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# Divide a string in N equal parts

Difficulty Level: Rookie

#### Question:

Write a program to print N equal parts of a given string.

#### Solution:

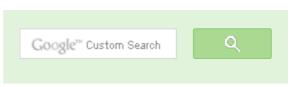
- 1) Get the size of the string using string function strlen() (present in string.h)
- 2) Get size of a part.

```
part_size = string_length/n
```

3) Loop through the input string. In loop, if index becomes multiple of part size then put a part separator("\n")

## Implementation:

```
#include<stdio.h>
#include<string.h>
/* Function to print n equal parts of str*/
void divideString(char *str, int n)
   int str size = strlen(str);
   int i:
   int part size;
   /*Check if string can be divided in n equal parts */
   if(str size%n != 0)
```





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#### Mathematical Algorithms

#### Recursion

Coomatria Algorithma

```
printf("Invalid Input: String size is not divisible by n");
     return;
   /* Calculate the size of parts to find the division points*/
   part size = str size/n;
   for(\overline{i} = 0; i < str size; i++)
     if(i%part size == 0)
        printf("\n"); /* newline separator for different parts */
     printf("%c", str[i]);
int main()
    /*length od string is 28*/
    char *str = "a simple divide string quest";
    /*Print 4 equal parts of the string */
    divideString(str, 4);
    getchar();
    return 0;
```

In above solution, we are simply printing the N equal parts of the string. If we want individual parts to be stored then we need to allocate part size + 1 memory for all N parts (1 extra for string termination character '\0'), and store the addresses of the parts in an array of character pointers.

Asked by Jason.



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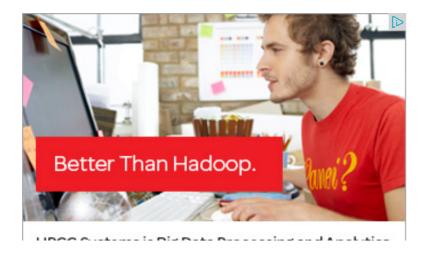
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8 Comments

GeeksforGeeks

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**srinivas** • 2 years ago

If ( n == 0 ) return; /\* Before: if(str size%n!= 0) \*/

/\* Paste your code here (You may **delete** these lines **if not** writing co

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```
Sa · 2 years ago
   void divideString(char *str, int n)
     int str_size = strlen(str);
     int i, j=0, k=0;
     int part_size;
     char **strArray = (char **)malloc((sizeof(char *)*n)); // for n sti
       part_size = str_size/n;
           if(str_size%n != 0)
       printf("Invalid Input: String size is not divisible by n");
       return;
     for(i=0;i<n;i++)</pre>
             strArray[i] = (char *)malloc(sizeof(char)*(part_size + 1))
```



```
Nikin Kumar Jain • 2 years ago
   void divideString(char *str, char **str1)
          int n = 3;
          int j = 0;
```





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affiszerv Your example has two 4s on row 3, that's why it...

Backtracking | Set 7 (Sudoku) · 20 minutes ago

**RVM** Can someone please elaborate this Qs from above...

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@meya Working solution for question 2 of 4f2f round....

Amazon Interview | Set 53 (For SDE-1) · 1 hour ago sandeep void rearrange(struct node \*head) {...

Given a linked list, reverse alternate nodes and append at the end · 2 hours ago

Neha I think that is what it should return as. in...

Find depth of the deepest odd level leaf node · 2 hours ago

```
int m = 0;
for(int i=0;i<27;i++)</pre>
          *(*(str1+j)+m) = *(str+i);
          m++;
          if(m==3)
                    j++;
                    \mathbf{m} = \mathbf{0};
for(int x=0; x<9; x++){</pre>
          for(int y=0;y<3;y++)
                    cout<<str1[x][y];</pre>
```

```
Nikin Kumar Jain • 2 years ago
//Code for Storing the divided strings.
void divideString(char *str, char **str1)
int n = 3;
int j = 0;
int m = 0;
for(int i=0; i<27; i++)
*(*(str1+j)+m) = *(str+i);
m++;
if(m==3)
```

AdChoices D

- ▶ Java to C++
- ► String Function
- ► C# String Split

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- ▶ String Java
- ► C String
- ► String Set

AdChoices [>

- ▶ Replace String
- ▶ Stream String
- ► String String

```
j++;

m = 0;

}

for(int x=0;x<9;x++){
```



anonymous • 3 years ago

Sorry, but who would ask this dumb question during an interview? Why is this operation except the strlen used to get the length.



Sandeep → anonymous • 3 years ago

@anonymous: Thanks for the inputs. I have added Difficulty level on to by advanced users.



spandan • 4 years ago

i think testing condn should come afterprintf("%c", str[i]);



Sandeep → spandan · 3 years ago

@spandan: I think you want to modify the code to following. But, if we coutput. Please correct me if I am wrong.

```
#include<stdio.h>
#include<string.h>

/* Function to print n equal parts of str*/
void divideString(char *str, int n)
Are your adougleses? Try out the HTML to BRE ARI
```

```
int str_size = strlen(str);
int i;
int part_size;
/*Check if string can be divided in n equal parts */
if(str_size%n != 0)
  printf("Invalid Input: String size is not divisible by |
  return;
```

```
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```





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