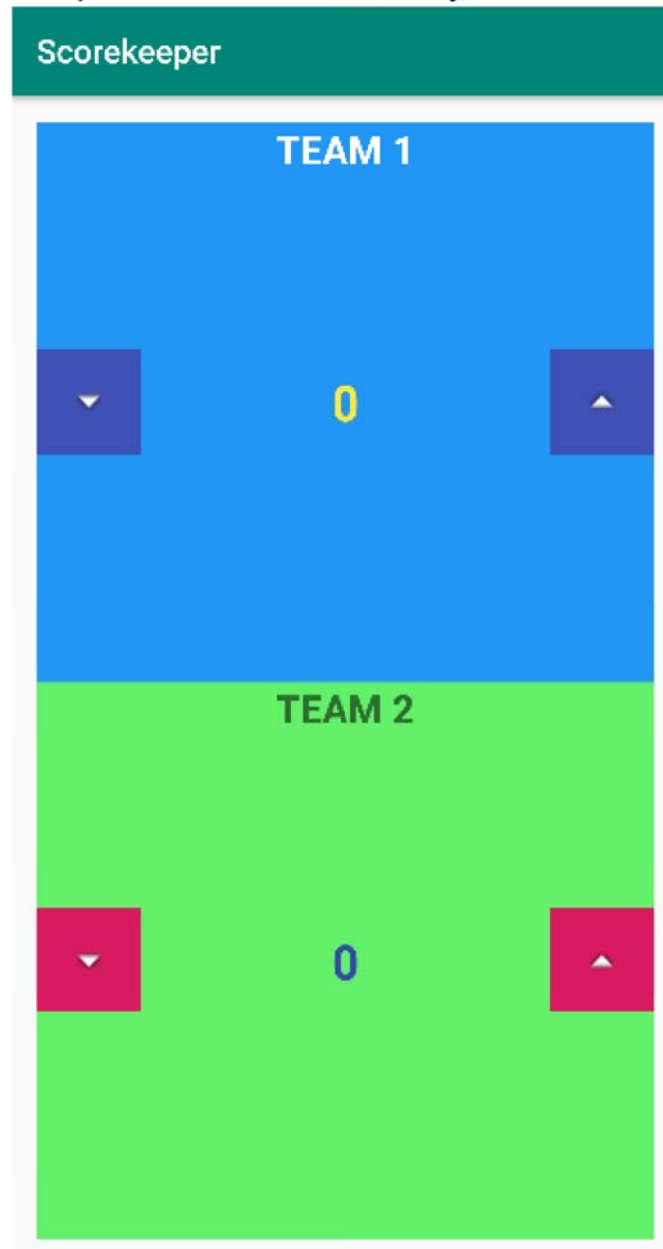


**Bước 1: Tạo empty project**

**Bước 2: Tạo giao diện cơ bản cho MainActivity**



```
<?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"
    android:orientation="vertical"
```

```
android:padding="16dp"
tools:context=".MainActivity">

<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:background="#2196F3">

    <ImageButton
        android:id="@+id/btnDown"
        android:layout_width="64dp"
        android:layout_height="64dp"
        android:layout_alignParentLeft="true"
        android:layout_alignParentStart="true"
        android:layout_centerVertical="true"
        android:background="#3F51B5"
        app:srcCompat="@android:drawable/arrow_down_float" />

    <ImageButton
        android:id="@+id/btnUp"
        android:layout_width="64dp"
        android:layout_height="64dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_centerVertical="true"
        android:background="#3F51B5"
        app:srcCompat="@android:drawable/arrow_up_float" />

    <TextView
        android:id="@+id/txtScore"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="0"
        android:textColor="#FFEB3B"
        android:textSize="30sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/txtTeam"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
```

```
        android:layout_centerHorizontal="true"
        android:text="TEAM 1"
        android:textColor="@color/colorAccent"
        android:textSize="24sp"
        android:textStyle="bold" />
</RelativeLayout>

<RelativeLayout
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:background="#63F169">

    <ImageButton
        android:id="@+id/btnDown2"
        android:layout_width="64dp"
        android:layout_height="64dp"
        android:layout_alignParentLeft="true"
        android:layout_alignParentStart="true"
        android:layout_centerVertical="true"
        android:background="#D81B60"
        app:srcCompat="@android:drawable/arrow_down_float" />

    <ImageButton
        android:id="@+id/btnUp2"
        android:layout_width="64dp"
        android:layout_height="64dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_centerVertical="true"
        android:background="#D81B60"
        app:srcCompat="@android:drawable/arrow_up_float" />

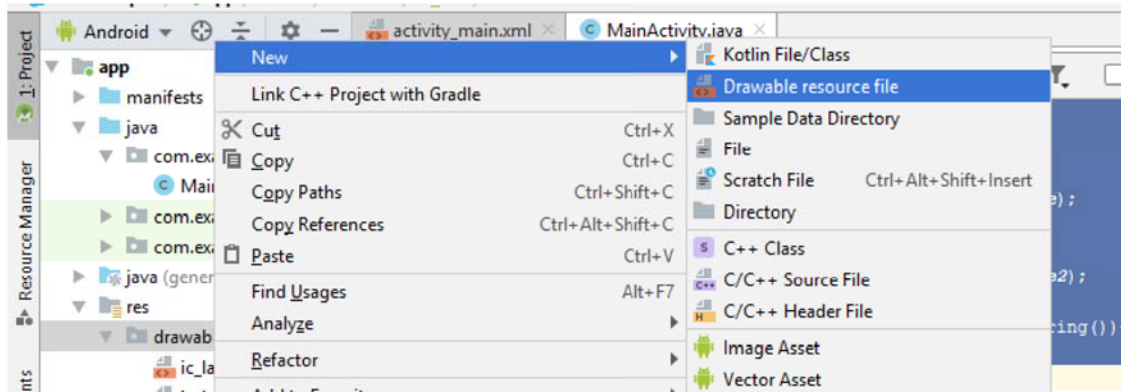
    <TextView
        android:id="@+id/txtScore2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:text="0"
        android:textColor="#3949AB"
        android:textSize="30sp"
        android:textStyle="bold" />

    <TextView
```

```
        android:id="@+id/txtTeam2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:text="TEAM 2"
        android:textSize="24sp"
        android:textStyle="bold" />
    </RelativeLayout>
</LinearLayout>
```

### ***Bước 3: Xử lý sự kiện cho các nút tăng giảm***

```
public void downScore(View view) {
    TextView txt=null;
    switch (view.getId()){
        case R.id.btnDown:
            txt = (TextView)findViewById(R.id.txtScore);
            break;
        case R.id.btnDown2:
            txt = (TextView)findViewById(R.id.txtScore2);
    }
    int curPoint =Integer.parseInt(txt.getText().toString())-1;
    txt.setText(Integer.toString(curPoint));
}
public void upScore(View view) {
    TextView txt=null;
    switch (view.getId()){
        case R.id.btnUp:
            txt = (TextView)findViewById(R.id.txtScore);
            break;
        case R.id.btnUp2:
            txt = (TextView)findViewById(R.id.txtScore2);
    }
    int curPoint =Integer.parseInt(txt.getText().toString())+1;
    txt.setText(Integer.toString(curPoint));
}
```

**Bước 4: Tạo hình cho button (btn\_bg và btn\_bg2) và áp dụng cho giao diện**

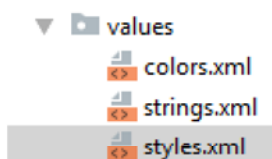
btn\_bg

```
<?xml version="1.0" encoding="utf-8"?>
<shape
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="oval">
    <stroke
        android:width="2dp"
        android:color="#3F51B5"/>
    <solid android:color="#3F51B5" />
</shape>
```

btn\_bg2

```
<?xml version="1.0" encoding="utf-8"?>
<shape
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="oval">
    <stroke
        android:width="2dp"
        android:color="#D81B60"/>
    <solid android:color="#D81B60" />
</shape>
```

Thay đổi thuộc tính: android:background cho các ImageButton

**Bước 5: Tạo style cho các View**

Điều chỉnh không hiển thị ActionBar cho activity, chỉnh style cho các nút tăng giảm

```

<resources>

    <!-- Base application theme. -->
    <style name="AppTheme" parent="Theme.AppCompat.Light.NoActionBar">
        <!-- Customize your theme here. -->
        <item name="colorPrimary">@color/colorPrimary</item>
        <item name="colorPrimaryDark">@color/colorPrimaryDark</item>
        <item name="colorAccent">@color/colorAccent</item>
    </style>
    <style name="btn_team1" parent="Widget.AppCompat.ImageButton">
        <item name="android:background">@drawable/btn_bg</item>
    </style>
    <style name="btn_team2" parent="Widget.AppCompat.ImageButton">
        <item name="android:background">@drawable/btn_bg2</item>
    </style>
</resources>

```

Áp dụng cho các nút bằng cách bỏ đi thuộc tính android:background thêm vào style= “@style/btn\_bg” và “@style/btn\_bg2”

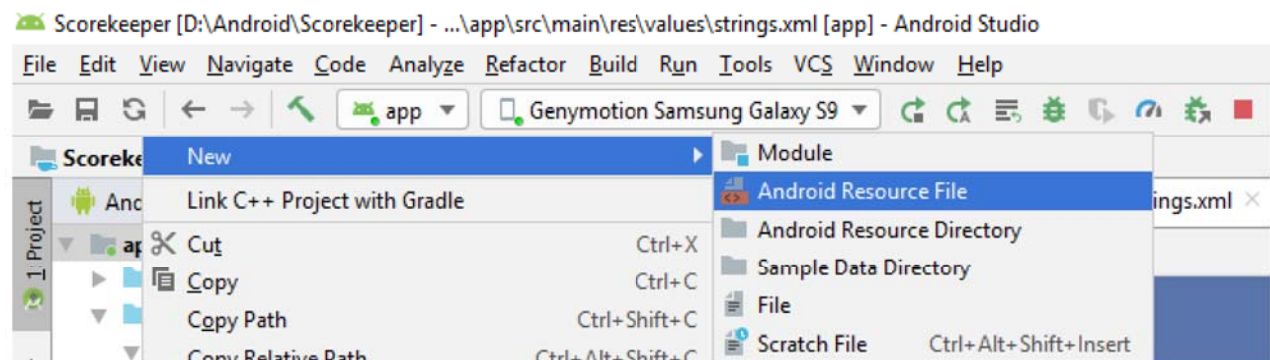
### ***Bước 6: Tạo menu các chế độ hiển thị***

Thêm nội dung cho strings.xml


```

<resources>
    <string name="app_name">Scorekeeper</string>
    <string name="light_mode">Light Mode</string>
    <string name="dark_mode">Dark Mode</string>
</resources>

```





 New Resource File

File name:  ↑↓

Resource type:

Root element:

Source set:

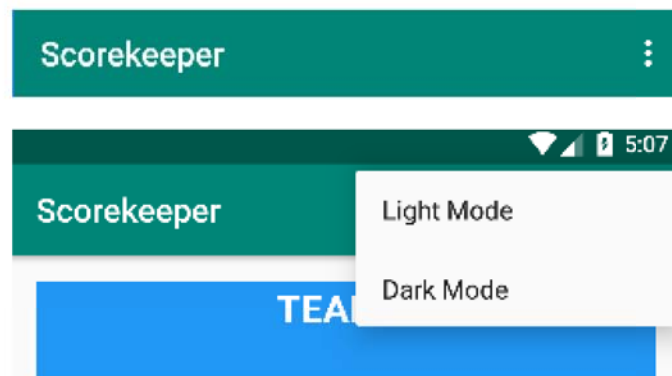
Directory name:

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <item
        android:id="@+id/light_mode"
        android:title="@string/light_mode"/>
</menu>
```

Tại MainActivity nhấn Ctrl+O để tạo phương thức override onCreateOptionsMenu trong phạm vi android.app.Activity

```
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.main_menu, menu);
    return super.onCreateOptionsMenu(menu);
}
```

Lưu ý: Chính lại style của AppTheme hiển thị ActionBar



Tại MainActivity nhấn Ctrl+O để tạo phương thức override onOptionsItemSelected

```
public boolean onOptionsItemSelected(MenuItem item) {
    if(item.getItemId()==R.id.dark_mode){
        ImageButton btnUp = (ImageButton)findViewById(R.id.btnUp);
        btnUp.setBackgroundResource(R.drawable.btn_bg2);
        ImageButton btnDown = (ImageButton)findViewById(R.id.btnDown);
```

```
        btnDown.setBackgroundResource(R.drawable.btn_bg2);
        ImageButton btnUp2 = (ImageButton)findViewById(R.id.btnUp2);
        btnUp2.setBackgroundResource(R.drawable.btn_bg);
        ImageButton btnDown2 = (ImageButton)findViewById(R.id.btnDown2);
        btnDown2.setBackgroundResource(R.drawable.btn_bg);
    }
    else
    {
        ImageButton btnUp = (ImageButton)findViewById(R.id.btnUp);
        btnUp.setBackgroundResource(R.drawable.btn_bg);
        ImageButton btnDown = (ImageButton)findViewById(R.id.btnDown);
        btnDown.setBackgroundResource(R.drawable.btn_bg);
        ImageButton btnUp2 = (ImageButton)findViewById(R.id.btnUp2);
        btnUp2.setBackgroundResource(R.drawable.btn_bg2);
        ImageButton btnDown2 = (ImageButton)findViewById(R.id.btnDown2);
        btnDown2.setBackgroundResource(R.drawable.btn_bg2);
    }
    //recreate();
    return true;
}
```