

## Code:

### Activity\_main.java:

```
package com.example.rockpaperscissors;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

import java.util.Random;

public class MainActivity extends AppCompatActivity{
    Button b_rock,b_scissors,b_paper;
    TextView tv_score;
    ImageView iv_ComputerChoice,iv_HumanChoice;
    int HumanScore,ComputerScore;
    @Override
    protected void onCreate(Bundle savedInstanceState){
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b_paper=(Button) findViewById(R.id.b_paper);
        b_scissors=(Button) findViewById(R.id.b_scissors);
        b_rock=(Button) findViewById(R.id.b_rock);
        iv_ComputerChoice = (ImageView) findViewById(R.id.iv_ComputerChoice);
        iv_HumanChoice=(ImageView) findViewById(R.id.iv_HumanChoice);
        tv_score = (TextView) findViewById(R.id.tv_score);
        b_paper.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view){
                iv_HumanChoice.setImageResource(R.drawable.paper);
                String message= play_turn("paper");
                Toast.makeText(MainActivity.this, message, Toast.LENGTH_SHORT).show();
                //makeText(MainActivity.this,message,Toast.LENGTH_SHORT).show() ;
                tv_score.setText("Score Human:"+Integer.toString(HumanScore)+"
                Computer:"+Integer.toString(ComputerScore));
            }
        })
    }
}
```

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});
b_rock.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view){
        iv_HumanChoice.setImageResource(R.drawable.rock);
        String message=play_turn("rock");
        Toast.makeText(MainActivity.this,message,Toast.LENGTH_SHORT).show();
        tv_score.setText("Score
Human:"+Integer.toString(HumanScore)+"Computer:"+Integer.toString(ComputerScore));
    }
});

b_scissors.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view){
        iv_HumanChoice.setImageResource(R.drawable.scissor);
        String message = play_turn("scissor");
        Toast.makeText(MainActivity.this,message,Toast.LENGTH_SHORT).show();
tv_score.setText("Score Human:"+Integer.toString(HumanScore)+"Computer:
"+Integer.toString(ComputerScore));
    }
});
}

public String play_turn(String player_choice){
    String computer_choice="";
    Random r = new Random();
    Integer computer_choice_number=r.nextInt(3)+1;
    if (computer_choice_number == 1) {
        computer_choice="rock";

    }else if (computer_choice_number == 2) {
        computer_choice="scissor";

    }else if (computer_choice_number == 3) {
        computer_choice="paper";

    }
    if (computer_choice == "rock") {
        iv_ComputerChoice.setImageResource(R.drawable.rock);
    }else if (computer_choice == "scissor") {
        iv_ComputerChoice.setImageResource(R.drawable.scissor);
    }else if (computer_choice == "paper") {

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```

        iv_ComputerChoice.setImageResource(R.drawable.paper);
    }

    if(computer_choice == player_choice) {
        return "Draw. Nobody Won";
    }
    else if(computer_choice == "scissor" && player_choice=="rock") {

        HumanScore++;
        return "Rock crushes scissors and you win";
    }
    else if(computer_choice == "rock" && player_choice== "scissor") {
        ComputerScore++;
        return "paper can roll rock, so computer wins";
    }
    else if(computer_choice == "rock" && player_choice=="paper") {
        HumanScore++;
        return "paper covers rock, so you win";
    }
    else if(computer_choice == "paper" && player_choice=="rock") {
        ComputerScore++;
        return "paper covers rock, so computer wins";
    }
    else if(computer_choice == "scissor" && player_choice=="paper") {
        HumanScore++;
        return "scissor cuts the paper,computer wins";
    }
    else if(computer_choice == "paper" && player_choice=="scissor") {
        ComputerScore++;
        return "scissor cuts the paper,you win";
    }
    else return "Not Sure";

}
}

```

### **main\_Activity.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"

```

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android:layout_height="match_parent"
android:background="#FFFFFF"
android:textAlignment="center"
tools:context=".MainActivity">
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:textAlignment="center">
    <TextView
        android:id="@+id/textView"
        android:layout_width="414dp"
        android:layout_height="72dp"
        android:background="#045CF4"
        android:text="RockPaperScissors"
        android:textAlignment="center"
        android:textColor="#FFFFFF"
        android:textSize="34sp" />
        <ImageView
            android:id="@+id/iv_HumanChoice"
            android:layout_width="match_parent"
            android:layout_height="155dp"
            android:layout_marginTop="10dp"
            android:textAlignment="center"
            app:srcCompat="@drawable/paper" />
            <TextView
                android:id="@+id/tv_humanChoice"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginTop="10dp"
                android:text="Your Choice"
                android:textAlignment="center"
                android:textSize="24sp" />
                <ImageView
                    android:id="@+id/iv_ComputerChoice"
                    android:layout_width="match_parent"
                    android:layout_height="199dp"
                    android:layout_marginTop="10dp"
                    app:srcCompat="@drawable/rock" />

    <TextView
        android:id="@+id/tv_ComputerChoice"

```

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Computer Choice"
        android:textAlignment="center"
        android:textSize="24sp" />
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="65dp"
    android:orientation="horizontal"
    android:textAlignment="center">
    <Button
        android:id="@+id/b_rock"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:insetLeft="30dp"
        android:insetRight="15dp"
        android:text="Rock"
        android:textSize="16sp" />
    <Button
        android:id="@+id/b_scissors"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:insetRight="15dp"
        android:text="Scissors"
        android:textSize="16sp" />
    <Button
        android:id="@+id/b_paper"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:text="Paper"
        android:textSize="16sp" />
</LinearLayout>

<TextView
    android:id="@+id/tv_score"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    android:text="Score"
```

```
        android:textAlignment="center"  
        android:textSize="20sp" />  
</LinearLayout>  
</androidx.constraintlayout.widget.ConstraintLayout>
```

**Output :**

