


CSE 101 1-11-24

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gitlab repo

username (cruzid@ucsc.edu)



gitlab username = cruzid

≠ cruzid1

# Private Node type

```

typedef struct NodeObj * Node;
typedef struct { ... } NodeObj;

```

or

```

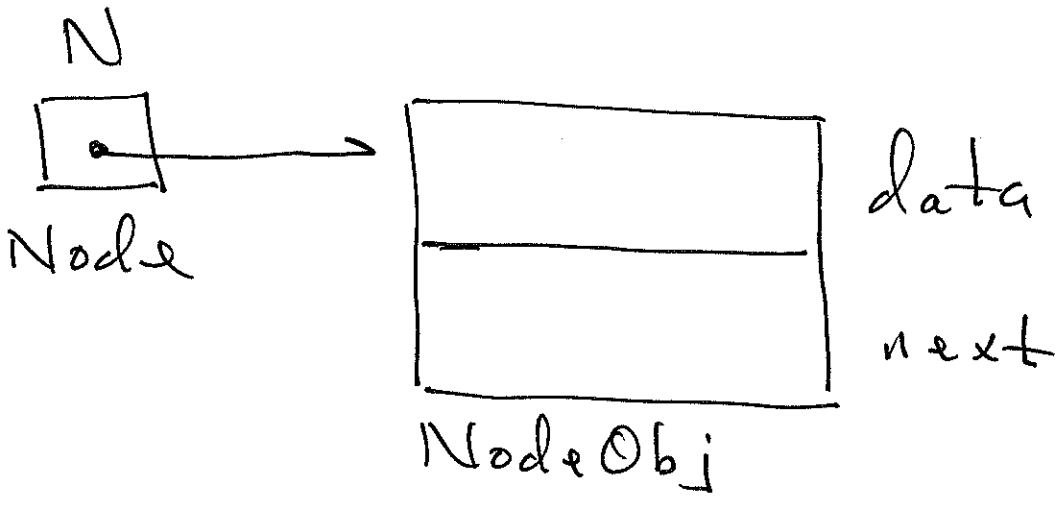
typedef struct NodeObj {
  Queue element data;
  struct NodeObj * next;
} NodeObj;

```

```

typedef NodeObj * Node;

```



- \* Pointer dereference
  - o component selection
- both
- A large curly bracket groups the first two items, and a curved arrow points from the right side of the bracket back to the text "both".

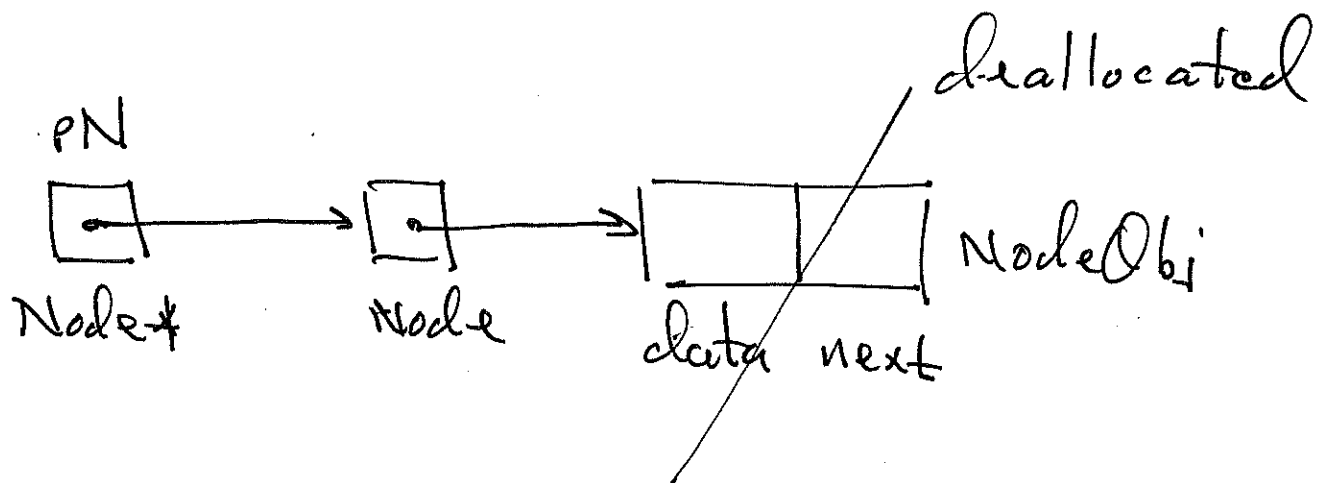
```
(*N).data = x;
```

same as

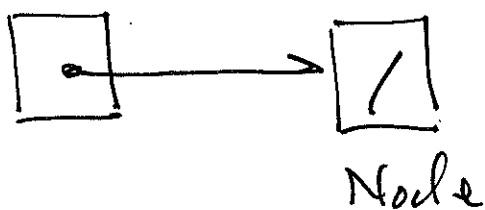
```
N->data = x;
```

destructor : free Node

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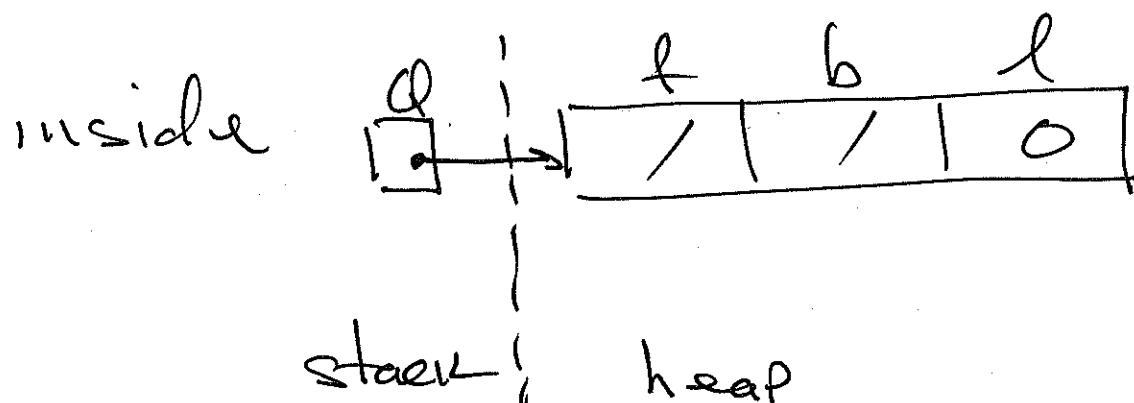


Result



empty Queue

client ( )



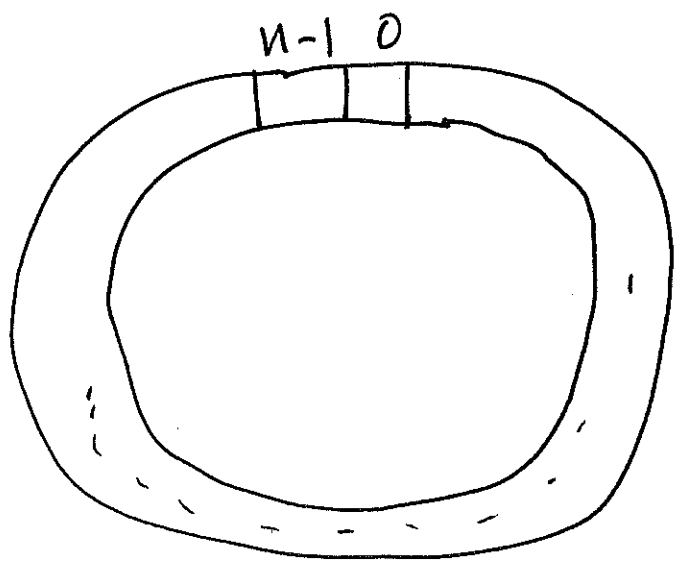
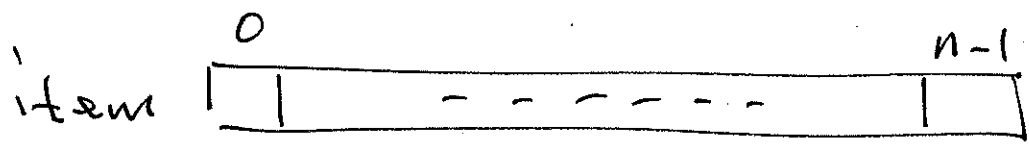
& : address-of

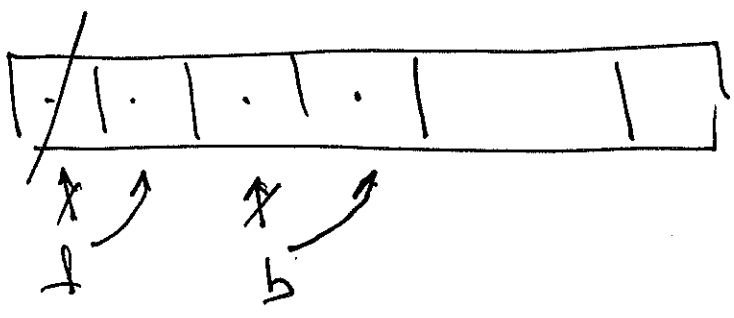
\* : value-at

$\&*P == P;$  // true

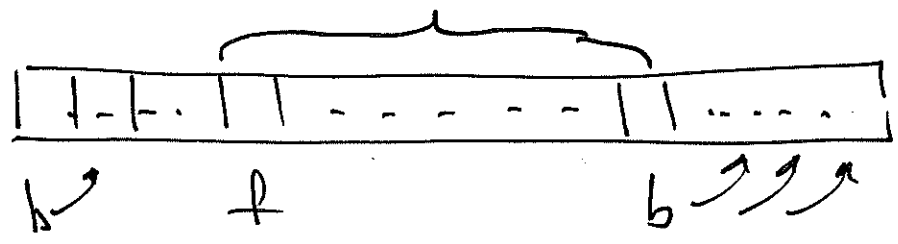
$*\&x == x;$  // true

### Array implementation!





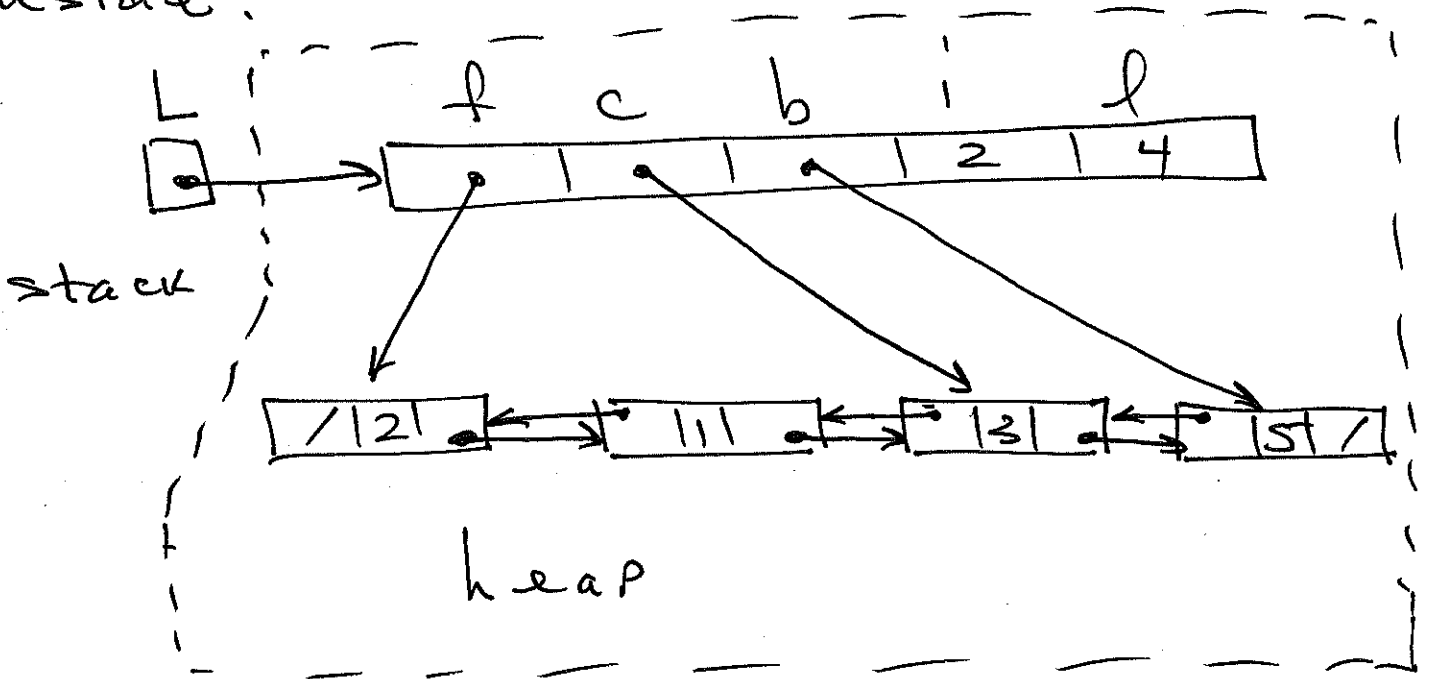
Queue



List ADT :

Ex.  
 client: ( 2 1 3 5 )

inside:



Ex empty state

client: ( )

