Data Structures & Applications
Spring 2020
Lab 04 - Practice Tasks

Instructor: Saif Hassan Date: 28th January, 2020

Instructions:

- At the end of this Lab, you will have to submit all files on classroom.
- File format should be **.zip/.rar** file containing required **.java** files and additional if required.
- File Name should be your **CMSID_Name_Lab03.zip.**
- Create a project named lab01_dsa and perform following tasks.

Note: Keep this code with you till the course ends.

Task 01: (Reverse linked list)

You have worked on all types of linkedlist, now design a method for single linked list that will reverse the linked list. Same linked list will be in reverse direction. You are given head of linked list and just have to change next pointer of nodes so that list may be reversed.

Public Node makeReverse(Node head)

Task 02: (Print in reverse order)

You are asked to design a method in linked list to print data in reverse order. You don't need to reverse linkedlist permanently.

Public void printReverse()

Task 03: (Cycle Detection):

Write a method in linkedlist class that will detect cycle in list?

Task 04: (Balanced Brackets)

We have discussed in class about Balanced brackets problem using Stack. Take user string input and check whether it's balanced or not. Use stack functions. Input may contain any of the bracket among {, [, (and any number and letters like: ({[a+b]+c}-1) and so on.