IT-253: Operating Systems Laboratory Handout

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In today's laboratory there is evalaution of the assingments given. The evalautors and students' assignments are as follows:

171667IT144 to 181427IT110 : by Dr. B. Neelima
181220IT111 to 181017IT125: by Mr. Vinayaka
181299IT126 to 181436IT140: by Mr. Abhishek
181762IT141 to 181403IT154 and 181326IT238 : by Mr. Vikky
181875IT201 to 181190IT218: by Ms. Swathi
181418IT219 to 181471IT235 by Ms. Sujatha
181369IT236 to 181047IT254 by Ms. Anusha

The evalaution is to be completed on the same day. Late submission is subject to the availability of the evalautors and there will be late submission marks deduction until the next lab.

Excercise 1: There are five philosophers, each identified by a number 0. . 4. Each philosopher enters into the three following states: THINKING, HUNGRY and EATING and will run each process as a separate thread. Use two semaphores in C (using Pthread library): Mutex and a Semaphore array for the philosophers where, Mutex is used such that no two philosophers may access the pickup or put down at the same time and semaphore array is used to control the behavior of each philosopher.

Optional(not for evaluation): Implement Dining Philosophers using Monitors.

Excercise 2: Demonstrate how process synchronization problem in producer consumer problem is solved with semaphores.

Note: This lab includes the evalaution of readers-writers program as well.