

CS 250 Homework 1.2

For those questions which ask you to write a function, you do not need to create an entire program.

1. Write a function called `reverse()` with this prototype:

```
void reverse (int dest[], int source[], int size);
```

Your function should copy all the elements in the array `source` into the array `dest`, except in reverse order. The number of elements in the source array is give in the parameter `size`. Use a `for` loop to do the copying. Assume that `dest` is large enough to hold all of the elements.

2. In class, we looked at the program on p. 29 of the text that finds and prints the longest line in the input. That program used a function called `getline()` to read a single line of input from the user. Rewrite the function `getline()` so that it uses a `while` loop instead of a `for` loop.
3. The C standard library contains a function `strlen()`:

```
int strlen (char s[]);
```

`Strlen` calculates and returns the size of the C-string `s`.

- (a) Write your own version of `strlen()` that has the same prototype. Assume that the parameter is a C-string.
 - (b) What will your function do if it is passed an array that is not a C-string?
4. Write a C function with the following prototype:

```
int resize (char s[], int array_size, int new_size);
```

Your function should change the size of the C-string stored in the array `s`. If `new_size` is shorter than the current length of the string, truncate the string. If `new_size` is longer than the current length of the string, pad the end of the string with spaces, but don't exceed the size of the array, which is stored in `array_size`. Return the new size of the string as the value of the function.