# Rajalakshmi Engineering College

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## NeoColab\_REC\_CS23231\_DATA STRUCTURES

REC\_DS using C\_Week 7\_COD\_Question 3

Attempt : 1 Total Mark : 10 Marks Obtained : 0

Section 1: Coding

#### 1. Problem Statement

In a messaging application, users maintain a contact list with names and corresponding phone numbers. Develop a program to manage this contact list using a dictionary implemented with hashing.

The program allows users to add contacts, delete contacts, and check if a specific contact exists. Additionally, it provides an option to print the contact list in the order of insertion.

#### **Input Format**

The first line consists of an integer n, representing the number of contact pairs to be inserted.

Each of the next n lines consists of two strings separated by a space: the name of the contact (key) and the corresponding phone number (value).

The last line contains a string k, representing the contact to be checked or removed.

## **Output Format**

If the given contact exists in the dictionary:

- 1. The first line prints "The given key is removed!" after removing it.
- 2. The next n 1 lines print the updated contact list in the format: "Key: X; Value: Y" where X represents the contact's name and Y represents the phone number.

If the given contact does not exist in the dictionary:

- 1. The first line prints "The given key is not found!".
- 2. The next n lines print the original contact list in the format: "Key: X; Value: Y" where X represents the contact's name and Y represents the phone number.

Refer to the sample outputs for the formatting specifications.

## Sample Test Case

Input: 3 Alice 1234567890 Bob 9876543210 Charlie 4567890123 Bob

> Output: The given key is removed! Key: Alice; Value: 1234567890 Key: Charlie; Value: 4567890123

**Answer** 

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Status: Skipped Marks: 0/10