

Implement a Linked List - SOLUTION

Problem Statement

Implement a Linked List by using a Node class object. Show how you would implement a Singly Linked List *and* a Doubly Linked List!

Solution

Since this is asking the same thing as the implementation lectures, please refer to those video lectures and notes for a full explanation. The code from those lectures is displayed below:

Singly Linked List

```
In [1]: class LinkedListNode(object):  
  
        def __init__(self, value):  
  
            self.value = value  
            self.nextnode = None
```

```
In [2]: a = LinkedListNode(1)  
        b = LinkedListNode(2)  
        c = LinkedListNode(3)
```

```
In [3]: a.nextnode = b  
        b.nextnode = c
```

Doubly Linked List

```
In [4]: class DoublyLinkedListNode(object):  
  
        def __init__(self, value):  
  
            self.value = value  
            self.next_node = None  
            self.prev_node = None
```

```
In [5]: a = DoublyLinkedListNode(1)  
        b = DoublyLinkedListNode(2)  
        c = DoublyLinkedListNode(3)
```

```
In [6]: # Setting b after a  
        b.prev_node = a  
        a.next_node = b
```

```
In [7]: # Setting c after a  
        b.next_node = c  
        c.prev_node = b
```

Good Job!