

Data Structures

Some Drawing 4 Solutions

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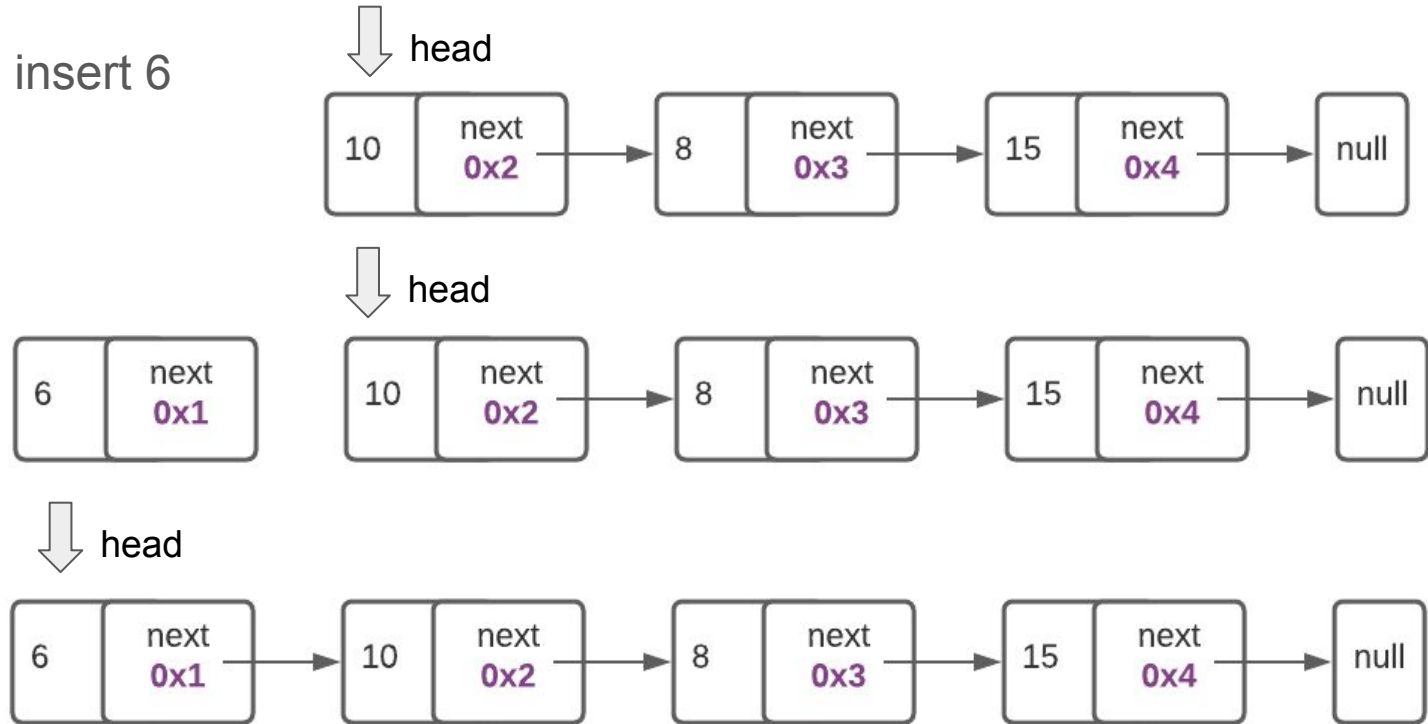
Problem #2: Insert front

- We implemented insert_end in the lecture
- We want to be able to insert front as following

```
LinkedList list;  
  
list.insert_end(6);  
list.insert_end(10);  
list.insert_end(8);  
list.insert_end(15);  
  
list.insert_front(7);  
list.insert_front(5);  
list.insert_front(1);  
  
list.print();  
// 1 5 7 6 10 8 15
```

Problem #2: Insert front

- Let's insert 6



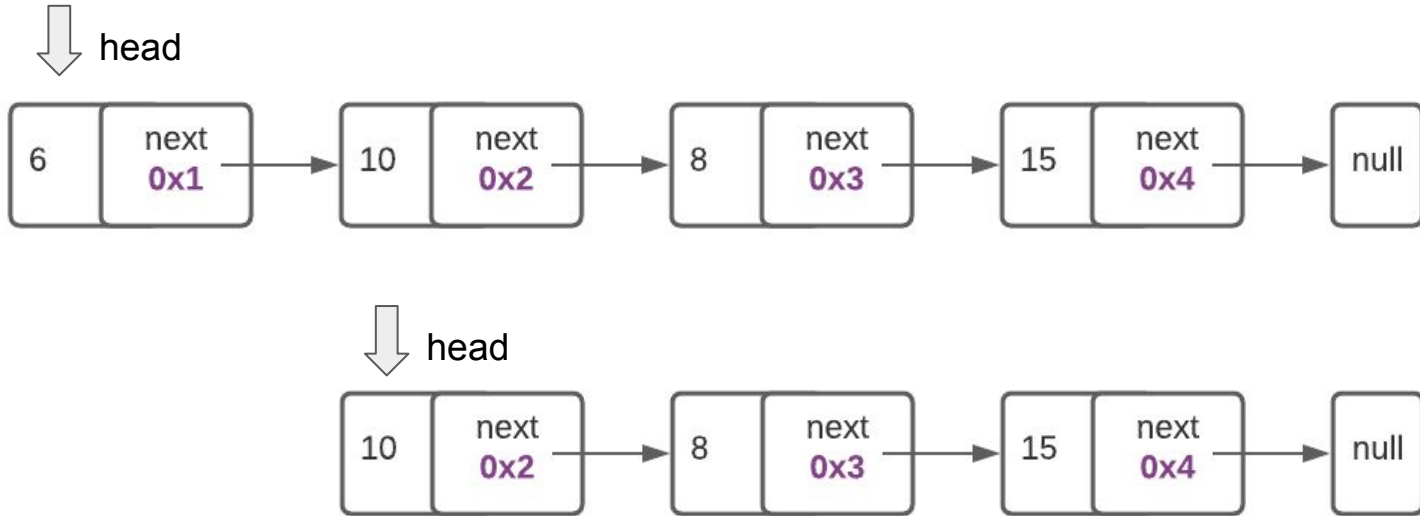
Problem #3: Delete front

- The opposite of insert front

```
LinkedList list;  
  
list.insert_end(6);  
list.insert_end(10);  
list.insert_end(8);  
list.insert_end(15);  
  
list.delete_front();  
list.print();  
// 10 8 15
```

Problem #3: Delete front

- Exactly the opposite
- The head next will be the new head



Problem #6: Linked List without tail/length!

- We normally insert_end 6, 10, 6, 8, 15 to get this list
 - We use tail node to add to tail
- Without tail, we must insert them 15, 8, 6, 10
 - We will create new head and link it with previous head

