**MOBILE APPLICATION DEVELOPMENT**

**(MAD)**

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ASSIGNMENT NO.11

# Assignment Name :Write a mobile application that creates alarm clock

# 

Code For Manifest File :

<?*xml version*="1.0" *encoding*="utf-8"?>

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

*package*="com.example.alarmclock">

<application

*android:allowBackup*="true"

*android:icon*="@mipmap/ic\_launcher"

*android:label*="@string/app\_name"

*android:roundIcon*="@mipmap/ic\_launcher\_round"

*android:supportsRtl*="true"

*android:theme*="@style/Theme.AlarmClock">

<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"> </receiver>

</application>

</manifest>

Code For XMl File : (activity\_main.xml)

<?*xml version*="1.0" *encoding*="utf-8"?>

<LinearLayout *xmlns:android*="http://schemas.android.com/apk/res/android"

*android:layout\_width*="match\_parent"

*android:layout\_height*="match\_parent"

*android:background*="#FFEB3B"

*android:orientation*="vertical">

<TimePicker

*android:id*="@+id/timepicker"

*android:layout\_width*="wrap\_content"

*android:layout\_height*="wrap\_content"

*android:layout\_gravity*="center"

*android:background*="#03A9F4" />

<ToggleButton

*android:id*="@+id/togglebutton"

*android:layout\_width*="wrap\_content"

*android:layout\_height*="wrap\_content"

*android:layout\_gravity*="center"

*android:layout\_margin*="20dp"

*android:background*="#FF5722"

*android:checked*="false"

*android:onClick*="onToggleClicked" />

</LinearLayout>

Code For JAVA File : (MainActivity.java)

*package* com.example.alarmclock;

*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

{

PendingIntent pendingIntent;

TimePicker tp;

AlarmManager am;

@Override

*protected void* onCreate(Bundle savedInstanceState)

{

*super*.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

tp = (TimePicker) findViewById(R.id.*timepicker*);

am = (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*, tp.getCurrentHour());

calendar.set(Calendar.*MINUTE*, tp.getCurrentMinute());

Intent intent = *new* Intent(*this*, AlarmReceiver.*class*);

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

time = (calendar.getTimeInMillis() - (calendar.getTimeInMillis() % 60000));

*if* (System.*currentTimeMillis*() > time)

{

*if* (calendar.*AM\_PM* == 0)

time = time + (1000 \* 60 \* 60 \* 12);

*else*

time = time + (1000 \* 60 \* 60 \* 24);

}

am.setRepeating(AlarmManager.*RTC\_WAKEUP*, time, 10000, pendingIntent);

}

*else*

{

am.cancel(pendingIntent);

Toast.*makeText*(MainActivity.*this*,"ALARM OFF",Toast.*LENGTH\_SHORT*).show();

}

}

}

Code For JAVA (class) File : (AlarmReciever.java)

*package* com.example.alarmclock;

*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.widget.Toast;

*public class* AlarmReceiver *extends* BroadcastReceiver

{

@Override

*public void* onReceive(Context context, Intent intent)

{

Toast.*makeText*(context,"Wake up! Wake up!",Toast.*LENGTH\_LONG*).show();

Uri alarmUri= RingtoneManager.*getDefaultUri*(RingtoneManager.*TYPE\_ALARM*);

*if*(alarmUri==*null*)

{

alarmUri=RingtoneManager.*getDefaultUri*(RingtoneManager.*TYPE\_NOTIFICATION*);

}

Ringtone ringtone= RingtoneManager.*getRingtone*(context,alarmUri);

ringtone.play();

}

}

SCREENSHOTS

 

