Project report

CECS 326

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Video link: https://youtu.be/OASiK2ftFOo

East village, West village, and RoadController.java were the three files that were assigned to us. All three of these files were altered.

I created an object out of a semaphore that only allows one thread or process to run at once. Next, using semaphore as a constructor input, I created an object of East village. After that, I also created an object for West village using a semaphore as a constructor option. After that, I began the threads for the East and the West.

The East village was then modified, and a private semaphore was created for a class whose value would be determined by the constructor. It was created to use semaphore s as a parameter in the constructor of East Village. Next, using this semaphore, I get a permit, blocking until one becomes available or the thread is terminated. The traveler begins moving down the route when I create a random number. Next, to mimic a new action, the randomly generated number is utilized to assign a random task from the task array. Then, to symbolize crossing a road, I created a thread that sleeps for one second. After that, I return the permit to the semaphore and release it.

The West village was then modified, and a private semaphore was created for a class whose value would be determined by the constructor. It was created to use semaphore as a parameter in the constructor of West Village. Next, using this semaphore, I have a permit, blocking until one becomes available or the thread is terminated. The traveler begins moving down the route when I create a random number. Next, to mimic a new action, the randomly generated number is utilized to assign a random task from the task array. Then, to symbolize crossing a road, I created a thread that sleeps for one second. After that, I return the permit to the semaphore and release it.