IN5570 - Distributed Objects
Mandatory Assignment 1 – Oblig1

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Introduction

Initially, you should run the **hi-ho** example, which can be found under `Examples` on the course website. For questions regarding the task feel free to post on the Obliq1 Piazza forum. If you have not done so yet, you should sign up here:
piazza.com/uio.no/spring2019/in5570/
We prefer that you come to the TA sessions or lectures or, any time, use Piazza for questions. Experience shows that you often can get good answers from others very quickly.

Exercise 1 - Barriers

Program a **barrier** in Emerald with a test program that has four processes that are waiting for the barrier several times. Create print statements that provide information about when a process tries to pass and again when the process has passed. Finally create a process that triggers the barrier three times. Run the program.
Deliver the program, the output, and any comments that you might have.

Exercise 2 - Producer/Consumer

Program a **producer/consumer** buffer with Emerald. Send the sequence 1..30 through the buffer where the producer waits 100 ms (hint: use `delay`) every third time and the consumer waits 100 ms every fifth time. Create print statements that provide information when an item is inserted into and removed from the buffer. Use an array with space for a maximum of two items.
Deliver the program, the output, and any comments that you might have.

Exercise 3 - Kilroy timing: local and on Planetlab

The task is to change the kilroy.m program so that it can do proper timing as required and then run it on a set of machines and measures how many machines it can visit per second.
You are to do this with two different sets of machines:
The first set is at least three machines at a single site, e.g., at IFI or at some Planetlab site that has 3 machines at the same site.
The second set is at least four Planetlab machines that are at least 500 km away from one another.
Deliver the program, the output, and any comments that you might have.

Delivery

The deadline is **Tuesday February** 19^{th} **2018 at 23:59**.

The assignment must be submitted in devilry. In addition to the source code, you should deliver a `.txt` file with the output from a run of the program, and a PDF with any comments that you have on the three exercises.

Good luck—and have fun!