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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 50

int main() {
    int N, V;
    char K[NAME_LEN];
    char fruitNames[MAX][NAME_LEN];
    int fruitScores[MAX];

    // Read number of fruits
    scanf("%d", &N);

    // Read fruit names and their scores
```

```c
    for (int i = 0; i < N; i++) {
        scanf("%s %d", fruitNames[i], &fruitScores[i]);
    }

    // Read the target fruit to search
    char T[NAME_LEN];
    scanf("%s", T);

    // Search for the fruit in the dictionary
    int found = 0;
    for (int i = 0; i < N; i++) {
        if (strcmp(fruitNames[i], T) == 0) {
            found = 1;
            break;
        }
    }

    // Output result
    if (found) {
        printf("Key \"%s\" exists in the dictionary.\n", T);
    } else {
        printf("Key \"%s\" does not exist in the dictionary.\n", T);
    }

    return 0;
}
```

Status : Correct   *Marks : 10/10*