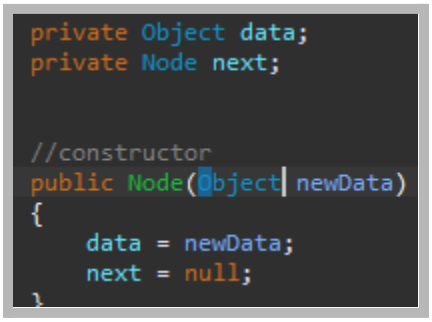
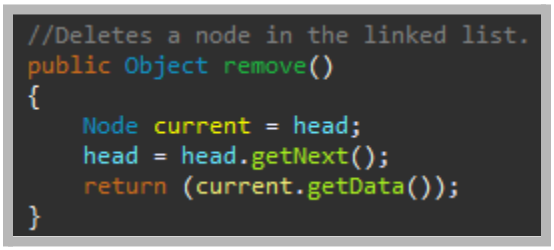
Credit Name: Advanced Algorithms and Data Structures
Assignment Name: QueueList

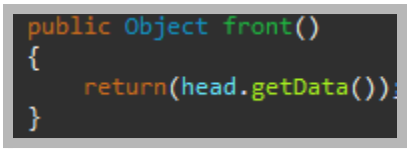
How has your program changed from planning to coding to now? Please explain?



I started the QueueList mastery in a similar way to the StackList mastery, by starting out creating a Node and LinkedList class. I had to change the data that is being stored from String to Object in the Node class too.



Next I started working on the LinkedList class and removed the addAtFront method. I also modified the remove method to remove the Object at the front.



Finally I added a new method that would only return the Object at the front and moved onto the QueueList class.

```
//Create array and variables for size, rear and front
LinkedList data;


//Constructor
public QueueList()
{
    data = new LinkedList();
}
```

For the QueueList class I changed the regular array to a LinkedList as well as removing the rear, front, and max size variables.

```
//Remove item from the front
public Object dequeue()
{
    return (data.remove());
}


//Add item to the rear
public void enqueue(Object item)
{
    data.addAtEnd(item);
}
```

```
//Retrieve item from the front
public Object front()
{
    return(data.front());
}
```

Next I changed the dequeue and enqueue methods to use the remove and addAtEnd methods from LinkedList. I also changed the front method as well.

```java
//Check if the queue is empty
public boolean isEmpty()
{
    if (data.size() == 0)
    {
        return true;
    }
    else
    {
        return false;
    }
}


//Check the size of the queue
public int size()
{
    return (data.size());
}


//Empty the queue
public void makeEmpty()
{
    data.makeEmpty();
}
```

I also changed the isEmpty, size, and makeEmpty methods to incorporate methods from the LinkedList class. Finally I copied the test code from the other two queue skillbuilders to test the QueueList class.