

Array Parameters

Passing Arrays as Parameters

Remember, where you are writing an array as a parameter (in the function prototype or definition) you need to include the brackets.

If you only have a 1-D array, you don't need the size of the array in the brackets.

```
int myFunction(int arr[]) OR int myFunction(int arr[5])
```

If you have more than a 1-D array, then you need to size for every set except the first set.

```
int myFunction(int arr2D[][5]) OR int myFunction(int arr2D[5][5])
```

Strings

Strings are just character arrays ("char[]"). However, sometimes you will see them written as "char *" or "char*". They can only be written like this when they are parameters (in the prototype or function definition). When your class begins points, we can talk more about this.

Program

For this program I want you to take some characters from the user and then report a few things about the resulting string. Make sure to have all the required functions.

Specs:

1. Take a character at a time from the user.
 1. If this character is '!', then stop taking input and don't put it in your string.
 2. Otherwise, put this character in an array of characters.
2. After the user inputs a '!', turn your array into a string.
 1. Hint 1: You will need to keep track of how many characters are in your array.
 2. Hint 2: Its really simple.
3. Report what the full string is.
4. Report how many times 'a' is in the string.
5. Report where the first occurrence of the latter 'a' in the string.
 1. Its first occurrence is the index where it is first seen.
 2. -1 if 'a' never appears in the string.

Required Functions:

1. main
 1. MAIN!
2. int myStrlen(char*);
 1. Get the length of a string.
3. int numChars(char*, char);
 1. Get the number of times the second parameter appears in the string (first parameter).
4. int indexOf(char*, char);
 1. Get the first occurrence of the second parameter in the string (first parameter).
 2. Return -1 if the char doesn't appear in the string.

Sample Run (Input in **bold**):

```
char plz: b
char plz: a
char plz: c
char plz: a
char plz: a
char plz: d
char plz: !
Your string is: bacaad
I found 'a' 3 times in your string.
The index of 'a' is 1.
```