# Rajalakshmi Engineering College

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Batch: 2028

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### NeoColab\_REC\_CS23231\_DATA STRUCTURES

REC\_DS using C\_Week 1\_COD\_Question 3

Attempt : 1 Total Mark : 10 Marks Obtained : 0

Section 1: Coding

#### 1. Problem Statement

Imagine you are working on a text processing tool and need to implement a feature that allows users to insert characters at a specific position.

Implement a program that takes user inputs to create a singly linked list of characters and inserts a new character after a given index in the list.

## **Input Format**

The first line of input consists of an integer N, representing the number of characters in the linked list.

The second line consists of a sequence of N characters, representing the linked list.

The third line consists of an integer index, representing the index(0-based) after

which the new character node needs to be inserted.

The fourth line consists of a character value representing the character to be inserted after the given index.

#### **Output Format**

If the provided index is out of bounds (larger than the list size):

- 1. The first line of output prints "Invalid index".
- 2. The second line prints "Updated list: " followed by the unchanged linked list values.

Otherwise, the output prints "Updated list: " followed by the updated linked list after inserting the new character after the given index.

Refer to the sample output for formatting specifications.

### Sample Test Case

Input: 5

abcde

2

XX33

Output: Updated list: a b c X d e

#### Answer

// You are using GCC

Status: Wrong Marks: 0/10

2,40801133

3<sup>3</sup>