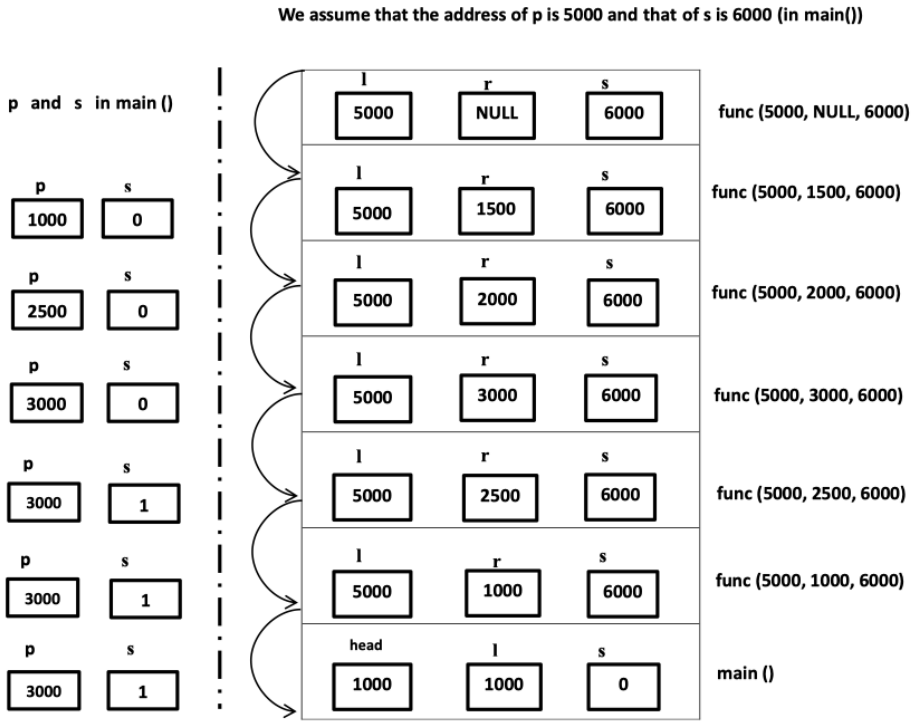
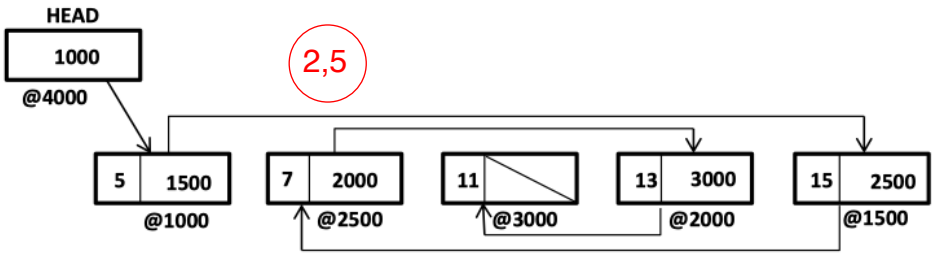
Exercise 01: (4pts)

The call stack:



1,5

The state of the list after execution:



Exercise 02: (6pts)

Given an array of integers and a target sum, write a function to check if there are two distinct elements in the array that add up to the target sum.

```
Input: arr = {2, 3, 4, 5}, target = 6
Output: 1 (because 2 and 4 add up to the target 6)
```

1,5

```
1
2  int checkSum(int arr[], int n, int target) {
3      for (int i = 0; i < n - 1; ++i) {
4          for (int j = i + 1; j < n; ++j) {
5              if (arr[i] + arr[j] == target) return 1;
6          }
7      }
8      return 0;
9  }
```

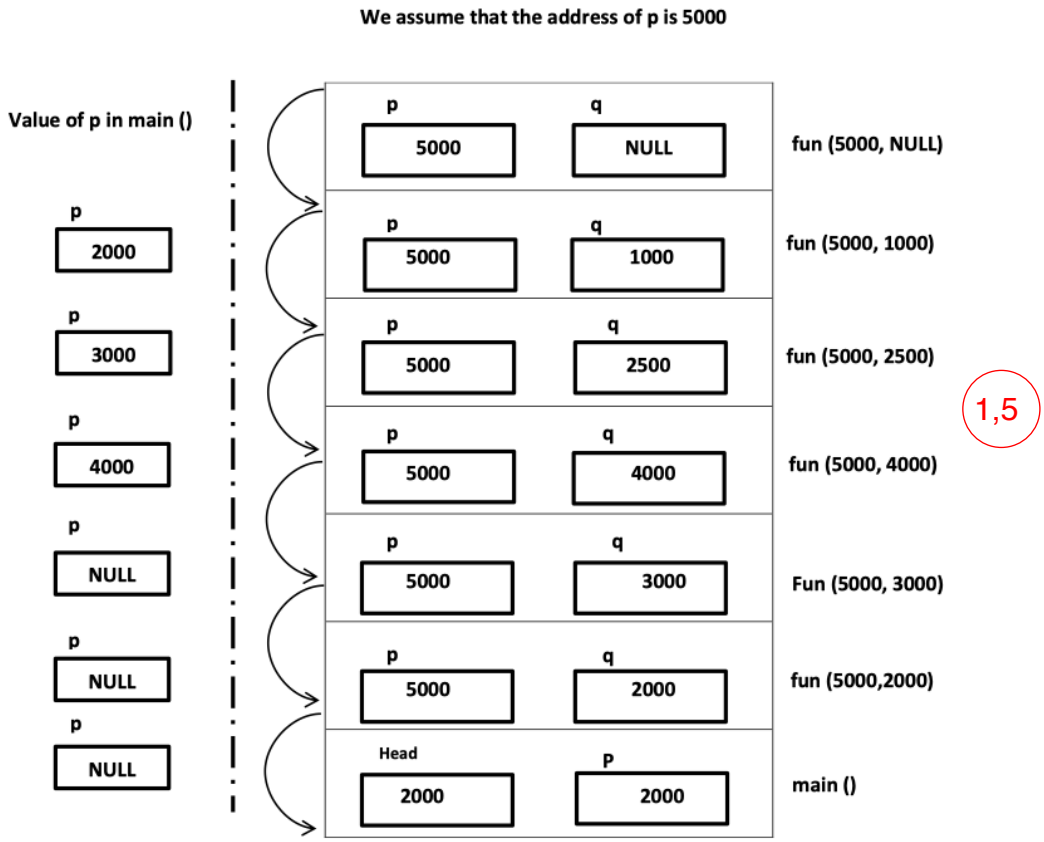
2,75

1,5

0,25

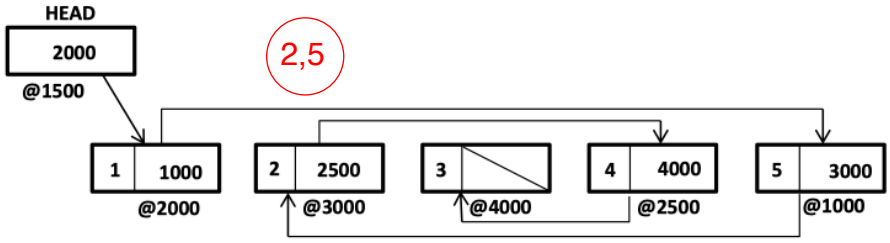
Exercise 01: (4pts)

The call stack:



1,5

The state of the list after execution:



2,5

Exercise 02: (6pts)

Given an array of integers and an integer k, check if the array contains any duplicate elements such that the two occurrences of the same number are at most k positions apart.

```
Input: arr = {4, 5, 2, 4}, k = 3
Output: 1 (because 4 appears twice and the indices are 3 positions apart)
```

1,5

```
1
2  int checkDupl(int arr[], int n, int k) {
3      for (int i = 0; i < n; ++i) {
4          for (int j = i + 1;  j < n ; ++j) {
5              if (arr[i] == arr[j] && j - i <= k ) return 1;
6          }
7      }
8      return 0;
9  }
```

2,75

1,5

0,25