Exp No: 4 **Developing Action Listeners For Rating App**

Date:

**AIM**

**ALGORITHM**

**SOURCE CODE**

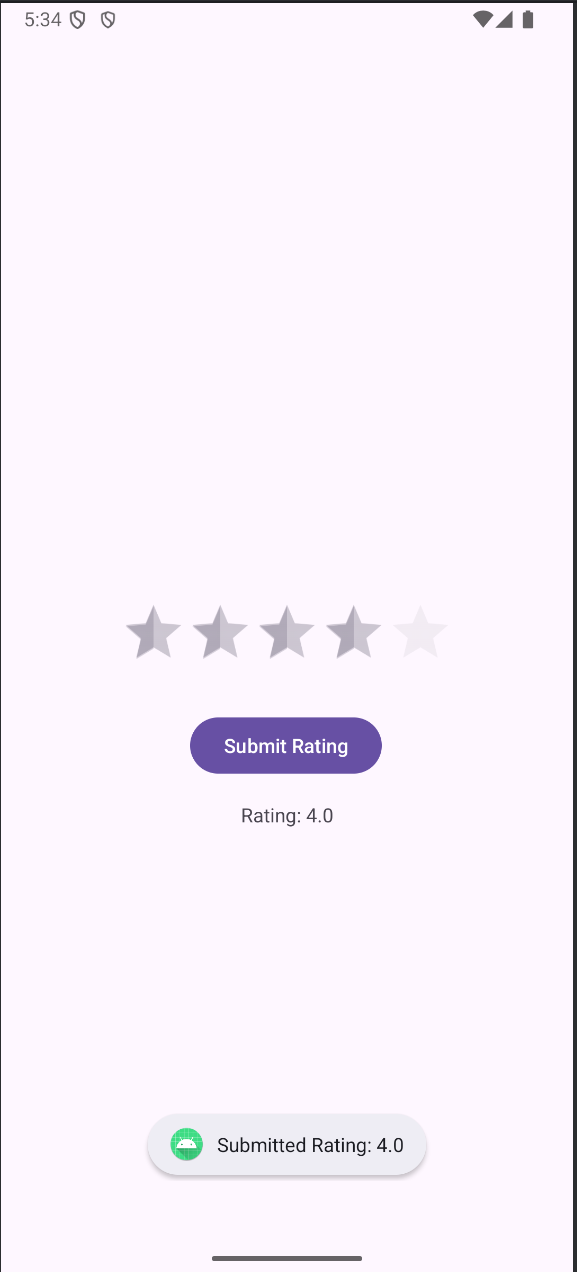
*activity\_main.xml*

<?xml version="1.0" encoding="utf-8"?>  
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<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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
  
 <RatingBar  
 android:id="@+id/ratingBar"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/submit\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="24dp"  
 android:text="Submit Rating"  
 app:layout\_constraintEnd\_toEndOf="@+id/ratingBar"  
 app:layout\_constraintHorizontal\_bias="0.493"  
 app:layout\_constraintStart\_toStartOf="@+id/ratingBar"  
 app:layout\_constraintTop\_toBottomOf="@+id/ratingBar" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Rating: 0"  
 android:layout\_marginTop="16dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/submit\_btn" />  
</androidx.constraintlayout.widget.ConstraintLayout>

*MainActivity.java*

package com.example.lab4;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.RatingBar;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
public class MainActivity extends AppCompatActivity {  
  
 RatingBar ratingBar;  
 Button submit\_btn;  
 TextView textView;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.*enable*(this);  
 setContentView(R.layout.*activity\_main*);  
  
 ratingBar = findViewById(R.id.*ratingBar*);  
 submit\_btn = findViewById(R.id.*submit\_btn*);  
 textView = findViewById(R.id.*textView*);  
  
 submit\_btn.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 float currentRating = ratingBar.getRating();  
 textView.setText("Rating: " + currentRating);  
 Toast.*makeText*(MainActivity.this, "Submitted Rating: " + currentRating,  
 Toast.*LENGTH\_SHORT*).show();  
 ratingBar.setEnabled(false);  
 }  
 });  
  
 ratingBar.setOnRatingBarChangeListener(new RatingBar.OnRatingBarChangeListener() {  
 @Override  
 public void onRatingChanged(RatingBar ratingBar, float rating, boolean fromUser) {  
 textView.setText("Rating: " + rating);  
 }  
 });  
  
 ViewCompat.*setOnApplyWindowInsetsListener*(findViewById(R.id.*main*), (v, insets) -> {  
 Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.*systemBars*());  
 v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);  
 return insets;  
 });  
 }  
}

**OUTPUT**



**RESULT**