# Operating Systems (coe628) Lab 9—Dining Philosophers

April 3, 2017

Duration 2 weeks

#### **Objectives**

- Deadlock and the dining philosophers
- Solving deadlock with semaphores (standard Java)

#### **Notes**

- The dining philosoper problem is described <a href="here">here</a> . (These are lecture notes from the University of Southern California, UCB.) This paper also includes a C version of the algorithm using semaphores.
- The Wikipedia article also describes the problem and gives a solution in python.

#### Part A: Translate the C version to Java

Convert the UCB C algorithm to Java.

### Part B: Implement your own version of the Semaphore class

• Use your version of Semaphore from the previous lab.

## And Finally: Submit your lab

To submit your lab do:

- 1. Zip your source code files into a file named lab9.zip.
- 2. Submit the zip file with the command: submit coe628 lab9 lab9.zip

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