**Assigment: 2**

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**### Step 1: Set Up the Project**

1. Open Android Studio and create a new project.

2. Choose "Empty Activity" and set up your project with the desired name and package name.

**### Step 2: Add Dependencies**

Add the following dependencies to your `build.gradle` file to use `RecyclerView`:

```gradle

dependencies {

...

implementation 'androidx.recyclerview:recyclerview:1.2.1'

}

```

Sync your project to download the dependencies.

**### Step 3: Create Layout Files**

**#### 1. `activity\_main.xml`**

This file will contain the `RecyclerView`:

```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="match\_parent">

<androidx.recyclerview.widget.RecyclerView

android:id="@+id/recyclerView"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent" />

</RelativeLayout>

```

**#### 2. `item\_layout.xml`**

This file will define the layout for each item in the list:

```xml

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical"

android:padding="16dp">

<TextView

android:id="@+id/textViewTitle"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Title"

android:textSize="18sp"

android:textStyle="bold" />

<TextView

android:id="@+id/textViewDescription"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Description"

android:textSize="14sp" />

</LinearLayout>

```

**### Step 4: Create Java Classes**

**#### 1. `MainActivity.java`**

This class will set up the `RecyclerView` and the adapter:

```java

package com.example.alternativeresources;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

import androidx.recyclerview.widget.LinearLayoutManager;

import androidx.recyclerview.widget.RecyclerView;

import java.util.ArrayList;

import java.util.List;

public class MainActivity extends AppCompatActivity {

private RecyclerView recyclerView;

private MyAdapter adapter;

private List<Item> itemList;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

recyclerView = findViewById(R.id.recyclerView);

recyclerView.setLayoutManager(new LinearLayoutManager(this));

// Initialize the list with static data

itemList = new ArrayList<>();

itemList.add(new Item("Title 1", "Description 1"));

itemList.add(new Item("Title 2", "Description 2"));

itemList.add(new Item("Title 3", "Description 3"));

// Add more items as needed

adapter = new MyAdapter(itemList);

recyclerView.setAdapter(adapter);

}

}

```

**#### 2. `Item.java`**

This class will represent the data model for each item:

```java

package com.example.alternativeresources;

public class Item {

private String title;

private String description;

public Item(String title, String description) {

this.title = title;

this.description = description;

}

public String getTitle() {

return title;

}

public String getDescription() {

return description;

}

}

```

**#### 3. `MyAdapter.java`**

This class will be the adapter for the `RecyclerView`:

```java

package com.example.alternativeresources;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.TextView;

import androidx.annotation.NonNull;

import androidx.recyclerview.widget.RecyclerView;

import java.util.List;

public class MyAdapter extends RecyclerView.Adapter<MyAdapter.MyViewHolder> {

private List<Item> itemList;

public MyAdapter(List<Item> itemList) {

this.itemList = itemList;

}

@NonNull

@Override

public MyViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {

View itemView = LayoutInflater.from(parent.getContext())

.inflate(R.layout.item\_layout, parent, false);

return new MyViewHolder(itemView);

}

@Override

public void onBindViewHolder(@NonNull MyViewHolder holder, int position) {

Item item = itemList.get(position);

holder.titleTextView.setText(item.getTitle());

holder.descriptionTextView.setText(item.getDescription());

}

@Override

public int getItemCount() {

return itemList.size();

}

public static class MyViewHolder extends RecyclerView.ViewHolder {

public TextView titleTextView;

public TextView descriptionTextView;

public MyViewHolder(View view) {

super(view);

titleTextView = view.findViewById(R.id.textViewTitle);

descriptionTextView = view.findViewById(R.id.textViewDescription);

}

}

}

```