AIM:-

Write a mobile application to set the alarm using android Alarm Manager class.

PROCEDURE:-

Step 1: Create a new Android Project.

Step 2: Design the user Interface.

Step 3: Implement alarm setting functionality.

Step 4: Handle alarm receiver.

Step 5: Implement snooze functionality.

Step 6: Test the application.

Step 7: Handle edge cases.

Step 8: Optimize and refine.

PRGRAM CODE:-

AndroidManifest.xml:

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"

    package="com.example.alarmclock">

    <uses-permission
android:name="com.android.alarm.permission.SET_ALARM" />

    <application

        android:allowBackup="true"
```

```xml
        android:icon="@mipmap/ic_launcher"

        android:label="@string/app_name"

        android:roundIcon="@mipmap/ic_launcher_round"

        android:supportsRtl="true"

        android:theme="@style/AppTheme">

        <activity android:name=".MainActivity">

            <intent-filter>

                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

        <receiver android:name=".AlarmReceiver" />

    </application>

</manifest>
```

activity_main.xml:

```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=".MainActivity">

    <Button

        android:id="@+id/buttonSetAlarm"
```

```xml
    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Set Alarm"

    android:layout_centerInParent="true"

    android:onClick="setAlarm" />

</RelativeLayout>
```

MainActivity.kt:

```kotlin
package com.example.alarmclock

import android.app.AlarmManager

import android.app.PendingIntent

import android.content.Context

import android.content.Intent

import android.os.Bundle

import android.widget.Toast

import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_main)}

    fun setAlarm(view: android.view.View) {

        val alarmManager = getSystemService(Context.ALARM_SERVICE) as
AlarmManager

        val alarmIntent = Intent(this, AlarmReceiver::class.java).let { intent ->
```

```kotlin
        PendingIntent.getBroadcast(this, 0, intent, 0)}

    val timeInterval = 10 * 60 * 1000 // 10 minutes in milliseconds

    alarmManager.setRepeating(

        AlarmManager.RTC_WAKEUP,

        System.currentTimeMillis() + timeInterval,

        timeInterval.toLong(),

        alarmIntent

    )

    Toast.makeText(this, "Alarm set successfully",
Toast.LENGTH_SHORT).show()

}}
```

AlarmReceiver.kt:

```kotlin
package com.example.alarmclock

import android.content.BroadcastReceiver

import android.content.Context

import android.content.Intent

import android.widget.Toast

class AlarmReceiver : BroadcastReceiver() {

    override fun onReceive(context: Context, intent: Intent) {

        Toast.makeText(context, "Alarm! Snooze for 10 minutes",
Toast.LENGTH_SHORT).show()

    }

}
```
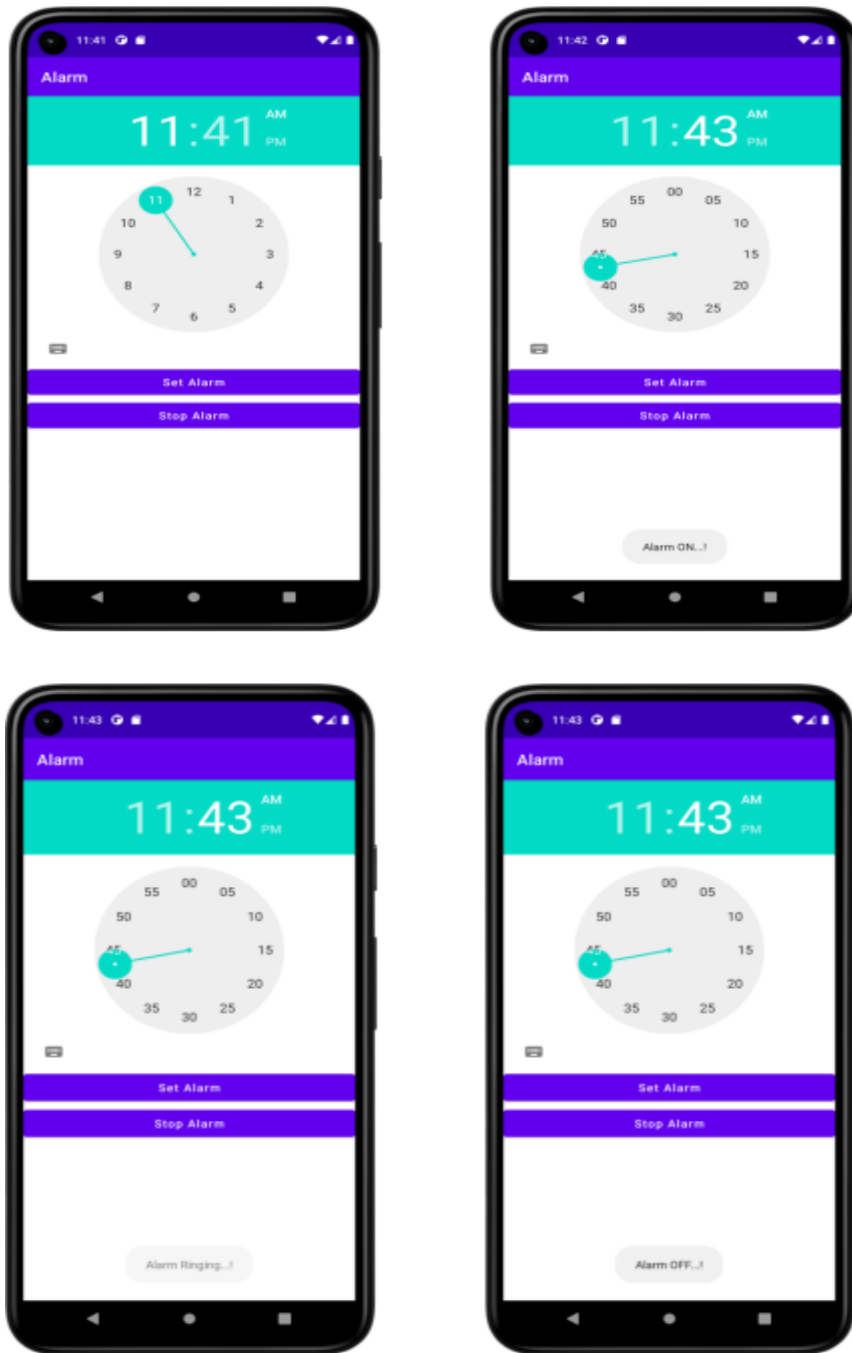
OUTPUT:-

RESULT:-

Thus to write a mobile application to set the alarm using android Alarm Manager class is implemented and executed successfully.