

Rajalakshmi Engineering College

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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_FRUITS 15
#define MAX_NAME_LENGTH 100

typedef struct {
    char name[MAX_NAME_LENGTH];
    int score;
} Fruit;

int main() {
    int N;
    scanf("%d", &N);

    Fruit hashTable[MAX_FRUITS];
```

```
for (int i = 0; i < N; i++) {  
    scanf("%s %d", hashTable[i].name, &hashTable[i].score);  
}  
  
char searchName[MAX_NAME_LENGTH];  
scanf("%s", searchName);  
  
int found = 0;  
  
for (int i = 0; i < N; i++) {  
    if (strcmp(hashTable[i].name, searchName) == 0) {  
        found = 1;  
        break;  
    }  
}  
  
if (found) {  
    printf("Key \"%s\" exists in the dictionary.\n", searchName);  
} else {  
    printf("Key \"%s\" does not exist in the dictionary.\n", searchName);  
}  
  
return 0;  
}
```

Status : Correct

Marks : 10/10