



For...loop Exercises php



- 1) Create a function that takes a string as an argument and returns the number of vowels in the string.
- 2) Create a function that takes an array of numbers as an argument and returns the average of all the numbers in the array.
- 3) Create a function that takes a string as an argument and returns whether the string is a palindrome (a word or phrase that reads the same backwards as forwards).
- 4) Create a function that takes an array of strings as an argument and returns a new array with all the strings sorted in alphabetical order.
- 5) Create a function that takes a number as an argument and returns the factorial of that number (the product of all the positive integers from 1 to the number).
- 6) Create a function that takes an array of numbers as an argument and returns a new array with only the even numbers from the original array.
- 7) Create a function that takes a string as an argument and returns the string with all the vowels removed.
- 8) Create a function that takes an array of numbers as an argument and returns a new array with all the numbers sorted in descending order.
- 9) Create a function that takes a string as an argument and returns whether the string is a valid email address.
- 10) Create a function that takes an array of strings as an argument and returns the shortest string in the array.

Exercises and solution

- 1) Create a function that takes a string as an argument and returns the number of vowels in the string.

```
function count_vowels($str) {  
    $vowels = array('a', 'e', 'i', 'o', 'u');  
    $count = 0;  
    foreach (str_split($str) as $char) {  
        if (in_array($char, $vowels)) {  
            $count++;  
        }  
    }  
    return $count;  
}
```

- 2) Create a function that takes an array of numbers as an argument and returns the average of all the numbers in the array.

```
function array_average($arr) {  
    return array_sum($arr) / count($arr);  
}
```

- 3) Create a function that takes a string as an argument and returns whether the string is a palindrome (a word or phrase that reads the same backwards as forwards).

```
function is_palindrome($str) {  
    $str = strtolower(preg_replace('/[^a-zA-Z0-9]/', '', $str));  
    return $str == strrev($str);  
}
```

- 4) Create a function that takes an array of strings as an argument and returns a new array with all the strings sorted in alphabetical order.

```
function sort_strings($arr) {  
    sort($arr);  
    return $arr;  
}
```

- 5) Create a function that takes a number as an argument and returns the factorial of that number (the product of all the positive integers from 1 to the number).

```
function factorial($num) {  
    if ($num == 0) {  
        return 1;  
    } else {  
        return $num * factorial($num - 1);  
    } }  
}
```

- 6) Create a function that takes an array of numbers as an argument and returns a new array with only the even numbers from the original array.

```
function even_numbers($arr) {  
    return array_filter($arr, function($num) {  
        return $num % 2 == 0;  
    });  
}
```

- 7) Create a function that takes a string as an argument and returns the string with all the vowels removed.

```
function remove_vowels($str) {  
    return preg_replace('/[aeiou]/i', '', $str);  
}
```

- 8) Create a function that takes an array of numbers as an argument and returns a new array with all the numbers sorted in descending order.

```
function sort_descending($arr) {  
    rsort($arr);  
    return $arr;  
}
```

- 9) Create a function that takes a string as an argument and returns whether the string is a valid email address.

```
function is_valid_email($email) {  
    return filter_var($email, FILTER_VALIDATE_EMAIL) !== false;  
}
```

- 10) Create a function that takes an array of strings as an argument and returns the shortest string in the array.

```
function shortest_string($arr) {  
    $shortest = $arr[0];  
    foreach ($arr as $str) {  
        if (strlen($str) < strlen($shortest)) {  
            $shortest = $str;  
        }  
    }  
    return $shortest;  
}
```

