# Homework: Strings in PHP

This document defines homework assignments from the [“PHP & MySQL“ Course @ Software University](https://softuni.bg/trainings/fasttracks/details/1033). Please submit as homework a single zip / 7z archive holding the solutions (source code) of all below described problems.

## Removes Names

Write a script that takes as input two lists of names and **removes from the first array all names given in the second array**. The input and output array are given as words, separated by a space, each list at a separate line. Examples:

|  |  |
| --- | --- |
| **Input** | **Output** |
| Peter Alex Maria Todor Steve Diana Steve  Todor Steve Nakov | Peter Alex Maria Diana |
| Hristo Hristo Nakov Nakov Petya  Nakov Vanessa Maria | Hristo Hristo Petya |

## Count of Letters

Write a program that reads a list of letters and **prints for each letter how many times it appears in the list**. The letters should be listed in alphabetical order. Use the input and output format from the examples below. Examples:

|  |  |
| --- | --- |
| **Input** | **Output** |
| b b a a b | a -> 2  b -> 3 |
| h d h a a a s d f d a d j d s h a a | a -> 6  d -> 5  f -> 1  h -> 3  j -> 1  s -> 2 |

## Find All Matches

Write a script that finds how many times a substring is contained in a given text (perform case insensitive search).

|  |  |
| --- | --- |
| **Input** | **Output** |
| Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.  Search substring: **em** | The result is: **6** |

## Extract all valid URLs

Write a regex pattern for extracting all URL’s addresses from given text.

Hint: <http://en.wikipedia.org/wiki/Uniform_resource_locator>

## Custom Sorting

Write function that sort array according to the element with that index in the string. For example if given index is 2, sort array by second index of string.

## Combine List of Letters

Write a script that **reads two array of letters l1 and l2 and combines them**: appends all letters **c** from **l2** to the end of **l1**, but only when **c** does not appear in **l1**. Print the obtained combined list. All lists are given as sequence of letters separated by a single space, each at a separate line. Use ArrayList<Character> of chars to keep the input and output lists Examples:

|  |  |
| --- | --- |
| **Input** | **Output** |
| h e l l o  l o w | h e l l o w |
| a b c d  x y z | a b c d x y z |
| a b a  b a b a | a b a |