

Alarm Clock Experiment

// ex11_main.java

```
public class ex11_main extends AppCompatActivity {

    Calendar calendar;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.ex11_main);

        final EditText et_time=findViewById(R.id.et_time);

        final AlarmManager
alarmManager=(AlarmManager)getSystemService(ALARM_SERVICE);
        final Intent i1=new Intent(getApplicationContext(),alarm.class);
        final PendingIntent pd=PendingIntent.getBroadcast(getApplicationContext(),0,i1,0);

        calendar=Calendar.getInstance();

        et_time.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                new TimePickerDialog(ex11_main.this, new
TimePickerDialog.OnTimeSetListener() {
                    @Override
                    public void onTimeSet(TimePicker view, int hourOfDay, int minute) {
                        et_time.setText(Integer.toString(hourOfDay)+":"+Integer.toString(minute));

                        calendar.set(Calendar.HOUR_OF_DAY,hourOfDay);
                        calendar.set(Calendar.MINUTE,minute);

alarmManager.setExact(AlarmManager.RTC_WAKEUP,calendar.getTimeInMillis(),pd);

                            Toast.makeText(ex11_main.this, "Alarm ON",
Toast.LENGTH_SHORT).show();
                        }
                    },calendar.get(Calendar.HOUR_OF_DAY),
calendar.get(Calendar.MINUTE),false).show();
                }
            });
    }
}
```

```
// ex11_main.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<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"
    tools:context="cocomo.lab.ex11_main">

    <EditText
        android:id="@+id/et_time"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

</RelativeLayout>
```

```
// alarm.java
```

```
import android.app.NotificationManager;
import android.app.PendingIntent;
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.media.Ringtone;
import android.media.RingtoneManager;
import android.net.Uri;
import android.support.v4.app.NotificationCompat;

public class alarm extends BroadcastReceiver {

    @Override
    public void onReceive(Context context, Intent intent) {
        Uri uri= RingtoneManager.getDefaultUri(RingtoneManager.TYPE_ALARM);
        Ringtone ringtone=RingtoneManager.getRingtone(context,uri);
        ringtone.play();

        PendingIntent pd=PendingIntent.getActivity(context,0,intent,0);
        NotificationCompat.Builder builder=new NotificationCompat.Builder(context);
        builder.setSmallIcon(R.mipmap.ic_launcher_round);
        builder.setContentIntent(pd);
        builder.setContentTitle("Alarm");
        builder.setContentText("Wake up");

        NotificationManager notificationManager=(NotificationManager)
context.getSystemService(Context.NOTIFICATION_SERVICE);
        notificationManager.notify(1,builder.build());
    }
}
```

