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
<?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"
```

```xml
            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):

```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 {
```

```java
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 =
```

```java
(NotificationManager)getSystemService(Context.NOTIFICATION_SERVICE);
        manager.notify(0, builder.build());
    }
}
```

XML Code(activity_notification_view.xml):

```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"
```

```xml
        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):

```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);
    }
}
```