Mobile Application Development Slot - A1 + TA1

Digital Assignment II

Implement the following features/ functionalities in your program and upload your own exercises with
output. Output should be Unique.

1. Splash Screen

MainActivity.xml

```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="#F76786"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="616dp"
        android:layout_height="806dp"
        android:contentDescription="cupcakes logo"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.502"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.693"
        app:srcCompat="@drawable/cupcake" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```java
package com.example.splashdemo;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.media.Image;
import android.os.Bundle;
import android.os.Handler;
import android.view.WindowManager;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {
    private static int SPLASH = 5000;
    ImageView image;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```
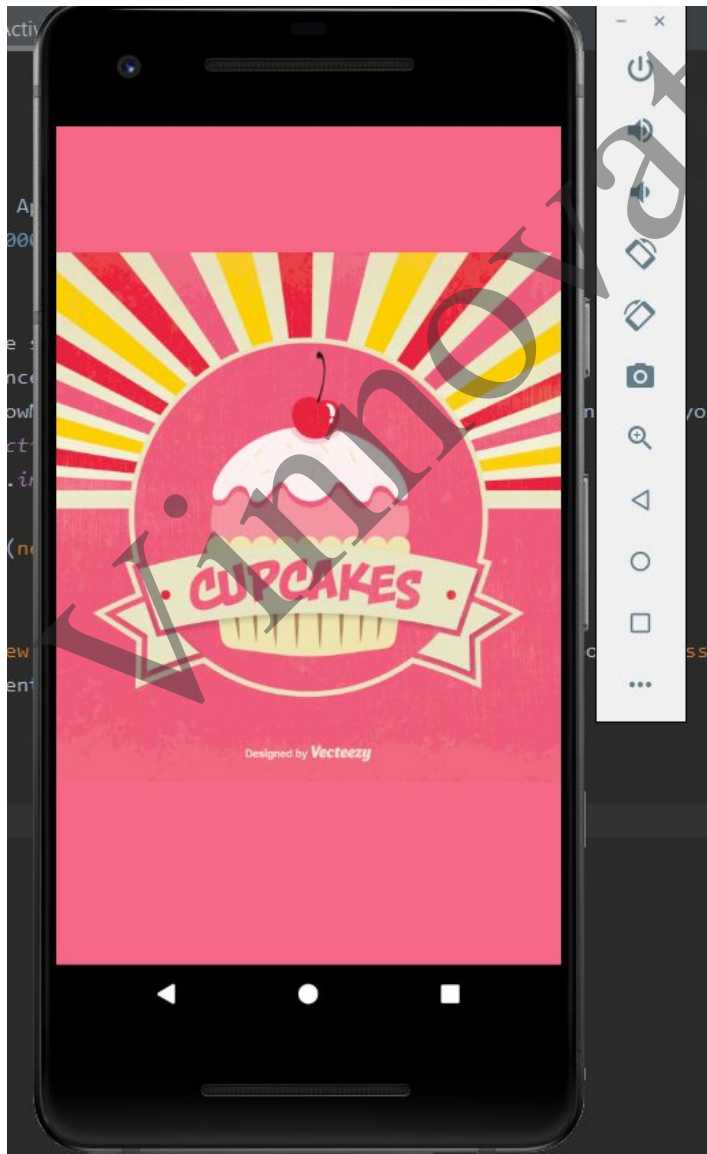
```
getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,WindowManager.Layo
utParams.FLAG_FULLSCREEN);
        setContentView(R.layout.activity_main);
        image = findViewById(R.id.imageView);


        new Handler().postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent intent = new Intent(MainActivity.this,Dashboard.class);
                startActivity(intent);
                finish();
            }
        },SPLASH);
    }
}
```

Output:

2. Swipe Functionality (View, swipe to Delete, Archive)

The view,swipe to Delete and Archive has been made above the recycler view made on 4th question recycler view.

Dashboard.java

```java
package com.example.splashdemo;

import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.DividerItemDecoration;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.os.Bundle;

import java.util.ArrayList;
import java.util.List;

public class Dashboard extends AppCompatActivity {

    RecyclerView recyclerView;
    RecyclerAdapter recyclerAdapter;

    List<String> moviesList;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        moviesList = new ArrayList<>();

        recyclerView = findViewById(R.id.recyclerView);
        recyclerAdapter = new RecyclerAdapter(moviesList);

        recyclerView.setAdapter(recyclerAdapter);

        DividerItemDecoration dividerItemDecoration = new DividerItemDecoration(this,
DividerItemDecoration.VERTICAL);
        recyclerView.addItemDecoration(dividerItemDecoration);


        moviesList.add("Iron Man");
        moviesList.add("The Incredible Hulk");
        moviesList.add("Iron Man 2");
        moviesList.add("Thor");
        moviesList.add("Captain America: The First Avenger");
        moviesList.add("The Avengers");
        moviesList.add("Iron Man 3");
```

```java
        moviesList.add("Thor: The Dark World");
        moviesList.add("Captain America: The Winter Soldier");
        moviesList.add("Guardians of the Galaxy");
        moviesList.add("Avengers: Age of Ultron");
        moviesList.add("Ant-Man");
        moviesList.add("Captain America: Civil War");
        moviesList.add("Doctor Strange");
        moviesList.add("Guardians of the Galaxy Vol. 2");
        moviesList.add("Spider-Man: Homecoming");
        moviesList.add("Thor: Ragnarok");
        moviesList.add("Black Panther");
        moviesList.add("Avengers: Infinity War");
        moviesList.add("Ant-Man and the Wasp");
        moviesList.add("Captain Marvel");
        moviesList.add("Avengers: Endgame");
        moviesList.add("Spider-Man: Far From Home");
    }
}
```

Activity_new.xml

```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"
    tools:context=".NewActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="TextView"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

NewActivity.java

```java
package com.example.splashdemo;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.TextView;
```

```java
import com.example.splashdemo.R;

public class NewActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_new);

        TextView textView = findViewById(R.id.textView);
        String movieName = getIntent().getStringExtra("MOVIE_NAME");
        textView.setText(movieName);
    }
}
```

RecyclerAdapter.java

```java
package com.example.splashdemo;

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.List;

public class RecyclerAdapter extends RecyclerView.Adapter<RecyclerAdapter.ViewHolder> {

    private static final String TAG = "RecyclerAdapter";
    List<String> moviesList;

    public RecyclerAdapter(List<String> moviesList) {
        this.moviesList = moviesList;
    }

    @NonNull
    @Override
    public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
        LayoutInflater layoutInflater = LayoutInflater.from(parent.getContext());
        View view = layoutInflater.inflate(R.layout.row_item, parent, false);
        ViewHolder viewHolder = new ViewHolder(view);
        return viewHolder;
    }

    @Override
    public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
```

```java
        holder.rowCountTextView.setText(String.valueOf(position));
        holder.textView.setText(moviesList.get(position));
    }

    @Override
    public int getItemCount() {
        return moviesList.size();
    }

    class ViewHolder extends RecyclerView.ViewHolder implements View.OnClickListener {

        ImageView imageView;
        TextView textView, rowCountTextView;

        public ViewHolder(@NonNull View itemView) {
            super(itemView);

            imageView = itemView.findViewById(R.id.imageView);
            textView = itemView.findViewById(R.id.textView);
            rowCountTextView = itemView.findViewById(R.id.rowCountTextView);

            itemView.setOnClickListener(this);

            itemView.setOnLongClickListener(new View.OnLongClickListener() {
                @Override
                public boolean onLongClick(View view) {
                    moviesList.remove(getAdapterPosition());
                    notifyItemRemoved(getAdapterPosition());
                    return true;
                }
            });

        }

        @Override
        public void onClick(View view) {
            Toast.makeText(view.getContext(), moviesList.get(getAdapterPosition()),
Toast.LENGTH_SHORT).show();
        }
    }
}
```

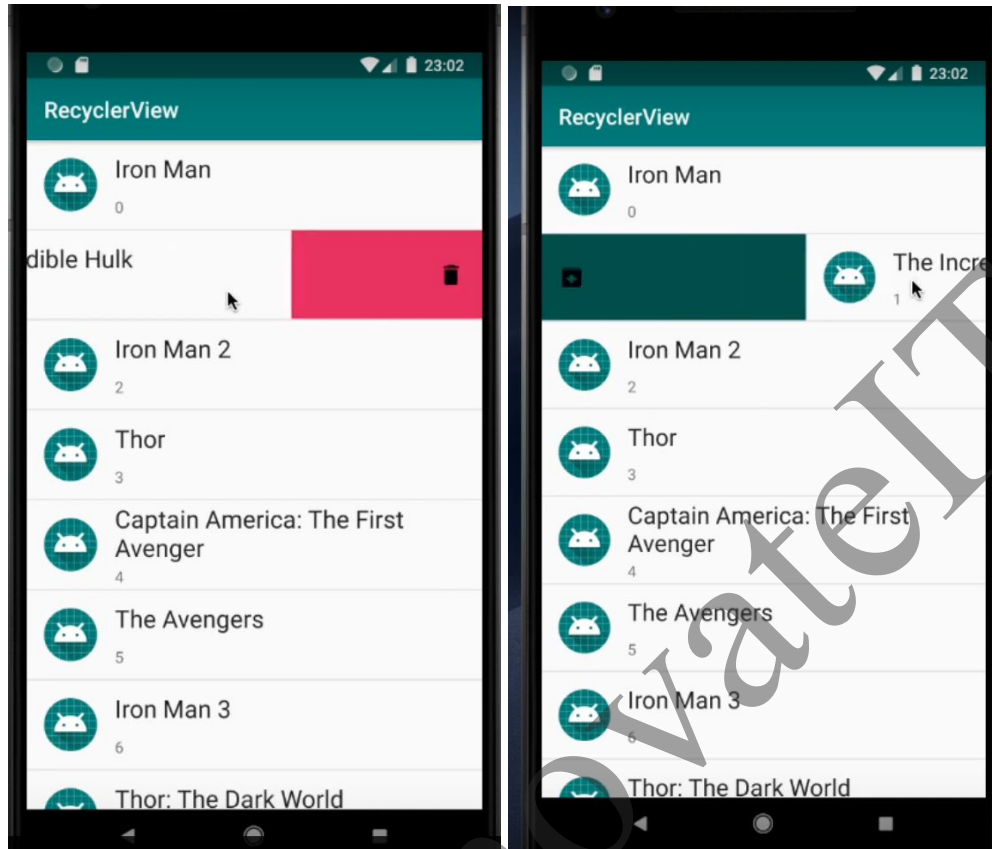## RecyclerViewClickInterface.java

```java
package com.example.splashdemo;


public interface RecyclerViewClickInterface {
    void onItemClick(int position);
    void onLongItemClick(int position);
}
```

Output :

For this output I couldn't get the screenshot while swiping it. These images are reference images captured from video.

3. Card View
Activity_main.xml

```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"
    tools:context=".MainActivity">

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/recyclerView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```java
package com.example.cardviewdemo;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {
    RecyclerView recyclerView;
    Adapter adapter;
    ArrayList<String> items;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        items = new ArrayList<>();
        items.add("First CardView Item");
        items.add("Second CardView Item");
        items.add("Third CardView Item");
        items.add("Fourth CardView Item");
        items.add("Fifth CardView Item");
        items.add("Sixth CardView Item");

        recyclerView = findViewById(R.id.recyclerView);
        recyclerView.setLayoutManager(new LinearLayoutManager(this));
        adapter = new Adapter(this,items);
        recyclerView.setAdapter(adapter);



    }
}
```

Adapter.java

```java
package com.example.cardviewdemo;

import android.content.Context;
import android.content.Intent;
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;
```

```java
import java.util.List;

public class Adapter extends RecyclerView.Adapter<Adapter.ViewHolder> {

    private LayoutInflater layoutInflater;
    private List<String> data;



    Adapter(Context context, List<String> data){
        this.layoutInflater = LayoutInflater.from(context);
        this.data = data;
    }

    @NonNull
    @Override
    public ViewHolder onCreateViewHolder(@NonNull ViewGroup viewGroup, int i) {
        View view = layoutInflater.inflate(R.layout.custom_view,viewGroup,false);
        return new ViewHolder(view);
    }

    @Override
    public void onBindViewHolder(@NonNull ViewHolder viewHolder, int i) {

        String title = data.get(i);
        viewHolder.textTitle.setText(title);


    }

    @Override
    public int getItemCount() {
        return data.size();
    }

    public class ViewHolder extends RecyclerView.ViewHolder{

        TextView textTitle,textDescription;

        public ViewHolder(@NonNull View itemView) {
            super(itemView);
            itemView.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    Intent i = new Intent(v.getContext(),Details.class);
                    i.putExtra("title",data.get(getAdapterPosition()));
                    v.getContext().startActivity(i);
                }
            });
            textTitle = itemView.findViewById(R.id.textTitle);
            textDescription = itemView.findViewById(R.id.textDesc);
        }
```

```
    }
}
```

Details.java

```java
package com.example.cardviewdemo;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class Details extends AppCompatActivity {
    TextView textTitle;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_details);
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);

        Intent i = getIntent();
        String title = i.getStringExtra("title");
        textTitle = findViewById(R.id.detailTitle);
        textTitle.setText(title);

    }
}
```

Activity_details.xml

```java
package com.example.cardviewdemo;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class Details extends AppCompatActivity {
    TextView textTitle;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_details);
        getSupportActionBar().setDisplayHomeAsUpEnabled(true);

        Intent i = getIntent();
        String title = i.getStringExtra("title");
        textTitle = findViewById(R.id.detailTitle);
        textTitle.setText(title);

    }
```

```
}
```

Custom_view.xml

```java
package com.example.cardviewdemo;

import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class Details extends AppCompatActivity {
  TextView textTitle;

  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_details);
    getSupportActionBar().setDisplayHomeAsUpEnabled(true);

    Intent i = getIntent();
    String title = i.getStringExtra("title");
    textTitle = findViewById(R.id.detailTitle);
    textTitle.setText(title);

  }
}
```
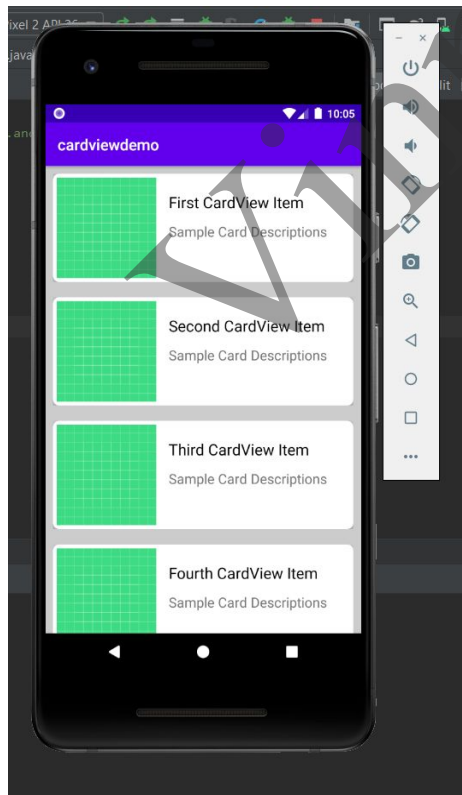
Output:

4. Recycler view

Dashboard.java

```java
package com.example.splashdemo;

import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.DividerItemDecoration;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.os.Bundle;

import java.util.ArrayList;
import java.util.List;

public class Dashboard extends AppCompatActivity {

    RecyclerView recyclerView;
    RecyclerAdapter recyclerAdapter;

    List<String> moviesList;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        moviesList = new ArrayList<>();

        recyclerView = findViewById(R.id.recyclerView);
        recyclerAdapter = new RecyclerAdapter(moviesList);

//        recyclerView.setLayoutManager(new LinearLayoutManager(this));

        recyclerView.setAdapter(recyclerAdapter);

        DividerItemDecoration dividerItemDecoration = new DividerItemDecoration(this,
DividerItemDecoration.VERTICAL);
        recyclerView.addItemDecoration(dividerItemDecoration);


        moviesList.add("Iron Man");
        moviesList.add("The Incredible Hulk");
        moviesList.add("Iron Man 2");
        moviesList.add("Thor");
        moviesList.add("Captain America: The First Avenger");
        moviesList.add("The Avengers");
        moviesList.add("Iron Man 3");
        moviesList.add("Thor: The Dark World");
```

```java
        moviesList.add("Captain America: The Winter Soldier");
        moviesList.add("Guardians of the Galaxy");
        moviesList.add("Avengers: Age of Ultron");
        moviesList.add("Ant-Man");
        moviesList.add("Captain America: Civil War");
        moviesList.add("Doctor Strange");
        moviesList.add("Guardians of the Galaxy Vol. 2");
        moviesList.add("Spider-Man: Homecoming");
        moviesList.add("Thor: Ragnarok");
        moviesList.add("Black Panther");
        moviesList.add("Avengers: Infinity War");
        moviesList.add("Ant-Man and the Wasp");
        moviesList.add("Captain Marvel");
        moviesList.add("Avengers: Endgame");
        moviesList.add("Spider-Man: Far From Home");
    }
}
```

RecyclerAdapter.java

```java
package com.example.splashdemo;


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.List;

public class RecyclerAdapter extends RecyclerView.Adapter<RecyclerAdapter.ViewHolder> {

    private static final String TAG = "RecyclerAdapter";
    List<String> moviesList;

    public RecyclerAdapter(List<String> moviesList) {
        this.moviesList = moviesList;
    }

    @NonNull
    @Override
    public ViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
        LayoutInflater layoutInflater = LayoutInflater.from(parent.getContext());
        View view = layoutInflater.inflate(R.layout.row_item, parent, false);
        ViewHolder viewHolder = new ViewHolder(view);
        return viewHolder;
```

```java
    }

    @Override
    public void onBindViewHolder(@NonNull ViewHolder holder, int position) {
        holder.rowCountTextView.setText(String.valueOf(position));
        holder.textView.setText(moviesList.get(position));
    }

    @Override
    public int getItemCount() {
        return moviesList.size();
    }

    class ViewHolder extends RecyclerView.ViewHolder implements View.OnClickListener {

        ImageView imageView;
        TextView textView, rowCountTextView;

        public ViewHolder(@NonNull View itemView) {
            super(itemView);

            imageView = itemView.findViewById(R.id.imageView);
            textView = itemView.findViewById(R.id.textView);
            rowCountTextView = itemView.findViewById(R.id.rowCountTextView);

            itemView.setOnClickListener(this);

            itemView.setOnLongClickListener(new View.OnLongClickListener() {
                @Override
                public boolean onLongClick(View view) {
                    moviesList.remove(getAdapterPosition());
                    notifyItemRemoved(getAdapterPosition());
                    return true;
                }
            });

        }

        @Override
        public void onClick(View view) {
            Toast.makeText(view.getContext(), moviesList.get(getAdapterPosition()),
Toast.LENGTH_SHORT).show();
        }
    }
}
```

Activity_Dashboad.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
```

```xml
    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=".Dashboard">

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/recyclerView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Row_item.xml

```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"
    android:background="?attr/selectableItemBackground"
    >

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="48dp"
        android:layout_height="48dp"
        android:layout_marginStart="16dp"
        android:layout_marginTop="16dp"
        android:layout_marginBottom="16dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@mipmap/ic_launcher" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="8dp"
        android:text="TextView"
        android:textAppearance="@style/TextAppearance.AppCompat.Large"
        app:layout_constraintBottom_toTopOf="@+id/rowCountTextView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/imageView"
        app:la:yout_constraintTop_toTopOf="parent" />
```

```xml
    <TextView
        android:id="@+id/rowCountTextView"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginEnd="8dp"
        android:text="TextView"
        android:textAppearance="@style/TextAppearance.AppCompat.Small"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="@+id/textView"
        app:layout_constraintTop_toBottomOf="@+id/textView" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output: