**PROJECT Threads and Java**

**Objective** To investigate background processes in computer applications.

***PROJECT DESCRIPTION***

This project involves an application that illustrates concurrent processing in a computer system.

Compile and execute a program that demonstrates the use of threads in Java. Then, modify the program according to the instructions which follow.

***Information about This Project***

Threads are a single sequential flow of control within a program.

***Steps to Complete This Project***

**STEP 1 Launch a Java IDE and Create a New Java Project**

Create a new Java project and associate it with the starter code given in

**Figure 1** .

**STEP 2 Test the Starter Code**

Review and test the starter code given in **Figure 1** .

**STEP 3 Modify the Starter Code**

Alter the main program so that a third thread is created. The thread will have the name " Accounting Dept. " .

Compile and re - run the program multiple times.

Take screen snapshots to show which of the company departments will be completed first.

**STEP 4 Submit the Project**

Submit a copy of your completed project ( with output ) for credit.

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**Figure 1 Starter Code for the Java Thread Application**

|  |
| --- |
| **class ThreadApp extends Thread**  **{**  **public ThreadApp(String str)**  **{**  **super(str);**  **}**  **public void run()**  **{**  **for (int i = 0; i < 10; i++)**  **{**  **System.*out*.println(i + " " + getName());**  **try**  **{**  ***sleep*((int)(Math.*random*() \* 5000));**  **} catch (InterruptedException e) { }**  **}**  **System.*out*.println("completed! " + getName());**  **}**  **}**  **class TestThreadApp {**  **public static void main (String args[])**  **{**  **new ThreadApp("Receiving Dept.").start();**  **new ThreadApp("Shipping Dept.").start();**  **}**  **}** |