




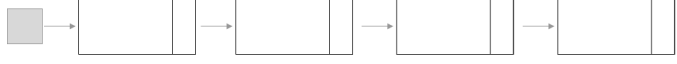
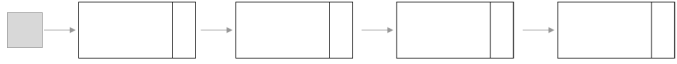
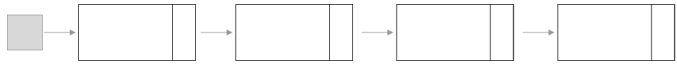
# CSC148 Worksheet 12 Solution

Hyungmo Gu


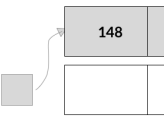
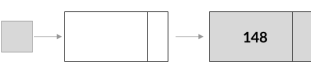
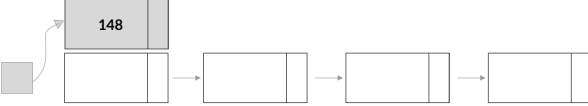
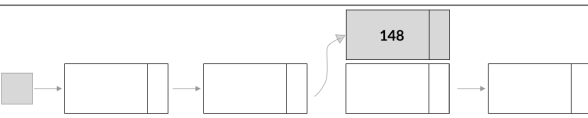

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## Question 1


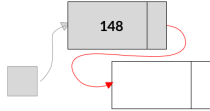

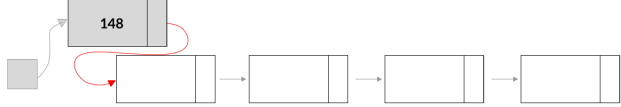
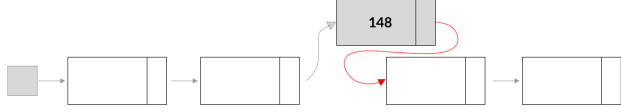

a.

| Input description                       | Linked list diagram  |
|---|--|
| <code>len(self) == 0, index == 0</code> |     |
| <code>len(self) == 1, index == 0</code> |     |
| <code>len(self) == 1, index == 1</code> |   |
| <code>len(self) == 4, index == 0</code> |  |
| <code>len(self) == 4, index == 2</code> |  |
| <code>len(self) == 4, index == 4</code> |  |

b.

| Input description                       | Linked list diagram  |
|---|--|
| <code>len(self) == 0, index == 0</code> |   |
| <code>len(self) == 1, index == 0</code> |   |
| <code>len(self) == 1, index == 1</code> |   |
| <code>len(self) == 4, index == 0</code> |  |
| <code>len(self) == 4, index == 2</code> |  |
| <code>len(self) == 4, index == 4</code> |  |

### Correct Solution:

| Input description                       | Linked list diagram   |
|---|---|
| <code>len(self) == 0, index == 0</code> |    |
| <code>len(self) == 1, index == 0</code> |    |
| <code>len(self) == 1, index == 1</code> |    |
| <code>len(self) == 4, index == 0</code> |   |
| <code>len(self) == 4, index == 2</code> |   |
| <code>len(self) == 4, index == 4</code> |  |

## Question 2

- To reassign `self._first` to something new, `len(self)` can be value, but `index` has to be at 0.
- To make `insert` method to behave the same as `LinkedList.append`, `len(self)` can be any value, but `index = len(self) - 1`.

## Question 3