**6. Develop an application that makes use of Notification Manager.**

**Objective:**

The objective of this Android application is to demonstrate the use of the NotificationManager class for generating and managing system notifications.

**XML Code(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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Android Notification"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.091"  
 android:textAppearance="@style/Base.TextAppearance.AppCompat.Medium"/>  
  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/button"  
 android:layout\_marginBottom="112dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginStart="8dp"  
 android:text="Notify"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Saksham Gupta"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.519"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/button"  
 app:layout\_constraintVertical\_bias="0.666" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Java Code (MainActivity.java):**

package com.example.notification3;  
  
import android.app.NotificationChannel;  
import android.app.NotificationManager;  
import android.app.PendingIntent;  
import android.content.Context;  
import android.content.Intent;  
import android.os.Build;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.app.NotificationCompat;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
public class MainActivity extends AppCompatActivity {  
 Button button;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 button = findViewById(R.id.*button*);  
 button.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 addNotification();  
 }  
 });  
 }  
  
 private void addNotification() {  
 if (Build.VERSION.*SDK\_INT* >= Build.VERSION\_CODES.*O*) {  
 NotificationChannel channel = new NotificationChannel("channel\_id", "Channel Name", NotificationManager.*IMPORTANCE\_DEFAULT*);  
 NotificationManager notificationManager = getSystemService(NotificationManager.class);  
 notificationManager.createNotificationChannel(channel);  
 }  
 NotificationCompat.Builder builder = new NotificationCompat.Builder(this, "channel\_id")  
 .setSmallIcon(R.drawable.*baseline\_circle\_notifications\_24*)  
 .setContentTitle("Notification Example")  
 .setContentText("This is a notification message")  
 .setAutoCancel(true)  
 .setPriority(NotificationCompat.*PRIORITY\_DEFAULT*);  
  
 Intent notificationIntent = new Intent(this, NotificationView.class);  
 notificationIntent.addFlags(Intent.*FLAG\_ACTIVITY\_CLEAR\_TOP*);  
  
 notificationIntent.putExtra("message","This is a notification message");  
  
 PendingIntent pendingIntent = PendingIntent.*getActivity*(this, 0, notificationIntent, PendingIntent.*FLAG\_UPDATE\_CURRENT*);  
 builder.setContentIntent(pendingIntent);  
  
 NotificationManager manager = (NotificationManager)getSystemService(Context.*NOTIFICATION\_SERVICE*);  
 manager.notify(0, builder.build());  
 }  
}

**XML Code(activity\_notification\_view.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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".NotificationView">  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="fill\_parent"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:text="your detail of notification..."  
 android:textAppearance="@style/Base.TextAppearance.AppCompat.Medium"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.0"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.004" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginTop="8dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.096"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView2"  
 app:layout\_constraintVertical\_bias="0.206"  
 android:textAppearance="@style/Base.TextAppearance.AppCompat.Medium"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**Java Code(NotificationView.java):**

package com.example.notification3;  
  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
public class NotificationView extends AppCompatActivity {  
 TextView textView;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
  
 setContentView(R.layout.*activity\_notification\_view*);  
  
 textView = findViewById(R.id.*textView*);  
  
 String message = getIntent().getStringExtra("message");  
 textView.setText(message);  
 }  
}

**Output:**