

largestCharStr

Write a function `largestCharStr()` that takes in an array of strings `str` (all characters are in lower letter cases) with `size > 0` and an array `a` as parameters, finds the largest character (based on ASCII values) for each string in the array of strings, and stores them into the array `a` which is then returned to the calling function via call by reference. For example, if `size` is 5 and the array of strings `str` is {"peter", "john", "mary", "jane", "kenny"}, then the characters {'t', 'o', 'y', 'n', 'y'} will be stored in the array `a` after executing the function.

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

```
#include <stdio.h>
#include <string.h>
#define N 20
void largestCharStr(char str[N][20], char a[N], int size);
int main()
{
    char str[N][20], dummy;
    char a[N], i, j, size;

    printf("Enter number of strings: \n");
    scanf("%d", &size);
    scanf("%c", &dummy);
    for (i=0; i<size; i++) {
        printf("Enter string %d: \n", i+1);
        scanf("%s", str[i]);
    }
    largestCharStr(str, a, size);
    printf("largestCharStr(): \n");
    for (i=0; i<size; i++) {
        printf("String %d: ", i+1);
        printf("%c\n", a[i]);
    }
    return 0;
}

void largestCharStr(char str[N][20], char a[N], int size)
{
    /* Write your code here */
}
```

Some sample input and output sessions are given below:

(1) Test Case 1:

Enter number of strings:

4

Enter string 1:

kenny

Enter string 2:

mary

Enter string 3:

peter

Enter string 4:

sun

String 1: y

String 2: y

String 3: t

String 4: u

(2) Test Case 2:

Enter number of strings:

5

Enter string 1:

kenny

Enter string 2:

mary

Enter string 3:

peter

Enter string 4:

sun

Enter string 5:

jane

String 1: y

String 2: y

String 3: t

String 4: u

String 5: n

```
#include <stdio.h>
#include <string.h>
#define N 20
void largeCharStr(char str[N][20], char a[N], int size);
int main()
{
    char str[N][20], dummy;
    char a[N], i, j, size;

    printf("Enter number of strings: \n");
    scanf("%d", &size);
    scanf("%c", &dummy);
    for (i=0; i<size; i++){
        printf("Enter string %d: \n", i+1);
        scanf("%s", str[i]);
    }
    largeCharStr(str, a, size);
    printf("largeCharStr(): \n");
    for (i=0; i<size; i++) {
        printf("String %d: ", i+1);
        printf("%c\n", a[i]);
    }
    return 0;
}

void largeCharStr(char str[N][20], char a[N], int size)
{
    int j = 0;
    int max;
    int i;

    for(i=0; i<size; i++)
    {
        a[i] = str[i][0];
        for(j=0; str[i][j]!='\0'; j++)
        {
            if(str[i][j]>a[i])
            {
                a[i] = str[i][j];
            }
        }
    }
}
```

assign a[i] to some element first

condition of str[i][j]!='\0' is useful