

# Week 10

The image shows a screenshot of a Moodle LMS interface. The top browser window displays the 'My courses' page for a user named MUKILRAJ S. The page shows a course overview for 'GE23131-Programming Using C-2024' with a progress bar at 51% complete. The bottom browser window shows a quiz attempt review for the same course. The quiz question is: 'Given a string, *s*, consisting of alphabets and digits, find the frequency of each digit in the given string.' The input format is a string *num*. The constraints are  $1 \leq \text{len}(\text{num}) \leq 1000$  and all elements are English alphabets and digits. The output format is ten space-separated integers representing the frequency of each digit from 0 to 9. The sample input is 'a11472o5t6' and the sample output is '0 2 1 0 1 1 1 1 0 0'.

My courses

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Hi, MUKILRAJ S! 🙌

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Course overview

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GE23131-Programming Using C-2024  
Category 1

51% complete

REC-CIS

Question 1  
Correct  
Marked out of 1.00  
Flag question

Given a string, *s*, consisting of alphabets and digits, find the frequency of each digit in the given string.

**Input Format**

The first line contains a string, *num* which is the given number.

**Constraints**

$1 \leq \text{len}(\text{num}) \leq 1000$

All the elements of *num* are made of English alphabets and digits.

**Output Format**

Print ten space-separated integers in a single line denoting the frequency of each digit from 0 to 9.

**Sample Input 0**

a11472o5t6

**Sample Output 0**

0 2 1 0 1 1 1 1 0 0

### Explanation 0

In the given string:

- **1** occurs two times.
- **2, 4, 5, 6** and **7** occur one time each.

The remaining digits **0, 3, 8** and **9** don't occur at all.

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char str[1000];
5     scanf("%s",str);
6     int hash[10]={0,0,0,0,0,0,0,0,0,0};
7     int temp;
8     for(int i=0;str[i]!='\0';i++)
9     {
10         temp=str[i]-'0';
11         if(temp<=9 && temp>=0)
12         {
13             hash[temp]++;
14         }
15     }
16     for(int i=0;i<=9;i++)
17     {
18         printf("%d ",hash[i]);
19     }
20     return 0;
21 }
22 }
```

	Input	Expected	Got	
✓	a11472o5t6	0 2 1 0 1 1 1 1 0 0	0 2 1 0 1 1 1 1 0 0	✓
✓	lw4n88j12n1	0 2 1 0 1 0 0 0 2 0	0 2 1 0 1 0 0 0 2 0	✓
✓	1v888861256338ar0ekk	1 1 1 2 0 1 2 0 5 0	1 1 1 2 0 1 2 0 5 0	✓

Passed all tests! ✓

Today, Monk went for a walk in a garden. There are many trees in the garden and each tree has an walking, he noticed that all trees with vowels on it are not in good state. He decided to take care of count of such trees in the garden.

**Note:** The following letters are vowels: 'A', 'E', 'I', 'O', 'U', 'a', 'e', 'i', 'o' and 'u'.

**Input:**

The first line consists of an integer  $T$  denoting the number of test cases.

Each test case consists of only one string, each character of string denoting the alphabet (may be lowercase or uppercase) in the garden.

**Output:**

For each test case, print the count in a new line.

**Constraints:**

$$1 \leq T \leq 10$$

$$1 \leq \text{length of string} \leq 10^5$$

**SAMPLE INPUT**

```
nBBZLaosnm
JHkIsnZtTL
```

**SAMPLE OUTPUT**

```
2
1
```

**Explanation**

In test case 1, a and o are the only vowels. So, count=2

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int t;
5     scanf("%d",&t);
6     while(t-->0)
7     {
8         char str[100000];
9         int count=0;
10        scanf("%s",str);
11        for(int i=0;str[i]!='\0';i++)
12        {
13            char c= str[i];
14            if((c=='a')||(c=='e')||(c=='i')||(c=='o')||(c=='u')||(c=='A')||(c=='E')||(c=='I')||(c=='O')||(c=='U'))
15                count++;
16        }
17        printf("%d\n",count);
18    }
19 }
20 return 0;
21 }
```

	Input	Expected	Got	
✓	2 nBBZLaosnm JHkIsnZtTL	2 1	2 1	✓
✓	2 nBBZLaosnm JHkIsnZtTL	2 1	2 1	✓

Given a sentence, **s**, print each word of the sentence in a new line.

**Input Format**

The first and only line contains a sentence, **s**.

**Constraints**

$1 \leq len(s) \leq 1000$

**Output Format**

Print each word of the sentence in a new line.

**Sample Input 0**

This is C

**Sample Output 0**

This  
is

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char s[1000];
5     scanf("%[^\n]s",s);
6     for(int i=0;s[i]!='\0';i++)
7     {
8         if(s[i]!=' ')
9             printf("%c",s[i]);
10        else
11            printf("\n");
12    }
13 }
```

	Input	Expected	Got	
✓	This is C	This is C	This is C	✓
✓	Learning C is fun	Learning C is fun	Learning C is fun	✓

Coding: Attempt review | REC-CIS - Personal - Microsoft Edge

Not secure | www.rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=130534&cmid=191

REC-CIS

Question 4  
Correct  
Marked out of 1.00  
Flag question

**Input Format**

You are given two strings, **a** and **b**, separated by a new line. Each string will consist of lower case Latin characters ('a'-'z').

**Output Format**

In the first line print two space-separated integers, representing the length of **a** and **b** respectively.  
In the second line print the string produced by concatenating **a** and **b** (**a + b**).  
In the third line print two strings separated by a space, **a'** and **b'**. **a'** and **b'** are the same as **a** and **b**, respectively, except that their first characters are swapped.

**Sample Input**

```
abcd
ef
```

**Sample Output**

```
4 2
abcdef
ebcd af
```

### Explanation

a = "abcd"

b = "ef"

|a| = 4

|b| = 2

a + b = "abcdef"

a' = "ebcd"

b' = "af"

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char str1[10],str2[20],t;
5     int i=0,j=0;
6     int count1=0,count2=0;
7     scanf("%s",str1);
8     scanf("%s",str2);
9     while(str1[i]!='\0')
10    {
11        count1++;
12        i++;
13    }
14    while(str2[j]!='\0')
15    {
16        count2++;
17        j++;
18    }
19    printf("%d %d\n",count1,count2);
20    printf("%s%s\n",str1,str2);
21    t=str1[0];
22    str1[0]=str2[0];
23    str2[0]=t;
24    printf("%s %s",str1,str2);
25    return 0;
26 }
```

	Input	Expected	Got	
✓	abcd ef	4 2 abcdef ebcd af	4 2 abcdef ebcd af	✓

Passed all tests! ✓