# Homework: PHP Arrays, String and Objects

This document defines the homework assignments from the [“PHP Basics“ Course @ Software University](https://softuni.bg/trainings/coursesinstances/details/5). Please submit as homework a single zip / rar / 7z archive holding the solutions (source code) of all below described problems.

## Word Mapping

Write a PHP program **WordMapper.php** that takes a text from a textarea and prints each word and the number of times it occurs in the text. The search should be **case-insensitive**. The result should be printed as an **HTML table**.

|  |  |
| --- | --- |
| **Input** | **Output** |
| The quick brows fox.!!! jumped over..// the lazy dog.! |  |
|  |

## Coloring Texts

Write a PHP program **TextColorer.php** that takes a text from a textfield, colors each character according to its ASCII value and prints the result. If the ASCII value of a character is odd, the character should be printed in **blue**. If it’s even, it should be printed in **red**.

|  |  |
| --- | --- |
| **Input** | **Output** |
| What a wonderful world! | W h a t a w o n d e r f u l w o r l d ! |
|  |

## Sidebar Builder

Write a PHP program **SidebarBuilder.php** that takes data from several input fields and builds 3 sidebars. The input fields are **categories**, **tags** and **months**. The first sidebar should contain a list of the **categories**, the second sidebar – a list of the **tags** and the third should contain the **months**. The entries in the input strings will be separated by a **comma** and **space** "**,** ". Styling the page is *optional*. Semantic HTML is required.

|  |  |  |
| --- | --- | --- |
| **Input** | | **Output** |
| categories | Knitting, Cycling, Swimming, Dancing |  |
| tags | person, free time, love, peace, protest |
| months | April, May, June, July |
|  | |

## Text Filter

Write a PHP program **TextFilter.php** that takes a **text** from a textfield and a **string of banned words** from a text input field. All words included in the ban list should be replaced with **asterisks** "**\***", equal to the word’s length. The entries in the banlist will be separated by a **comma** and **space** "**,** ".

|  |  |  |
| --- | --- | --- |
| **Input** | | **Output** |
| text | 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 |
| banlist | Linux, Windows |

## Sentence Extractor

Write a PHP program **SentenceExtractor.php** that takes a **text** from a textarea and a **word** from an input field and prints **all sentences from the text, containing that word**. A sentence is any sequence of words ending with **.**, **!** or **?**.

|  |  |  |
| --- | --- | --- |
| **Input** | | **Output** |
| text | This **is** my cat! And this **is** my dog. We happily live in Paris – the most beautiful city in the world! Isn’t it great? Well it is :) | This is my cat!  And this is my dog. |
| word | is |

## URL Replacer

Write a PHP program **URLReplacer.php** that takes a text from a textarea and **replaces all URLs** with the HTML syntax **<a href=** **"…" ></a>** with a special forum-style syntax **[URL=…][/URL]**.

|  |  |  |
| --- | --- | --- |
| **Input** | | **Output** |
| text | <p>Come and visit **<a href="http://softuni.bg">**the Software University**</a>** to master the art of programming. You can always check our **<a href="www.softuni.bg/forum">**forum**</a>** if you have any questions.</p> | <p>Come and visit the **[URL=http://softuni.bg]**Software University**[/URL]** to master the art of programming. You can always check our **[URL=www.softuni.bg/forum]**forum**[/URL]** if you have any questions.</p> |

## \* SoftUni Seminar Generator

Write a PHP program **SeminarGenerator.php** that receives information about seminars from a textarea, holding each seminar on a separate line, and prints the data as an **HTML table**. The information about the seminars comes in format: **[Seminar name]-[Lecturer’s name]-[dd-mm-YYYY hh:MM] [Seminar info]**, where **mm** denotes the month and **MM** denotes the minutes. Each seminar should be put on a separate table row with cells **Seminar name**, **Date** and **Participation**. The user should be able to sort the seminars by **Name** or **Date** in **Ascending**/**Descending** order. On hover over a seminar’s name, a details box should appear. The box should contain information about the **lecturer** and a **description**. See the example below. The box should follow the cursor and disappear when the mouse leaves the seminar’s name. Styling the page is *optional*. Semantic HTML is required. **Use objects** for handling the seminar data.

**Hint:** You can achieve the popup box functionality by rendering the seminar details boxes as hidden DIVs and display them with absolute positioning with JavaScript.

|  |
| --- |
| **Input** |
| Debugging with WordPress-Mario Peshev-28-08-2014 18:00 WordPress is a free and open source blogging tool and a content management system (CMS) based on PHP and MySQL...  First steps with Laravel-Ivan Vankov-31-08-2014 19:00 Laravel is a free, open source PHP web application framework, designed for the development of model–view–controller (MVC) web applications. According to...  JavaScript with .NET-Pavel Kolev-12-09-2014 17:00 JavaScript (JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously...  SEO optimization, social networks, digital marketing-Ognyan Mladenov-05-07-2014 18:00 Search engine optimization (SEO) is the process of affecting the visibility of a website or a web page in a search engine's "natural" or un-paid ("organic") search results. In general, the earlier (or higher ranked on the search results page), and more frequently...  Basic Game Theory-Georgi Georgiev-16-06-2014 15:00 Game theory is a study of strategic decision making. Specifically, it is "the study of mathematical models of conflict and cooperation between intelligent rational decision-makers". An alternative term suggested "as a more descriptive name for the discipline" is interactive decision theory. Game theory is mainly used in economics... |
|  |
| **Result** |
|  |