. Strings.xml

<?xml version="1.0" encoding="utf-8"?>  
<resources>  
 <string name="app\_name">SelectMultipleItems</string>  
 <string-array name="text" >  
 <item > India1 </item>  
 <item > India2 </item>  
 <item > India3 </item>  
 <item > India4 </item>  
 <item > India5 </item>  
 </string-array>  
  
 <integer-array name="image">  
 <item>@drawable/ic\_launcher\_foreground</item>  
 <item>@drawable/ic\_launcher\_foreground</item>  
 <item>@drawable/ic\_launcher\_foreground</item>  
 <item>@drawable/ic\_launcher\_foreground</item>  
 <item>@drawable/ic\_launcher\_foreground</item>  
 </integer-array>  
</resources>

1. Recycler\_layout.xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="horizontal" android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
  
 <ImageView  
 android:id="@+id/image"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 />  
 <TextView  
 android:id="@+id/text"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Hello"  
 android:textColor="@color/colorPrimaryDark"  
 android:textStyle="bold"  
 android:textSize="15dp"  
 />  
  
</LinearLayout>