



Experiment 14: Notification Application

1.Design (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="@drawable/img"
tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="51dp"
        android:text="@string/notification_application"
        android:textSize="24sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="299dp"
        android:backgroundTint="#2941EF"
        android:text="@string/show"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

2.JAVA File (MainActivity.java)

```
package com.example.notification_0223;

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

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

public class MainActivity extends AppCompatActivity {

    Button button;
    private static final String channelId="SoCSE";
    private static final String channelName="SoCSE-CSE";
    private static final String channelDesc="SoCSE-B.Tech-CSE";

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.O) {
            NotificationChannel channel=new
NotificationChannel(channelId,channelName,
NotificationManager.IMPORTANCE_DEFAULT);
            channel.setDescription(channelDesc);
            NotificationManager
manager=getSystemService(NotificationManager.class);
            manager.createNotificationChannel(channel);
        }

        findViewById(R.id.button).setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                displayNotification();
            }
        });
    }

    @SuppressLint("MissingPermission")
    private void displayNotification() {
        NotificationCompat.Builder builder=new
NotificationCompat.Builder(this,channelId)
            .setSmallIcon(R.drawable.notification_icon1)
            .setContentTitle("Notification Title")
            .setContentText("Your Notification content is here!!")
            .setPriority(0);
        NotificationManagerCompat
notificationManagerCompat=NotificationManagerCompat.from(this);
        notificationManagerCompat.notify(1,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">

    <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.Notification_0223"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true"
            android:icon="@mipmap/notification">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER"
            />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

3.Output in the Emulator



