

Programming hand-in 6

Link to Github: [Aarhus-University-ECE/assignment-6-sima0110: assignment-6-sima0110 created by GitHub Classroom](https://github.com/SimaAlalo/assignment-6-sima0110)

Exercise 1

(1) (Text answer) (old exam question) Consider the following program fragment:

```
1  int x;  
2  int y;  
3  int z;  
4  int* w;  
5  int* q;  
6  x = 0;  
7  y = 1;  
8  z = 2;  
9  w = &x;  
10 q = &y;  
11 *w = y;  
12 *q = z;  
13 *w = x + y + z + *q;  
14 *q = x + y + z + *w;  
15 printf("x=%d, y=%d, z=%d", x, y, z);
```

What does the program print when it is executed?

Answer:

$x = 7, y = 18$ and $z = 2$

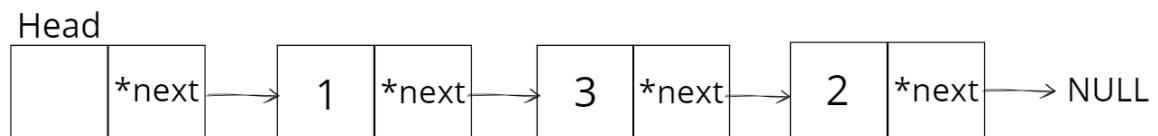
Exercise 2

Done in github

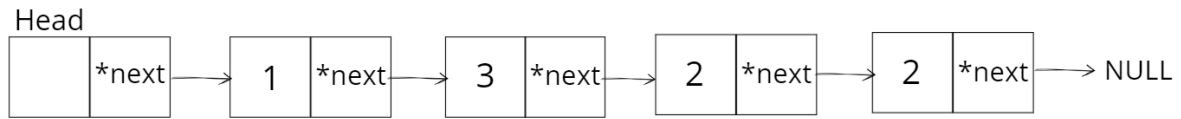
Exercise 3

a)

At line 31:



At line 33:



b) Done in github

c)

```
void printout(node *l) {  
    /*pre: head points to the first, empty element.  
       The last element's next is NULL  
    post: the values of the list are printed out*/  
    node *p = l->next;  
    while (p!=NULL) {  
        printf("%d, ", p->data);  
    }  
    printf("\n");  
}
```

The while loop in the code would continue running infinitely, as the condition would always be true because the current node is the same. Therefore, the postcondition would never be fulfilled.

d) Done in github

e) Done in github