

Lab: Strings and Text Processing

This document defines the homework assignments from the ["Programming Fundamentals" Course @ Software University](#). Please submit your solutions (source code) of all below described problems in [Judge](#).

1. Reverse String

Write a program that reads a string from the console, reverses it and prints the result back at the console.

Examples

Input	Output
sample	elpmas
24tvcoi92	29iocvt42

2. Count Substring Occurrences

Write a program to **find how many times a given string appears in a given text as substring**. The text is given at the first input line. The search string is given at the second input line. The output is an integer number. Please ignore the **character casing**. **Overlapping** between occurrences is **allowed**.

Examples

Input	Output
Welcome to the Software University (SoftUni)! Welcome to programming. Programming is wellness for developers, said Maxwell. wel	4
aaaaaa aa	5
ababa caba aba	3
Welcome to SoftUni Java	0

3. Text Filter

Write a program that takes a **text** and a **string of banned words**. All words included in the ban list should be replaced with **asterisks** "*", equal to the word's length. The entries in the ban list will be separated by a **comma and space** ", ".
The ban list should be entered on the first input line and the text on the second input line.

Examples

Input	Output
Linux, Windows It is not Linux, it is GNU/Linux. Linux is merely the kernel, while GNU adds the functionality. Therefore we owe it to	It is not *****, it is GNU/*****. ***** is merely the kernel, while GNU adds the functionality. Therefore we owe it to them by calling the OS GNU/*****!

them by calling the OS GNU/Linux! Sincerely, a Windows client	Sincerely, a ***** client
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4. Palindromes

Write a program that extracts from a given text all palindromes, e.g. ABBA, lamal, exe and prints them on the console on a single line, separated by comma and space. Use spaces, commas, dots, question marks and exclamation marks as word delimiters. Print only **unique** palindromes, **sorted** lexicographically.

Examples

Input	Output
Hi,exe? ABBA! Hog fully a string. Bob	a, ABBA, exe