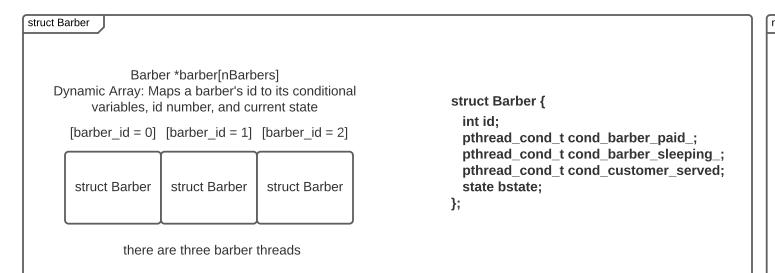
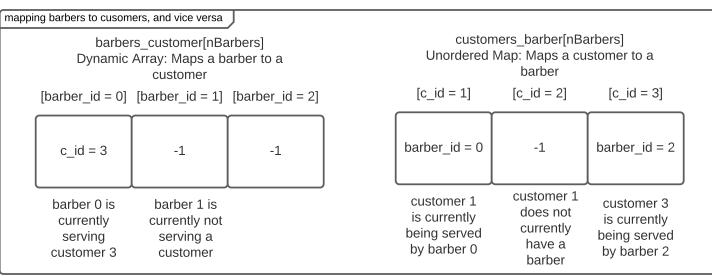
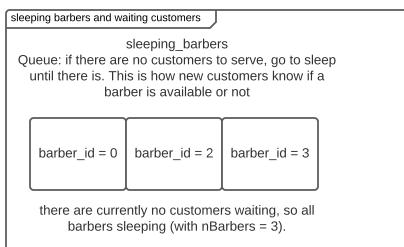
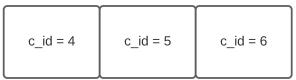
Data Structure Visiulization





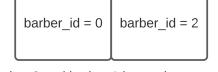


waiting_chairs_ Queue: if there are no barbers available, wait until one is free

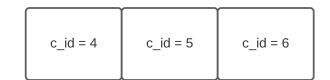


there are currently 3 customers waiting for a barber to become available

waiting_for_customer, go to sleep in a separate queue than sleeping barbers to avoid hangs and deadlocks with new customers



barber 0 and barber 1 just woke up customers, they wait until customers wake up to sync their execution being_served Queue: all customers currently being served. being_served.size() is used to determine if new customers should wait



there are currently 3 customers being served

Pseudocode Program Flow

