

Homework: PHP Arrays, String and Objects

This document defines the homework assignments from the [“PHP Basics” Course @ Software University](#). Please submit as homework a single **zip / rar / 7z** archive holding the solutions (source code) of all below described problems.

Problem 1. 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																
<div>The quick brows fox.!!! jumped over..// the lazy dog.!</div> <div><div>The quick brows fox.!!! jumped over..// the lazy dog.!</div><div>Count words</div></div>	<table><tr><td>the</td><td>2</td></tr><tr><td>quick</td><td>1</td></tr><tr><td>brows</td><td>1</td></tr><tr><td>fox</td><td>1</td></tr><tr><td>jumped</td><td>1</td></tr><tr><td>over</td><td>1</td></tr><tr><td>lazy</td><td>1</td></tr><tr><td>dog</td><td>1</td></tr></table>	the	2	quick	1	brows	1	fox	1	jumped	1	over	1	lazy	1	dog	1
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Problem 2. 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
<div>What a wonderful world!</div> <div><div>What a wonderful world!</div><div>Color text</div></div>	<div>W h a t a w o n d e r f u l w o r l d !</div>

Problem 3. 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	<div>Categories</div> <ul style="list-style-type: none"> Knitting Cycling Swimming Dancing <div>Tags</div> <ul style="list-style-type: none"> person free time love peace protest <div>Months</div> <ul style="list-style-type: none"> April May June July
tags	person, free time, love, peace, protest	
months	April, May, June, July	
<p>Categories: <input type="text" value="Knitting, Cycling, Swimming, Dancing"/></p> <p>Tags: <input type="text" value="person, free time, love, peace, protest"/></p> <p>Months: <input type="text" value="April, May, June, July"/></p> <p><input type="button" value="Generate"/></p>		

Problem 4. 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	

Problem 5. 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	

Problem 6. URL Replacer

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

Input		Output
text	<code><p>Come and visit the Software University to master the art of programming. You can always check our forum if you have any questions.</p></code>	<code><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></code>

Problem 7. * 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
<p>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...</p> <p>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...</p> <p>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...</p> <p>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</p>

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Sort by: Date Name Date Order by: Descending Submit

Result

Seminar name	Date	Participate
JavaScript with .NET	12-09-2014 17:00	SIGN UP
First steps with Laravel	31-08-2014 19:00	SIGN UP
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Lecturer: Ognyan Mladenov
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