After reading the probaility parameter and initialize the 2 semaphore the main create 2 threads. The first thread iterate 100 times, after a micro sleep it gets the current timestap, with the proper function, and then according to the different probability it select one of the 2 different queue and it enqueue the value. The enqueue action it's preceded by the sem_wait and it's followed by the signal.

The second thread instead sleep for 10 ms, wait for a semaphore (at least one value is needed inside the queue than it select the queue from which get the value, in deque the value, singal and then print the getted value.