**Practical.No.12(A)**

**Aim: Create Android App For Notification.**

**Activity\_main.xml**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout  
 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">  
  
  
 <Button  
 android:id="@+id/show\_notification\_button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Show Notification"  
 android:layout\_centerVertical="true"  
 android:layout\_centerHorizontal="true"/>  
</RelativeLayout>

**Mainactivity.java**

package com.example.demonotification;  
import android.app.NotificationChannel;  
import android.app.NotificationManager;  
import android.content.pm.PackageManager;  
import android.os.Build;  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import androidx.core.app.ActivityCompat;  
import androidx.core.app.NotificationCompat;  
import androidx.core.app.NotificationManagerCompat;  
public class MainActivity extends AppCompatActivity {  
 private static final String *CHANNEL\_ID*="notification\_channel";  
 private static final int *NOTIFICATION\_ID* = 101;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 createNotificationChannel();  
 Button showNotificationButton = findViewById(R.id.*show\_notification\_button*);  
 showNotificationButton.setOnClickListener(new View.OnClickListener() {  
 public void onClick(View v) {  
 showNotification();  
 }  
 });  
 }  
 private void createNotificationChannel() {  
  
 if (Build.VERSION.*SDK\_INT* >= Build.VERSION\_CODES.*O*) {  
 CharSequence name = getString(R.string.*channel\_name*);  
 String description = getString(R.string.*channel\_description*);  
 int importance = NotificationManager.*IMPORTANCE\_DEFAULT*;  
 NotificationChannel channel = new NotificationChannel(*CHANNEL\_ID*, name, importance);  
 channel.setDescription(description);  
 NotificationManager notificationManager = getSystemService(NotificationManager.class);  
 notificationManager.createNotificationChannel (channel);  
 }  
}  
 private void showNotification() {  
  
 NotificationCompat.Builder builder = new NotificationCompat.Builder(this, *CHANNEL\_ID*)  
 .setSmallIcon(R.drawable.*baseline\_notifications\_none\_24*)  
 .setContentTitle("Simple Notification")  
 .setContentText("This is a simple notification.")  
 .setPriority (NotificationCompat.*PRIORITY\_DEFAULT*);  
 NotificationManagerCompat notificationManager = NotificationManagerCompat.*from*(this);  
 if (ActivityCompat.*checkSelfPermission*( this, android. Manifest.permission.*POST\_NOTIFICATIONS*) != PackageManager.*PERMISSION\_GRANTED*)  
 {  
 return;  
 }  
 notificationManager.notify(*NOTIFICATION\_ID*, builder.build());  
 }  
}

**Androidmanifest.xml**

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools">  
  
 <uses-permission android:name="android.permission.POST\_NOTIFICATIONS" />  
 <application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.DemoNotification"  
 tools:targetApi="31">  
 <meta-data  
 android:value="com.google.firebase.messaging.default\_notification\_channel\_id"  
 android:name="@string/default\_notification\_channel\_id"  
 />  
 <activity  
 android:name=".MainActivity"  
 android:exported="true">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
 </activity>  
 </application>  
  
</manifest>

**String.xml**

<resources>  
 <string name="app\_name">DemoNotification</string>  
 <string name="channel\_name">Notification channel</string>  
 <string name="channel\_description">This id default notification channel</string>  
 <string name="default\_notification\_channel\_id">1234</string>  
</resources>

**Output:**

