

# CSC413 Assignment 2: Async Task

**Due:** October 9th, 7:10pm

## **Task:**

Create a program with an event loop that refreshes its output on a fixed timer. In order to accomplish a long task, create a worker thread that will handle the task, and post progress, and result. Use a `ConcurrentLinkedQueue` to pass event messages. Create an interface or abstract class `Message`. Create 2 base classes `ProgressMessage` and `CompletionMessage`. `ProgressMessage` will contain a parameter for progress complete, and `CompletionMessage` will have a parameter for a string result. On every update of the event loop, the main thread will check for messages, then trigger one of two handlers `onProgress`, and `onComplete`. `onProgress` updates the progress widget, `onComplete` should pass a message saying "Task complete!". After the task is complete, the event loop can exit.

## **Result:**

Progress bar should move and timer should continue while the long task gets completed in the background.

## **Bitbucket:**

Use master and develop branches. Working commits go to develop, only pull request to master when finished. Don't need to do feature branches yet.

## **Grading:**

- 60% For Working Program (Demo)
- 30% Style
- 10% Docs (Turn in zip)