

findLongShortStr

Write a function findLongShortStr() that takes in an array of strings *str* (with size greater than 0) as parameter, finds the shortest and longest strings according to their lengths from the array of strings. The longest string and shortest string are returned to the calling function via the string parameters *longStr* and *shortStr* using call by reference. If two or more strings have the same longest/shortest string length, then the first appeared string will be returned. For example, if size is 5 and the input strings are {"Peter","John","Mary","Jane","Kenny"}, then the longest string "Peter" (with string length of 5), and the shortest string "John" (with string length of 4) will be returned to the calling function.]

A sample program template is given below:

```
#include <stdio.h>
#include <string.h>
#define N 20
void findLongShortStr(char str[N][81], char *longStr, char *shortStr,
int size);
int main()
{
    char str[N][81], longStr[81], shortStr[81], *p;
    int i, size;
    char dummy;

    printf("Enter number (size) of strings: \n");
    scanf("%d", &size);
    scanf("%c", &dummy);
    for (i=0; i<size; i++){
        printf("Enter string %d: \n", i+1);
        fgets(str[i], 81, stdin);
        if ( p=strchr(str[i], '\n') ) *p = '\0';
    }
    findLongShortStr(str, longStr, shortStr, size);
    printf("longest string: %s %d\n", longStr, strlen(longStr));
    printf("shortest string: %s %d\n", shortStr, strlen(shortStr));
    return 0;
}
void findLongShortStr(char str[N][81], char *longStr, char *shortStr,
int size)
{
    /* Write your code here */
}
```

Some sample input and output sessions are given below:

(1) Test Case 1:

Enter number (size) of strings:

4

Enter string 1:

Kenny

Enter string 2:

Mary

Enter string 3:

Peter

Enter string 4:

Sun

longest string: Kenny 5

shortest string: Sun 3

(2) Test Case 2:

Enter number (size) of strings:

2

Enter string 1:

Sun

Enter string 2:

Mary

longest string: Mary 4

shortest string: Sun 3

(3) Test Case 3:

Enter number (size) of strings:

5

Enter string 1:

Peter

Enter string 2:

John

Enter string 3:

Mary

Enter string 4:

Jane

Enter string 5:

Kenny

longest string: Peter 5

shortest string: John 4

(4) Test Case 4:

Enter number (size) of strings:

1

Enter string 1:

John

longest string: John 4

shortest string: John 4

```
#include <stdio.h>
#include <string.h>
#define N 20
void findLongShortStr(char str[N][81], char
*longStr, char *shortStr, int size);
int main()
{
    char str[N][81],longStr[81],shortStr[81],*p;
    int i,size;
    char dummy;

    printf("Enter number (size) of strings: \n");
    scanf("%d", &size);
    scanf("%c",&dummy);
    for (i=0; i<size; i++){
        printf("Enter string %d: \n", i+1);
        fgets(str[i],81,stdin);
        if ( p=strchr(str[i],'\n') ) *p = '\0';
    }
    findLongShortStr(str, longStr, shortStr, size);
    printf("longest string: %s %d\n",longStr,strlen
(longStr));
    printf("shortest string: %s %d\n",shortStr,strlen
(shortStr));
    return 0;
}
void findLongShortStr(char str[N][81], char
*longStr, char *shortStr, int size)
{
    int i;

    strcpy(longStr,str[0]);
    strcpy(shortStr,str[0]);
    for(i=0;i<size;i++)
    {
        if(strlen(longStr)<strlen(str[i]))
        {
            strcpy(longStr,str[i]);
        }
        if(strlen(shortStr)>strlen(str[i]))
        {
            strcpy(shortStr,str[i]);
        }
    }
}
```