# Homework: PHP Syntax

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.

## Square Root Sum

Write a PHP script **SquareRootSum.php**. Display a **table** in your browser with **2 columns**. The first column should contain a **number** (starting from 0) and the second one should contain **the square root of that number** rounded to the **second digit after the decimal point**. The **last row** of the table should contain the **sum** of all values in the **Square** column. *Styling the page is optional.* Part of output:

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

## Rich People’s Problems

You are a very rich billionaire with unhidden passion for cars. You like certain car manufacturers but you don’t really care about anything else, that’s why you need your own randomizing algorithm that helps you decide how many and what exact colors cars you should buy. Write a PHP script **CarRandomizer.php** that gets **a string of cars as an input** and **outputs the list of cars**, a random **color** and a random **quantity** in a **table** as the ones shown below. *Styling the page is optional.* Examples:

|  |  |
| --- | --- |
| **Input** | **Output** |
| “Mitsubishi, Maseratti, Maybach” | C:\Users\Mitko\AppData\Local\Microsoft\Windows\INetCache\Content.Word\02_output1.png |

## Show Annual Expenses

Write a PHP script **AnnualExpenses.php** takes a number **N** as an input. Create an output **table** (like the one shown below) with **random expenses** by **months** and the corresponding **years** N years back. E.g. if N is 10, create a table that shows the expenses for each month for the last 10 years. Add a **Total column** at the end, showing the total expenses for the same year. *Styling the page is optional.* Examples:

|  |  |
| --- | --- |
| **Input** |  |
| **Output** | C:\Users\Mitko\AppData\Local\Microsoft\Windows\INetCache\Content.Word\03_output1.png |

## Find Primes in Range

Write a PHP script **PrimesInRange.php** that takes **two numbers** as an input – **Start** and **End** indexes. Display all of the numbers between the two indexes as a **comma-separated list**. Display the **prime** numbers in that range with a **bolded font**. *Styling the page is optional.* Examples:

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

## Sum of Digits

Write a PHP script **SumOfDigits.php** which displays a table with two columns. The first one with the given value and the second one with the sum of the value’s digits. Values are inputted as a comma-separated list through an input field and can be numbers and letters (as shown below). *Styling the page is optional.* Example:

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

## Modify String

Write a PHP script **StringModifier.php** which gets a string from the user and **modifies it** the way the user is specified via radio buttons. The result is displayed right under the input field. *Styling the page is optional.* Think about which of the modifiers can be achieved with already built-in functions in PHP. Where necessary write your own algorithms to modify the given string. **Hint:** For the “Hash String” modification read about the **crypt()** function. Examples:

|  |  |
| --- | --- |
| **Input / Output** |  |
| **Input / Output** | **C:\Users\Mitko\AppData\Local\Microsoft\Windows\INetCache\Content.Word\6-output-reverse.png** |
| **Input / Output** |  |
| **Input / Output** | **C:\Users\Mitko\AppData\Local\Microsoft\Windows\INetCache\Content.Word\6-output-hash.png** |
| **Input / Output** | **C:\Users\Mitko\AppData\Local\Microsoft\Windows\INetCache\Content.Word\6-output-shuffle.png** |