# Lab CC 7: Semaphores

## Objectives

In this lab, you will create counting semaphore to control access to four resources by five threads

## Instructions

### Step 1: The Resource Class

1. Implement the counting semaphore as a static variable for the Resource class. We want the semaphore to be independent of any specific instance of a resource.
2. Each resource will have a name and be runnable in its own thread

Text

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### Step 2: The run() method

1. The first part of the run method prints out the number of available permits then tries to acquire one of the permits.
2. It will block until it gets the permit, and when it does, it prints out the message that it has got one.
3. The thread then emulates doing some work while also checking to see how many permits are available
4. When the work is done, the permit is release in the finally block with the thread printing out the fact its permit is released and the updated number of permits available.

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### Part 3: The Runner Class

1. The runner creates five threads sets them running

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1. The output should look something like that shown on the next page.

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