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**Division:** O

**Batch:** 2

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**Subject:** Mobile Application Development

### Assignment 6

**Problem Statement:**Implement an application that creates an alert upon receiving a message.(Notification)

**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"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        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_marginEnd="3dp"
        android:layout_marginBottom="40dp"
        android:text="Button"
```

```
app:layout_constraintBottom_toTopOf="@+id/textView"  
app:layout_constraintEnd_toEndOf="@+id/textView" />
```

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

Main\_Activity.java:

```
package com.example.mad_notification;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import androidx.core.app.NotificationCompat;
```

```
import android.app.NotificationChannel;
```

```
import android.app.NotificationManager;
```

```
import android.os.Build;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private static final String CHANNEL_ID = "ch1";
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        findViewById(R.id.button).setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View v) {
```

```
                createNotification();
```

```
                sendNotification();
```

```
            }
```

```
        });
```

```
    }
```

```
    public void createNotification() {
```

```
        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.O) {
```

```
            NotificationChannel channel = new NotificationChannel(CHANNEL_ID, "Notification",  
NotificationManager.IMPORTANCE_HIGH);
```

```
            channel.setDescription("Hello world");
```

```
            NotificationManager manager = getSystemService(NotificationManager.class);
```

```
            manager.createNotificationChannel(channel);
```

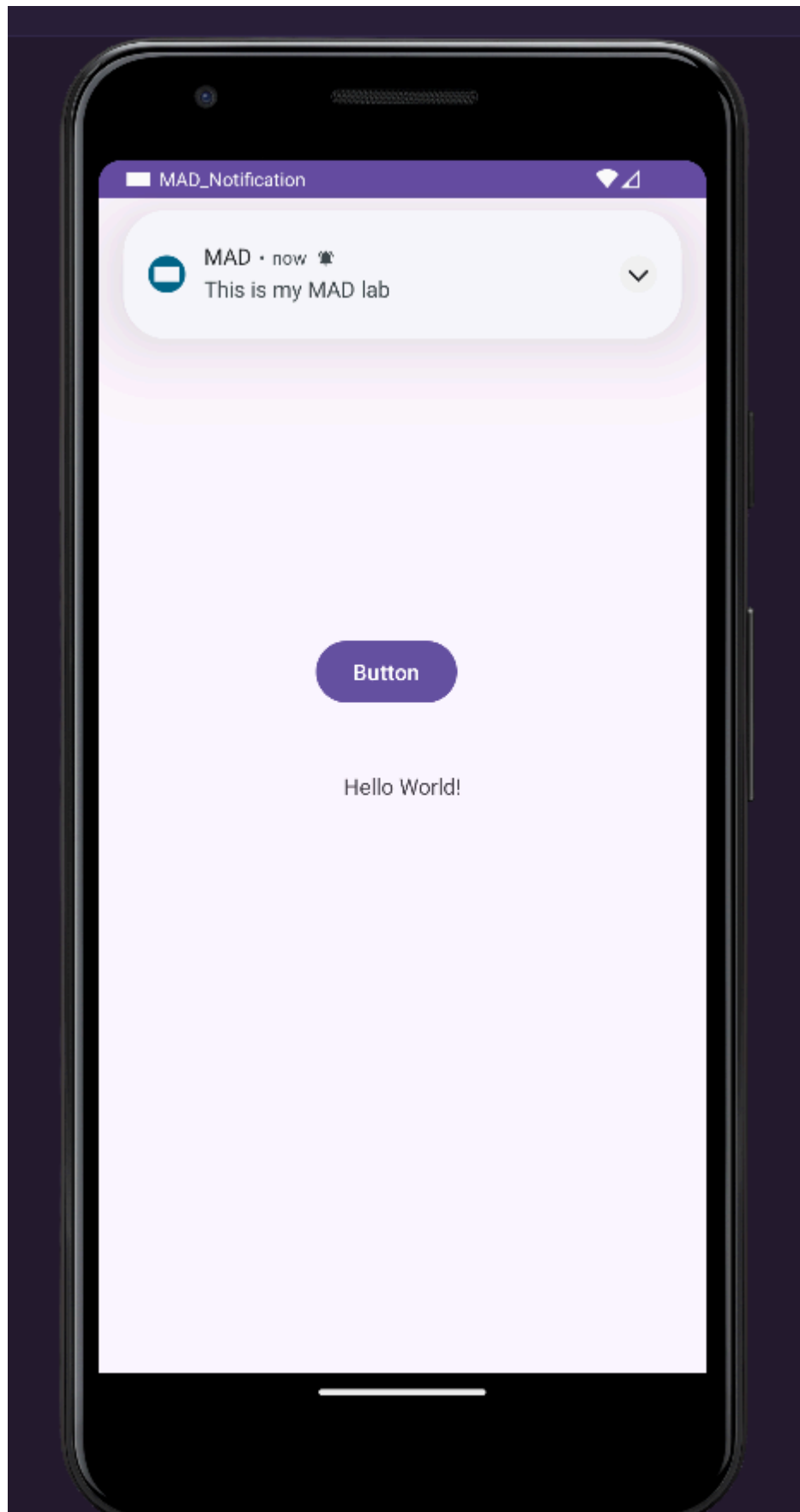
```
        }
```

```
    }
```

```
public void sendNotification() {  
    NotificationCompat.Builder builder = new NotificationCompat.Builder(this, CHANNEL_ID);  
    builder.setContentTitle("MAD");  
    builder.setContentText("This is my MAD lab");  
    builder.setAutoCancel(true);  
    builder.setSmallIcon(R.drawable.img);  
  
    NotificationManager manager = (NotificationManager)  
getSystemService(NOTIFICATION_SERVICE);  
    manager.notify(0, builder.build());  
}  
}
```

```
Manifest: <?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.MAD_Notification"  
        tools:targetApi="31">  
        <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>
```

 ScreenShot of app:





**Vishwakarma Institute of Technology**  
Department of Engineering Sciences and Humanities (DESH)

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