OOD Fall 2020 Assignment 3: SIM part 2
Due: November 25th, 2020

SIM part 2

You are asked to modify your SIM system to implement a so called ***n***SIM machine. An ***n***SIM machine is similar to a SIM except that it allows the concurrent execution of ***n*** programs. The ***n***SIM has one data memory bank which contains 1024 integer memory locations, and ***n*** instruction memory banks, each of 1024 locations, for holding the ***n*** programs to be run concurrently.

Notice that because the data memory bank is used in common between the n concurrent programs that there is a need to synchronize access to it.

You should submit the following items:
(a) Class diagram showing the structure of the classes in your simulator
(b) The documented C++ source code
(c) Sample test programs to be run on your simulator
(d) A short users' guide to your simulator