

Another way to create a Node

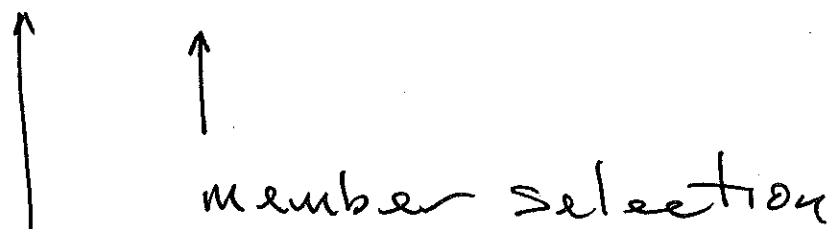
```
typedef struct NodeObj * Node;
```

```
typedef struct NodeObj {  
    int data;  
    Node next;  
} NodeObj;
```

Note:

in C and C++

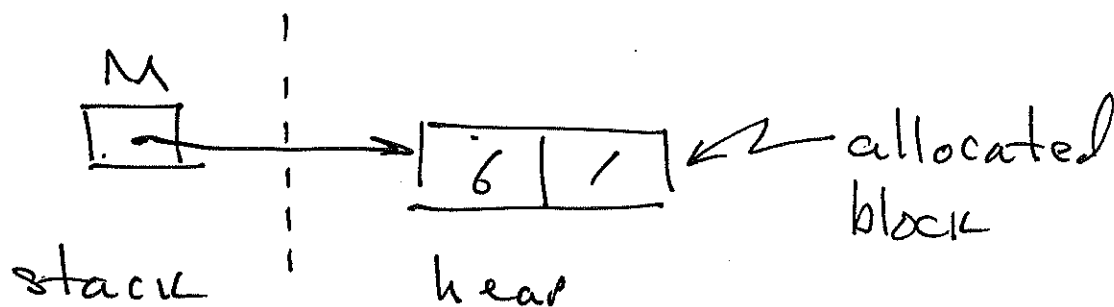
(\*N).data same as N->data



Pointer dereference (value-at)

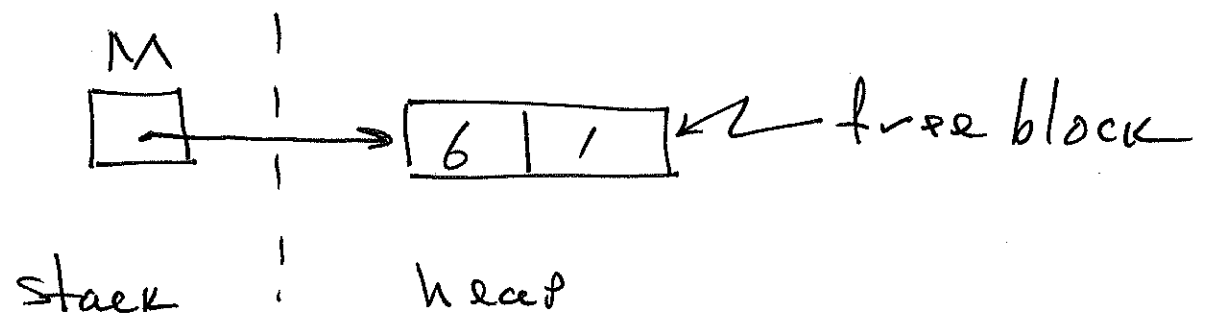
after: --

```
Node M = newNode(6);
```

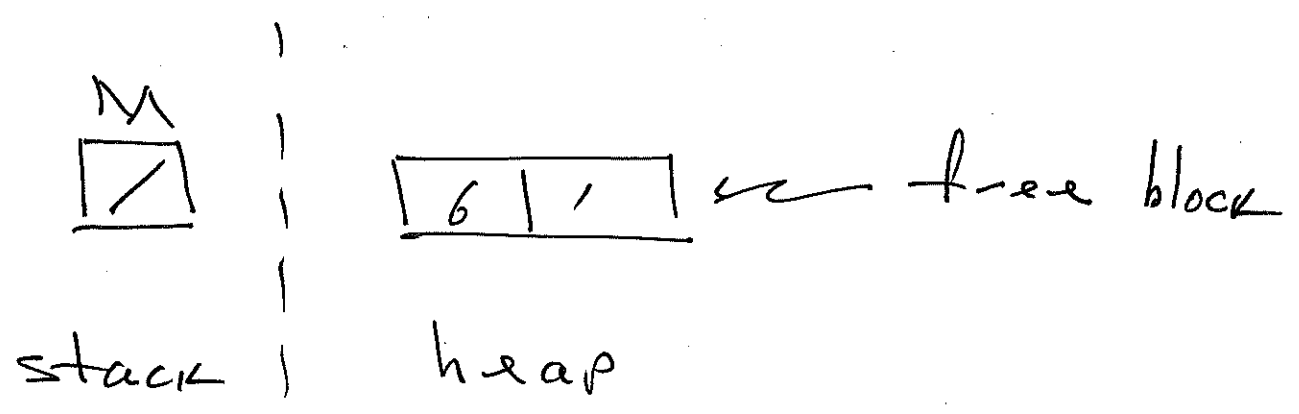


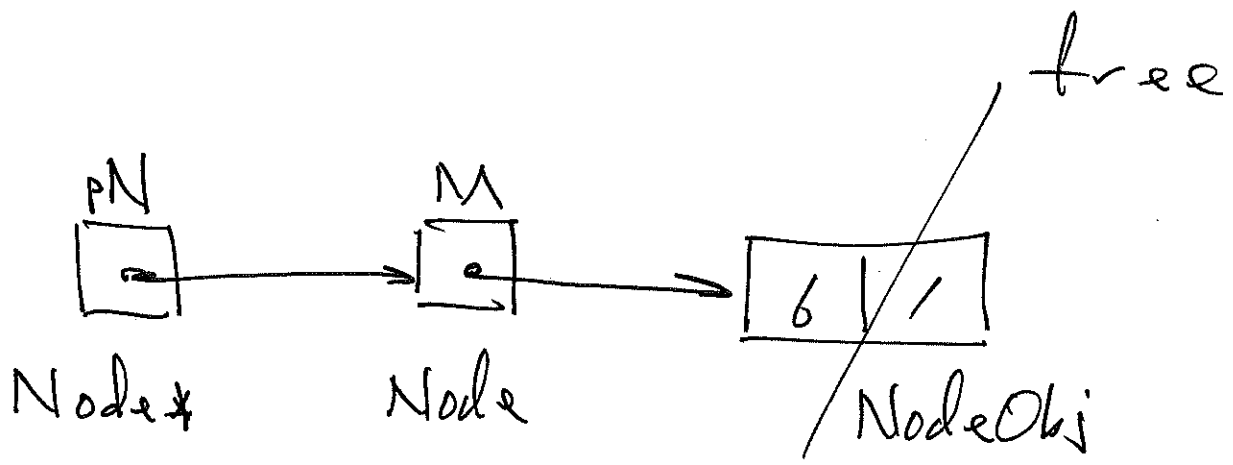
if we do

```
free(M);
```

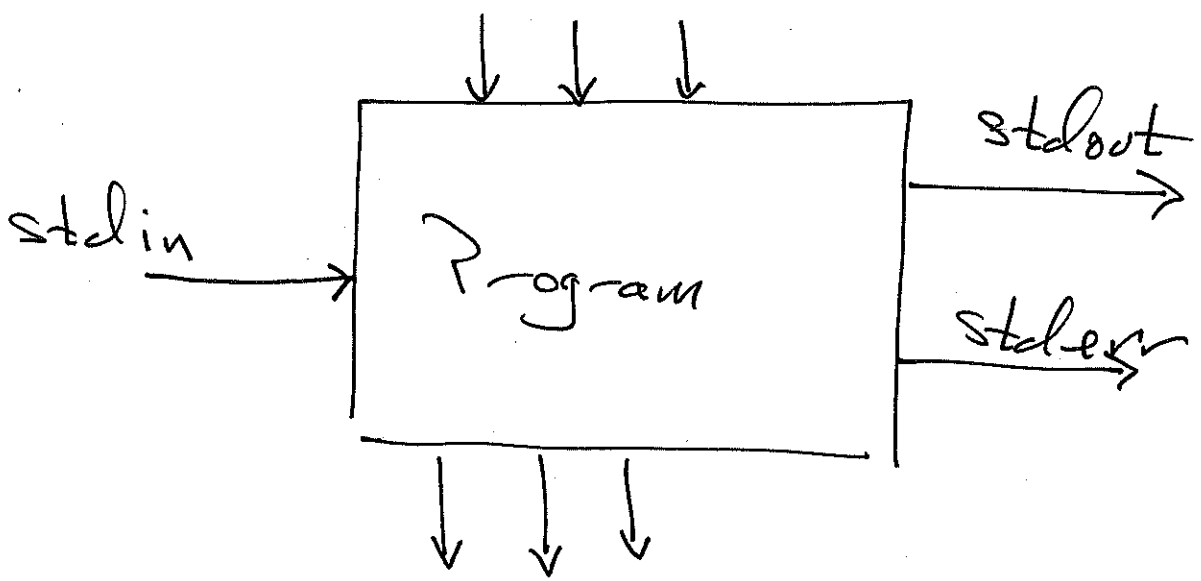


instead `freeNode(&M);`



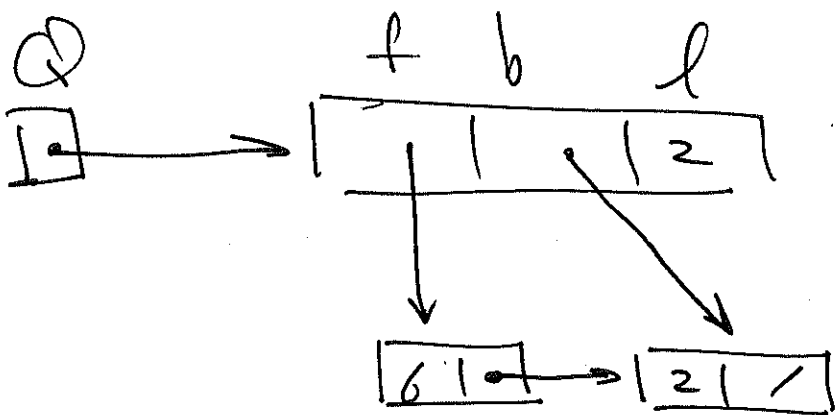


streams:



inside view

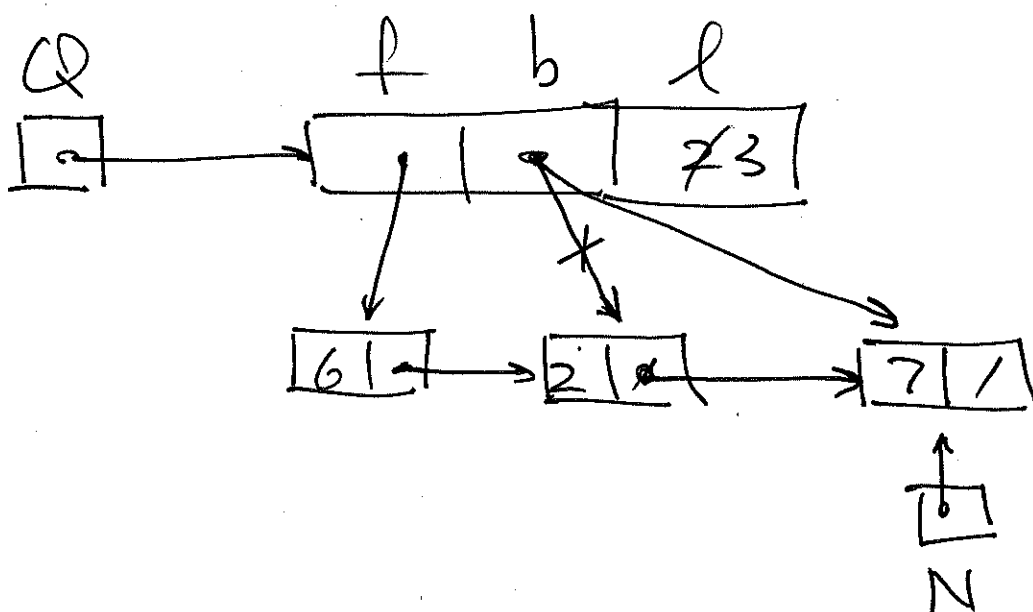
5



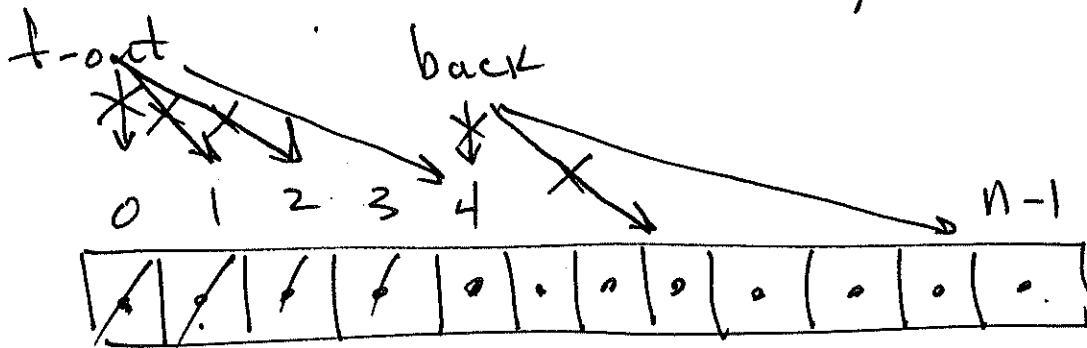
Client view

Enqueue(7): (6, 2) ~ (6, 2, 7)

inside view



# Queue as an array



length  
of queue

index arithmetic is  $\%N$