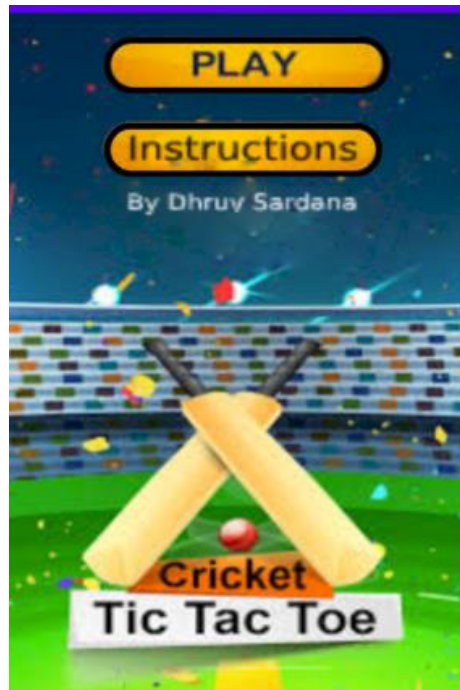


## Screen 1

(Opening Screen) (Cricket is the theme)



## XML

43 lines

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-6dp"
        android:scaleType="centerCrop"
        android:src="@drawable/introbackground" />

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical">

        <Button
            android:id="@+id/play"
            android:layout_width="252dp"
            android:layout_height="50dp"
```

```

        android:layout_marginLeft="90dp"
        android:layout_marginTop="21dp"
        android:background="@drawable/btn"
        android:text=""
        android:onClick="play" />

        <Button
            android:id="@+id/instructions"
            android:layout_width="245dp"
            android:layout_height="wrap_content"
            android:layout_marginLeft="90dp"
            android:layout_marginTop="25dp"
            android:background="@drawable/btn"
            android:onClick="toInst"
            android:text="" />

    </LinearLayout>

</RelativeLayout>

```

JAVA

53 Lines

```

package com.example.sardana_cricstar;
// Dhruv Sardana
// Cricket Tic Tac Toe
// April 14th, 2020

// Libraries
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.media.MediaPlayer;
import android.os.Bundle;

import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {
    Button play;
    Button instructions;

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

    }
    // Takes the screen to Instructions screen
    public void toInst(View view){
        Intent j = new Intent(MainActivity.this, InstructionsActivity.class);
        startActivity(j);
    }
}

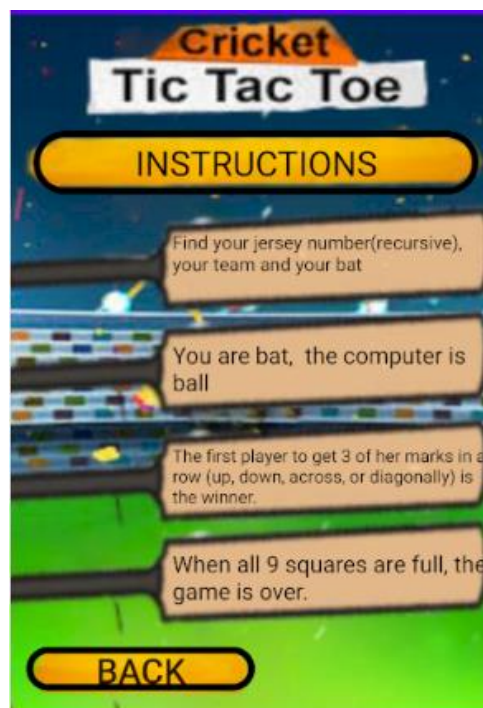
```

```

        instructions = (Button)findViewById(R.id.instructions);
        // plays sound when the button is clicked
        final MediaPlayer mp;
        mp = MediaPlayer.create (this, R.raw.buttonclick);
        instructions.setOnClickListener (new View.OnClickListener(){
            @Override
            public void onClick(View view){
                mp.start();
            }
        });
    }
    public void play(View view){
        // starts teh game takes to the team screen
        Intent i = new Intent(MainActivity.this, teams.class);
        startActivity(i);
        // plays sounds when clicked
        play = (Button)findViewById(R.id.play);
        final MediaPlayer mp;
        mp = MediaPlayer.create (this, R.raw.buttonclick);
        play.setOnClickListener (new View.OnClickListener(){
            @Override
            public void onClick(View view){
                mp.start();
            }
        });
    }
}

```

2<sup>nd</sup> Screen (Instruction Screen)



## XML

84 lines

```
<?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">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-6dp"
        android:scaleType="centerCrop"
        android:src="@drawable/instructionsbackground" />

    <TextView
        android:layout_width="329dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="140dp"
        android:layout_marginTop="185dp"
        android:text="Find your jersey number(recursive), your team and your bat"
        android:textColor="#000000"
        android:textSize="16dp" />

    <TextView
        android:layout_width="329dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="140dp"
        android:layout_marginTop="280dp"
        android:text="You are bat, the computer is ball"
        android:textColor="#000000"
        android:textSize="20dp" />

    <TextView
        android:layout_width="329dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="140dp"
        android:layout_marginTop="370dp"
        android:text="The first player to get 3 of her marks in a row (up, down,
across, or diagonally) is the winner."
        android:textColor="#000000"
        android:textSize="15dp" />

    <TextView
        android:layout_width="329dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="140dp"
        android:layout_marginTop="460dp"
        android:text="When all 9 squares are full, the game is over."
        android:textColor="#000000"
        android:textSize="20dp" />
```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <Button
        android:id="@+id/back"
        android:layout_width="197dp"
        android:layout_height="38dp"
        android:layout_marginLeft="14dp"
        android:layout_marginTop="545dp"
        android:background="@drawable/btn"
        android:onClick="back"
        android:text="BACK"
        android:textSize="30dp" />

</LinearLayout>

<TextView
    android:layout_width="384dp"
    android:layout_height="55dp"
    android:layout_marginLeft="20dp"
    android:layout_marginTop="100dp"
    android:background="@drawable/btn"
    android:gravity="center"
    android:text="INSTRUCTIONS"
    android:textColor="#000000"
    android:textSize="30dp" />
</RelativeLayout>

```

## JAVA CODE

40 lines

```

package com.example.sardana_cricstar;
// Dhruv Sardana
// Cricket Tic Tac Toe
// April 14th,2020

// Libraries

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.media.MediaPlayer;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

```

```

public class InstructionsActivity extends AppCompatActivity {

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

    }

    // On click method to go back to the main screen
    public void back(View view) {
        Intent i = new Intent(InstructionsActivity.this, MainActivity.class);
        startActivity(i);
        Button back = (Button) findViewById(R.id.back);
        // Plays sound when clicked
        final MediaPlayer mp = MediaPlayer.create(this, R.raw.buttonclick);
        back.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                mp.start();
            }
        });
    }
}

```

Screen 3 (Teams Screen)



XML

78 lines

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-6dp"
        android:background="@drawable/teamsbackground"
        android:scaleType="centerCrop" />

    <TextView
        android:layout_width="match_parent"
        android:layout_height="54dp"
        android:layout_marginTop="106dp"
        android:background="@drawable/btn"
        android:gravity="center_horizontal"
        android:text="CHOOSE YOUR TEAM"
        android:textColor="#000000"
        android:textSize="35dp" />

    <Button
        android:id="@+id/IND"
        android:layout_width="147dp"
        android:layout_height="107dp"
        android:layout_marginLeft="25dp"
        android:layout_marginTop="170dp"
        android:background="@drawable/roundbtn"
        android:onClick="IND" />

    <Button
        android:id="@+id/SA"
        android:layout_width="147dp"
        android:layout_height="107dp"
        android:layout_marginLeft="225dp"
        android:layout_marginTop="170dp"
        android:background="@drawable/roundbtn"
        android:onClick="SA" />

    <Button
        android:id="@+id/PAK"
        android:layout_width="151dp"
        android:layout_height="107dp"
        android:layout_marginLeft="225dp"
        android:layout_marginTop="296dp"
        android:background="@drawable/roundbtn"
        android:onClick="PAK" />

    <Button
        android:id="@+id/CAD"
        android:layout_width="151dp"
        android:layout_height="107dp"
```

```

        android:layout_marginLeft="25dp"
        android:layout_marginTop="296dp"
        android:background="@drawable/roundbtn"
        android:onClick="CAD" />

<Button
    android:id="@+id/AUS"
    android:layout_width="151dp"
    android:layout_height="107dp"
    android:layout_marginLeft="25dp"
    android:layout_marginTop="432dp"
    android:background="@drawable/roundbtn"
    android:onClick="AUS" />

<Button
    android:id="@+id/ENG"
    android:layout_width="158dp"
    android:layout_height="107dp"
    android:layout_marginLeft="225dp"
    android:layout_marginTop="432dp"
    android:background="@drawable/roundbtn"
    android:onClick="ENG" />
</RelativeLayout>

```

Java

207 Lines

```

package com.example.sardana_cricstar;
// Dhruv Sardana
// Cricket Tic Tac Toe
// April 14th, 2020

// Libraries

import androidx.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.content.Intent;
import android.media.MediaPlayer;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;

public class teams extends AppCompatActivity {
    // gloabl to display the team flag on the main screen
    int whichteam = 1;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

```



```

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_teams);
    }

    public void IND(View view) {
        // changes the global to 1
        whichteam = 1;
        //file output
        try {
            FileOutputStream out = openFileOutput("icon.txt", Activity.MODE_PRIVATE);
            out.write(whichteam);
            out.flush();
            out.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
        // changes the screen
        Intent i = new Intent(teams.this, jersey.class);
        startActivity(i);
        // plays sound when clicked
        Button IND = (Button) findViewById(R.id.IND);
        final MediaPlayer mp;
        mp = MediaPlayer.create(this, R.raw.buttonclick);
        IND.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                mp.start();
            }
        });
    }

    public void SA(View view) {
        // changes the global to 2
        whichteam = 2;
        //file output
        try {
            FileOutputStream out = openFileOutput("icon.txt", Activity.MODE_PRIVATE);
            out.write(whichteam);
            out.flush();
            out.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
        // changes the screen
        Intent i = new Intent(teams.this, jersey.class);
        startActivity(i);
        // plays sound when clicked
        Button SA = (Button) findViewById(R.id.SA);
        final MediaPlayer mp;
        mp = MediaPlayer.create(this, R.raw.buttonclick);
        SA.setOnClickListener(new View.OnClickListener() {

```

```

        @Override
        public void onClick(View view) {
            mp.start();
        }
    });
}

public void CAD(View view) {
    // changes the global to 3
    whichteam = 3;
    //file output
    try {
        FileOutputStream out = openFileOutput("icon.txt", Activity.MODE_PRIVATE);
        out.write(whichteam);
        out.flush();
        out.close();
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
    // changes the screen
    Intent i = new Intent(teams.this, jersey.class);
    startActivity(i);
    // plays sound when clicked
    Button CAD = (Button) findViewById(R.id.CAD);
    final MediaPlayer mp;
    mp = MediaPlayer.create(this, R.raw.buttonclick);
    CAD.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            mp.start();
        }
    });
}

public void PAK(View view) {
    // changes the global to 4
    whichteam = 4;
    //file output
    try {
        FileOutputStream out = openFileOutput("icon.txt", Activity.MODE_PRIVATE);
        //Print out which cat
        out.write(whichteam);
        out.flush();
        out.close();
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
    // changes the screen
    Intent i = new Intent(teams.this, jersey.class);
    startActivity(i);
    // plays sound when clicked

```

```

        Button PAK = (Button) findViewById(R.id.PAK);
        final MediaPlayer mp;
        mp = MediaPlayer.create(this, R.raw.buttonclick);
        PAK.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                mp.start();
            }
        });
    }

    public void AUS(View view) {
        // changes the global to 5
        whichteam = 5;
        //file output
        try {
            FileOutputStream out = openFileOutput("icon.txt", Activity.MODE_PRIVATE);
            //Print out which cat
            out.write(whichteam);
            out.flush();
            out.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
        // changes the screen
        Intent i = new Intent(teams.this, jersey.class);
        startActivity(i);
        // plays sound when clicked
        Button AUS = (Button) findViewById(R.id.AUS);
        final MediaPlayer mp;
        mp = MediaPlayer.create(this, R.raw.buttonclick);
        AUS.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                mp.start();
            }
        });
    }

    public void ENG(View view) {
        // changes the global to 6
        whichteam = 6;
        //file output
        try {
            FileOutputStream out = openFileOutput("icon.txt", Activity.MODE_PRIVATE);
            //Print out which cat
            out.write(whichteam);
            out.flush();
            out.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
    }

```

```

    }
    // changes the screen
    Intent i = new Intent(teams.this, jersey.class);
    startActivity(i);
    // plays sound when clicked
    Button ENG = (Button) findViewById(R.id.ENG);
    final MediaPlayer mp;
    mp = MediaPlayer.create(this, R.raw.buttonclick);
    ENG.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            mp.start();
        }
    });
}
}
}

```

Screen 4 (Jersey Num)



XML

114 lines

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"

```

```
    android:layout_height="match_parent"
    android:layout_alignParentTop="true"
    android:layout_marginTop="-6dp"
    android:background="@drawable/jerseybackground"
    android:scaleType="centerCrop" />
```

#### <TextView

```
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:layout_marginTop="96dp"
    android:background="@drawable/btn"
    android:gravity="center"
    android:text="CHOOSE YOUR JERSEY NUMBER"
    android:textColor="#000000"
    android:textSize="25dp" />
```

#### <Button

```
    android:id="@+id/first"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="7dp"
    android:layout_marginTop="450dp"
    android:background="@drawable/roundbtn"
    android:onClick="first"
    android:text="1"
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/second"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="17dp"
    android:layout_marginTop="535dp"
    android:background="@drawable/roundbtn"
    android:onClick="second"
    android:text="2"
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/third"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="112dp"
    android:layout_marginTop="535dp"
    android:background="@drawable/roundbtn"
    android:onClick="third"
    android:text="3"
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/fourth"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="212dp"
    android:layout_marginTop="535dp"
```

```
    android:background="@drawable/roundbtn"  
    android:onClick="fourth"  
    android:text="4"  
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/fifth"  
    android:layout_width="wrap_content"  
    android:layout_height="58dp"  
    android:layout_marginLeft="312dp"  
    android:layout_marginTop="535dp"  
    android:background="@drawable/roundbtn"  
    android:onClick="fifth"  
    android:text="5"  
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/six"  
    android:layout_width="wrap_content"  
    android:layout_height="58dp"  
    android:layout_marginLeft="315dp"  
    android:layout_marginTop="450dp"  
    android:background="@drawable/roundbtn"  
    android:onClick="six"  
    android:text="6"  
    android:textSize="40dp" />
```

#### <Button

```
    android:layout_width="300dp"  
    android:layout_height="32dp"  
    android:layout_marginLeft="295dp"  
    android:background="@drawable/roundbtn"  
    android:gravity="center"  
    android:onClick="next"  
    android:text="NEXT"  
    android:textSize="17dp" />
```

#### <TextView

```
    android:id="@+id/jerseynum"  
    android:layout_width="170dp"  
    android:layout_height="130dp"  
    android:layout_marginLeft="120dp"  
    android:layout_marginTop="235dp"  
    android:background="@drawable/roundbtn"  
    android:gravity="center"  
    android:text=" "  
    android:textColor="#000000"  
    android:textSize="80dp" />
```

```
</RelativeLayout>
```

Java

153 Lines

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-6dp"
        android:background="@drawable/jerseybackground"
        android:scaleType="centerCrop" />

    <TextView
        android:layout_width="match_parent"
        android:layout_height="54dp"
        android:layout_marginTop="96dp"
        android:background="@drawable/btn"
        android:gravity="center"
        android:text="CHOOSE YOUR JERSEY NUMBER"
        android:textColor="#000000"
        android:textSize="25dp" />

    <Button
        android:id="@+id/first"
        android:layout_width="wrap_content"
        android:layout_height="58dp"
        android:layout_marginLeft="7dp"
        android:layout_marginTop="450dp"
        android:background="@drawable/roundbtn"
        android:onClick="first"
        android:text="1"
        android:textSize="40dp" />

    <Button
        android:id="@+id/second"
        android:layout_width="wrap_content"
        android:layout_height="58dp"
        android:layout_marginLeft="17dp"
        android:layout_marginTop="535dp"
        android:background="@drawable/roundbtn"
        android:onClick="second"
        android:text="2"
        android:textSize="40dp" />

    <Button
        android:id="@+id/third"
        android:layout_width="wrap_content"
        android:layout_height="58dp"
        android:layout_marginLeft="112dp"
```

```
    android:layout_marginTop="535dp"
    android:background="@drawable/roundbtn"
    android:onClick="third"
    android:text="3"
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/fourth"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="212dp"
    android:layout_marginTop="535dp"
    android:background="@drawable/roundbtn"
    android:onClick="fourth"
    android:text="4"
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/fifth"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="312dp"
    android:layout_marginTop="535dp"
    android:background="@drawable/roundbtn"
    android:onClick="fifth"
    android:text="5"
    android:textSize="40dp" />
```

#### <Button

```
    android:id="@+id/six"
    android:layout_width="wrap_content"
    android:layout_height="58dp"
    android:layout_marginLeft="315dp"
    android:layout_marginTop="450dp"
    android:background="@drawable/roundbtn"
    android:onClick="six"
    android:text="6"
    android:textSize="40dp" />
```

#### <Button

```
    android:layout_width="300dp"
    android:layout_height="32dp"
    android:layout_marginLeft="295dp"
    android:background="@drawable/roundbtn"
    android:gravity="center"
    android:onClick="next"
    android:text="NEXT"
    android:textSize="17dp" />
```

#### <TextView

```
    android:id="@+id/jerseynum"
    android:layout_width="170dp"
    android:layout_height="130dp"
    android:layout_marginLeft="120dp"
    android:layout_marginTop="235dp"
```



```

        android:background="@drawable/roundbtn"
        android:gravity="center"
        android:text=" "
        android:textColor="#000000"
        android:textSize="80dp" />

```

</RelativeLayout>

Screen 5 (Bat Screen)



XML

54 Lines

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-6dp"
        android:background="@drawable/batscreen"

```

```

        android:scaleType="centerCrop" />

<TextView
    android:layout_width="match_parent"
    android:layout_height="54dp"
    android:layout_marginTop="96dp"
    android:background="@drawable/btn"
    android:gravity="center"
    android:textColor="#000000"
    android:textSize="25dp" />

<Button
    android:id="@+id/first"
    android:layout_width="172dp"
    android:layout_height="199dp"
    android:layout_marginLeft="27dp"
    android:layout_marginTop="180dp"
    android:background="@drawable/roundbtn"
    android:onClick="first"
    android:textSize="40dp" />

<Button
    android:id="@+id/second"
    android:layout_width="172dp"
    android:layout_height="199dp"
    android:layout_marginLeft="235dp"
    android:layout_marginTop="275dp"
    android:background="@drawable/roundbtn"
    android:onClick="second"
    android:textSize="40dp" />

<Button
    android:id="@+id/third"
    android:layout_width="172dp"
    android:layout_height="199dp"
    android:layout_marginLeft="27dp"
    android:layout_marginTop="390dp"
    android:background="@drawable/roundbtn"
    android:onClick="third"
    android:textSize="40dp" />

</RelativeLayout>

```

Java

88 Lines

```

package com.example.sardana_cricstar;
//Dhruv Sardana
//CricketTicTacToe
//14th April 2020

//Libraries

```

```

import androidx.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;

import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;

public class batscreen extends AppCompatActivity {
    // global variable that changes the type of bat on the game screen
    int bat = 0;

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

    public void first(View view) {
        //to change the activity when you click on the bat to game screen
        Intent i = new Intent(batscreen.this, GameScreen.class);
        startActivity(i);
        //change of global variable i.e the first bat type
        bat = 1;
        // file output
        try {
            FileOutputStream out = openFileOutput("bat.txt", Activity.MODE_PRIVATE);
            //Print out which bat is selected
            out.write(bat);
            out.flush();
            out.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
    }

    public void second(View view) {
        //to change the activity when you click on the bat to game screen
        Intent i = new Intent(batscreen.this, GameScreen.class);
        startActivity(i);
        //change of global variable i.e the second bat type
        bat = 2;
        //File output
        try {
            FileOutputStream out = openFileOutput("bat.txt", Activity.MODE_PRIVATE);
            //Print out which bat is selected
            out.write(bat);
            out.flush();
            out.close();
        } catch (FileNotFoundException e) {

```

```

        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
}

public void third(View view) {
    //to change the activity when you click on the bat to game screen
    Intent i = new Intent(batscreen.this, GameScreen.class);
    startActivity(i);
    //change of global variable i.e the third bat type
    bat = 3;
    //File output
    try {
        FileOutputStream out = openFileOutput("bat.txt", Activity.MODE_PRIVATE);
        //Print out which bat is selected
        out.write(bat);
        out.flush();
        out.close();
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
}
}

```

Screen 6 (Game Screen)





XML

159 lines

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentStart="true"
        android:layout_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-35dp"
        android:scaleType="centerCrop"
        android:src="@drawable/gamescreenbackground" />

    <ImageView
        android:id="@+id/flag"
        android:layout_width="147dp"
        android:layout_height="100dp"
        android:layout_marginTop="90dp"
        android:background="@drawable/roundbtn"
        android:scaleType="centerCrop" />

    <TextView
        android:id="@id/something"
        android:layout_width="70dp"
        android:layout_height="70dp"
        android:layout_marginLeft="60dp"
        android:layout_marginTop="100dp"
```

```
    android:background="@drawable/btn"
    android:gravity="center"
    android:text="500"
    android:textColor="#000000"
    android:textSize="30dp" />
```

```
<ImageView
    android:id="@+id/ball1"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="49dp"
    android:layout_marginTop="284dp"

    android:onClick="a"
    android:src="@drawable/ball"

    android:text="" />
```

```
<ImageView
    android:id="@+id/ball2"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="159dp"
    android:layout_marginTop="284dp"

    android:onClick="b"
    android:src="@drawable/ball"

    android:text="" />
```

```
<ImageView
    android:id="@+id/ball3"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="275dp"
    android:layout_marginTop="284dp"

    android:onClick="c"
    android:src="@drawable/ball"

    android:text="" />
```

```
<ImageView
    android:id="@+id/ball4"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="49dp"
    android:layout_marginTop="390dp"

    android:onClick="d"
    android:src="@drawable/ball"

    android:text="" />
```

```
<ImageView
    android:id="@+id/ball5"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="159dp"
    android:layout_marginTop="390dp"

    android:onClick="e"
    android:src="@drawable/ball"

    android:text="" />

<ImageView
    android:id="@+id/ball6"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="275dp"
    android:layout_marginTop="390dp"

    android:onClick="f"
    android:src="@drawable/ball"

    android:text="" />

<ImageView
    android:id="@+id/ball7"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="49dp"
    android:layout_marginTop="490dp"

    android:onClick="g"
    android:src="@drawable/ball"
    android:text="" />

<ImageView
    android:id="@+id/ball8"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="159dp"
    android:layout_marginTop="490dp"

    android:onClick="h"
    android:src="@drawable/ball"
    android:text="" />

<ImageView
    android:id="@+id/ball9"
    android:layout_width="85dp"
    android:layout_height="80dp"
    android:layout_marginLeft="275dp"
    android:layout_marginTop="490dp"
    android:onClick="i"
    android:src="@drawable/ball"
    android:text="" />
```

```

<ImageView
    android:id="@id/turnpicture"
    android:layout_width="80dp"
    android:layout_height="80dp"
    android:layout_marginLeft="215dp"
    android:layout_marginTop="190dp"
    android:src="@drawable/ball" />

<ImageView
    android:id="@id/won"
    android:layout_width="match_parent"
    android:layout_height="234dp"
    android:layout_marginLeft="20dp"
    android:layout_marginTop="190dp"
    android:onClick="won"
    android:src="@drawable/winone"
    android:visibility="gone" />
</RelativeLayout>

```

Java

645 Lines

```

package com.example.sardana_cricstar;
// Dhruv Sardana
// Cricket Tic Tac Toe
//14th April, 2020

// Libraries

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.IOException;

public class GameScreen extends AppCompatActivity {
    // Global Variable to display the team selected by the player on teams screen
    int whichteam = 1;
    // Global Variable to display the team selected by the player on jersey screen
    int num = 0;
    // Gloabal variable to switch the turn
    int turn = 1;
    //Global Variable to display the team selected by the player on bat screen
    int bat = 0;

```



```

// 2d int array for win condition and also playing purposes
int[][] board = {{0, 0, 0},
                 {0, 0, 0},
                 {0, 0, 0}};

// 2d char array (made an extra one to avoid confusion with win condition. This
array was solely made with the purpose of making a smart decision by computer.
char[][] exp = {{' ', ' ', ' '},
                {' ', ' ', ' '},
                {' ', ' ', ' '}};

// global image view for the computer to find the image view to place its ball in
there
ImageView comp;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_game_screen);
// File input from jersey screen
    try {
        FileInputStream in = openFileInput("jers.txt");
        //global num used here to take in which jersey was selected i.e which
number did we choose
        num = in.read();
        in.close();

        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
        }
// display it on the text view for authenticity
    TextView jer = (TextView) findViewById(R.id.something);
    jer.setText("" + num);
//File input from the team screen
    try {
        FileInputStream in = openFileInput("icon.txt");
        //which team was selected
        whichteam = in.read();
        num = in.read();
        in.close();
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
        }
// display the flag of the team chosen by the player (depends on what they choose)
    ImageView flag = (ImageView) findViewById(R.id.flag);
    if (whichteam == 1) {
        flag.setImageResource(R.drawable.ind);
    } else if (whichteam == 2) {
        flag.setImageResource(R.drawable.southafrica);
    } else if (whichteam == 3) {
        flag.setImageResource(R.drawable.canada);
    } else if (whichteam == 4) {
        flag.setImageResource(R.drawable.pak);
    }
}

```

```

    } else if (whichteam == 5) {
        flag.setImageResource(R.drawable.aus);
    } else {
        flag.setImageResource(R.drawable.aus);
    }
    // File input of which bat needs to be chosen
    try {
        FileInputStream in = openFileInput("bat.txt");
        bat = in.read();
        in.close();

    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }
}

// this flips the turn
public void flip(ImageView i) {
    // this method is always called to change the turn from player to computer
    // takes the turn pic image view and changes pictures there whenever turn
changes (i.e stays at bat all the time because computer plays it turn all of a
sudden)
    ImageView turnpic = (ImageView) findViewById(R.id.turnpicture);
    if (turn == 1 && bat == 1) {
        // when the player chooses the first type of bat and then the turn is of
player
        i.setImageResource(R.drawable.bat);
        // sets it back to turn the turn of computer
        turn = 2;
        turnpic.setImageResource(R.drawable.bat);
    } else if (turn == 1 && bat == 2) {
        // when the player chooses the second type of bat and then the turn is of
player
        i.setImageResource(R.drawable.batchoose1);
        turn = 2;
        turnpic.setImageResource(R.drawable.batchoose1);
    } else if (turn == 1 && bat == 3) {
        // when the player chooses the third type of bat and then the turn is of
player
        i.setImageResource(R.drawable.batchoose2);
        turn = 2;
        turnpic.setImageResource(R.drawable.batchoose2);
    } else {
        // otherwise its the computer turn
        turn = 1;
        turnpic.setImageResource(R.drawable.gameball);
    }
}

}

// A DISPLAY FOR THE BETTER UNDERSTANDING
/*
all these letter represent an imageview ('a' being the first corner piece and 'i'

```

```

being the last corner piece)
a | b | c
d | e | f
g | h | i
*/
public void a(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball1);
    if (board[0][0] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(i);
        // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
        board[0][0] = 1;
        // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there
        exp[0][0] = 'X';
        // also changes the value in exp array so that the computer knows that
there is a piece there
        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
turn is set back to player
            //Computer plays
            CompTurn();
            turn = 1;
        }
    } else {
        // displays a toast that the spot is taken if the place isnt empty
        Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
    }
    // checks if the win condition is satisfied
    win();
}

public void b(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball2);
    if (board[0][1] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(i);
        // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
        exp[0][1] = 'X';
        // also changes the value in exp array so that the computer knows that
there is a piece there
        board[0][1] = 1;
        // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there
        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
turn is set back to player
            //Computer plays

```

```

        CompTurn();
        turn = 1;
    }
} else {
    // displays a toast that the spot is taken if the place isnt empty
    Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
}
// checks if the win condition is satisfied
win();
}

public void c(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball3);

    if (board[0][2] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(i);
        // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
        board[0][2] = 1;
        // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there
        exp[0][2] = 'X';
        // also changes the value in exp array so that the computer knows that
there is a piece there
        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
turn is set back to player
            //Computer plays
            CompTurn();
            turn = 1;
        }
    } else {
        // displays a toast that the spot is taken if the place isnt empty
        Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
    }
    // checks if the win condition is satisfied
    win();
}

public void d(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball4);
    if (board[1][0] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(i);
        // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
        exp[1][0] = 'X';
        // also changes the value in exp array so that the computer knows that
there is a piece there

```

```

        board[1][0] = 1;
        // also it sets the value in the board for that specific piece to be a 1
        if the payer clicks it so that it cant be clicked further or the computer can place
        it there
        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
            turn is set back to player
            //Computer plays
            CompTurn();
            turn = 1;
        }
    } else {
        // displays a toast that the spot is taken if the place isnt empty
        Toast.makeText(getApplicationContext(), "That's a leave",
        Toast.LENGTH_SHORT).show();
    }
    // checks if the win condition is satisfied
    win();
}

public void e(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball5);
    if (board[1][1] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(i);
        // it firstly changes the pic of that image view to be a bat ( whichever
        bat the person chooses)
        exp[1][1] = 'X';
        // also changes the value in exp array so that the computer knows that
        there is a piece there
        board[1][1] = 1;
        // also it sets the value in the board for that specific piece to be a 1
        if the payer clicks it so that it cant be clicked further or the computer can place
        it there
        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
            turn is set back to player
            //Computer plays
            CompTurn();
            turn = 1;
        }
    } else {
        // displays a toast that the spot is taken if the place isnt empty
        Toast.makeText(getApplicationContext(), "That's a leave",
        Toast.LENGTH_SHORT).show();
    }
    // checks if the win condition is satisfied
    win();
}

public void f(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball6);

```

```

        if (board[1][2] == 0) {
            // if the piece on the board array is a 0 (i.e initial value)
            flip(i);
            // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
            exp[1][2] = 'X';
            // also changes the value in exp array so that the computer knows that
there is a piece there
            board[1][2] = 1;
            // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there

            if (turn == 2) {
                // if the turn changes to two it changes it to one back so that the
turn is set back to player
                //Computer plays
                CompTurn();
                turn = 1;
            }
        } else {
            // displays a toast that the spot is taken if the place isnt empty
            Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
        }
        // checks if the win condition is satisfied
        win();
    }

    public void g(View view) {
        // when you click on the image view (refer to the comment above)
        ImageView i = (ImageView) findViewById(R.id.ball7);
        // if the piece on the board array is a 0 (i.e initial value)
        if (board[2][0] == 0) {
            // if the piece on the board array is a 0 (i.e initial value)
            flip(i);
            // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
            exp[2][0] = 'X';
            // also changes the value in exp array so that the computer knows that
there is a piece there
            board[2][0] = 1;
            // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there

            if (turn == 2) {
                // if the turn changes to two it changes it to one back so that the
turn is set back to player
                //Computer plays
                CompTurn();
                turn = 1;
            }
        } else {
            // displays a toast that the spot is taken if the place isnt empty
            Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
        }
    }

```

```

    }
    // checks if the win condition is satisfied
    win();
}

public void h(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView i = (ImageView) findViewById(R.id.ball8);
    if (board[2][1] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(i);
        // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
        exp[2][1] = 'X';
        // also changes the value in exp array so that the computer knows that
there is a piece there
        board[2][1] = 1;
        // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there

        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
turn is set back to player
            //Computer plays
            CompTurn();
            turn = 1;
        }
    } else {
        // displays a toast that the spot is taken if the place isnt empty
        Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
    }
    // checks if the win condition is satisfied
    win();
}

public void i(View view) {
    // when you click on the image view (refer to the comment above)
    ImageView j = (ImageView) findViewById(R.id.ball9);
    if (board[2][2] == 0) {
        // if the piece on the board array is a 0 (i.e initial value)
        flip(j);
        // it firstly changes the pic of that image view to be a bat ( whichever
bat the person chooses)
        exp[2][2] = 'X';
        // also changes the value in exp array so that the computer knows that
there is a piece there
        board[2][2] = 1;
        // also it sets the value in the board for that specific piece to be a 1
if the payer clicks it so that it cant be clicked further or the computer can place
it there

        if (turn == 2) {
            // if the turn changes to two it changes it to one back so that the
turn is set back to player
            //Computer plays

```

```

        CompTurn();
        turn = 1;
    }
} else {
    // displays a toast that the spot is taken if the place isnt empty
    Toast.makeText(getApplicationContext(), "That's a leave",
Toast.LENGTH_SHORT).show();
}
// checks if the win condition is satisfied
win();

}

public void CompTurn() {
    // checks if certain conditions of that method is being satisfied
    crosscheck();
    // so for the understanding of the conditions of the movement of the the
computer
    /*
    1|2|3
    4|5|6
    7|8|9
    */
    //if 7 = x and 3=x and 5 is empty place th piece on 5 position
    if ((this.exp[2][0] == 'X' && this.exp[0][2] == 'X' && this.exp[1][1] == '
')) {
        int a = 1;
        int b = 1;
        //a method to find the imageviews
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        this.exp[1][1] = 'O';
        // sets that place on exp and board to be an 0 and 2 respectively
        this.board[1][1] = 2;
    }
    // if 1 = x and 3 = x and 2 is empty then place at 2
    else if ((this.exp[0][0] == 'X' && this.exp[0][2] == 'X' && this.exp[0][1] ==
' ')) {
        int a = 0;
        int b = 1;
        //a method to find the imageviews
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // sets that place on exp and board to be an 0 and 2 respectively
        this.exp[0][1] = 'O';
        this.board[0][1] = 2;
    }
    // if 1 =x and 9 =x and 5 is empty then place at 5
    else if ((this.exp[0][0] == 'X' && this.exp[2][2] == 'X' && this.exp[1][1] ==
' ')) {
        int a = 1;
        int b = 1;
        //a method to find the imageviews
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);

```



```

        // sets that place on exp and board to be an 0 and 2 respectively
        this.exp[1][1] = '0';
        this.board[1][1] = 2;
    }
    // if 1 = x and 7 = x and 4 is empty then place at 4
    else if ((this.exp[0][0] == 'X' && this.exp[2][0] == 'X' && this.exp[1][0] ==
' ')) {
        int a = 1;
        int b = 0;
        //a method to find the imageviews
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // sets that place on exp and board to be an 0 and 2 respectively
        this.exp[1][0] = '0';
        this.board[1][0] = 2;
    }
    //if 3 =x and 9 =x and 6 is empty then place at 6
    else if ((this.exp[0][2] == 'X' && this.exp[2][2] == 'X' && this.exp[1][2] ==
' ')) {
        int a = 1;
        int b = 2;
        //a method to find the imageviews
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // sets that place on exp and board to be an 0 and 2 respectively
        this.exp[1][2] = '0';
        this.board[1][2] = 2;
    }
    // if 7 =x and 9 =x and 8 is empty then place at 8
    else if ((this.exp[2][0] == 'X' && this.exp[2][2] == 'X' && this.exp[2][1] ==
' ')) {
        int a = 2;
        int b = 1;
        //a method to find the imageviews
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // sets that place on exp and board to be an 0 and 2 respectively
        this.exp[2][1] = '0';
        this.board[2][1] = 2;
    } else {
        aa:
        for (int k = 0; k < 3; k++) {
            for (int p = 0; p < 3; p++) {
                if (this.exp[k][p] == ' ') {
                    comp = findIV(k, p);
                    comp.setImageResource(R.drawable.gameball);
                    this.exp[k][p] = '0';
                    this.board[k][p] = 2;
                    break aa;
                }
            }
        }
    }
}

```

```

    }

    public ImageView findIV(int one, int two) {
        // own method created with ow parameters and return types
        // this method takes in two number adnd checks wich image view will be
suitable for them
        // Basically finding the id
        ImageView id;
        if (one == 0 && two == 0) {
            id = (ImageView) findViewById(R.id.ball1);

        } else if (one == 0 && two == 1) {
            id = (ImageView) findViewById(R.id.ball2);
        } else if (one == 0 && two == 2) {
            id = (ImageView) findViewById(R.id.ball3);
        } else if (one == 1 && two == 0) {
            id = (ImageView) findViewById(R.id.ball4);
        } else if (one == 1 && two == 1) {
            id = (ImageView) findViewById(R.id.ball5);

        } else if (one == 1 && two == 2) {
            id = (ImageView) findViewById(R.id.ball6);
        } else if (one == 2 && two == 0) {
            id = (ImageView) findViewById(R.id.ball7);
        } else if (one == 2 && two == 1) {
            id = (ImageView) findViewById(R.id.ball8);
        } else {
            id = (ImageView) findViewById(R.id.ball9);
        }
        return id;
        // returns the id
    }

    public void win() {
        // WIN CONDITION
        // IF ANY OF THE 3 CONSECUTIVE BOARD PIECES ARE MATCHING HORIZONTALLY,
VERTICALLY or DIAGONALLY THEN THAT CERTAIN PLAYER WIN
        int winner = 0;
        // an integer to decide what the number of the winner is
        if (board[0][0] == board[0][1] && board[0][0] == board[0][2] && board[0][0]
!= 0)
            winner = board[0][0];
        else if (board[1][0] == board[1][1] && board[1][0] == board[1][2] &&
board[1][0] != 0)
            winner = board[1][0];
        else if (board[2][0] == board[2][1] && board[2][0] == board[2][2] &&
board[2][0] != 0)
            winner = board[2][0];
        else if (board[0][0] == board[1][0] && board[0][0] == board[2][0] &&
board[0][0] != 0)
            winner = board[0][0];
        else if (board[0][1] == board[1][1] && board[2][1] == board[0][1] &&
board[0][1] != 0)
            winner = board[0][1];
        else if (board[0][2] == board[1][2] && board[0][2] == board[2][2] &&

```

```

board[0][2] != 0)
    winner = board[0][2];
    else if (board[0][0] == board[1][1] && board[0][0] == board[2][2] &&
board[0][0] != 0)
    winner = board[0][0];
    else if (board[0][2] == board[1][1] && board[0][2] == board[2][0] &&
board[0][2] != 0)
    winner = board[0][2];
    else if (board[0][0] != 0 && board[0][1] != 0 && board[0][2] != 0 &&
        board[1][0] != 0 && board[1][1] != 0 && board[1][2] != 0 &&
        board[2][0] != 0 && board[2][1] != 0 && board[2][2] != 0) {
        winner = 3;
    }
    // A method to check who wins
    wincheck(winner);

}

public void wincheck(int winner) {

    ImageView won = (ImageView) findViewById(R.id.won);
    // If the winner is one then the player wins or else its the computer
    // If winner equals three its a tie
    if (winner == 1) {
        won.setImageResource(R.drawable.winone);
        // sets the visibility of an Image view with a certain image to be
displayed
        won.setVisibility(View.VISIBLE);
    } else if (winner == 2) {
        won.setImageResource(R.drawable.wontwo);
        won.setVisibility(View.VISIBLE);
    } else if (winner == 3) {
        won.setVisibility(View.VISIBLE);
        won.setImageResource(R.drawable.wonthree);
    }
}

}

public void won(View view) {
    // a method that leads you to next screen the last scree
    Intent i = new Intent(GameScreen.this, last.class);
    startActivity(i);
    // also resets the board
    for (int k = 0; k < 3; k++) {
        for (int j = 0; j < 3; j++) {
            board[k][j] = 0;
        }
    }
    // also sets all the pieces back to their original picture
    ImageView a = (ImageView) findViewById(R.id.ball1);
    a.setImageResource(R.drawable.ball);
    ImageView b = (ImageView) findViewById(R.id.ball2);
    b.setImageResource(R.drawable.ball);
    ImageView c = (ImageView) findViewById(R.id.ball3);

```

```

        c.setImageResource(R.drawable.ball);
        ImageView d = (ImageView) findViewById(R.id.ball4);
        d.setImageResource(R.drawable.ball);
        ImageView e = (ImageView) findViewById(R.id.ball5);
        e.setImageResource(R.drawable.ball);
        ImageView f = (ImageView) findViewById(R.id.ball6);
        f.setImageResource(R.drawable.ball);
        ImageView g = (ImageView) findViewById(R.id.ball7);
        g.setImageResource(R.drawable.ball);
        ImageView h = (ImageView) findViewById(R.id.ball8);
        h.setImageResource(R.drawable.ball);
        ImageView j = (ImageView) findViewById(R.id.ball9);
        j.setImageResource(R.drawable.ball);
    }

    public void crosscheck() {
        // referring to the exp board design
        /*
        1|2|3
        4|5|6
        7|8|9
        */
        // if 1 = x and 2 = x and 3 is empty then place at 3
        if ((this.exp[0][0] == 'X' && this.exp[0][1] == 'X' && this.exp[0][2] == '
')) {
            int a = 0;
            int b = 2;
            // find the image view of the place
            comp = findIV(a, b);
            comp.setImageResource(R.drawable.gameball);
            // set that place equal to 0 and 2 on exp and board respectively
            this.exp[0][2] = '0';
            this.board[0][2] = 2;
        }
        // 3 = x and 2 = x and 1 is empty then place at 1
        else if ((this.exp[0][2] == 'X' && this.exp[0][1] == 'X' && this.exp[0][0] == '
')) {
            int a = 0;
            int b = 0;
            // find the image view of the place
            comp = findIV(a, b);
            comp.setImageResource(R.drawable.gameball);
            // set that place equal to 0 and 2 on exp and board respectively
            this.exp[0][0] = '0';
            this.board[0][0] = 2;
        }
        // 4 = x and 5 = x and 6 is empty then place at 6
        else if ((this.exp[1][0] == 'X' && this.exp[1][1] == 'X' && this.exp[1][2] == '
')) {
            int a = 1;
            int b = 2;
            // find the image view of the place
            comp = findIV(a, b);
            comp.setImageResource(R.drawable.gameball);

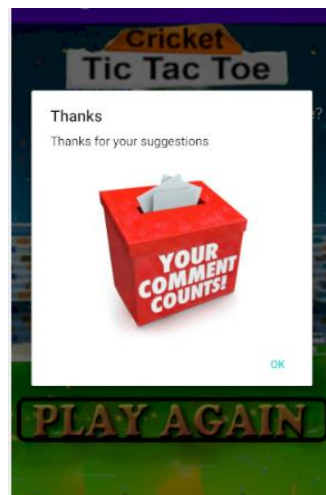
```

```

        this.exp[1][2] = '0';
        this.board[1][2] = 2;
    }
    // 6 = x and 5=x and 4 is empty then place at 4
    else if ((this.exp[1][2] == 'X' && this.exp[1][1] == 'X' && this.exp[1][0] ==
' ')) {
        int a = 1;
        int b = 0;
        // find the image view of the place
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // set that place equal to 0 and 2 on exp and board respectively
        this.exp[1][0] = '0';
        this.board[1][0] = 2;
    }
    // if 7 = x and 8 = x and 9 is empty then place at 9
    else if ((this.exp[2][0] == 'X' && this.exp[2][1] == 'X' && this.exp[2][2] ==
' ')) {
        int a = 2;
        int b = 2;
        // find the image view of the place
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // set that place equal to 0 and 2 on exp and board respectively
        this.exp[2][2] = '0';
        this.board[2][2] = 2;
    }
    // if 9 = x and 8 = x and 7 is empty then place at 7
    else if ((this.exp[2][2] == 'X' && this.exp[2][1] == 'X' && this.exp[2][0] ==
' ')) {
        int a = 2;
        int b = 0;
        // find the image view of the place
        comp = findIV(a, b);
        comp.setImageResource(R.drawable.gameball);
        // set that place equal to 0 and 2 on exp and board respectively
        this.exp[2][0] = '0';
        this.board[2][0] = 2;
    }
    }
}
// THERE WE GO THE END OF THE MAIN GAME
}

```

Screen 7



XML

61 Lines

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentTop="true"
        android:layout_marginTop="-6dp"
        android:background="@drawable/lastscreen"
        android:scaleType="centerCrop" />

    <Button
        android:id="@+id/first"
        android:layout_width="400dp"
        android:layout_height="58dp"
        android:layout_marginLeft="7dp"
        android:layout_marginTop="475dp"
        android:background="@drawable/roundbtn"
        android:onClick="first"
        android:text=""
        android:textSize="40dp" />

    <TextView
        android:layout_width="273dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="200dp"
        android:layout_marginTop="100dp"
        android:text="Did you like the game?"
        android:textColor="#FFFFFF"
        android:textSize="20dp" />
```

```

<RadioGroup
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="280dp"
    android:layout_marginTop="150dp"
    android:orientation="vertical">

    <RadioButton
        android:id="@+id/yes_radio_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="yes"
        android:text="Yes"
        android:textAppearance="?android:textAppearanceMedium"
        android:textColor="#FFFFFF" />

    <RadioButton
        android:id="@+id/no_radio_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="no"
        android:text="No"
        android:textAppearance="?android:textAppearanceMedium"
        android:textColor="#FFFFFF" />

</RadioGroup>

</RelativeLayout>

```

Java

59 Lines

```

package com.example.sardana_cricstar;
// Dhruv Sardana
// Cricket Tic Tac Toe
// April 14th, 2020

// Libraries

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;

public class last extends AppCompatActivity {

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

```

```
}

public void first(View view) {
    Intent i = new Intent(last.this, teams.class);
    startActivity(i);
}

public void no(View view) {
    AlertDialog.Builder builder = new AlertDialog.Builder(this);
    builder.setPositiveButton("OK", null);
    //Build the ImageView to add
    ImageView i = new ImageView(this);
    i.setImageResource(R.drawable.sug);
    builder.setView(i);
    //Pick the other settings
    builder.setTitle("Thanks");
    builder.setMessage("Thanks for your suggestions ");
    //Show dialog box on the screen
    builder.show();
}

public void yes(View view) {
    AlertDialog.Builder builder = new AlertDialog.Builder(this);
    builder.setPositiveButton("OK", null);
    //Build the ImageView to add
    ImageView i = new ImageView(this);
    i.setImageResource(R.drawable.sug);
    builder.setView(i);
    //Pick the other settings
    builder.setTitle("Thanks");
    builder.setMessage("Thanks for your suggestions ");
    //Show dialog box on the screen
    builder.show();
}
}
```