

COMP 3512 – Tutorial – Jan 30

Objective

The goal of this tutorial is to practice working with **functions, loops, and arrays**. These exercises are designed to help you build confidence with the required skills and also provide excellent practice for exams and quizzes. I strongly encourage you to work on them during the tutorial and to continue afterward if you need a bit more time.

I have created a submission folder on D2L titled “**Ungraded Tutorial 2**.” While submission is not required, you are very welcome to **submit your work through that folder, share your repository with me, or show your work to me during the tutorial**. Doing so will give you an opportunity to receive feedback, ask questions, and strengthen your understanding.

Exercise 1

Write a function that accepts two parameters and returns true if either of the parameters is equal to 50 or if the sum of the two parameters is equal to 50, otherwise return false. Provide three sample invocations that illustrate the full functionality of the function.

Exercise 2

```
$countries2 = ["China", "Brazil", "Ethiopia"];
```

Given the above array,

- output (echo) a bulleted list of countries names using PHP. Implement this with a regular **for loop** and with a **while loop** and with a **foreach loop**. In PHP, you can use the **count** function to return the size of the passed array, e.g., **count(\$countries2)**
- Also add a new country to this array after this declaration and initialization.

Exercise 3

```
$countries3 = [  
    ["India", "New Delhi"],  
    ["Egypt", "Cairo"],  
    ["Spain", "Madrid"]  
];
```

Given the above array, output (echo) a bulleted list of countries names using PHP.
Implement this with both a foreach and a regular for loop.

Exercise 4

```
$countries4 = [  
    {"ISO"=>"CA", "name"=>"Canada", "continent"=>"NA"},  
    {"ISO"=>"FR", "name"=>"France", "continent"=>"EU"},  
    {"ISO"=>"AT", "name"=>"Austria", "continent"=>"EU"}  
];
```

Given the above array, output a bulleted list of countries names using PHP.

Exercise 5

Modify your code from exercise 4 so that your code is within a function and returns a string containing the list. As well, wrap the country name in a `` element if continent=EU, e.g., `France`. Include a sample invocation of this function.

Exercise 6

```
$countries4 = [  
    "CA" => ["name"=>"Canada", "capital"=>"Ottawa"],  
    "FR" => ["name"=>"France", "capital"=>"Paris"],  
    "TR" => ["name"=>"Turkey", "capital"=>"Ankara"]  
];
```

Given the above array, output a `<select>` list in which each `<option>` value is the ISO (e.g., CA), and the label is the country name.