**Instructions: VIT-AP UNIVERSITY, ANDHRA PRADESH**

**Lab Sheet 10: Status Bar Notification**

**Academic year:** 2021-2022  **Branch/ Class:** B. Tech

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* Fill your Name and REGNO.
* Complete the program, add the code java and XML, input and output Screenshots after the question on the same document.
* Save this File name with your **registerno**\_**lab10**

**eg 18ABC1234\_LAB10.doc**

* Upload it in assignment ->LAB10 in MS TEAM

Design an Application that reads a random number between 1 to 6 when ever 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.

winner

Roll Dice user 2

Roll Dice user 1

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">

<TextView

android:id="@+id/d1"

android:layout\_width="210dp"

android:layout\_height="0dp"

android:layout\_marginTop="133dp"

android:layout\_marginBottom="49dp"

android:hint="USER 1 DICE"

android:textAlignment="center"

android:textSize="18sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toTopOf="@+id/r1"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/d2"

android:layout\_width="212dp"

android:layout\_height="0dp"

android:layout\_marginBottom="54dp"

android:hint="USER 2 DICE"

android:textAlignment="center"

android:textSize="18sp"

android:textStyle="bold"

app:layout\_constraintBottom\_toTopOf="@+id/r2"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/r1" />

<Button

android:id="@+id/r1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="58dp"

android:text="ROLL 1"

app:layout\_constraintBottom\_toTopOf="@+id/d2"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/d1" />

<Button

android:id="@+id/r2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="87dp"

android:text="ROLL 2"

app:layout\_constraintBottom\_toTopOf="@+id/winner"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toBottomOf="@+id/d2" />

<Button

android:id="@+id/winner"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="102dp"

android:text="WINNER!"

android:textSize="16sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/r2" />

</androidx.constraintlayout.widget.ConstraintLayout>

Activity2\_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="#F3E77E">

<TextView

android:id="@+id/tv"

android:layout\_width="0dp"

android:layout\_height="77dp"

android:layout\_marginStart="31dp"

android:layout\_marginTop="262dp"

android:layout\_marginEnd="31dp"

android:textAlignment="center"

android:textColor="#F80404"

android:textSize="24sp"

android:textStyle="bold"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

MainActivity.java:

package com.example.statusbarnotification;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.NotificationCompat;

import androidx.core.app.NotificationManagerCompat;

import android.app.Notification;

import android.app.NotificationChannel;

import android.app.NotificationManager;

import android.app.PendingIntent;

import android.content.Intent;

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 r1,r2,winner;

TextView d1,d2;

Random rand = new Random();

int n1,n2;

NotificationCompat.Builder builder;

NotificationManagerCompat manager;

final int NOTIFICATION\_ID = 0;

final String channel\_id = "winner";

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

r1 = findViewById(R.id.r1);

r2 = findViewById(R.id.r2);

winner = findViewById(R.id.winner);

d1 = findViewById(R.id.d1);

d2 = findViewById(R.id.d2);

r1.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View v) {

n1 = rand.nextInt(5)+1;

d1.setText(n1+"");

}

});

r2.setOnClickListener(new View.OnClickListener() { @Override

public void onClick(View v) {

n2 = rand.nextInt(6)+1;

d2.setText(n2+"");

}

});

if(Build.VERSION.SDK\_INT>Build.VERSION\_CODES.O)

{

    NotificationChannel notifchannel = new NotificationChannel(channel\_id,"DiceGameWinner", NotificationManager.IMPORTANCE\_DEFAULT);

    NotificationManager notifmanager = (NotificationManager) getSystemService(NOTIFICATION\_SERVICE);

    notifmanager.createNotificationChannel(notifchannel);

}

winner.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        builder = new NotificationCompat.Builder(MainActivity.this,channel\_id);

        builder.setSmallIcon(R.drawable.ic\_launcher\_foreground);

        builder.setContentTitle("Winner!!!");

        if(n1>n2)

        {

            builder.setContentText("User 1 is the winner...yay!");

        }

        else

        {

            builder.setContentText("User 2 is the winner...yay!");

        }

    Intent i = new Intent(MainActivity.this,activity2.class);

    String s = "Congrats...you won!";

    i.putExtra("win",s);

    PendingIntent pendintent =PendingIntent.getActivity(MainActivity.this,0,i,PendingIntent.FLAG\_UPDATE\_CURRENT);

    builder.setContentIntent(pendintent);

    Notification notif = builder.build();

    manager = NotificationManagerCompat.from(MainActivity.this); manager.notify(NOTIFICATION\_ID,notif);

}

});

}

}

Activity2.java:

package com.example.statusbarnotification;

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class activity2 extends AppCompatActivity

{

    TextView tv;

    @Override

    protected void onCreate(Bundle savedInstanceState)

    {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity2);

        tv = findViewById(R.id.tv);

        Intent i = getIntent();

        String s = i.getStringExtra("win");

        tv.setText(s);

    }

}

Output:



