

Assignment #1

Problem 1

Install a Java IDE, e.g., Eclipse or IntelliJ

Problem 2

Implement a singly-linked list in Java, and four methods of it:

- (1) boolean add (int e): appends the specified node to the end of this list if e is not present in the list; returns true if a node is added to this list, false otherwise.
- (2) boolean remove (int e): removes the first occurrence of the specified element from this list, if it is present; returns true if a node is removed from this list, false otherwise.
- (3) int size(): returns the number of elements in this list.
- (4) boolean equals(Object obj): returns true if the input object represents the same linked list, false otherwise.

Problem 3

Write test cases to test your implementation of the singly-linked list and its methods, and describe the effectiveness of your test cases in terms of their pros and cons.

What To Submit

You should submit a single file titled `YourFirstName_YourLastName_Assg1.zip`. Put your description of the effectiveness in a file named `README.txt`, and include this file together with all your Java files in the .zip file. Do NOT include anything else. Your solution must be submitted via TRACS BEFORE 6:00pm on February 10, 2020.