

# C++ Programming

## Char Arrays Homework 1

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*Teaching, Training and Coaching since more than a decade!*

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# Homework 1: Is Prefix?

- Read 2 strings input and str. Print YES if the given str is a prefix for the string. Otherwise, print NO
- Input  $\Rightarrow$  Outputs
  - ABCDEFG ABCD  $\Rightarrow$  YES
  - ABCDEFG ABCDEF  $\Rightarrow$  YES
  - ABCDEFG EFG  $\Rightarrow$  NO
  - ABCDEFG DEFG  $\Rightarrow$  NO
  - ABCDEFG BCD  $\Rightarrow$  NO
  - ABCDEFG DEF  $\Rightarrow$  NO
  - ABCDEFG ACEG  $\Rightarrow$  NO
  - ABCDEFG DG  $\Rightarrow$  NO
  - ABCDEFG GD  $\Rightarrow$  NO
  - ABCDEFG ABCDEFG  $\Rightarrow$  YES

# Homework 2: Is Suffix?

- Read 2 strings input and str. Print YES if the given str is a suffix for the string. Otherwise, print NO
- Input  $\Rightarrow$  Outputs
  - ABCDEFG ABCD  $\Rightarrow$  NO
  - ABCDEFG ABCDEF  $\Rightarrow$  NO
  - ABCDEFG EFG  $\Rightarrow$  YES
  - ABCDEFG DEFG  $\Rightarrow$  YES
  - ABCDEFG BCD  $\Rightarrow$  NO
  - ABCDEFG DEF  $\Rightarrow$  NO
  - ABCDEFG ACEG  $\Rightarrow$  NO
  - ABCDEFG DG  $\Rightarrow$  NO
  - ABCDEFG GD  $\Rightarrow$  NO
  - ABCDEFG ABCDEFG  $\Rightarrow$  YES

# Homework 3: Is Substring?

- Read 2 strings input and str. Print YES if the given str is a substring for the string. Otherwise, print NO
- Input  $\Rightarrow$  Outputs
  - ABCDEFG ABCD  $\Rightarrow$  YES
  - ABCDEFG ABCDEF  $\Rightarrow$  YES
  - ABCDEFG EFG  $\Rightarrow$  YES
  - ABCDEFG DEFG  $\Rightarrow$  YES
  - ABCDEFG BCD  $\Rightarrow$  YES
  - ABCDEFG DEF  $\Rightarrow$  YES
  - ABCDEFG ACEG  $\Rightarrow$  NO
  - ABCDEFG DG  $\Rightarrow$  NO
  - ABCDEFG GD  $\Rightarrow$  NO
  - ABCDEFG ABCDEFG  $\Rightarrow$  YES

# Homework 4: Is Subsequence?

- Read 2 strings input and str. Print YES if the given str is a subsequence for the string. Otherwise, print NO
- Input  $\Rightarrow$  Outputs
  - ABCDEFG ABCD  $\Rightarrow$  YES
  - ABCDEFG ABCDEF  $\Rightarrow$  YES
  - ABCDEFG EFG  $\Rightarrow$  YES
  - ABCDEFG DEFG  $\Rightarrow$  YES
  - ABCDEFG BCD  $\Rightarrow$  YES
  - ABCDEFG DEF  $\Rightarrow$  YES
  - ABCDEFG ACEG  $\Rightarrow$  YES
  - ABCDEFG DG  $\Rightarrow$  YES
  - ABCDEFG GD  $\Rightarrow$  NO
  - ABCDEFG ABCDEFG  $\Rightarrow$  YES

# Homework 5: Convert to number

- Read a string of 6 letters maximum, convert it to int then print
  - the number, the number multiplied by 3
- Input  $\Rightarrow$  output
  - "100"  $\Rightarrow$  100 300
  - "0200"  $\Rightarrow$  200 600

$\text{int}(\text{str}(c) - 48)$

48  $\rightarrow$  57

# Homework 6: Grouping

- Read a string, then divide it to consecutive groups of same letter. Print each group
- Input  $\Rightarrow$  outputs.
  - "111222aabb"  $\Rightarrow$  111 222 aa bb
  - HHHH  $\Rightarrow$  HHHH

*“Acquire knowledge and impart it to the people.”*

*“Seek knowledge from the Cradle to the Grave.”*