**Practical 10**

**Programming threads, handles and asynchronized programs**

**Pract 10th A**

**Main Activity.kt**

package com.example.prac10

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.os.Handler

import android.os.Looper

import android.widget.Button

import android.widget.TextView

import kotlin.random.Random

class MainActivity : AppCompatActivity() {

private lateinit var handler: Handler

private lateinit var runnable: Runnable

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

handler= Handler(Looper.getMainLooper())

val numberTextView = findViewById<TextView>(R.id.numberTextView)

val generateNumber= findViewById<Button>(R.id.generateButton)

generateNumber.setOnClickListener {

val thread =Thread{

Thread.sleep(3000)

val random = Random

val number = random.nextInt(1000)

handler.post{

numberTextView.text=number.toString()

}

}

thread.start()

}

}

}

**Main Activity.xml**

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

<LinearLayout 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:orientation="vertical"

tools:context=".MainActivity">

<Button

android:id="@+id/generateButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:onClick="generateNumber"

android:text="Generate Number" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/numberTextView"

android:text="0"/>

</LinearLayout>