

Lab 1: The Perils of Concurrency

In this lab, you will get to demonstrate the problems that can arise with the TrucksAndBridges project due to interactions between threads.

Start by obtaining the lab files, and then

1. Demonstrate that timing problems can cause a truck to fall through the bridge.
 - a) Change any method(s) of any class(es) by adding call(s) to `BrainSample.try_to_sleep` to accomplish this goal. You are also allowed to change the parameter to any existing `try_to_sleep`, but this should not be necessary.
 - b) Create a file `Part1-README.txt` (or `.pdf` if you use a word processor) that shows the output you get when you run the program and a truck falls off, and also give a brief description of how this works.
2. Demonstrate that timing problems can cause a mis-calculation of bridge load even when nothing falls through the bridge.
 - a) Change any method(s) of any class(es) by adding call(s) to `BrainSample.try_to_sleep` to accomplish this goal. You can also change the parameter to any existing `try_to_sleep`, or introduce a `try_to_sleep` in the middle of a statement, as discussed in class.
 - b) Create a file `Part2-README.txt` (or `.pdf`), showing a demonstration of the problem and explaining what's going on.

Remember to `Team->Commit` your work when you are done, or at other points during development when you have completed a significant part of the work.