Assignment 2 for CMPT300

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Question 1.

An example deadlock scenario?

Resource hierarchy solution for dining philosopher will not generate deadlocks because it doesn't satisfy all four conditions simultaneously, mutual exclusion, hold and wait, no preemption and circular wait. The resource hierarchy solution only satify mutual exculsion, hold and wait, and no preemption. Meanwhile, circular wait doesn't exist as when four out of five philosohper simultaneously picked up the lower numbered fork, only the highest-numbered fork will remain on the table and the fifth philosopher will not be able to pick up any forks. Since there is one remaining fork, this mean one of the four philosophers that are stuck can eat and circular wait will not happen.

Since resouce hierarchy solution doesn't create deadlock, I am unable to provide a specific input and expected output for TA to verify.