

CS240 Lab6

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Question 1

I used `realloc()`, by first creating a `char` to a value `src`. This is currently `NULL` as it holds nothing inside. With each new `char` that is passed in as an argument, I use `realloc` for `src` to add the size of the new `char` into `src` and append it onto the back. This suffices as all `char` from `myconcat()`'s first `int` arg all have enough space in memory to be stored. We change the `src` memory stack to allow more when needed.

There are a couple that may result in `NULL`. Have too little arguments from `int n`, having too many from `int n`, not having an `int` value in the first argument, having a `int n` value that is less than 1 are just a couple to name.

`myconcat(int n, ...)` is a variadic function, or a function that accepts `n` number of arguments. After specifying `n`, place that many `n` arguments of `char` to be concatenated into a string and printed.

The first argument specifies how many `chars` we will pass. This argument must be 1 or more. Then, after the first argument, pass as many "`letter;`" values specified by `n` after it. If we were to pass `myconcat(3, "c", "a", "t")`, it would return the `char` pointer "`cat`". For each `char` passed, we make room in our holding value `char src` using `realloc()` to add space for it and copy it using `strcpy()` into that allocated space.

If too little or too many arguments are passed, it will either return `NULL`, as segmentation fault, or truncate off the end (if too many). If `int n` is less than 1, it will return a `NULL`. As you can tell, the `NULL` return specifies an error, and you can use that as a way to print out an appropriate error message.

Question 2

Done. Look at README for notes

Bonus

Done.