

Technical Report

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자료구조 과제4

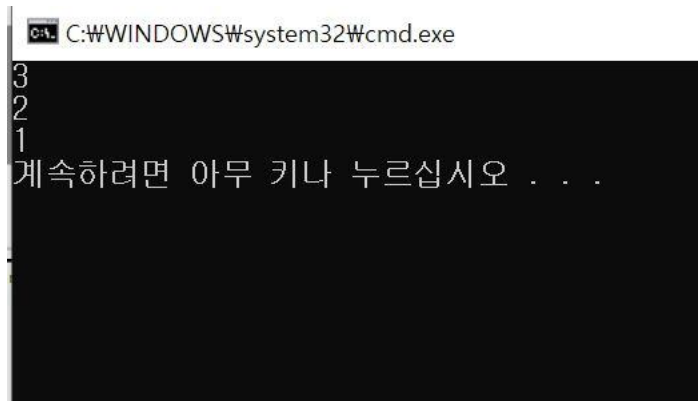
HW4-1

1.basic ideas and how you applied it into your code, analysis of your code(complexity)

원형 이중연결리스트를 이용해서 스택을 만들었다.

Dummy node 인 head 노드를 통해, pop, push 함수를 구현할 수 있었다. 이를 이용하면 push pop 을 간단하게 할 수 있다.

2. result image



HW4-2

1.basic ideas and how you applied it into your code, analysis of your code(complexity)

큐 대기줄 시뮬레이션 - STAFF 가 2 명일때

- BANK_STAFF_SIZE 를 2 로 지정한후 기존의 코드를 수정했다.

확인을 위해 중간중간 print 문도 넣어주었다.

2. result image

```
current time: 1분
Customer 0 comes in 1 minutes. Service time is 3 minutes.
Customer 1 comes in 1 minutes. Service time is 5 minutes.
[Staff 1]
Customer 0 starts service in 1 minutes. Wait time was 0 minutes.
[Staff 2]
Customer 1 starts service in 1 minutes. Wait time was 0 minutes.
```

```
current time: 2분
Customer 2 comes in 2 minutes. Service time is 3 minutes.
Customer 3 comes in 2 minutes. Service time is 5 minutes.
[Staff 1]
[Staff 2]
```

```
current time: 3분
Customer 4 comes in 3 minutes. Service time is 5 minutes.
[Staff 1]
[Staff 2]
```

```
current time: 4분
Customer 5 comes in 4 minutes. Service time is 2 minutes.
[Staff 1]
Customer 2 starts service in 4 minutes. Wait time was 2 minutes.
[Staff 2]
```

```
current time: 5분
Customer 6 comes in 5 minutes. Service time is 1 minutes.
Customer 7 comes in 5 minutes. Service time is 1 minutes.
[Staff 1]
[Staff 2]
```

```
current time: 6분
Customer 8 comes in 6 minutes. Service time is 5 minutes.
[Staff 1]
[Staff 2]
Customer 3 starts service in 6 minutes. Wait time was 4 minutes.
```

```
current time: 7분
Customer 9 comes in 7 minutes. Service time is 1 minutes.
[Staff 1]
Customer 6 starts service in 7 minutes. Wait time was 2 minutes.
대기 중
[Staff 2]
```

```
current time: 8분
Customer 10 comes in 8 minutes. Service time is 1 minutes.
Customer 10 : 1 Staff
Customer 11 comes in 8 minutes. Service time is 3 minutes.
[Staff 1]
Customer 10 starts service in 8 minutes. Wait time was 0 minutes.
대기 중
[Staff 2]
```

```
current time: 9분
Customer 12 comes in 9 minutes. Service time is 4 minutes.
Customer 12 : 1 Staff
Customer 13 comes in 9 minutes. Service time is 1 minutes.
[Staff 1]
Customer 12 starts service in 9 minutes. Wait time was 0 minutes.
[Staff 2]
```

```
current time: 10분
Customer 14 comes in 10 minutes. Service time is 3 minutes.
Customer 15 comes in 10 minutes. Service time is 1 minutes.
```

```
Number of customers served = 7
Total wait time = 8 minutes
Average wait time per person = 1.142857 minutes
Number of customers still waiting = 9
-> [Staff 1]
Service total time : 5분
waited time : 2분
마감시간이므로 고객 12님의 남은 업무 2분은 다음 날로
-> [Staff 2]
Service total time : 8분
waited time : 0분
end
```

계속하려면 아무 키나 누르십시오 . . .