

processString

Write a C function that accepts a string `str` and returns the total number of vowels `totVowels` and digits `totDigits` in that string to the caller via call by reference. The function prototype is given as follows:

```
void processString(char *str, int *totVowels, int *totDigits);
```

A sample program template is given below to test the function:

```
#include <stdio.h>
#include <string.h>
void processString(char *str, int *totVowels, int *totDigits);
int main()
{
    char str[50], *p;
    int totVowels, totDigits;

    printf("Enter the string: \n");
    fgets(str, 80, stdin);
    if (p=strchr(str,'\n')) *p = '\0';
    processString(str, &totVowels, &totDigits);
    printf("Total vowels = %d\n", totVowels);
    printf("Total digits = %d\n", totDigits);
    return 0;
}
void processString(char *str, int *totVowels, int *totDigits)
{
    /* Write your code here */
}
```

Some test input and output sessions are given below:

(1) Test Case 1:
Enter the string:
I am one of the 400 students in this class.
Total vowels = 11
Total digits = 3

(2) Test Case 2:
Enter the string:
I am a boy.
Total vowels = 4
Total digits = 0

(3) Test Case 3:
Enter the string:
1 2 3 4 5 6 7 8 9

```
void processString(char *str, int *totVowels, int *totDigits)
{
    int digits=0;
    int vowels=0;
    int i;
    for(i=0;str[i]!='\0';i++)
    {
        if(str[i]>='0'&&str[i]<='9')
        {
            digits++;
        }
        if(str[i]=='a' || str[i]=='e' || str[i]=='i' || str[i]=='o' || str[i]=='u' || str[i]=='A' || str[i]=='E' || str[i]=='I' || str[i]=='O' || str[i]=='U')
        {
            vowels++;
        }
    }
    *totVowels = vowels;
    *totDigits = digits;
}
```

Total vowels = 0
Total digits = 9

- (4) Test Case 4:
Enter the string:
ABCDE
Total vowels = 2
Total digits = 0