# Rajalakshmi Engineering College

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Batch: 2028

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# NeoColab\_REC\_CS23231\_DATA STRUCTURES

REC\_DS using C\_Week 7\_COD\_Question 4

Attempt : 1 Total Mark : 10 Marks Obtained : 10

Section 1: Coding

#### 1. Problem Statement

Develop a program using hashing to manage a fruit contest where each fruit is assigned a unique name and a corresponding score. The program should allow the organizer to input the number of fruits and their names with scores.

Then, it should enable them to check if a specific fruit, identified by its name, is part of the contest. If the fruit is registered, the program should display its score; otherwise, it should indicate that it is not included in the contest.

### Input Format

The first line consists of an integer N, representing the number of fruits in the contest.

The following N lines contain a string K and an integer V, separated by a space, representing the name and score of each fruit in the contest.

The last line consists of a string T, representing the name of the fruit to search for.

#### **Output Format**

If T exists in the dictionary, print "Key "T" exists in the dictionary.".

If T does not exist in the dictionary, print "Key "T" does not exist in the dictionary.".

Refer to the sample outputs for the formatting specifications.

## Sample Test Case

```
Input: 2
banana 2
apple 1
Banana
Output: Key "Banana" does not exist in the dictionary.
```

#### Answer

```
#include <stdio.h>
   #include <string.h>
#define MAX 15
   #define NAME_LEN 21
   typedef struct {
     char name[NAME_LEN];
      int score:
   } Fruit;
   int main() {
     int N, i, found = 0;
     Fruit fruits[MAX];
     char search[NAME_LEN];
     scanf("%d", &N);
     for (i = 0; i < N; i++) {
        scanf("%s %d", fruits[i].name, &fruits[i].score);}
      scanf("%s", search);
```

```
for (i = 0; i < N; i++) {
    if (strcmp(fruits[i].name, search) == 0) {
        found = 1;
        break;}}
    if (found) {
        printf("Key \"%s\" exists in the dictionary.\n", search);
    } else {
        printf("Key \"%s\" does not exist in the dictionary.\n", search);}
    return 0;}</pre>
```

Status: Correct Marks: 10/10

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