# Rajalakshmi Engineering College

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Batch: 2028

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# NeoColab\_REC\_CS23231\_DATA STRUCTURES

REC\_DS using C\_Week 3\_COD\_Question 5

Attempt : 1 Total Mark : 10 Marks Obtained : 0

Section 1: Coding

#### 1. Problem Statement

Milton is a diligent clerk at a school who has been assigned the task of managing class schedules. The school has various sections, and Milton needs to keep track of the class schedules for each section using a stack-based system.

He uses a program that allows him to push, pop, and display class schedules for each section. Milton's program uses a stack data structure, and each class schedule is represented as a character. Help him write a program using a linked list.

### **Input Format**

The input consists of integers corresponding to the operation that needs to be performed:

Choice 1: Push the character onto the stack. If the choice is 1, the following input is a space-separated character, representing the class schedule to be pushed onto the stack.

Choice 2: Pop class schedule from the stack

Choice 3: Display the class schedules in the stack.

Choice 4: Exit the program.

#### **Output Format**

The output displays messages according to the choice and the status of the stack:

- If the choice is 1, push the given class schedule to the stack and display the following: "Adding Section: [class schedule]"
- If the choice is 2, pop the class schedule from the stack and display the following: "Removing Section: [class schedule]"
- If the choice is 2, and if the stack is empty without any class schedules, print "Stack is empty. Cannot pop."
- If the choice is 3, print the class schedules in the stack in the following: "Enrolled Sections: " followed by the class schedules separated by space.
- If the choice is 3, and there are no class schedules in the stack, print "Stack is empty"
- If the choice is 4, exit the program and display the following: "Exiting the program"
  - If any other choice is entered, print "Invalid choice"

Refer to the sample output for the exact format.

## Sample Test Case

Input: 1 d

1 h

3

2

Output: Adding Section: d
Adding Section: h
Enrolled C Removing Section: h Enrolled Sections: d **Exiting program Answer** Status: Skipped Marks: 0/10