# Lab: Strings and Text Processing

Tasks for exercise in class and for homework to the course ["Programming Advanced for QA" @ SoftUni](https://softuni.bg/trainings/4257/programming-advanced-for-qa-november-2023)

Test your tasks in the Judge system: [https://judge.softuni.org/Contests/4462](https://judge.softuni.org/Contests/4462/Strings-and-Text-Processing-Lab)

## Reverse Strings

Write a program that:

* Reads a **series of strings** from the console, until you receive an **"end"** command
* **Reverse** given strings
* Print each **pair (old text and reversed text)** on a separate line in the format:

**"{word} = {reversed word}"**

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| helLo  Softuni  bottle  end | helLo = oLleh  Softuni = inutfoS  bottle = elttob |
| Dog  caT  chAir  end | Dog = goD  caT = Tac  chAir = riAhc |

## Repeat Strings

### Write a program that:

### Reads an array of strings from the console

### Each string is repeated N times, where N is the length of the string

### Print the concatenated string

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| hi abc add | hihiabcabcabcaddaddadd |
| work | workworkworkwork |
| ball | ballballballball |

## Substring

Write a program that:

* Read **first string** from the first line of the console
* Reads **second string** from the second line of the console
* **Remove** **all** of the **occurrences** of the **first** **string** **in** **the** **second string**
* **Print** the **remaining string**

### Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comment** |
| ice  kicegiciceeb | kgb | We remove "**ice**" once and we get "**kgiciceeb**"  We match "**ice**" one more time and we get "kgiceb"  There is one more match. The finam result is "kgb" |
| hep  ShepoftunihepIsGrhepeat | SoftuniIsGreat |  |

## Text Filter

Create a program that takes a **text** and a **string of banned words**. All words included in the ban list should be replaced with a string of **asterisks** '**\***', whose length must be 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 them by calling the OS GNU/**Linux**! Sincerely, a **Windows** client | 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/\*\*\*\*\*! Sincerely, a \*\*\*\*\*\*\* client |
| von Richthofen, German, 80 air  Manfred Albrecht Freiherr **von Richthofen**, known in English as Baron **von Richthofen** was a fighter pilot with the **German** Air Force during World War I. He is considered the ace-of-aces of the war, being officially credited with **80 air** combat victories. | Manfred Albrecht Freiherr \*\*\*\*\*\*\*\*\*\*\*\*\*\*, known in English as Baron \*\*\*\*\*\*\*\*\*\*\*\*\*\* was a fighter pilot with the \*\*\*\*\*\* Air Force during World War I. He is considered the ace-of-aces of the war, being officially credited with \*\*\*\*\*\* combat victories. |

## Digits, Letters and Others

Write a program that:

* Read a **single** **string** from the console
* Print **all the digits** on the first line
* Print **all the letters** on the second line
* Print **all the other characters** on the third line

**Note:** There will always be at least one digit, one letter and one other character.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Agd#53Dfg^&4F53 | 53453  AgdDfgF  #^& |
| So%f94t34U\*n&i></37 | 943437  SoftUni  %\*&></ |