

VIT-AP UNIVERSITY, ANDHRA PRADESH

Lab Sheet 10 : Status Bar Notification

Academic year: 2022-2023

Semester: Fall

Faculty Name: Dr. K. Rajesh

Branch/ Class: B.Tech

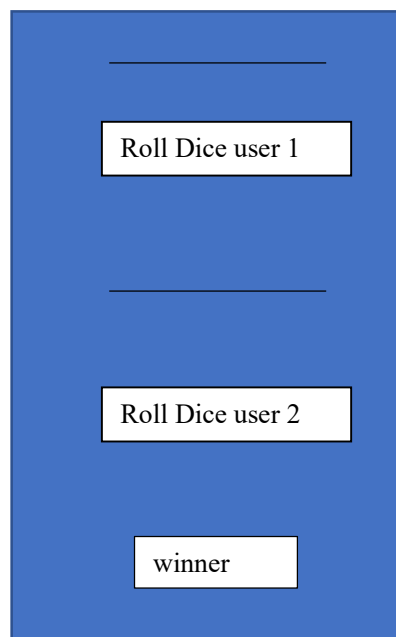
Date: 23-II-2022

School: SCOPE

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Design an application that reads a random number between 1 to 6 whenever the user clicks Roll Dice. Do this for both the user. When the Winner button is pressed raise a status bar notification indicating whether user1 or user2 is the winner.



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"

android:background="#0A3F57"
android:backgroundTint="#2196F3"
android:padding="20dp">

<TextView
    android:id="@+id/tv1"
    android:layout_width="177dp"
    android:layout_height="0dp"
```

```

        android:layout_marginTop="71dp"
        android:layout_marginBottom="29dp"
        android:textAlignment="textEnd"
        android:textAllCaps="true"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/b1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/tv2"
    android:layout_width="181dp"
    android:layout_height="0dp"
    android:layout_marginBottom="40dp"
    app:layout_constraintBottom_toTopOf="@+id/b2"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/b1" />

<Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="82dp"
    android:backgroundTint="#F4F2F2"
    android:text="Roll Dice User 1"
    android:textColor="#050505"
    app:layout_constraintBottom_toTopOf="@+id/tv2"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tv1" />

<Button
    android:id="@+id/b2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="93dp"
    android:backgroundTint="#F6F6F6"
    android:text="Roll Dice User 2"
    android:textColor="#0C0C0C"
    app:layout_constraintBottom_toTopOf="@+id/b3"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.481"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tv2" />

<Button
    android:id="@+id/b3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="139dp"
    android:backgroundTint="#F4F0F0"
    android:text="Winner"
    android:textColor="#050505"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/b2" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity.java:

```
package com.example.rollerdice;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.NotificationCompat;
import androidx.core.app.NotificationManagerCompat;

import android.app.NotificationChannel;
import android.app.NotificationManager;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import java.util.Random;

public class MainActivity extends AppCompatActivity {
    Button b1,b2,b3;
    TextView tv1,tv2;
    Random random =new Random();
    int num1 =random.nextInt(6);
    int num2 =random.nextInt(6);
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=findViewById(R.id.b1);
        b2=findViewById(R.id.b2);
        b3=findViewById(R.id.b3);
        tv1=findViewById(R.id.tv1);
        tv2=findViewById(R.id.tv2);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                tv1.setText(String.valueOf(""+num1));
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                tv2.setText(String.valueOf(num2));
            }
        });
        if(Build.VERSION.SDK_INT >= Build.VERSION_CODES.O){
            NotificationChannel channel = new
NotificationChannel("RollerDice",
"RollerDice",NotificationManager.IMPORTANCE_DEFAULT);
            NotificationManager manager =
getSystemService(NotificationManager.class);
            manager.createNotificationChannel(channel);
        }
        b3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                NotificationCompat.Builder builder = new
NotificationCompat.Builder(MainActivity.this,"RollerDice");
```

```

        builder.setTitle("Notification");
        if (num1 > num2) {
            builder.setText("Winner : Player 1");
        } else if (num2 > num1) {
            builder.setText("Winner : Player 2");
        } else {
            builder.setText("DRAW");
        }
        builder.setSmallIcon(R.drawable.notification);
        NotificationManagerCompat managerCompat =
NotificationManagerCompat.from(MainActivity.this);
        managerCompat.notify(1,builder.build());
    }
}
}

```

output:

