Practical No : 13

Practical Name : **Write a android background service that will open activity on specific time.(Alarm)**

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**activity\_main.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout 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">  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Start"  
 android:layout\_alignParentBottom="true"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginBottom="103dp" />  
  
 <EditText  
 android:id="@+id/time"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="22dp"  
 android:ems="10" />  
  
</RelativeLayout>

**MainActivity.java**

package com.example.alarm;  
  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.app.AlarmManager;  
import android.app.PendingIntent;  
import android.content.Intent;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 Button start;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 start= findViewById(R.id.*button*);  
  
 start.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 startAlert();  
 }  
 });  
 }  
  
 public void startAlert(){  
 EditText text = findViewById(R.id.*time*);  
 int i = Integer.*parseInt*(text.getText().toString());  
 Intent intent = new Intent(this, MyBroadcastReceiver.class);  
 PendingIntent pendingIntent = PendingIntent.*getBroadcast*(  
 this.getApplicationContext(), 234324243, intent, 0);  
 AlarmManager alarmManager = (AlarmManager) getSystemService(*ALARM\_SERVICE*);  
 alarmManager.set(AlarmManager.*RTC\_WAKEUP*, System.*currentTimeMillis*()  
 + (i \* 1000), pendingIntent);  
 Toast.*makeText*(this, "Alarm set in " + i + " seconds",Toast.*LENGTH\_LONG*).show();  
 }  
}

**MyBrodcastReciver.java**

package com.example.alarm;  
  
import android.content.BroadcastReceiver;  
import android.content.Context;  
import android.content.Intent;  
import android.media.MediaPlayer;  
import android.widget.Toast;  
  
public class MyBroadcastReceiver extends BroadcastReceiver {  
 MediaPlayer mp;  
 @Override  
 public void onReceive(Context context, Intent intent) {  
 mp=MediaPlayer.*create*(context, R.raw.*alarm* );  
 mp.start();  
 Toast.*makeText*(context, "Alarm....", Toast.*LENGTH\_LONG*).show();  
 }  
}

**AndroidMainfest.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools">  
  
 <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.Alarm"  
 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>  
  
 <meta-data  
 android:name="android.app.lib\_name"  
 android:value="" />  
 </activity>  
 <receiver android:name="MyBroadcastReceiver" >  
 </receiver>  
 </application>  
  
</manifest>

**Output :**