A 1- or 2-page report that describes your software design. What threads did you create? What data was shared and what were the critical regions? What thread synchronization did you use?

We designed our program by first initializing mutexes and the semaphore. We created threads for students and threads for each of the queues that will hold the arriving students based on their priorities. The students are held in a struct data structure with the student ID, the section they will enroll in, their turnaround time, their arrival time, and their finish time as attributes. There are three types of priorities: graduating seniors, regular seniors, and everyone else.

The critical regions is when we move an arriving student into a queue and when we move a student from the queue into a section.