**DEVELOPMENT OF NEW ANDROID APPLICATION**

**(ROCK PAPER SCISSOR GAME)**

**DESCRIPTION:**

To build a game application.On clicking the images of the stone, paper and scissor button the player will be played and if the images of the two players will be the same the player will lose the game and the details of the winner is displayed.

**Activity\_main.xml**

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

<RelativeLayout 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/activity\_main"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:paddingBottom="@dimen/activity\_vertical\_margin"

android:paddingLeft="@dimen/activity\_horizontal\_margin"

android:paddingRight="@dimen/activity\_horizontal\_margin"

android:paddingTop="@dimen/activity\_vertical\_margin"

tools:context="com.example.deepak.rockscissorpaper.MainActivity">

<TextView

android:text="Human Choice"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentTop="true"

android:layout\_alignParentLeft="true"

android:layout\_alignParentStart="true"

android:layout\_marginLeft="134dp"

android:layout\_marginStart="134dp"

android:layout\_marginTop="39dp"

android:id="@+id/tv\_humanChoice" />

<TextView

android:text="ComputerChoice"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_centerVertical="true"

android:layout\_centerHorizontal="true"

android:id="@+id/tv\_computerChoice" />

<Button

android:text="PAPER"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignBottom="@+id/b\_rock"

android:layout\_centerHorizontal="true"

android:id="@+id/b\_paper" />

<Button

android:text="ROCK"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginRight="16dp"

android:layout\_marginEnd="16dp"

android:id="@+id/b\_rock"

android:layout\_alignParentBottom="true"

android:layout\_toLeftOf="@+id/tv\_computerChoice"

android:layout\_toStartOf="@+id/tv\_computerChoice" />

<Button

android:text="SCISSORS"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginLeft="15dp"

android:layout\_marginStart="15dp"

android:id="@+id/b\_scissor"

android:layout\_alignParentBottom="true"

android:layout\_toRightOf="@+id/tv\_computerChoice"

android:layout\_toEndOf="@+id/tv\_computerChoice" />

<ImageView

android:layout\_width="200dp"

android:layout\_height="100dp"

app:srcCompat="@drawable/rock"

android:layout\_marginTop="13dp"

android:id="@+id/iv\_HumanChoice"

android:layout\_below="@+id/tv\_humanChoice"

android:layout\_centerHorizontal="true" />

<ImageView

android:layout\_width="200dp"

android:layout\_height="100dp"

app:srcCompat="@drawable/paper"

android:layout\_marginTop="15dp"

android:id="@+id/iv\_ComputerChoice"

android:layout\_below="@+id/tv\_computerChoice"

android:layout\_alignLeft="@+id/iv\_HumanChoice"

android:layout\_alignStart="@+id/iv\_HumanChoice" />

<TextView

android:text="Score:Human 0 Computer 0"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_below="@+id/iv\_ComputerChoice"

android:layout\_toLeftOf="@+id/tv\_computerChoice"

android:layout\_toStartOf="@+id/tv\_computerChoice"

android:layout\_marginTop="15dp"

android:id="@+id/tv\_score" />

</RelativeLayout>

**MainActivity.java**

**import** android.support.v7.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\_paper**,**b\_scissor**;  
 TextView **tv\_score**;  
 ImageView **iv\_HumanChoice**,**iv\_ComputerChoice**;  
  
  
 **int HumanScore**,**ComputerScore**=0;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **b\_paper**=(Button)findViewById(R.id.***b\_paper***);  
 **b\_rock**=(Button)findViewById(R.id.***b\_rock***);  
 **b\_scissor**=(Button)findViewById(R.id.***b\_scissor***);  
 **tv\_score**=(TextView)findViewById(R.id.***tv\_score***);  
 **iv\_ComputerChoice**=(ImageView)findViewById(R.id.***iv\_ComputerChoice***);  
 **iv\_HumanChoice**=(ImageView)findViewById(R.id.***iv\_HumanChoice***);  
  
 **b\_rock**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **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\_scissor**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **iv\_HumanChoice**.setImageResource(R.drawable.***scissors***);  
 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**));  
 }  
 });  
 **b\_paper**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **iv\_HumanChoice**.setImageResource(R.drawable.***paper***);  
 String message=play\_turn(**"paper"**);  
 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\_choise) {  
 String computer\_choise = **""**;  
 Random r = **new** Random();  
 **int** computer\_choise\_number = r.nextInt(3) + 1;  
 **if** (computer\_choise\_number == 1) {  
 computer\_choise = **"rock"**;  
 } **else if** (computer\_choise\_number == 2) {  
 computer\_choise = **"paper"**;  
 } **else if** (computer\_choise\_number == 3) {  
 computer\_choise = **"scissor"**;  
 }  
 **if**(computer\_choise==**"rock"**)  
 {  
 **iv\_ComputerChoice**.setImageResource(R.drawable.***rock***);  
 }**else  
 if**(computer\_choise==**"paper"**)  
 {  
 **iv\_ComputerChoice**.setImageResource(R.drawable.***paper***);  
 }**else  
 if**(computer\_choise==**"scissor"**)  
 {  
 **iv\_ComputerChoice**.setImageResource(R.drawable.***scissors***);  
 }  
  
 **if** (player\_choise==**"rock"**&&computer\_choise==**"paper"**)  
 { **ComputerScore**++;  
 **return "you lose"**;  
  
 }  
 **else  
 if** (player\_choise==**"rock"**&&computer\_choise==**"scissor"**)  
 { **HumanScore**++;  
 **return "you win"**;  
  
 }  
 **else  
 if** (player\_choise==**"paper"**&&computer\_choise==**"rock"**)  
 { **HumanScore**++;  
 **return "you win"**;  
  
 }  
 **else  
 if** (player\_choise==**"paper"**&&computer\_choise==**"scissor"**)  
 { **ComputerScore**++;  
 **return "you lose"**;  
  
 }  
 **else  
 if** (player\_choise==**"scissor"**&&computer\_choise==**"paper"**)  
 { **HumanScore**++;  
 **return "you win"**;  
  
 }  
 **else  
 if** (player\_choise==**"scissor"**&&computer\_choise==**"rock"**)  
 { **ComputerScore**++;  
 **return "you lose"**;  
  
 }  
 **else  
 if** (player\_choise==**"rock"**&&computer\_choise==**"paper"**)  
 { **ComputerScore**++;  
 **return "you lose"**;  
  
 }  
 **else  
 if** (player\_choise==**"rock"**&&computer\_choise==**"rock"**)  
 {  
 **return "draw"**;  
 }  
 **else  
 if** (player\_choise==**"paper"**&&computer\_choise==**"paper"**)  
 {  
 **return "draw"**;  
 }  
 **else  
 if**(player\_choise==**"scissor"**&&computer\_choise==**"scissor"**)  
 {  
 **return "draw"**;  
 }  
**else return "nothing"**;  
 }  
}