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SMD – Recycler View Task

In this task, we will get the data from the **strings.xml** resource file and display it to the screen using the recycler view.

**Final Output:**

A screen shot of a phone

Description automatically generated with low confidence

**RecyclerViewMainActivity.java**

package com.example.lab02.RecyclerViewExample;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.recyclerview.widget.LinearLayoutManager;  
import androidx.recyclerview.widget.RecyclerView;  
  
import android.os.Bundle;  
import android.util.Log;  
import android.widget.Toast;  
  
import com.example.lab02.R;  
  
import java.util.ArrayList;  
  
public class RecyclerViewMainActivity extends AppCompatActivity {  
 ArrayList<String> myList;  
 RecyclerView recyclerView;  
 recyclerViewExampleAdaptor adaptor;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_recycler\_view\_main*);  
 recyclerView=findViewById(R.id.*iteamListRV*);  
 myList=new ArrayList<String>();  
 LinearLayoutManager linearLayoutManager=new LinearLayoutManager(this);  
 recyclerView.setLayoutManager(linearLayoutManager);  
 recyclerView.setHasFixedSize(true);  
 String[] list=getResources().getStringArray(R.array.*itemsList*);  
 for (int i=0;i<list.length;i++){  
 myList.add(list[i]);  
 }  
 adaptor=new recyclerViewExampleAdaptor(myList,getApplicationContext());  
 recyclerView.setAdapter(adaptor);  
 Toast.*makeText*(this, myList.get(1), Toast.*LENGTH\_SHORT*).show();  
 }  
}

**activity\_recycler\_view\_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"  
 android:background="#f7faff"  
 tools:context=".RecyclerViewExample.RecyclerViewMainActivity">  
  
 <androidx.recyclerview.widget.RecyclerView  
 android:id="@+id/iteamListRV"  
 android:layout\_width="384dp"  
 android:layout\_height="698dp"  
 android:layout\_marginStart="1dp"  
 android:layout\_marginTop="1dp"  
 android:layout\_marginEnd="1dp"  
 android:layout\_marginBottom="1dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**Design and Blueprint View -** activity\_recycler\_view\_main.xml

**Chart

Description automatically generated**

**recyclerViewExampleAdaptor.java**

package com.example.lab02.RecyclerViewExample;  
  
import android.content.Context;  
import android.util.AttributeSet;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
import android.widget.TextView;  
  
import androidx.annotation.NonNull;  
import androidx.annotation.Nullable;  
import androidx.recyclerview.widget.RecyclerView;  
  
import com.example.lab02.FirebaseExample.myFirebaseAdaptor;  
import com.example.lab02.R;  
  
import java.util.ArrayList;  
  
public class recyclerViewExampleAdaptor extends RecyclerView.Adapter<recyclerViewExampleAdaptor.ViewHolder> {  
  
 public recyclerViewExampleAdaptor(ArrayList<String> myList, Context context) {  
 this.myList = myList;  
 this.context = context;  
 }  
 ArrayList<String> myList;  
 Context context;  
 @NonNull  
 @Override  
 public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {  
 View view=LayoutInflater.*from*(parent.getContext()).inflate(R.layout.*rv\_layout\_example1*,parent,false);  
 return new ViewHolder(view);  
 }  
 @Override  
 public void onBindViewHolder(@NonNull ViewHolder holder, int position) {  
 holder.textView.setText(myList.get(position));  
 }  
  
 @Override  
 public int getItemCount() {  
 return myList.size();  
 }  
  
 public class ViewHolder extends RecyclerView.ViewHolder{  
 TextView textView;  
 public ViewHolder(@NonNull View itemView) {  
 super(itemView);  
 textView=itemView.findViewById(R.id.*txtv1*);  
 }  
 }  
}

**rv\_layout\_example1.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="wrap\_content"  
  
 >  
  
 <androidx.cardview.widget.CardView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginHorizontal="10dp"  
 android:layout\_marginTop="5dp"  
 app:cardCornerRadius="5dp"  
 app:cardElevation="1dp"  
 android:layout\_marginBottom="2dp"  
  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent">  
  
 <TextView  
 android:id="@+id/txtv1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:padding="10dp"  
 android:textSize="30dp">  
  
 </TextView>  
 </androidx.cardview.widget.CardView>  
</androidx.constraintlayout.widget.ConstraintLayout>

**Graphical user interface

Description automatically generatedDesign and Blueprint View -** rv\_layout\_example1.xml

Add this code part to **strings.xml** (This strings contains he data which will be displayed in recycler view)

*<!-- Recycler View Example Data-->* <array name="itemsList">  
 <item>Android Performence</item>  
 <item>ViewHolder</item>  
 <item>LinkedList</item>  
 <item>Data model</item>  
 <item>SQLiteOpenHelper</item>  
 <item>SQLiteDatabse</item>  
 <item>Android Studio</item>  
 <item>AsyncTask</item>  
 <item>ListView</item>  
 <item>Adapter</item>  
 </array>

**Thank You!**