**Java**

Assignment - Day 6

Concept: Multi-threading

Objective: At the end of the assignment, participants will be able to:

* Implement multi-tasking using threads
* Create and manage threads
* Synchronize threads

Problems:

1. Create a class **MyThread** derived from **Thread** class and override the run method.

Create a class **ThreadDemo** having main method. Create 2 objects of MyThread class and observe the behavior of threads

1. Modify the above to create MyThread class by implementing **Runnable** interface and observe the behavior of threads.
2. Assign different priorities to the 2 threads and observe the behaviour
3. Implement three classes: **Storage, Counter** and **Printer**

The Storage class should store an integer.

The Counter class should create a thread and starts counting from 0 (0,1,2,3..) and stores each value in the Storage class.

The Printer class should create a thread that keeps reading the value in the Storage class and printing it.

Write a program that creates an instance of the Storage class and set up a Counter and Printer object to operate on it.

1. Modify assignment #4 to ensure that each number is printed exactly once, by adding suitable synchronization.
2. Modify assignment #5 to implement inter thread communication using wait( ) and notify( )