# **Program 5 - Linked Lists**

## 100 points

#### **IMPORTANT**

You must write your code while carefully following the "IT 179 Program Grading Guidelines" described in the file **posted with Program 1**.

### Set-Up

Create a new Java project named: **P5**. Next, inside the created Java project **P5**, create a Java package.

### **Objective:** Practice with linked lists

### Consider the following **SingleList** class:

```
public class SingleList <E>{
    private Node<E> head;
    private int size;

private static class Node<E>{
    private E data;
    private Node<E> next;
    private Node(E data)

    {
        this.data=data;
        this.next=null;
    }

    private Node(E data, Node<E> next)
    {
        this.data=data;
        this.next=next;
    }
}
```

### IT 179 – Introduction to Data Structures

## **Question 1**

Write a method called <code>addBulk()</code> (inside the class SingleList) that will accept an ArrayList as a parameter and appends the current SingleList with all the elements that are in the ArrayList parameter. (you should be creating the method from scratch - you cannot call any of the methods we created before - and take into account any special cases).

#### **Question 2**

Write a method called reversedList (<u>inside the class SingleList</u>) that will <u>return a reversed</u> <u>version of the current SingleList</u>.(you should be creating the method from scratch -you cannot call any of the methods we created before- and take into account any special cases).

### To Be Submitted

Please zip your Java project in a file called P5.zip and submit to ReggieNet before the due date.