

# Wrapping up Strings

ESC101: Fundamentals of Computing

Purushottam Kar

# Announcements

- Please see schedule on website for holidays/exams
- Mid-sem lab exam, mid-sem theory exam marks will be declared within this week
- Pending lab/minor quiz grades also to be declared
- Will resume schedule of practice problems etc
- Advanced track has started – some nice projects
- Slight adjustments needed in grouping – mail today!



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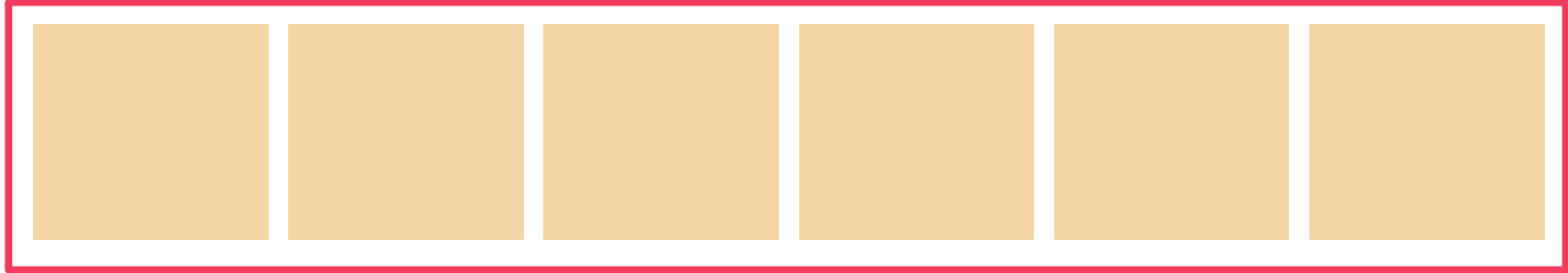


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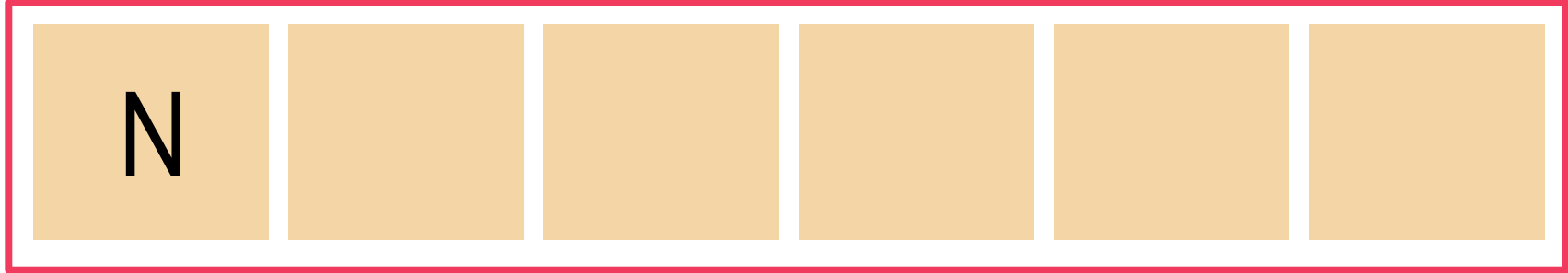


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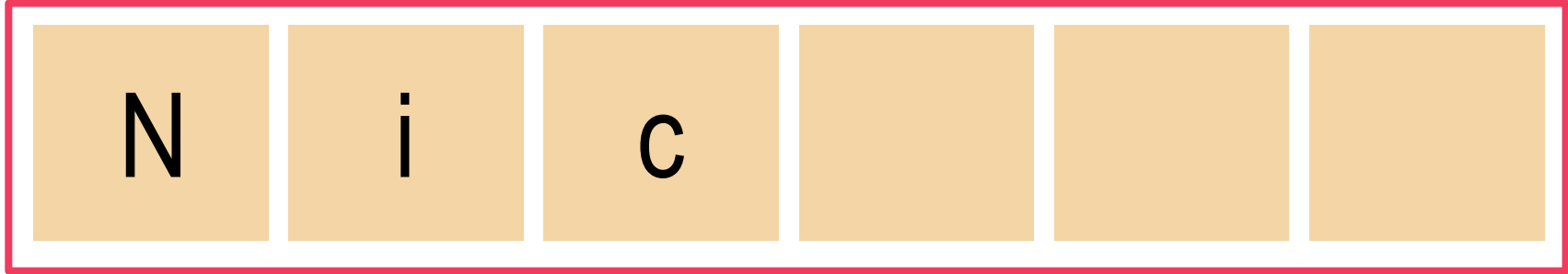


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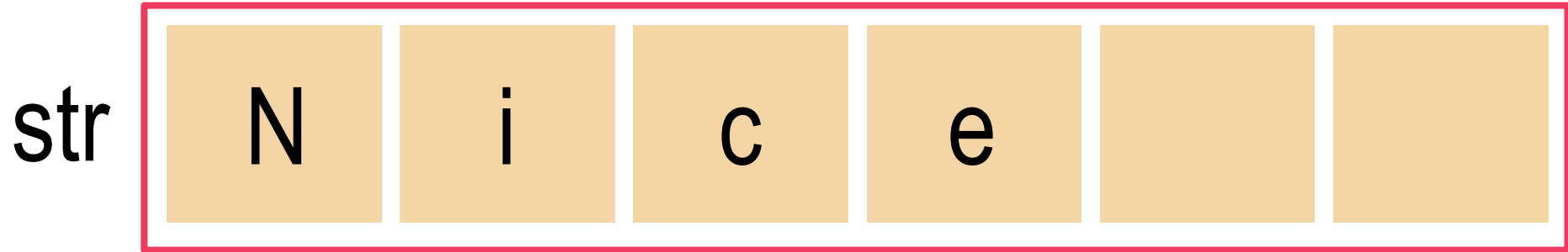
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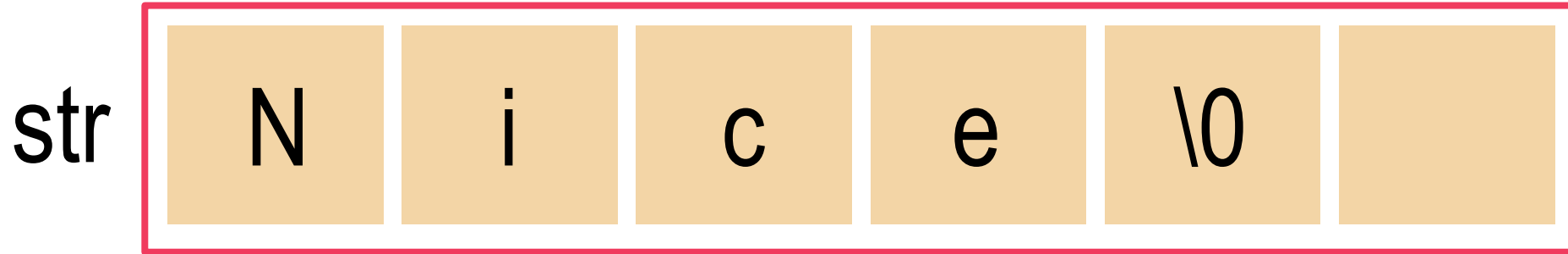
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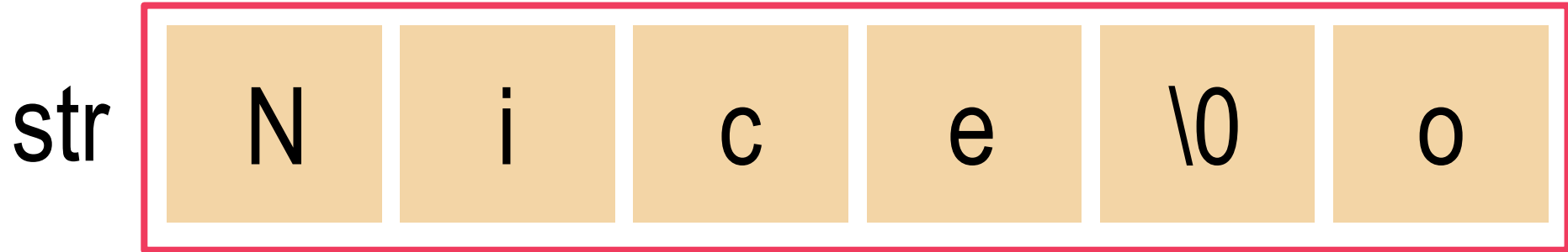




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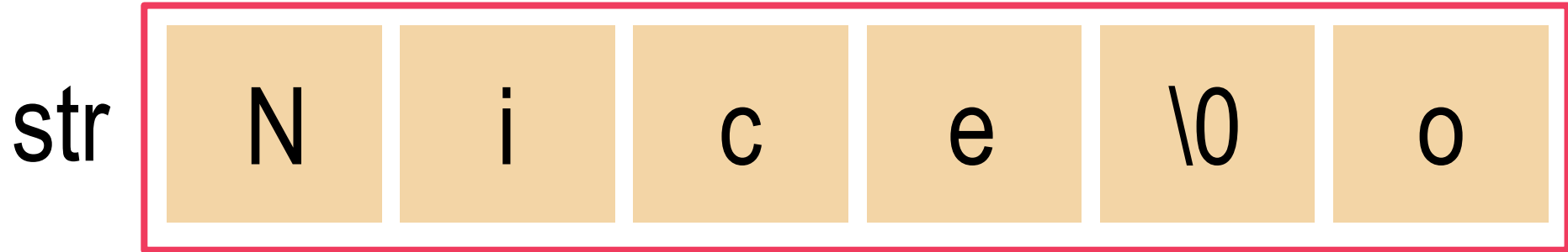
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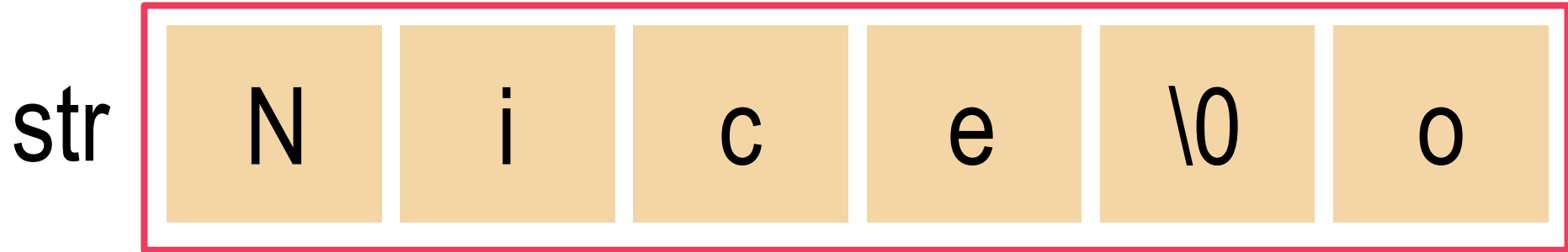
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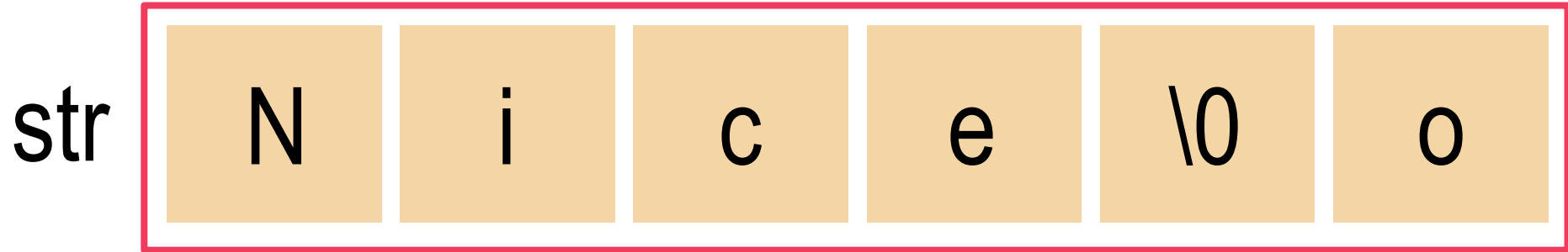
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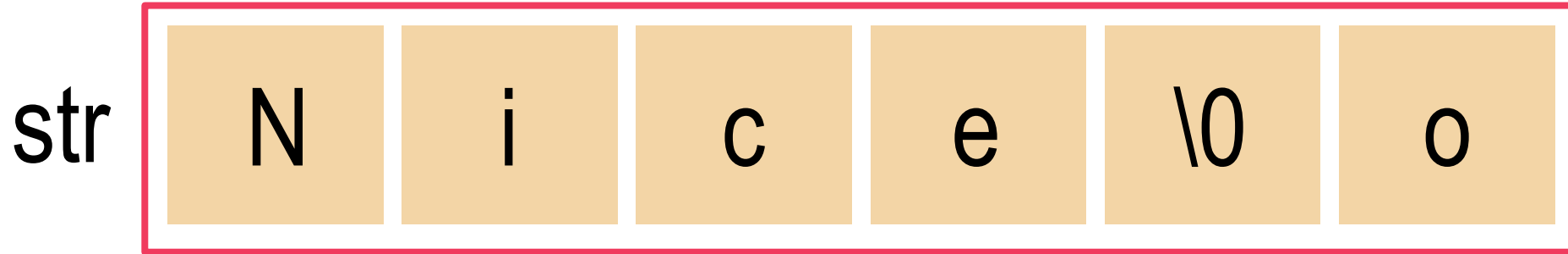
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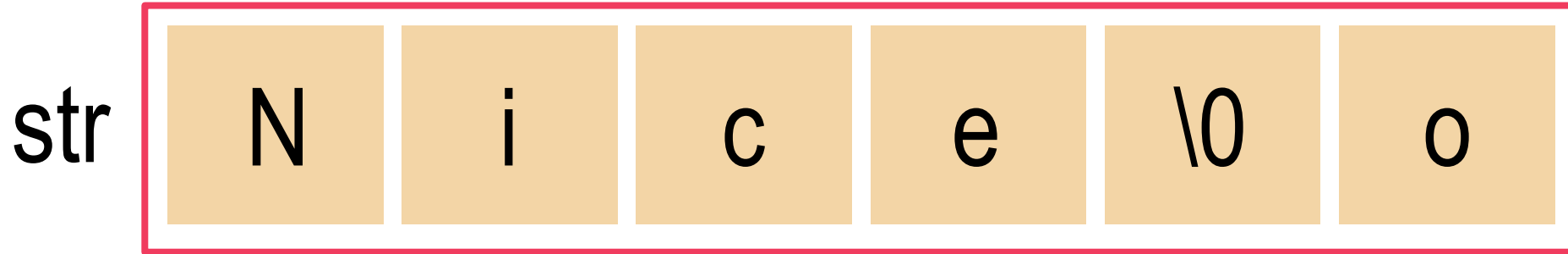
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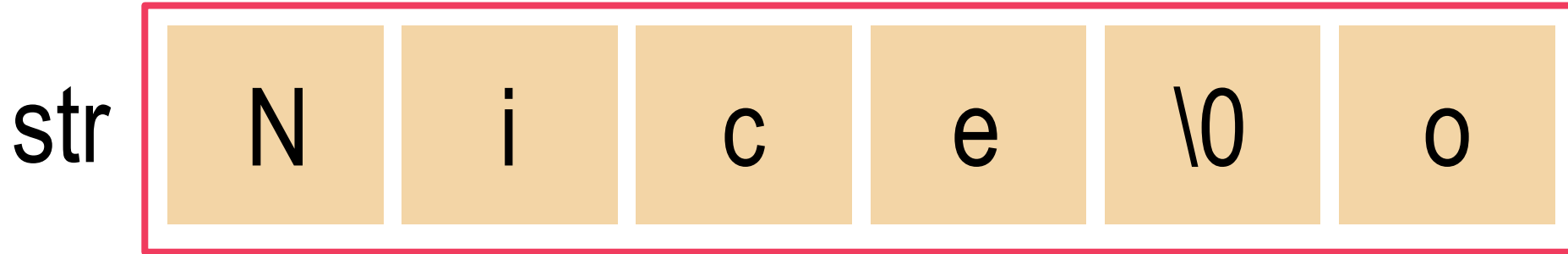
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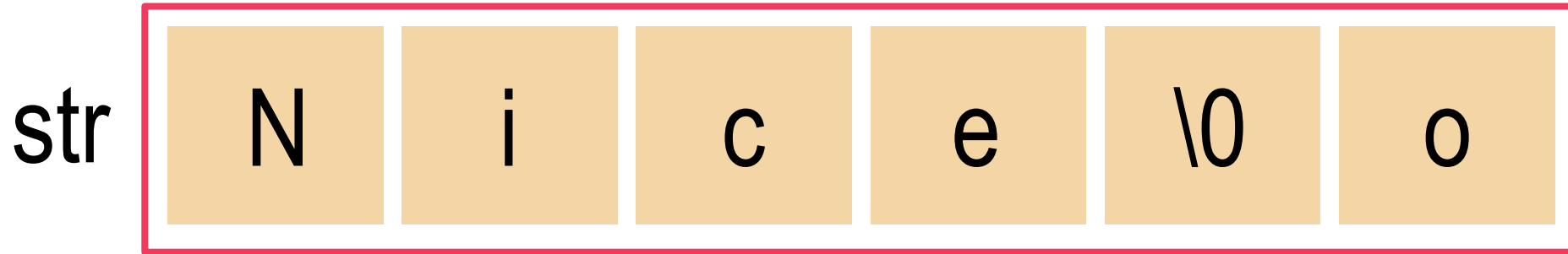
Substrings need not contain the NULL character – WARNING!



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Substrings need not contain the NULL character – WARNING!

Be careful when printing substrings – segmentation fault or weird behavior





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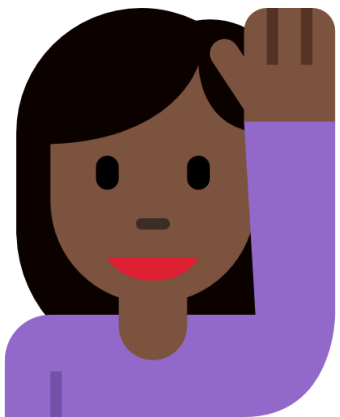
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NULL and `\n` are valid characters with proper ASCII values

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`%c` is used to read into, or print, a single character variable

Can surely use with an element of a char array e.g. `printf("%c", &str[i]);`

`%s` is used to read into, or print, a character array

Recall, no `&` symbol needed when using `%s` in `scanf`



# Practice question

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*Read at most 200 characters from input and print those characters in reverse. Input may include whitespaces*

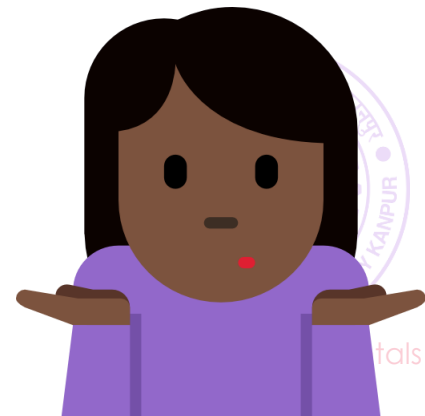




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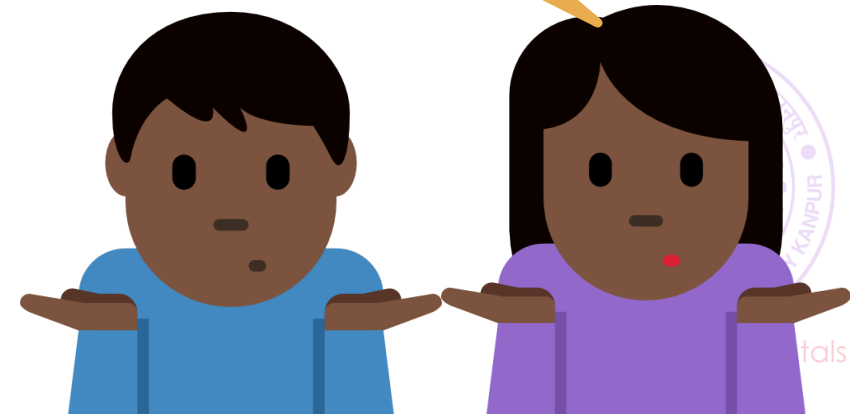


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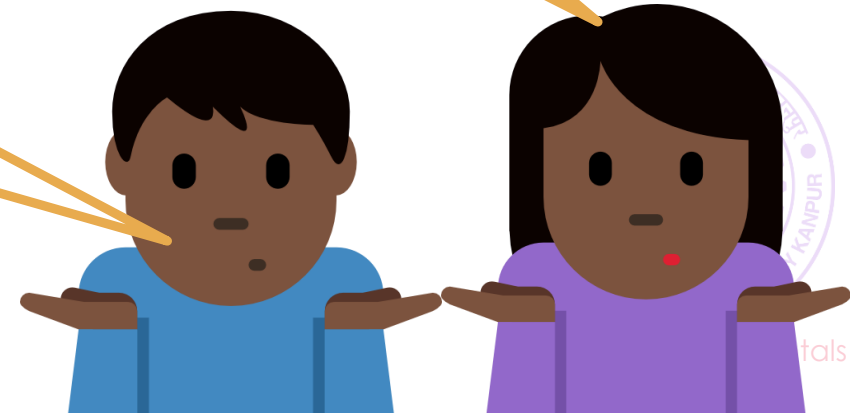
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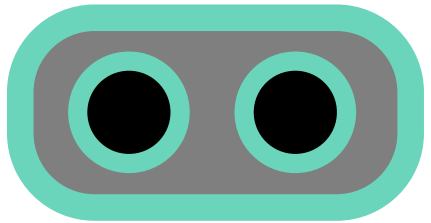
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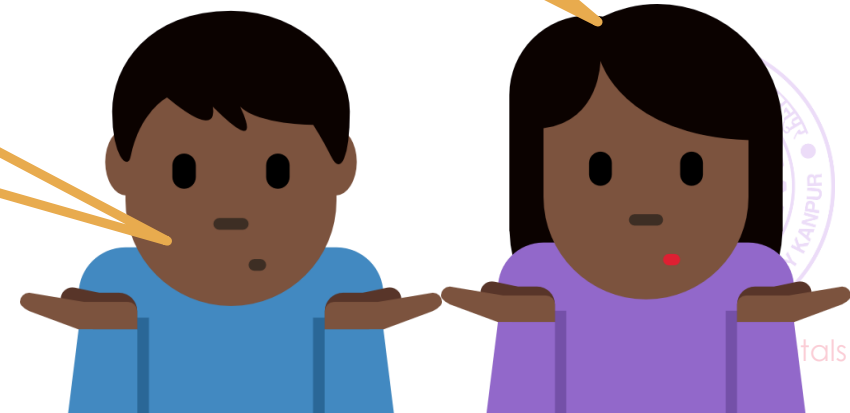
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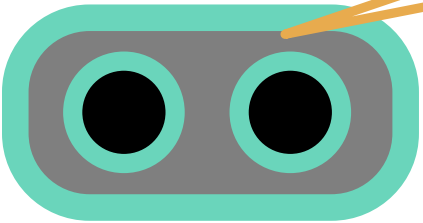
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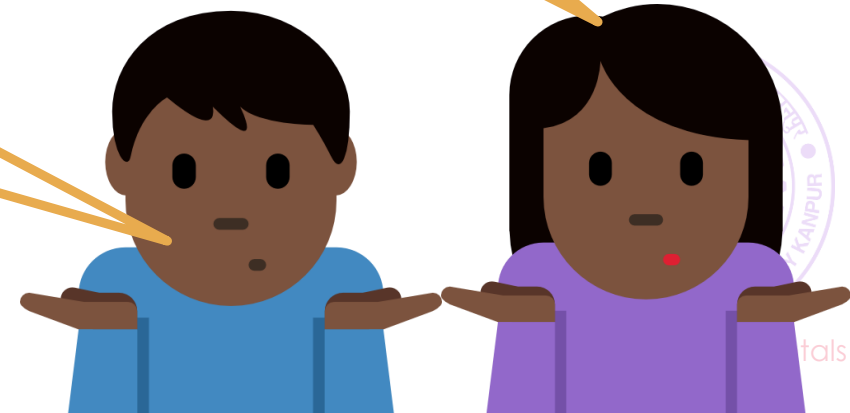
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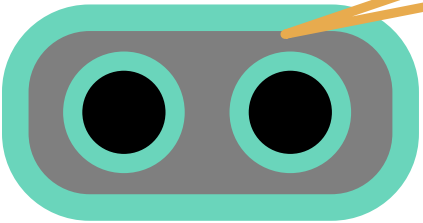
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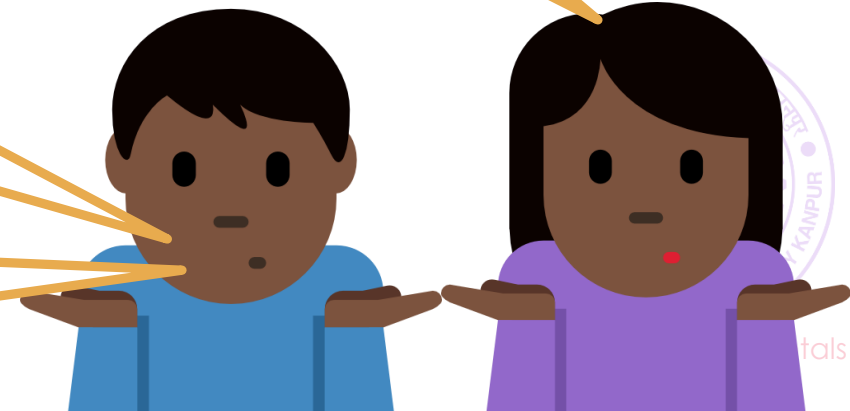


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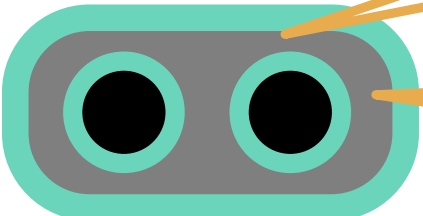
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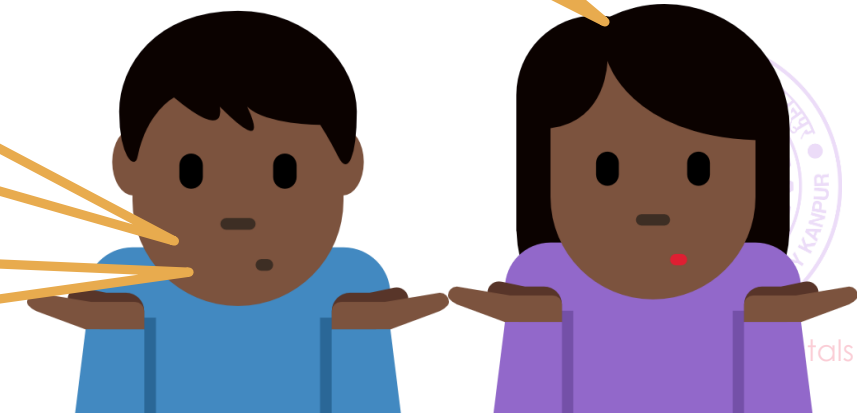
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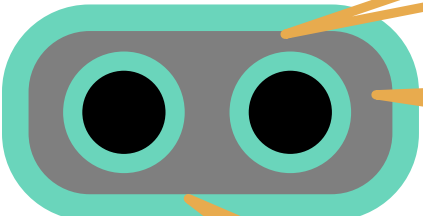




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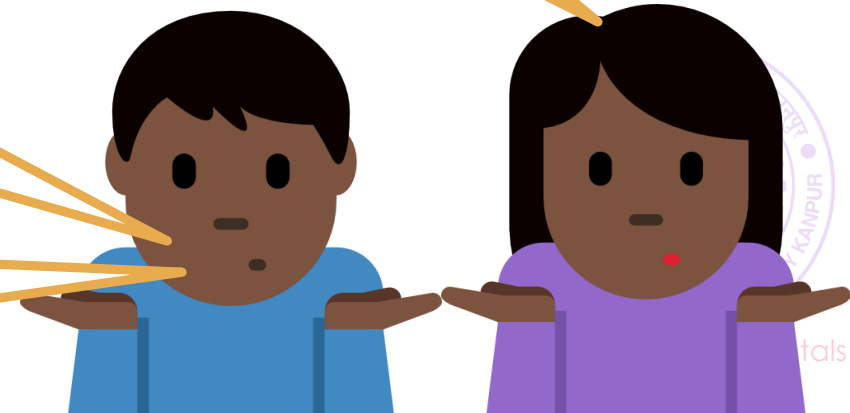
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Be careful to store a NULL at end of string

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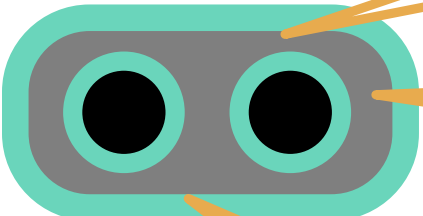
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Be careful to store a NULL at end of string

Be careful also to **NOT** store EOF – it is not a valid character

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# String Operations

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At their core, strings are just character arrays

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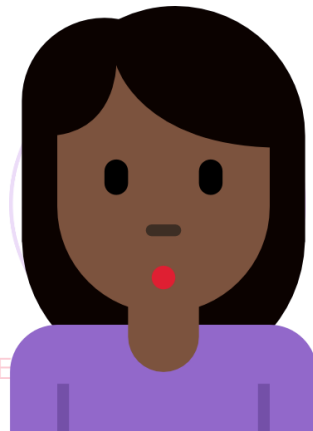
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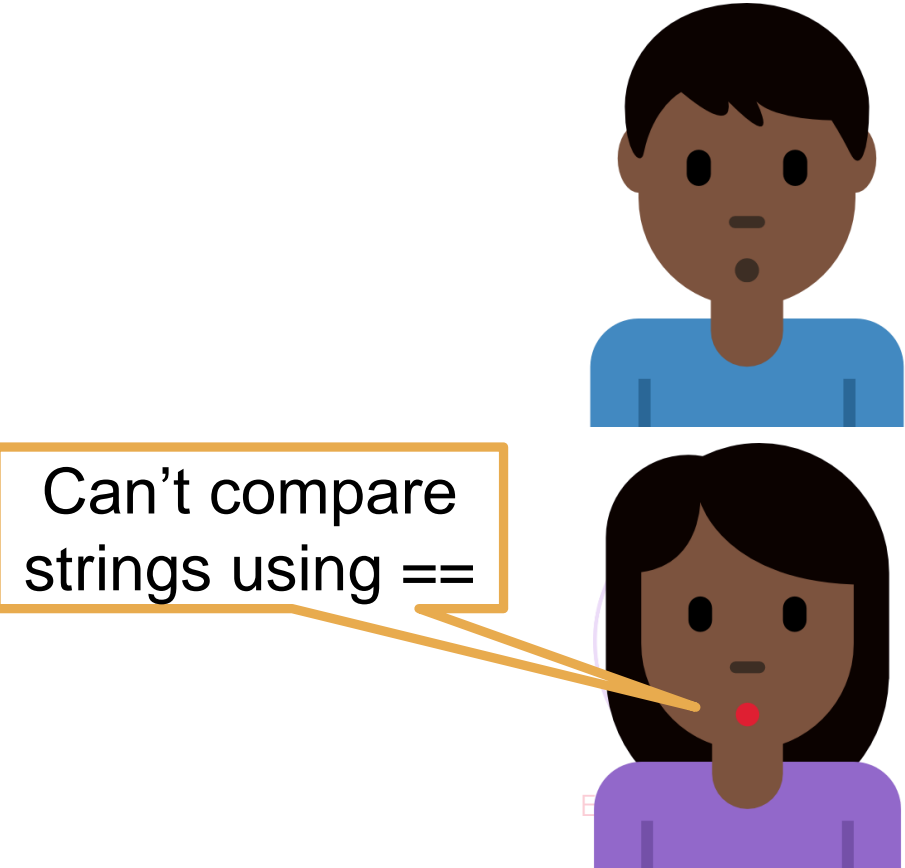
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Can't compare  
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An illustration of a man and a woman. The man is at the top, wearing a blue shirt, and the woman is at the bottom, wearing a purple shirt. A yellow speech bubble with a black border points from the woman's mouth to the text.

Can't compare  
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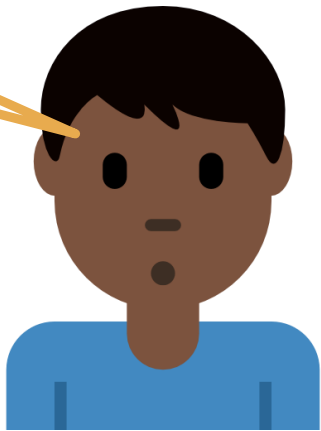
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Can't copy  
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Can't compare  
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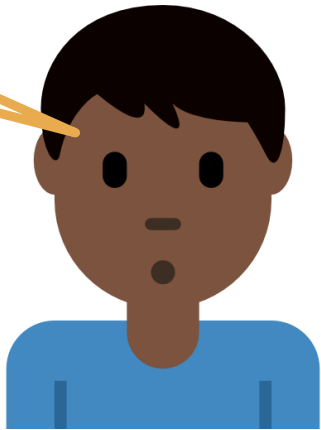
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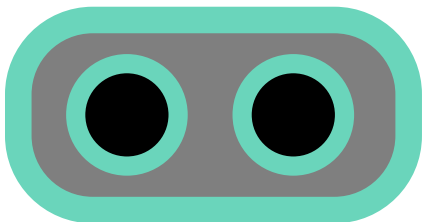
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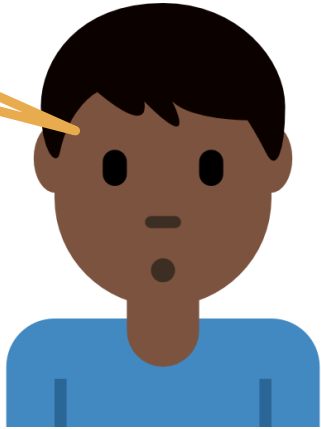
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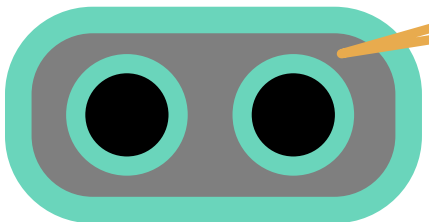
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Can't copy  
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Yes, recall that for int  
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Can't compare  
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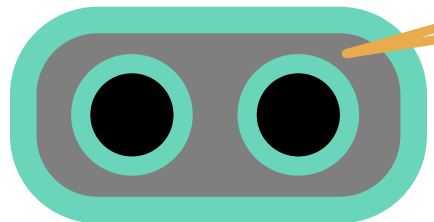


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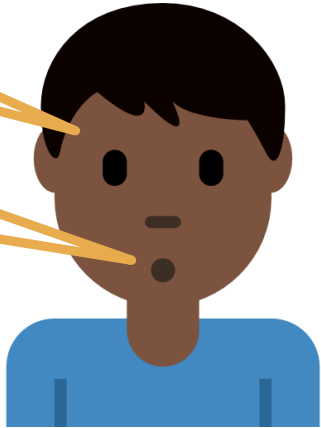
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Have to do the same here?



Can't compare strings using ==



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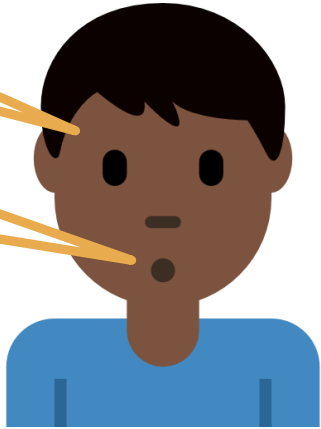
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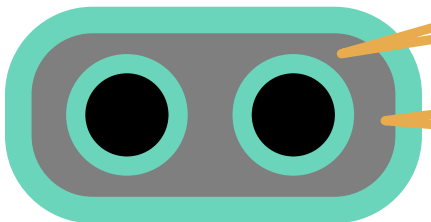


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Fortunately, convenient library functions available for strings



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Available through string.h

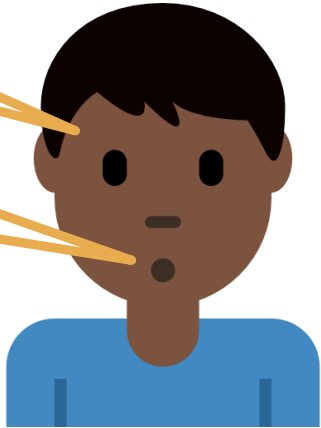
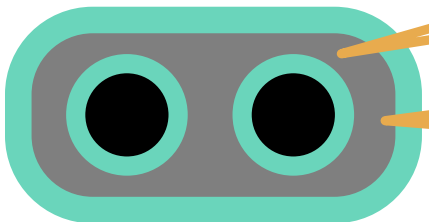
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# Useful string functions – string.h

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If you want them copied too, do so yourself! Mr C stops at NULL character



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Already seen how to reverse a string in tutorial 😊



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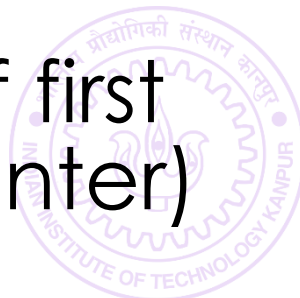
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# Practice Problem

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This means, we can take the format string from user too!

