

Assignment 4

EEL4732/5733 Advanced Systems Programming

Due: Tuesday, March 15th by midnight

In this assignment, you are going to implement the Combiner program (from Assignment 2) using **multiple processes**. As in Assignment 2, you will be using shared memory and synchronization primitives (mutexes, condition variables, or semaphores). However, in this assignment you need to use the **mmap** system call to set up the shared region (for the synchronization primitives as well as for the data) as the mapper and the reducers will be implemented as separate processes. Note that this requires setting of the synchronization primitives as process shared. *We also require that anonymous mapping (no backing file) is used with mmap.* The command line parameters and the expected output will be the same as in Assignment 2. Your solution must be free of data races and deadlocks.

Please submit your solution including a Readme and a Makefile on CANVAS by the due date.