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ANDROID SCORE KEEPER APP TO KEEP TRACK OF THE SCORE OF TWO DIFFERENT TEAMS

AIM:

To develop a score keeper app that gives the score of two different teams playing a game.

PROCEDURE:

STEP 1: Open eclipse or android studio and select new android project.

STEP 2: Give application name, select blank activity and design application icon

STEP 3: Create view layout for user interface.

STEP 4: Write a java function for view layout widgets.

STEP 5: Execute the android application.

STEP 6: Use android emulator to show the created application.

PROGRAM:

1. activity_main.xml

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

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <TextView
            android:id="@+id/textView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
```

```
android:layout_marginStart="35dp"
android:layout_marginTop="40dp"
android:fontFamily="sans-serif-black"
android:text="Two Teams  One Match"
android:textColor="#000000"
android:textSize="30sp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

```
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="88dp"
    android:layout_marginEnd="36dp"
    android:fontFamily="sans-serif-medium"
    android:text="Enter The Name Of The First Team"
    android:textColor="#000000"
    android:textSize="20sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="29dp"
    android:layout_marginEnd="11dp"
    android:text="Enter The Name Of The Second Team"
    android:textColor="#000000"
    android:textSize="20sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/teamNameA" />
```

```
<EditText
    android:id="@+id/teamNameA"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="28dp"
    android:ems="10"
```

```
android:inputType="textPersonName"
android:textColor="#000000"
app:layout_constraintStart_toStartOf="@+id/textView2"
app:layout_constraintTop_toBottomOf="@+id/textView2" />
```

<EditText

```
android:id="@+id/teamNameB"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="2dp"
android:layout_marginTop="34dp"
android:ems="10"
android:inputType="textPersonName"
android:textColor="#000000"
app:layout_constraintStart_toStartOf="@+id/textView3"
app:layout_constraintTop_toBottomOf="@+id/textView3" />
```

<Button

```
android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="72dp"
android:layout_marginEnd="48dp"
android:layout_marginBottom="196dp"
android:onClick="getDetails"
android:text="Next >>>"
android:textColor="#ffffff"
android:textSize="16sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/teamNameB" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

</ScrollView>

2. activity_score.xml

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

```
<androidx.constraintlayout.widget.ConstraintLayout  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
    <TextView  
        android:id="@+id/textView4"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:layout_marginTop="57dp"  
        android:fontFamily="sans-serif-black"  
        android:text="Score Board"  
        android:textColor="#000000"  
        android:textSize="40sp"  
        app:layout_constraintEnd_toEndOf="parent"  
        app:layout_constraintStart_toStartOf="parent"  
        app:layout_constraintTop_toTopOf="parent" />
```

```
<TextView  
    android:id="@+id/nameA"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="72dp"  
    android:fontFamily="sans-serif-medium"  
    android:text="Team A"  
    android:textColor="#000000"  
    android:textSize="30sp"  
    app:layout_constraintEnd_toStartOf="@+id/nameB"  
    app:layout_constraintHorizontal_bias="0.291"  
    app:layout_constraintStart_toStartOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/textView4" />
```

```
<TextView  
    android:id="@+id/nameB"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="72dp"  
    android:layout_marginEnd="64dp"
```

```
android:layout_marginBottom="38dp"
android:fontFamily="sans-serif-medium"
android:text="Team B"
android:textColor="#000000"
android:textSize="30sp"
app:layout_constraintBottom_toTopOf="@+id/scoreB"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView4" />
```

<TextView

```
android:id="@+id/scoreA"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="39dp"
android:layout_marginTop="38dp"
android:fontFamily="sans-serif-black"
android:text="00"
android:textColor="#000000"
android:textSize="120dp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/nameA" />
```

<TextView

```
android:id="@+id/scoreB"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginEnd="38dp"
android:fontFamily="sans-serif-black"
android:text="00"
android:textColor="#000000"
android:textSize="120dp"
app:layout_constraintBaseline_toBaselineOf="@+id/scoreA"
app:layout_constraintEnd_toEndOf="parent" />
```

<Button

```
android:id="@+id/teamA"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="36dp"
android:layout_marginBottom="45dp"
```

```
android:onClick="countScoreA"  
android:text="+ 1 point"  
android:textColor="#ffffff"  
android:textSize="16sp"  
app:layout_constraintBottom_toTopOf="@+id/restart"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/scoreA"  
app:layout_constraintVertical_bias="1.0" />
```

<Button

```
android:id="@+id/teamB"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_marginTop="42dp"  
android:layout_marginEnd="38dp"  
android:layout_marginBottom="45dp"  
android:onClick="countScoreB"  
android:text="+ 1 point"  
android:textColor="#ffffff"  
android:textSize="16sp"  
app:layout_constraintBottom_toTopOf="@+id/restart"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/scoreB" />
```

<Button

```
android:id="@+id/restart"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_marginStart="11dp"  
android:layout_marginBottom="24dp"  
android:onClick="startAllOver"  
android:text="Start All Over"  
android:textColor="#ffffff"  
android:textSize="16sp"  
app:layout_constraintBottom_toTopOf="@+id/view_results"  
app:layout_constraintStart_toEndOf="@+id/teamA" />
```

<Button

```
android:id="@+id/view_results"  
android:layout_width="wrap_content"
```

```

        android:layout_height="wrap_content"
        android:layout_marginStart="7dp"
        android:layout_marginBottom="53dp"
        android:onClick="viewResults"
        android:text="View Results"
        android:textColor="#ffffff"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="@+id/restart" />
    </androidx.constraintlayout.widget.ConstraintLayout>
</ScrollView>

```

3. activity_view_results.xml

```

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

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <TextView
            android:id="@+id/textView7"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="50dp"
            android:fontFamily="sans-serif-black"
            android:text="Match Results"
            android:textColor="#000000"
            android:textSize="40sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <TextView
            android:id="@+id/textView8"

```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginEnd="1dp"
android:fontFamily="sans-serif-medium"
android:text="Team A"
android:textColor="#000000"
android:textSize="30sp"
app:layout_constraintBaseline_toBaselineOf="@+id/textView10"
app:layout_constraintEnd_toStartOf="@+id/textView10"
app:layout_constraintStart_toStartOf="parent" />
```

<TextView

```
android:id="@+id/textView9"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="33dp"
android:layout_marginEnd="3dp"
android:fontFamily="sans-serif-medium"
android:text="Team B"
android:textColor="#000000"
android:textSize="30sp"
app:layout_constraintEnd_toStartOf="@+id/textView11"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView8" />
```

<TextView

```
android:id="@+id/textView10"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="81dp"
android:text="Has"
android:textColor="#000000"
android:textSize="30sp"
app:layout_constraintEnd_toStartOf="@+id/textView12"
app:layout_constraintStart_toEndOf="@+id/textView8"
app:layout_constraintTop_toBottomOf="@+id/textView7" />
```

<TextView

```
android:id="@+id/textView11"
android:layout_width="wrap_content"
```



```
android:layout_height="wrap_content"
android:layout_marginTop="33dp"
android:text="Has"
android:textColor="#000000"
android:textSize="30sp"
app:layout_constraintEnd_toStartOf="@+id/textView13"
app:layout_constraintStart_toEndOf="@+id/textView9"
app:layout_constraintTop_toBottomOf="@+id/textView10" />
```

```
<TextView
    android:id="@+id/textView12"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:fontFamily="sans-serif-medium"
    android:text="0 points"
    android:textColor="#000000"
    android:textSize="30sp"
    app:layout_constraintBaseline_toBaselineOf="@+id/textView10"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/textView10" />
```

```
<TextView
    android:id="@+id/textView13"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:fontFamily="sans-serif-medium"
    android:text="0 points"
    android:textColor="#000000"
    android:textSize="30sp"
    app:layout_constraintBaseline_toBaselineOf="@+id/textView11"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/textView11" />
```

```
<TextView
    android:id="@+id/textView14"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="87dp"
    android:fontFamily="sans-serif-black"
    android:text="Team A wins"
```

```
    android:textColor="#000000"
    android:textSize="30sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView9" />
```

```
<Button
```

```
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="8dp"
    android:layout_marginTop="62dp"
    android:onClick="playAgain"
    android:text="Play Again"
    android:textColor="#ffffff"
    android:textSize="20sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="@+id/textView14"
    app:layout_constraintTop_toBottomOf="@+id/textView14"
    app:layout_constraintVertical_bias="0.0" />
```

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

```
</ScrollView>
```

4. MainActivity.java

```
package com.example.scorekeeper;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    // creating an object of the edit text
    EditText edteamA, edteamB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```

    setContentView(R.layout.activity_main);
    // assigning the input of the user to the object
    edteamA = findViewById(R.id.teamNameA);
    edteamB = findViewById(R.id.teamNameB);
}

```

// this method gets the names of the two teams and passes them to the next activity using a bundle.

```

public void getDetails(View view) {
    // saving the inputs to a string
    String nameA = edteamA.getText().toString();
    String nameB = edteamB.getText().toString();

    // creating an object of Intent to move to the next activity.
    // In case a red line is shown, click on the text and press Alt + Enter to import the class.
    Intent i = new Intent(MainActivity.this, ScoreActivity.class);
    // creating an object of bundle
    Bundle bundle = new Bundle();
    // putting the inputs into the bundle
    bundle.putString("Team A", nameA);
    bundle.putString("Team B", nameB);
    i.putExtras(bundle);
    // starting the activity
    startActivity(i);
}
}

```

5. AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.scorekeeper">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Scorekeeper">

```

```

<activity
  android:name=".MainActivity"
  android:exported="true">
  <intent-filter>
    <action android:name="android.intent.action.MAIN" />

    <category android:name="android.intent.category.LAUNCHER" />
  </intent-filter>
</activity>

<activity
  android:name=".ScoreActivity">

</activity>
<activity
  android:name=".ViewResults">

</activity>
</application>

</manifest>

```

6. ScoreActivity.java

```

package com.example.scorekeeper;

import androidx.appcompat.app.AppCompatActivity;

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

public class ScoreActivity extends AppCompatActivity {
    // creating an object of the text view
    TextView scoreA, scoreB, tvA, tvB;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

```

```

setContentView(R.layout.activity_score);
// assigning the outputs of the user to the object
scoreA = (TextView) findViewById(R.id.scoreA);
scoreB = (TextView) findViewById(R.id.scoreB);
tvA = (TextView) findViewById(R.id.nameA);
tvB = (TextView) findViewById(R.id.nameB);

// fetching the data from the bundle
Bundle bundle = getIntent().getExtras();
String text1 = bundle.getString("Team A");
String text2 = bundle.getString("Team B");

// setting the fetched data to the corresponding text views
tvA.setText(text1);
tvB.setText(text2);
}
// this method is the logic that increases the value in the text view by one on every click for
team A
public void countScoreA(View view) {
    // get current string
    String score = scoreA.getText().toString();
    // converts string to int
    int i = Integer.parseInt(score);
    //increment
    i++;
    // convert int to string
    String a = new Integer(i).toString();
    // sets the score to the corresponding text view
    if (i < 10) {
        scoreA.setText("0"+a);
    }
    else {
        scoreA.setText(a);
    }
}
// this method is the logic that increases the value in the text view by one on every click for
team B
public void countScoreB(View view) {
    // get current string
    String score = scoreB.getText().toString();

```

```

// converts string to int
int i = Integer.parseInt(score);
//increment
i++;
// convert int to string
String a = new Integer(i).toString();
// sets the score to the corresponding text view
if (i < 10) {
    scoreB.setText("0"+a);
}
else {
    scoreB.setText(a);
}

}
// this method clears the current score and returns it to 0
public void startAllOver(View view) {
    scoreA.setText("00");
    scoreB.setText("00");
}
// this method gets the names and scores of the two teams and passes them to the next activity
using a bundle.
public void viewResults(View view) {
    // saving the names and scores to strings
    String nameA = tvA.getText().toString();
    String nameB = tvB.getText().toString();
    String score = scoreA.getText().toString();
    String score1 = scoreB.getText().toString();

    // creating an intent object and passing the new activity to navigate to
    Intent i = new Intent(ScoreActivity.this, ViewResults.class);
    // creating an object of bundle
    Bundle bundle = new Bundle();
    // putting the data into the bundle
    bundle.putString("Team A", nameA);
    bundle.putString("Team B", nameB);
    bundle.putString("Score A", score);
    bundle.putString("Score B", score1);
    i.putExtras(bundle);
    // starting the activity

```

```
        startActivity(i);
    }
}
```

7. ViewResults.java

```
package com.example.scorekeeper;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

public class ViewResults extends AppCompatActivity {
    // creating objects of the text view
    TextView tvTeamA, tvTeamB, tvScoreA, tvScoreB, tvWin;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_view_results);
        // assigning the views to the object
        tvTeamA = findViewById(R.id.textView8);
        tvTeamB = findViewById(R.id.textView9);
        tvWin = findViewById(R.id.textView14);
        tvScoreA = findViewById(R.id.textView12);
        tvScoreB = findViewById(R.id.textView13);

        // fetching the data from the bundle
        Bundle bundle = getIntent().getExtras();
        String text1 = bundle.getString("Team A");
        String text2 = bundle.getString("Team B");
        String text3 = bundle.getString("Score A");
        String text4 = bundle.getString("Score B");

        // setting the fetched data to the corresponding text views
        tvTeamA.setText(text1);
        tvTeamB.setText(text2);
```

```

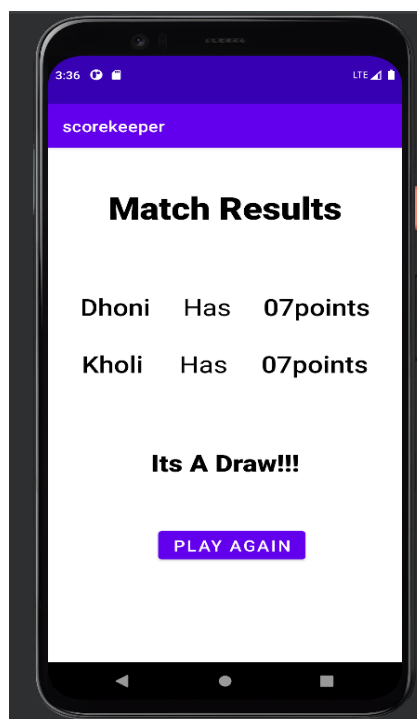
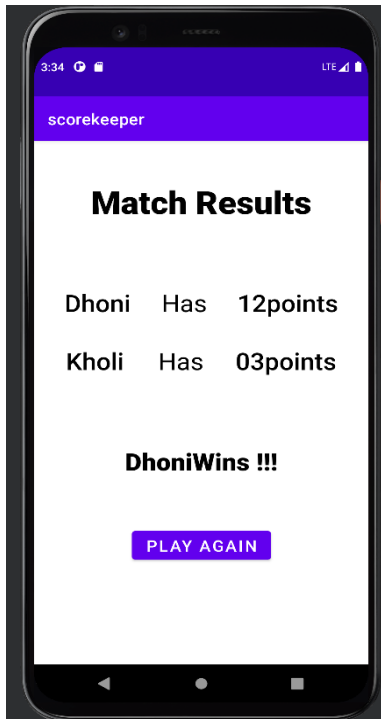
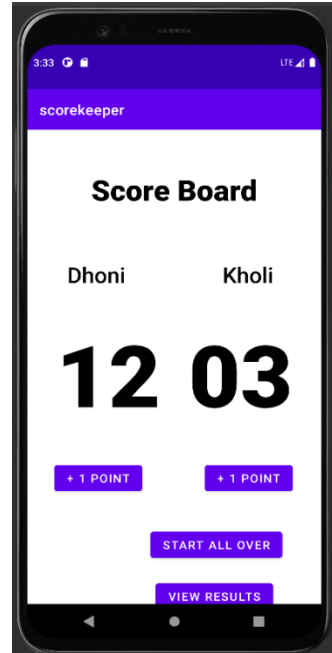
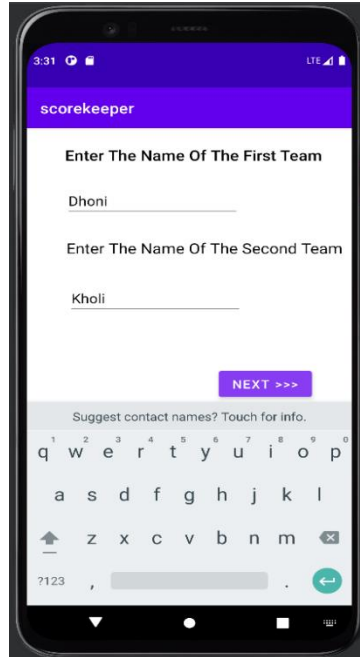
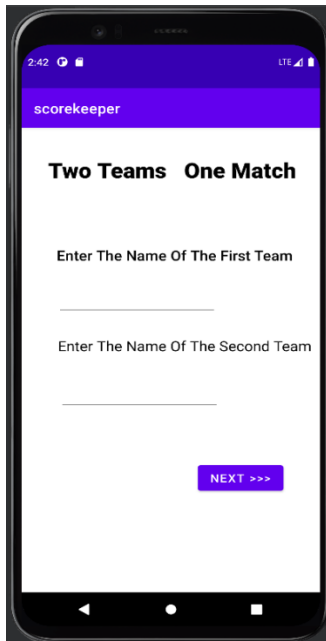
tvScoreA.setText(text3 + "points");
tvScoreB.setText(text4+ "points");

// converting string to int
int i = Integer.parseInt(text3);
int j = Integer.parseInt(text4);

// if the score of team A is greater than team B, team A wins
if (i > j) {
    tvWin.setText(text1 + "Wins !!!");
}
// if the score of team B is greater than team A, team B wins
else if (j > i) {
    tvWin.setText(text2+ "Wins !!!");
}
// if they have the same score, its a draw
else if (j == i) {
    tvWin.setText("Its A Draw!!!");
}

}
// to go back to the initial activity where you input the names of the teams
public void playAgain(View view) {
    // creating an intent object and passing the new activity to navigate to
    Intent i = new Intent(ViewResults.this, MainActivity.class);
    startActivity(i);
}
}

```

RESULT:

Thus the implementation of Android Score Keeper App has been executed and output verified successfully.