

Rajalakshmi Engineering College

Name: Praveen Kumar
Email: 240801247@rajalakshmi.edu.in
Roll no: 240801247
Phone: 7550385160
Branch: REC
Department: I ECE AF
Batch: 2028
Degree: B.E - ECE

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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

```
int hash(const char* key) {
    int value = 0;
    for(int i = 0; key[i] != '\0'; i++) {
        value += (key[i] * 31);
    }
    return value;
}

int keyExists(KeyValuePair* dictionary, int size, const char* key) {
    for(int i = 0; i < size; i++) {
        if(hash(dictionary[i].key) == hash(key)) {
            return 1;
        }
    }
    return 0;
}
```

Status : Correct

Marks : 10/10