**MOBILE APPLICATION DEVELOPMENT**

**(MAD)**

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ASSIGNMENT NO.9

# Assignment Name :Android Application that implements Multi threading

Code For Manifest File :

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

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

# *package*="com.example.multithreading">

# 

# <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.MultiThreading">

# <activity *android:name*=".MainActivity">

# <intent-filter>

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

# 

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

# </intent-filter>

# </activity>

# </application>

# </manifest>

# 

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

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

<androidx.constraintlayout.widget.ConstraintLayout *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"

*android:background*="#03A9F4"

*tools:context*=".MainActivity">

<TextView

*android:id*="@+id/textView1"

*android:layout\_width*="330dp"

*android:layout\_height*="47dp"

*android:hint*="thread"

*app:layout\_constraintBottom\_toBottomOf*="parent"

*app:layout\_constraintEnd\_toEndOf*="parent"

*app:layout\_constraintHorizontal\_bias*="0.501"

*app:layout\_constraintStart\_toStartOf*="parent"

*app:layout\_constraintTop\_toTopOf*="parent"

*app:layout\_constraintVertical\_bias*="0.358" />

<TextView

*android:id*="@+id/textView2"

*android:layout\_width*="330dp"

*android:layout\_height*="54dp"

*android:hint*="thread1"

*app:layout\_constraintBottom\_toBottomOf*="parent"

*app:layout\_constraintEnd\_toEndOf*="parent"

*app:layout\_constraintStart\_toStartOf*="parent"

*app:layout\_constraintTop\_toTopOf*="parent"

*app:layout\_constraintVertical\_bias*="0.448" />

<EditText

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

*android:layout\_width*="378dp"

*android:layout\_height*="50dp"

*android:hint*="Thread1"

*app:layout\_constraintBottom\_toBottomOf*="parent"

*app:layout\_constraintEnd\_toEndOf*="parent"

*app:layout\_constraintStart\_toStartOf*="parent"

*app:layout\_constraintTop\_toTopOf*="parent"

*app:layout\_constraintVertical\_bias*="0.078" />

<Button

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

*android:layout\_width*="218dp"

*android:layout\_height*="46dp"

*android:text*="Multithreading"

*app:backgroundTint*="#831C1C"

*app:layout\_constraintBottom\_toBottomOf*="parent"

*app:layout\_constraintEnd\_toEndOf*="parent"

*app:layout\_constraintStart\_toStartOf*="parent"

*app:layout\_constraintTop\_toTopOf*="parent"

*app:layout\_constraintVertical\_bias*="0.215" />

</androidx.constraintlayout.widget.ConstraintLayout>

Code For JAVA File : (MainActivity.java)

*package* com.example.multithreading;

*import* androidx.appcompat.app.AppCompatActivity;

*import* android.os.Bundle;

*import* android.view.View;

*import* android.widget.Button;

*import* android.widget.EditText;

*import* android.widget.TextView;

*public class* MainActivity *extends* AppCompatActivity {

EditText edit;

TextView textView1;

TextView textView2;

Button button;

*boolean* twice = *false*;

Thread t=*null*;

@Override

*protected void* onCreate(Bundle savedInstanceState) {

*super*.onCreate(savedInstanceState);

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

edit = findViewById(R.id.*edit*);

textView1 = findViewById(R.id.*textView1*);

textView2 = findViewById(R.id.*textView2*);

findViewById(R.id.*button*).setOnClickListener(*new* View.OnClickListener() {

@Override

*public void* onClick(View v) {

runthread();

runthread1();

}

});

}

*private void* runthread1() {

runOnUiThread(*new* Runnable() {

@Override

*public void* run() {

*try* {

Thread.*sleep*(5000);

} *catch* (InterruptedException e) {

e.printStackTrace();

}

textView1.setText("Ass\_ 9 \_ Multithreading ");

}

});

}

*private void* runthread() {

twice = *true*;

*if* (twice) {

*final* String s1 = edit.getText().toString();

t = *new* Thread(*new* Runnable() {

@Override

*public void* run() {

runOnUiThread(*new* Runnable() {

@Override

*public void* run() {

textView2.setText(t.getName());

twice = *false*;

}

});

}

});

t.start();

t.setName(s1);

t.setPriority(Thread.*MAX\_PRIORITY*);

}

}

}

SCREENSHOTS :

 