# Homework: PHP Working with Forms

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.

## Print Tags

Write a PHP script **PrintTags.php** which generates an HTML **input text field** and a **submit button**. In the text field the user must enter different tags, separated by a comma and a space (", "). When the information is submitted, the script should **split the tags**, put them **in an array** and **print out the array**. Semantic HTML is required. Styling is not required. Example:

|  |  |
| --- | --- |
| **Input** | **Output** |
| Pesho, homework, homework, exam, course, PHP |  |

## Most Frequent Tag

Write a PHP script **MostFrequentTag.php** which generates an HTML **input text field** and a **submit button**. In the text field the user must enter **different tags**, separated by a comma and a space **(", ")**. When the information is submitted, the script should generate a **list of the tags**, sorted **by** **frequency**. Then you must print: **"Most Frequent Tag is: [most frequent tag]"**. Semantic HTML is required. Styling is not required. Example:

|  |  |
| --- | --- |
| **Input** | **Output** |
| Pesho, homework, homework, exam, course, PHP |  |

## Calculate Interest

Write a PHP script **CalculateInterest.php** which generates an HTML page that contains:

* An input text field to hold the **amount of money**
* Radio buttons to choose the **currency**
* An input text field to enter the **compound annual interest** **amount**
* A dropdown menu to choose the **period of time**
* A **submit button**

When the **information is submitted**, the script should print out the **amount of money** you will have after the selected period, rounded to 2 decimal places. Semantic HTML is required. Styling is not required. Example:

|  |  |  |
| --- | --- | --- |
| **Preview** | **Input** | **Output** |
|  | 1000  USD  12  6 months | $ 1061.52 |

***Hint:*** How to calculate **compound interest**? You may read the [Wikipedia](http://en.wikipedia.org/wiki/Compound_interest) article or see the **example below**.

***Explanation of the example:***

We have Compound Annual Interest of 12%. This makes 1% interest per month. This means that each month for a 6 months’ period of time we accrue interest of 1% on the current amount of money. Given the input from the example, the result would be:

|  |  |  |
| --- | --- | --- |
| **Month** | **Calculations** | **Amount of Money** |
| 1st | 1000 \* 101% | 1010 |
| 2nd | 1010 \* 101% | 1020.1 |
| 3rd | 1020.1 \* 101% | 1030.301 |
| 4th | 1030.301 \* 101% | 1040.60401 |
| 5th | 1040.60401 \* 101% | 1051.0100501 |
| 6th | 1051.0100501 \* 101% | 1061.520150601 |

After the **6th month** we have **1061.520150601 USD** in our account. We **round the result** and add the symbol **"$"** for USD. The output is **$ 1061.52**.

## HTML Tags Counter

Write a PHP script **HTMLTagsCounter.php** which generates an HTML form like in the example below. It should contain a **label**, an **input text field** and a **submit button**. The user **enters HTML tag** in the input field. If the tag is valid, the script should print “**Valid HTML tag**!”, and if it is invalid – “**Invalid HTML Tag!**”. On the second line, there should be a **score counter**. For every valid tag entered, the score should increase by 1.

***Hint:*** You may use **sessions**. Use an **array** to store all valid **HTML5** **tags**.

|  |  |
| --- | --- |
| **Correct Tag** | **Incorrect Tag** |
|  |  |

## CV Generator

Write a PHP script **CVGenerator.php** which generates an HTML form like in the example below. When the **information is submitted** (via Generate CV), the script should print out a **simple table-like CV**. Semantic HTML is required. Styling is not required. Example:

|  |  |
| --- | --- |
| **Input** | **Output** |
|  |  |

***Constraint 01:*** You must **validate the data**, entered by the user, **in the PHP script** as follows:

|  |  |
| --- | --- |
| **Input Fields** | **Server Validation in the PHP Script Criteria** |
| First Name, Last Name, Language | Only letters  Between 2 and 20 symbols |
| Company Name | Letters and Numbers  Between 2 and 20 symbols |
| Phone Number | Numbers and “+”, “-”, “ ” |
| Email | Letters, Numbers  Only one “@”, only one “.”  Example: **example@example.com** |

***Constraint 02:*** The buttons **"Remove Language"** and **"Add Language"** must **dynamically** **add /remove** aninput field for language and a selection for level of knowledge. The same goes for **Programming Languages** and **Languages from Other Skills**. Example:

|  |  |
| --- | --- |
| **Action** | **Result** |
| Default |  |
| When we click "Add Language" 2 times |  |
| When we click "Remove Language" 1 time |  |

## \*Combo Box

Write a PHP script **ComboBox.php** which generates an HTML form that contains **cascading related comboboxes**. There are **two dropdown menus**. The content of the second dropdown menu depends on the chosen option from the first one. The first dropdown menu contains **continents**, the second dropdown menu contains **countries from the continents**. Example:

|  |
| --- |
| **Content of First Dropdown Menu** |
|  |

|  |  |
| --- | --- |
| **Chosen Continent from First Dropdown Menu** | **Content of Second Dropown Menu** |
| Australia |  |
| North America |  |