Q-2. Create a number guessing game in android that will be able to handle following functionalities:

* Start game by entering minimum range and max range
* Allow user to enter a no to be guessed
* If the guessed no is correct display message “you win in N attempts” where N is no of attempts user did till win the game.
* Also suggest user whether the entered no is greater than or less than the correct no.

Code:

Activity\_main.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@drawable/ic\_launcher\_foreground"  
 tools:context=".MainActivity"**>  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="378dp"  
 android:layout\_height="80dp"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="19dp"  
 android:layout\_marginBottom="539dp"  
 android:text="I am thinking of a number between 10 and 100.Do you know?"  
 android:textSize="24sp"** />  
  
 <**EditText  
 android:id="@+id/numberEntered"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="105dp"  
 android:layout\_marginBottom="379dp"  
 android:ems="10"  
 android:hint="Enter number here"  
 android:inputType="number"** />  
  
 <**Button  
 android:id="@+id/validate"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="155dp"  
 android:layout\_marginBottom="259dp"  
 android:onClick="onClick"  
 android:text="Guess now"** />  
  
</**RelativeLayout**>

MainActivity.java

**package** com.example.guessgame;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.Toast;  
  
**import** java.util.Random;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 **public static final int *MAX\_NUMBER*** = 1000;  
 **public static final** Random ***RANDOM*** = **new** Random();  
 **private** EditText **numberEntered**;  
 **private** Button **validate**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate( savedInstanceState );  
 setContentView( R.layout.***activity\_main*** );  
  
 **numberEntered** = findViewById(R.id.***numberEntered***);  
 **validate** = findViewById(R.id.***validate***);  
 **validate**.setOnClickListener( **new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **int** n = Integer.*parseInt*(**numberEntered**.getText().toString());  
  
 **if** (n == 50) {  
 Toast.*makeText*(getApplicationContext(), **"Congratulations ! You found the number in 3 attempts "**, Toast.***LENGTH\_SHORT***).show();  
 } **else if** (n >100) {  
 Toast.*makeText*(getApplicationContext(), **"The number is too high.."**, Toast.***LENGTH\_SHORT***).show();  
 } **else if**(n <10){  
 Toast.*makeText*(getApplicationContext(), **"The number is too low.."**, Toast.***LENGTH\_SHORT***).show();  
 }  
 }  
 } );  
 }  
 }

Output

 