

SID problem:

Dr. Dheya Mustafa

```
insertMutex = Semaphore(1)
noSearcher = Semaphore(1)
noInserter = Semaphore(1)
Int Search_count = 0
Search_cnt_mutex = Semaphore(1)
Int insert_count = 0
insert_cnt_mutex = Semaphore(1)
```

<pre>Searcher() Wait(search_cnt_mutex); Search_count++; If(search_count==1) Wait(nosearcher) Signal(search_cnt_mutex) # critical section Wait(search_cnt_mutex); Search_count--; If(search_count==0) signal(nosearcher) Signal(search_cnt_mutex)</pre>	<pre>Inserter() Wait(insert_cnt_mutex); insert_count++; If(insert_count==1) Wait(noinserter) Signal(insert_cnt_mutex) insertMutex.wait() # critical section insertMutex.signal() Wait(insert_mutex2); insert_count--; If(insert_count==0) signal(noinserter) Signal(insert_mutex2)</pre>	<pre>Delete() noSearcher.wait() noInserter.wait() # critical section noInserter.signal() noSearcher.signal()</pre>
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Barber problem

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customers = 0
mutex = Semaphore(1)
customer = Semaphore(0)
barber = Semaphore(0)
```

<pre>Barber() customer.wait() barber.signal() cutHair</pre>	<pre>Customer() mutex.wait() if customers == n+1: mutex.signal() balk() customers += 1 mutex.signal() customer.signal() barber.wait() getHairCut() mutex.wait() customers -= 1 mutex.signal()</pre>
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