




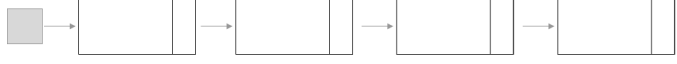
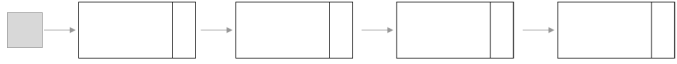
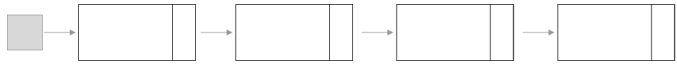
CSC148 Worksheet 12 Solution

Hyungmo Gu


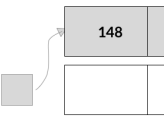
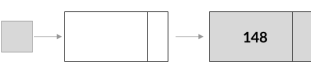
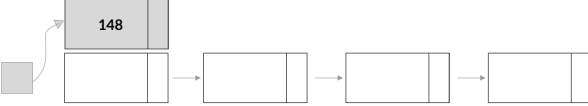
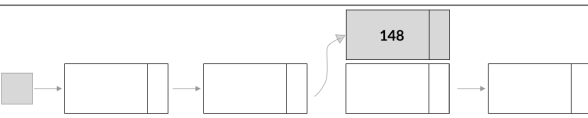

April 23, 2020

Question 1


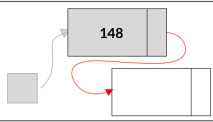
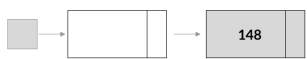
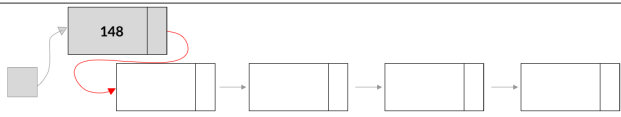
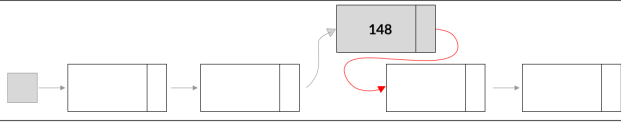

a.

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>	 <p>A small grey square points to a single node. The node is a rectangle divided into two parts: the left part contains the number 148, and the right part is empty.</p>
<code>len(self) == 1, index == 0</code>	 <p>A small grey square points to the first of two nodes. The first node contains 148 and points to the second node. The second node is empty.</p>
<code>len(self) == 1, index == 1</code>	 <p>A small grey square points to the first of two nodes. The first node is empty and points to the second node, which contains 148.</p>
<code>len(self) == 4, index == 0</code>	 <p>A small grey square points to the first of five nodes. The first node contains 148 and points to the second node. The second, third, and fourth nodes are empty and point sequentially to each other. The fifth node is empty.</p>
<code>len(self) == 4, index == 2</code>	 <p>A small grey square points to the first of five nodes. The first, second, and fourth nodes are empty and point sequentially to each other. The third node contains 148 and points to the fourth node. The fifth node is empty.</p>
<code>len(self) == 4, index == 4</code>	 <p>A small grey square points to the first of five nodes. The first, second, third, and fourth nodes are empty and point sequentially to each other. The fifth node contains 148.</p>

Question 2

Question 3