# Week-10-Character Arrays and Strings

## GE23131-Programming Using C-2024

Quiz navigation

1 2 3 4

Show one page at a time

Finish review

| | |
|---|---|
| **Status** | Finished |
| **Started** | Sunday, 12 January 2025, 5:35 PM |
| **Completed** | Sunday, 12 January 2025, 5:48 PM |
| **Duration** | 12 mins 22 secs |

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 ≤ len(num) ≤ 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

REC-CIS

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 %)

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

```c
#include<stdio.h>
int main()
{
char str[1000];
scanf("%s",str);
int hash[10]={0,0,0,0,0,0,0,0,0,0,};
int temp;
for(int i=0;str[i]!='\0';i++)
{
hash[temp]++;
}
}
for(int i=0;i<=9;i++)
{
printf("%d ",hash[i]);
}
return 0;
}
```

| | 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 | ✓ |
| ✓ | 1v88886l256338ar0ekk | 1 1 1 2 0 1 2 0 5 0 | 1 1 1 2 0 1 2 0 5 0 | ✓ |

Passed all tests! ✓

Question **2**

Correct

Marked out of 1.00

Flag question

Today, Monk went for a walk in a garden. There are many trees in the garden and each tree has an English alphabet on it. While Monk was walking, he noticed that all trees with vowels on it are not in good state. He decided to take care of them. So, he asked you to tell him the 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) on a tree in the garden.

**Output**:

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

**Constraints**:

***1 ≤ T ≤ 10***
***1 ≤ length of string ≤ $10^5$***

**SAMPLE INPUT**

nBBZLaosnm

JHklsnZtTL

**SAMPLE OUTPUT**

2

1

**Explanation**

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

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

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

```
#include<stdio.h>
int main()
{
int t;
scanf("%d",&t);
while(t--)
{
char str[100000];
int count=0;
scanf("%s",str);
for(int i=0;str[i]!='\0';i++)
{
char c= str[i];
if((c=='a')||(c=='e')||(c=='i')||(c=='o')||(c=='u')||(c=='A')||(c=='E')||(c=='I')||(c=='O')||(
count++;
}
printf("%d\n",count);
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | 2<br>nBBZLaosnm<br>JHkIsnZtTL | 2<br>1 | 2<br>1 | ✓ |
| ✓ | 2<br>nBBZLaosnm<br>JHkIsnZtTL | 2<br>1 | 2<br>1 | ✓ |

Passed all tests! ✓

Question 3

Correct

Marked out of 1.00

Flag question

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 ≤ len(s) ≤ 1000***

**Output Format**

Print each word of the sentence in a new line.

**Sample Input 0**

**Sample Output 0**

This
is
C

**Explanation 0**

In the given string, there are three words ["This", "is", "C"]. We have to print each of these words in a new line.

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

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

```c
#include<stdio.h>
int main()
{
char s[1000];
scanf("%[^\n]s",s);
for(int i=0;s[i]!='\0';i++)
{
if (s[i]!=' ')
printf("%c",s[i]);
else
printf("\n");
}
return 0;
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | This is C | This<br>is<br>C | This<br>is<br>C | ✓ |
| ✓ | Learning C is fun | Learning<br>C<br>is<br>fun | Learning<br>C<br>is<br>fun | ✓ |

Passed all tests! ✓

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

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 %)

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

```c
#include<stdio.h>
int main()
{
char str1[10],str2[10],t;
int i=0,j=0;
int count1=0,count2=0;
scanf("%s",str1);
scanf("%s",str2);
while(str1[i]!='\0')
{
count1++;
i++;
}
while(str2[j]!='\0')
{
count2++;
j++;
}
printf("%d %d\n",count1,count2);
printf("%s%s\n",str1,str2);
t=str1[0];
str1[0]=str2[0];
str2[0]=t;
printf("%s %s",str1,str2);
return 0;
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✓ | abcd<br>ef | 4 2<br>abcdef<br>ebcd af | 4 2<br>abcdef<br>ebcd af | ✓ |

Passed all tests! ✓