

Ex.No: 10

Date :

## Implement an application that creates an alert upon receiving a message

### AIM:

To implement an application that creates an alert upon receiving a message.

### PROCEDURE:

1. Open Eclipse IDE.
2. Create the project Ex\_No\_10.
3. Go to package explorer in the left hand side. Select the project Ex\_No\_10.
4. Go to res folder and select layout. Double click the activity\_main.xml file.
5. Now you can see the Graphical layout window.
6. This application has no components, because this just generates a notification alone.
7. Again go to package explorer in the left hand side. Select the project Ex\_No\_10.
8. Go to src folder. Double click the MainActivity.java file.
9. In java file write the activities done by the application such as receiving a message and notify it.
10. Get the following permissions in AndroidManifest.xml file:  

```
<uses-permission android:name="android.permission.RECEIVE_SMS"/>
<uses-permission android:name="android.permission.READ_SMS"/>
```
11. Add Receiver class as receiver in AndroidManifest.xml file.
12. Finally run the android application.

### PROGRAMS:

*activity\_main.xml:*

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="com.example.ex_no_10.MainActivity" >

</RelativeLayout>
<
```

*MainActivity.java:*

```
package com.example.ex_no_10;
```

```

import
android.support.v7.app.ActionBarActi
vity;                                import
android.app.Notification;           import
android.app.NotificationManager;
import      android.content.Context;
import android.os.Bundle;
public class MainActivity extends
    ActionBarActivity { private static
    MainActivity inst; public static
    MainActivity instance() {

        // TODO Auto-generated method
        stub return inst;
    }
    public void onStart()
    {
        supe
        r.on
        Star
        t();
        inst
        =thi
        s;
    }
    NotificationManager nm;
    Notification n;
    @SuppressWarnings("deprecation")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        nm=(NotificationManager)getSystemService(Context.NOTIFICATION_SERVICE)
        ;
        n=new Notification(R.drawable.ic_launcher,"SMS
        Alert",System.currentTimeMillis());

    }
    @SuppressWarnings("deprecation")
    public void update_notification(String no, String msg) {
        // TODO Auto-generated method stub
        n.setLatestEventInfo(getBaseContext(), no, msg, null);
        nm.notify(1337, n);
    }
}

```

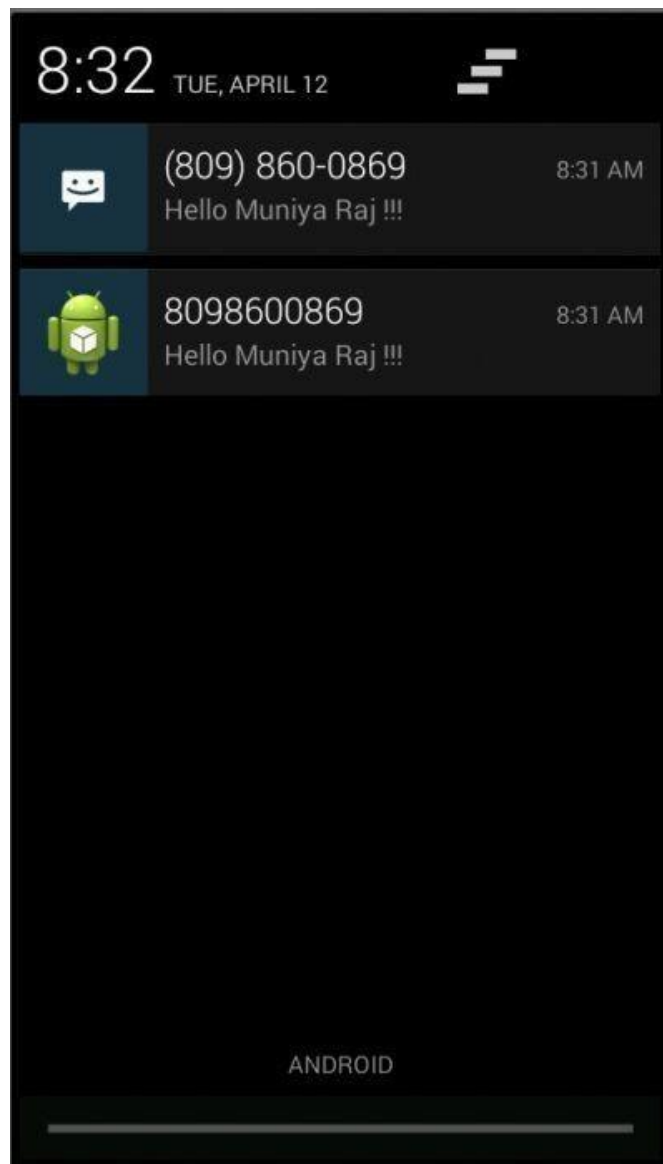
*Receiver.java:*

```

package com.example.ex_no_10;
import
android.content.BroadcastRece
iver;                import
android.content.Context;
import
android.content.Intent;
import android.os.Bundle;
import android.telephony.SmsMessage;
    public class Receiver extends
BroadcastReceiver { public static final
    String SMS_BUNDLE="pdus";
    @Override
    public void onReceive(Context arg0, Intent arg1) {
        // TODO Auto-generated
        method stub String no =
        null,msg = null; Bundle
        b=arg1.getExtras();
        if(b!=null)
        {
            Object[]
            sms=(Object[])b.get(SMS_BUNDLE);
            for(int i=0;i<sms.length;++i)
            {
                SmsMessage
                sm=SmsMessage.createFromPdu((byte[])sms[i]);
                no=sm.getOriginatingAddress();
                msg=sm.getMessageBody().toString();
            }
            MainActivity
            inst=MainActivity.instance();
            inst.update_notification(no,msg); }
        }
    }
}

```

**OUTPUT:**



**RESULT:**

Thus the application that creates an alert upon receiving a message has been developed and the output was verified.