

C++ Programming

Char Arrays Homework 1

Mostafa S. Ibrahim

Teaching, Training and Coaching since more than a decade!

Artificial Intelligence & Computer Vision Researcher

PhD from Simon Fraser University - Canada

Bachelor / Msc from Cairo University - Egypt

Ex-(Software Engineer / ICPC World Finalist)



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

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.”