

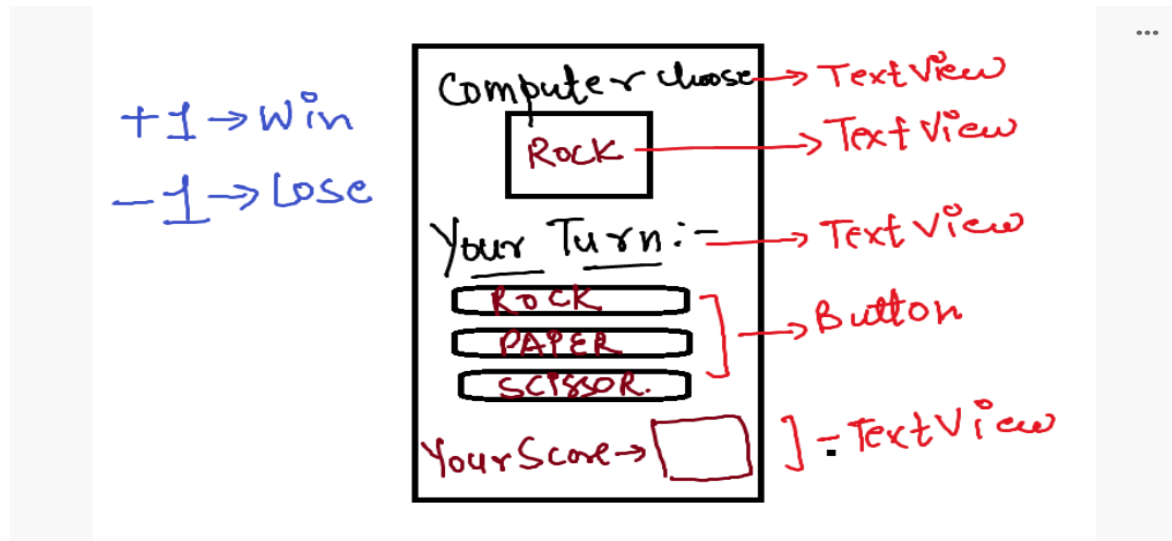
Task to be done:

Create an Android Application Named: Rock Paper Scissor

The application must have 3 Fragment/Activity :

FirstFragment/FirstActivity: Enter the Player Name : Store in the storage using any storage method

SecondFragment/SecondActivity:



ACTIVITY MAIN.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"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <LinearLayout
        android:layout_width="match_parent"
```

```

        android:layout_height="wrap_content"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent"
        android:orientation="vertical">

        <TextView
            android:id="@+id/tv_heading"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Tic Tac Toe"
            android:textSize="24dp"
            android:textColor="@color/black"
            android:textStyle="bold"
            app:layout_constraintLeft_toLeftOf="parent"
            app:layout_constraintRight_toRightOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            android:layout_gravity="center"/>

        <EditText
            android:id="@+id/et_userName"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Enter Player Name"
            app:layout_constraintTop_toBottomOf="@+id/tv_heading"
            app:layout_constraintLeft_toLeftOf="parent"
            android:layout_marginTop="15dp"/>

        <Button
            android:id="@+id/button_save"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Save"
            android:layout_gravity="center_horizontal"
            android:layout_marginTop="15dp"/>

    </LinearLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

MAIN ACTIVITY.KT

```

package com.example.tictactoe.kotlin

import android.content.Context
import android.content.Intent

```

```
import android.content.SharedPreferences
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.Toast

class MainActivity : AppCompatActivity() {

    lateinit var et_userName: EditText

    lateinit var button_save: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_main)

        et_userName = findViewById(R.id.et_userName)
        button_save = findViewById(R.id.button_save)

        button_save.setOnClickListener {

            PreferenceHelper.writeStringPref("player_name", et_userName.text.toString().trim())

            //Toast.makeText(this, et_userName.text.toString(),
            Toast.LENGTH_SHORT).show()

            val intent = Intent(this, GameActivity::class.java)

            startActivity(intent)

        }

    }

}
```

ACTIVITY_GAME.XML

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

<LinearLayout

    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"

    android:layout_height="match_parent"

    tools:context=".GameActivity"

    android:orientation="vertical">

    <TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Computer Choose:"

        android:textSize="20dp"

        android:textColor="@color/black"

        android:textStyle="bold"

        android:layout_marginTop="20dp"

        android:layout_marginLeft="20dp"/>

    <TextView

        android:id="@+id/tv_computer"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Rock"

        android:textSize="20dp"
```

```
        android:textColor="@color/black"

        android:layout_marginTop="20dp"

        android:layout_gravity="center_horizontal"/>
```

<TextView

```
        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Your Turn:"

        android:textSize="20dp"

        android:textColor="@color/black"

        android:textStyle="bold"

        android:layout_marginTop="20dp"

        android:layout_marginLeft="20dp"/>
```

<Button

```
        android:id="@+id/button_rock"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Rock"

        android:layout_gravity="center_horizontal"

        android:layout_marginTop="15dp"/>
```

<Button

```
        android:id="@+id/button_paper"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Paper"

        android:layout_gravity="center_horizontal"
```

```
android:layout_marginTop="5dp"/>
```

```
<Button
```

```
    android:id="@+id/button_scissor"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Scissor"
```

```
    android:layout_gravity="center_horizontal"
```

```
    android:layout_marginTop="5dp"/>
```

```
<TextView
```

```
    android:id="@+id/tv_score"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Your Score: "
```

```
    android:textColor="@color/black"
```

```
    android:textStyle="bold"
```

```
    android:layout_marginTop="20dp"
```

```
    android:layout_marginLeft="20dp"/>
```

```
<androidx.constraintlayout.widget.ConstraintLayout
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_marginTop="30dp"
```

```
    android:layout_marginLeft="10dp"
```

```
    android:layout_marginRight="10dp">
```

```
<Button
```

```

        android:id="@+id/button_save"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Save"

        android:layout_gravity="center_horizontal"

        android:layout_marginTop="5dp"

        app:layout_constraintLeft_toLeftOf="parent"

        app:layout_constraintTop_toTopOf="parent"/>

<Button

    android:id="@+id/button_highestScore"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Highest Score"

    android:layout_gravity="center_horizontal"

    android:layout_marginTop="5dp"

    app:layout_constraintRight_toRightOf="parent"

    app:layout_constraintTop_toTopOf="parent"/>

</androidx.constraintlayout.widget.ConstraintLayout>

</LinearLayout>

```

GAME_ACTIVITY.KT

```

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

<LinearLayout

    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"
```

```
android:layout_height="match_parent"
```

```
tools:context=".GameActivity"
```

```
android:orientation="vertical">
```

```
<TextView
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Computer Choose:"
```

```
    android:textSize="20dp"
```

```
    android:textColor="@color/black"
```

```
    android:textStyle="bold"
```

```
    android:layout_marginTop="20dp"
```

```
    android:layout_marginLeft="20dp"/>
```

```
<TextView
```

```
    android:id="@+id/tv_computer"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Rock"
```

```
    android:textSize="20dp"
```

```
    android:textColor="@color/black"
```

```
    android:layout_marginTop="20dp"
```

```
    android:layout_gravity="center_horizontal"/>
```

```
<TextView
```

```
    android:layout_width="wrap_content"
```



```
        android:layout_height="wrap_content"

        android:text="Your Turn:"

        android:textSize="20dp"

        android:textColor="@color/black"

        android:textStyle="bold"

        android:layout_marginTop="20dp"

        android:layout_marginLeft="20dp"/>
```

<Button

```
        android:id="@+id/button_rock"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Rock"

        android:layout_gravity="center_horizontal"

        android:layout_marginTop="15dp"/>
```

<Button

```
        android:id="@+id/button_paper"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Paper"

        android:layout_gravity="center_horizontal"

        android:layout_marginTop="5dp"/>
```

<Button

```
        android:id="@+id/button_scissor"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
```

```
        android:text="Scissor"

        android:layout_gravity="center_horizontal"

        android:layout_marginTop="5dp"/>
```

```
<TextView
```

```
    android:id="@+id/tv_score"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Your Score: "

    android:textColor="@color/black"

    android:textStyle="bold"

    android:layout_marginTop="20dp"

    android:layout_marginLeft="20dp"/>
```

```
<androidx.constraintlayout.widget.ConstraintLayout
```

```
    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:layout_marginTop="30dp"

    android:layout_marginLeft="10dp"

    android:layout_marginRight="10dp">
```

```
<Button
```

```
    android:id="@+id/button_save"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Save"

    android:layout_gravity="center_horizontal"

    android:layout_marginTop="5dp"
```

```

        app:layout_constraintLeft_toLeftOf="parent"

        app:layout_constraintTop_toTopOf="parent"/>

    <Button

        android:id="@+id/button_highestScore"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Highest Score"

        android:layout_gravity="center_horizontal"

        android:layout_marginTop="5dp"

        app:layout_constraintRight_toRightOf="parent"

        app:layout_constraintTop_toTopOf="parent"/>

</androidx.constraintlayout.widget.ConstraintLayout>

</LinearLayout>

```

ACTIVITY_THIRD.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"

    android:layout_height="match_parent"

    tools:context=".ThirdActivity">

    <TextView

```

```
        android:id="@+id/tv_highScore"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Highest Score:"

        android:textSize="20dp"

        android:textColor="@color/black"

        android:textStyle="bold"

        app:layout_constraintLeft_toLeftOf="parent"

        app:layout_constraintRight_toRightOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:layout_constraintBottom_toBottomOf="parent"/>

</androidx.constraintlayout.widget.ConstraintLayout>
```

THIRD_ACTIVITY.KT

```
package com.example.tictactoe kotlin

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.TextView

class ThirdActivity : AppCompatActivity() {

    lateinit var tv_highScore: TextView

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_third)
```

```

        tv_highScore = findViewById(R.id.tv_highScore)

        tv_highScore.text = "Highest Score: "
        "+PreferenceHelper.readIntPref("highest_score").toString()
    }
}

```

PREFERENCE_HELPER.KT

```

package com.example.tictactoe.kotlin

import android.content.Context
import android.content.SharedPreferences

object PreferenceHelper {

    private lateinit var sharedPref: SharedPreferences
    private lateinit var editPref: SharedPreferences.Editor
    private const val MODE = Context.MODE_PRIVATE
    private const val PREF_NAME = "Game"

    fun init(context: Context) {
        sharedPref = context.getSharedPreferences(PREF_NAME, MODE)
        editPref = sharedPref.edit()
    }

    fun clearAllPref() {
        editPref.clear()
        editPref.apply()
    }
}

```

```
}

fun writeStringPref(key:String,value:String){
    editPref.putString(key,value)
    editPref.apply()
}

fun readStringPref(key:String):String? {
    return sharedPref.getString(key,"")
}

fun writeIntPref(key:String,value:Int){
    editPref.putInt(key,value)
    editPref.apply()
}

fun readIntPref(key:String):Int {
    return sharedPref.getInt(key,0)
}
}
```

OUTPUT

