

9. Implement an application that creates an alert upon receiving a message.

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Message!"
    android:textSize="30sp"/>
```

```
<EditText
    android:id="@+id/editText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:singleLine="true"
    android:textSize="30sp"/>
```

```
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="30dp"
    android:layout_gravity="center"
    android:text="notify"
    android:textSize="30sp"
/>
```

```
</LinearLayout>
```

MainActivity.java

```
package com.example.administrator.expg09;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.app.Notification;
import android.app.NotificationManager;
import android.app.PendingIntent;
import android.content.Intent;
```

Teacher's Signature _____

```
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
```

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

```
    Button notify;
    EditText e;
```

```
    @Override
```

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

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

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

```
        notify=(Button) findViewById(R.id.button);
```

```
        e=(EditText)findViewById(R.id.editText);
```

```
        notify.setOnClickListener(new View.OnClickListener(){
```

```
            @Override
```

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

```
                Intent intent = new Intent(MainActivity.this,
```

```
                PendingIntent pending =
```

```
                PendingIntent.getActivity(MainActivity.this,0,intent,0);
```

```
                Notification noti= new Notification.Builder(
```

```
                    MainActivity.this).setContentTitle("New Message").
```

```
                NotificationManager manager=(NotificationManager)
```

```
                noti.flags |= Notification.FLAG_AUTO_CANCEL;
```

```
                manager.notify(0,noti);
```

```
            });
```

```
        }
```

```
    }
```

Department of C.A. & S.T. Makuru

CIE Breakup LABORATORY

	Max Marks	Marks Secured
Observation	05	4
Calculation	15	14
Records	10	10
Viva-Voice	05	4
Total	35	32

10. Devise a mobile application that creates alarm clock.

XML file

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
```

```
<TimePicker
    android:id="@+id/timePicker"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center" />
```

```
<ToggleButton
    android:id="@+id/toggleButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_margin="20dp"
    android:checked="false"
    android:onClick="OnToggleClicked" />
```

```
</LinearLayout>
```

Java file

```
package com.example.inchara_lab10;

import androidx.appcompat.app.AppCompatActivity;

import android.app.AlarmManager;
import android.app.PendingIntent;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.TimePicker;
import android.widget.Toast;
import android.widget.ToggleButton;
```



```

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {
    TimePicker alarmTimePicker;
    PendingIntent pendingIntent;
    AlarmManager alarmManager;

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

        alarmTimePicker = (TimePicker) findViewById(R.id.timePicker);
        alarmManager = (AlarmManager) getSystemService(ALARM_SERVICE);
    }

    public void OnToggleClicked(View view) {
        long time;
        if (((ToggleButton) view).isChecked()){
            Toast.makeText(MainActivity.this, "ALARM ON",
            Toast.LENGTH_SHORT).show();
            Calendar calendar = Calendar.getInstance();
            calendar.set(Calendar.HOUR_OF_DAY,alarmTimePicker.getCurrentHour());
            calendar.set(Calendar.MINUTE,alarmTimePicker.getCurrentMinute());
            Intent intent = new Intent(this, AlarmReceiver.class);
            pendingIntent=PendingIntent.getBroadcast(this, 0, intent,0);

            time=(calendar.getTimeInMillis()-(calendar.getTimeInMillis()%60000));
            // the operating system for some the time is measured in milliseconds
            if(System.currentTimeMillis()>time){
                if (calendar.AM_PM == 0)
                    time = time + (1000*60*60*12);
                else
                    time = time + (1000*60*60*24);
            }
            alarmManager.setRepeating(AlarmManager.RTC_WAKEUP, time,10000,
            pendingIntent);
        }
        else{
            alarmManager.cancel(pendingIntent);
            Toast.makeText(MainActivity.this, "ALARM
            OFF",Toast.LENGTH_SHORT).show();
        }
    }
}

```

Teacher's Signature _____



Alaram reaciver java file

```
package com.example.madlabprogram10;

import androidx.appcompat.app.AppCompatActivity;

import android.app.AlarmManager;
import android.app.PendingIntent;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.TimePicker;
import android.widget.Toast;
import android.widget.ToggleButton;

import java.util.Calendar;

public class MainActivity extends AppCompatActivity {
    TimePicker alarmTimePicker;
    PendingIntent pendingIntent;
    AlarmManager alarmManager;

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

        alarmTimePicker = (TimePicker) findViewById(R.id.timePicker);
        alarmManager = (AlarmManager) getSystemService(ALARM_SERVICE);
    }

    public void OnToggleClicked(View view) {
        long time;
        if (((ToggleButton) view).isChecked()){
            Toast.makeText(MainActivity.this, "ALARM ON",
            Toast.LENGTH_SHORT).show();
            Calendar calendar = Calendar.getInstance();
            calendar.set(Calendar.HOUR_OF_DAY,alarmTimePicker.getCurrentHour());
            calendar.set(Calendar.MINUTE,alarmTimePicker.getCurrentMinute());
            Intent intent = new Intent(this, AlarmReceiver.class);
```

```
pendingIntent=PendingIntent.getBroadcast(this, 0, intent,0);

time=(calendar.getTimeInMillis()-(calendar.getTimeInMillis()%60000));
// the operating system for some the time is measured in milliseconds
if(System.currentTimeMillis()>time){
    if (calendar.AM_PM == 0)
        time = time + (1000*60*60*12);
    else
        time = time + (1000*60*60*24);
}
alarmManager.setRepeating(AlarmManager.RTC_WAKEUP, time,10000,
pendingIntent);

}
else{
    alarmManager.cancel(pendingIntent);
    Toast.makeText(MainActivity.this, "ALARM
OFF",Toast.LENGTH_SHORT).show();
}
```

Department of MCA, SIT Tumkur
CIE Breakup
LABORATORY

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Record	10	10
Viva-Voice	05	4
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