

TO DISPLAY POP-UP NOTIFICATIONS

AIM:

To display pop-up notifications using Mobile Application.

ALGORITHM:

- Step 1:** Design the layout in activity_main.xml with a Button for triggering the notification.
- Step 2:** In MainActivity.java, create and set an OnClickListener for the button that will trigger the pop-up notification.
- Step 3:** Create a method showNotification() in MainActivity.java that builds and displays a notification with a title and message.
- Step 4:** Define a NotificationChannel inside the createNotificationChannel() method to ensure compatibility with Android versions greater than or equal to Oreo (API 26).
- Step 5:** Use the NotificationCompat.Builder class to build the notification, setting the title, message, icon, and priority.
- Step 6:** Add a PendingIntent to allow the notification to launch the app when clicked.
- Step 7:** Call the NotificationManager.notify() method to issue the notification, and ensure the notification channel is created by invoking createNotificationChannel() in onCreate().
- Step 8:** Stop the Process.

ACTIVITY_MAIN.XML

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    android:background="#F5F5F5">

    <TextView
        android:id="@+id/titleText"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="50dp"
        android:text="Student Notification App"
        android:textSize="24sp"
        android:textColor="#000000"
        android:fontFamily="sans-serif-bold"/>

<Button
    android:id="@+id/toastButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/titleText"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="40dp"
    android:text="Show Toast Notification"
    android:backgroundTint="#4CAF50"
    android:textColor="#FFFFFF"/>

<Button
    android:id="@+id/dialogButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/toastButton"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="20dp"
    android:text="Show Alert Dialog"
    android:backgroundTint="#2196F3"
    android:textColor="#FFFFFF"/>

</RelativeLayout>

```

MAINACTIVITY.JAVA

```

package com.example.notificationapp;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    Button toastButton = findViewById(R.id.toastButton);
    Button dialogButton = findViewById(R.id.dialogButton);

    toastButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Toast.makeText(MainActivity.this, "Assignment due tomorrow at
11:59 PM!", Toast.LENGTH_LONG).show();
        }
    });

    dialogButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
            builder.setTitle("Class Reminder")
                .setMessage("Your next class, CS101, is in 30 minutes in
Room 204.")
                .setPositiveButton("OK", (dialog, which) ->
dialog.dismiss())
                .setNegativeButton("Snooze", (dialog, which) ->
Toast.makeText(MainActivity.this, "Snoozed for 10 minutes",
Toast.LENGTH_SHORT).show())
                .setCancelable(true);
            AlertDialog dialog = builder.create();
            dialog.show();
        }
    });
}
}

```

ANDROIDMANIFEST.XML

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.notificationapp">

    <application
        android:allowBackup="true"

```

```
    android:icon="@mipmap/ic_launcher"
    android:label="@string/app_name"
    android:roundIcon="@mipmap/ic_launcher_round"
    android:supportsRtl="true"
    android:theme="@style/Theme.AppCompat.Light.DarkActionBar">
    <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>
```

OUTPUT

