

Operating Systems

Assignment 2.3

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a)

1)

I)

Yes it does, since `char` type objects are exactly 1 byte big.

II)

It is, because a `char*` is just a `void*` but with information about how to interpret access to the object.

2)

I)

In case of an error when calling `malloc`, it will return `NULL`.

II)

Since `NULL` is the same as 0 cast to `void*`, if `malloc` fails, we can catch that and abort the method.

III)

Definitely not, because `malloc` may be implemented differently across different compilers as they are differently implemented across different libraries.

3)

I)

Since `str` is a pointer to a pointer to the first character, we have to change the pointer of `str` and not `str` itself.

II)

This results in the following line: `*str = new_str;`

b)

A correct version is the following, we counted the errors and marked them with comments:

```
#!/bin/sh #1,2
if (($1 < 3)); then #3,4,5
    echo You inserted a number less than 3
fi #5
answer=1 #6
while (($answer < 5)) #7
do #8
    answer=$((answer + 1)) #9
done #10
```