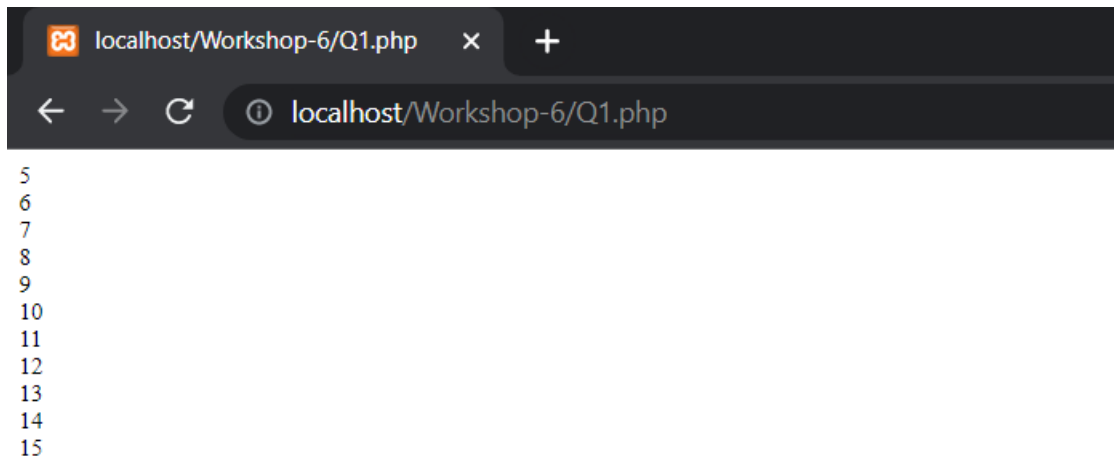# Hands on

Workshop Week 6

Write a Program:

1. To count 5 to 15 using PHP loop.

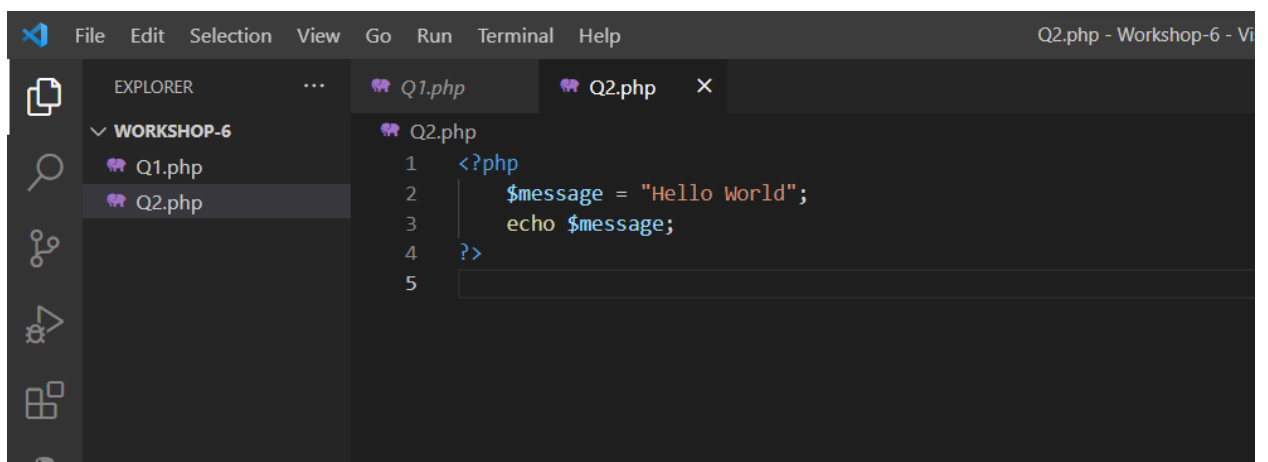

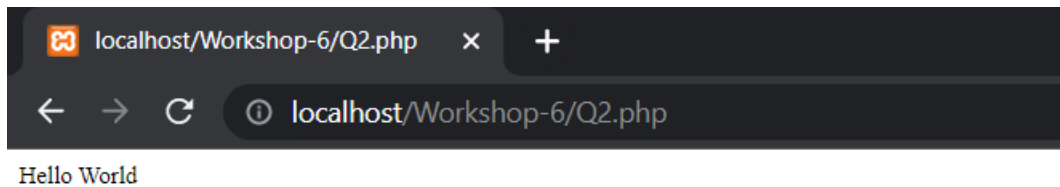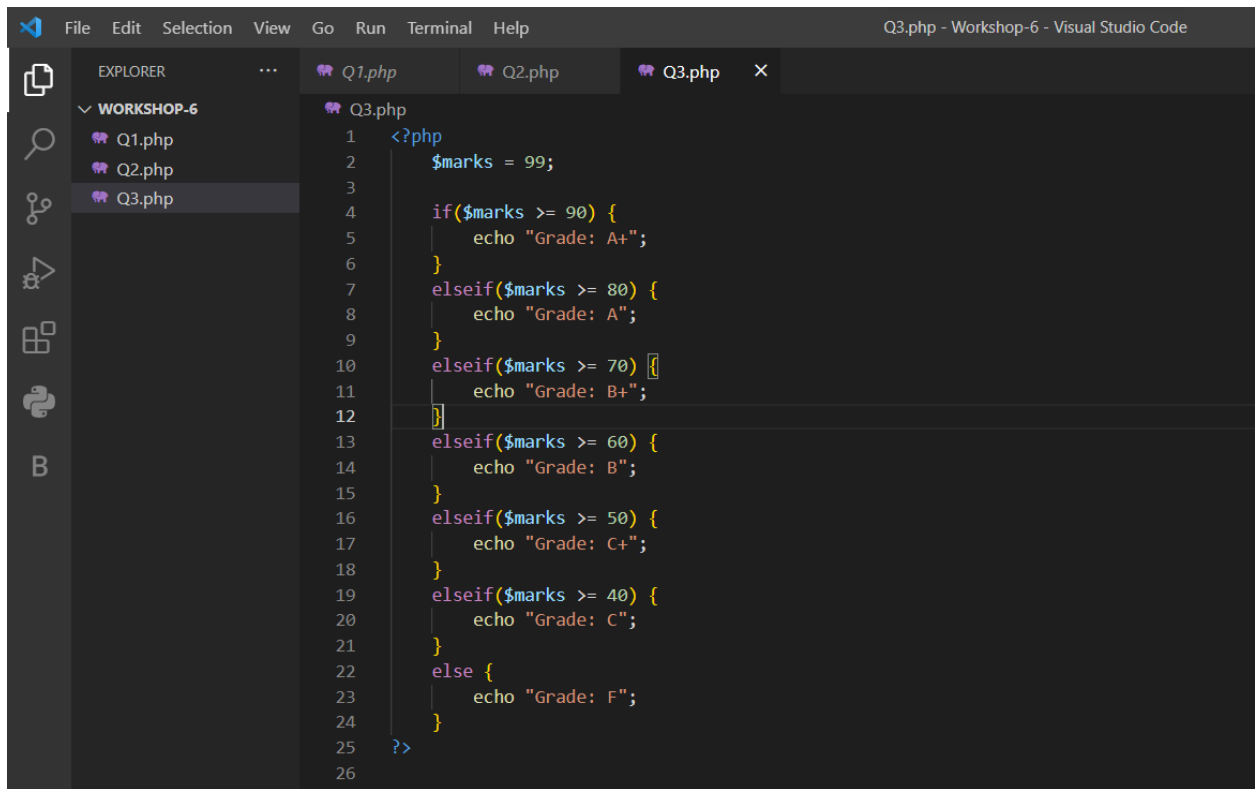2. To print "Hello World" using PHP variable.

Hello World


```php
<?php
    $message = "Hello World";
    echo $message;
?>
```

3. To check student grade based on marks.
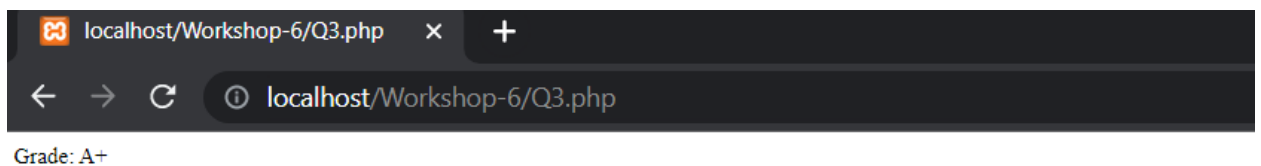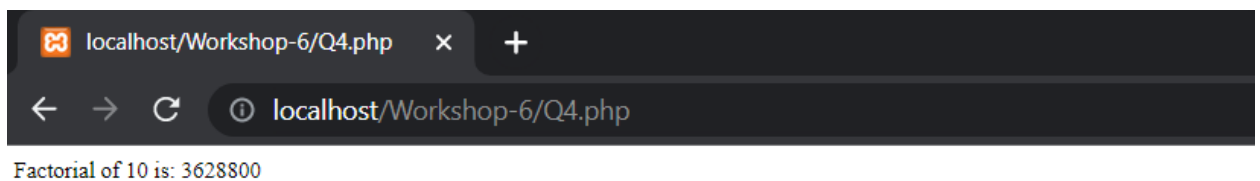
Grade: A+

```php
<?php
    $marks = 99;

    if($marks >= 90) {
        echo "Grade: A+";
    }
    elseif($marks >= 80) {
        echo "Grade: A";
    }
    elseif($marks >= 70) {
        echo "Grade: B+";
    }
    elseif($marks >= 60) {
        echo "Grade: B";
    }
    elseif($marks >= 50) {
        echo "Grade: C+";
    }
    elseif($marks >= 40) {
        echo "Grade: C";
    }
    else {
        echo "Grade: F";
    }
?>
```

4. To find factorial of a number using loop in PHP

localhost/Workshop-6/Q4.php

localhost/Workshop-6/Q4.php

Factorial of 10 is: 3628800

```php
<?php
    $number =10;
    $factorial = 1;

    for($i = 1; $i <= $number; $i++) {
        $factorial *= $i;
    }

    echo "Factorial of $number is: $factorial";
?>
```

5. To create a given pattern with * using for loop

```
*
**
***
****
*****
******
*******
********
```

localhost/Workshop-6/Q5.php   ×   +

←   →   C   ⓘ localhost/Workshop-6/Q5.php

```
*
**
***
****
*****
******
*******
********
```

EXPLORER

Q1.php   Q2.php   Q3.php   Q4.php   Q5.php   ✕

∨ WORKSHOP-6
Q1.php
Q2.php
Q3.php
Q4.php
Q5.php

Q5.php

```php
<?php
    for($i = 1; $i <= 8; $i++) {
        for($j = 1; $j <= $i; $j++) {
            echo "*";
        }
        echo "<br>";
    }
?>
```
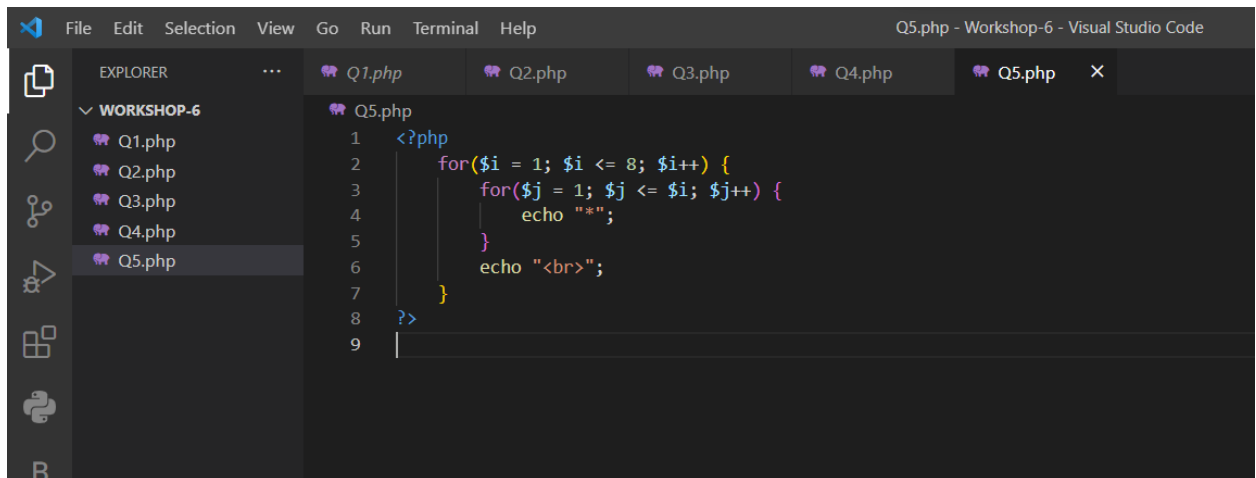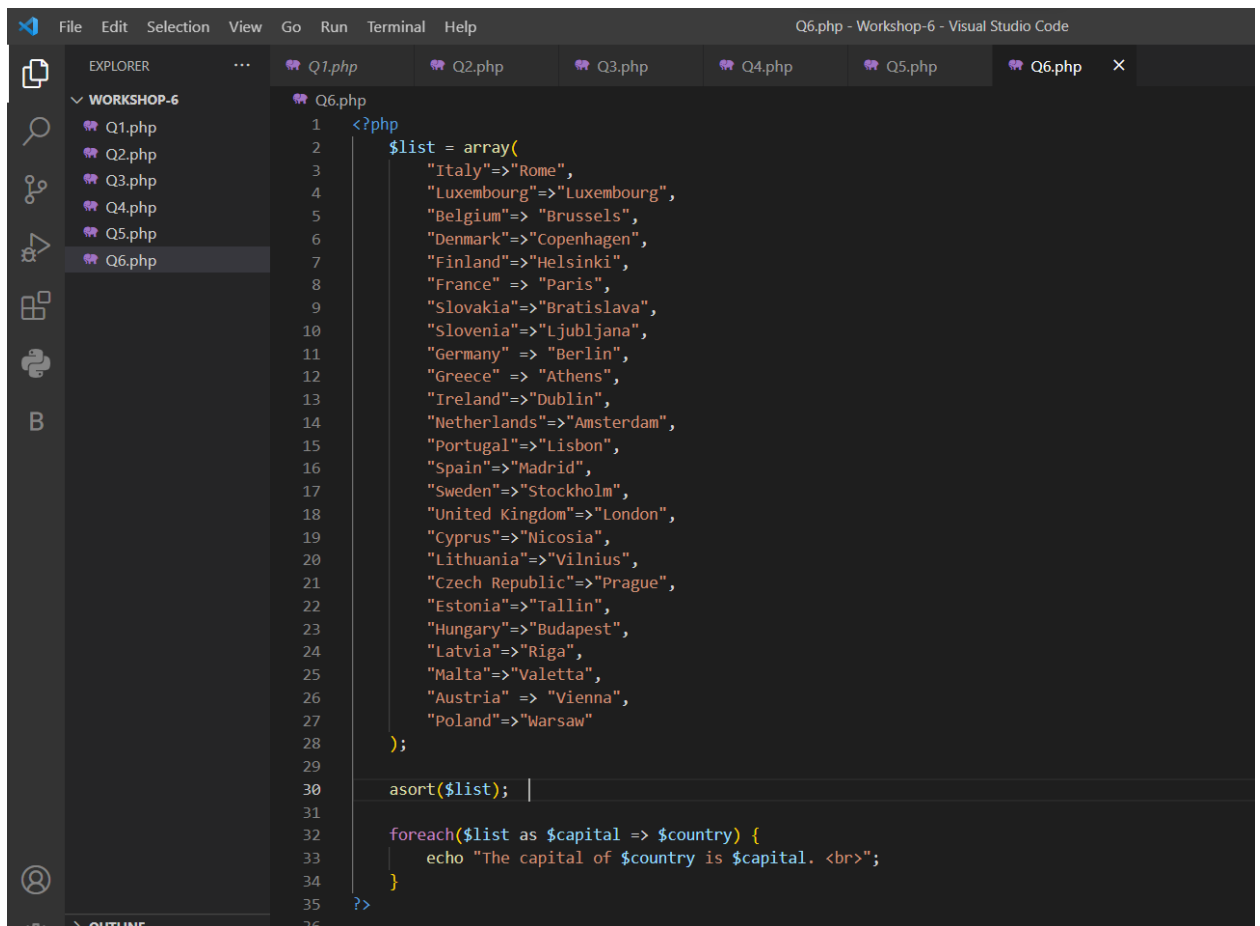
6. $list = array("Italy"=>"Rome", "Luxembourg"=>"Luxembourg", "Belgium"=> "Brussels", "Denmark"=>"Copenhagen", "Finland"=>"Helsinki", "France" => "Paris", "Slovakia"=>"Bratislava", "Slovenia"=>"Ljubljana", "Germany" => "Berlin", "Greece" => "Athens", "Ireland"=>"Dublin", "Netherlands"=>"Amsterdam", "Portugal"=>"Lisbon", "Spain"=>"Madrid", "Sweden"=>"Stockholm", "United Kingdom"=>"London", "Cyprus"=>"Nicosia", "Lithuania"=>"Vilnius", "Czech Republic"=>"Prague", "Estonia"=>"Tallin", "Hungary"=>"Budapest", "Latvia"=>"Riga", "Malta"=>"Valetta", "Austria" => "Vienna", "Poland"=>"Warsaw") ;

   Create a PHP script which displays the capital and country name from the above array $list. Sort the list by the name of the capital.
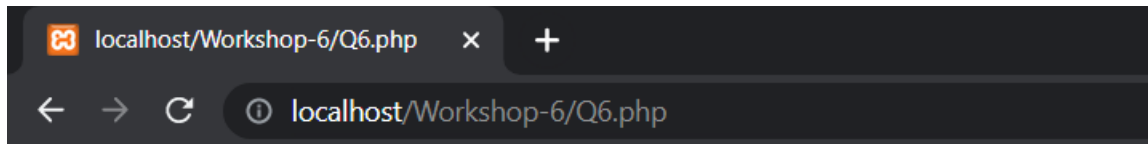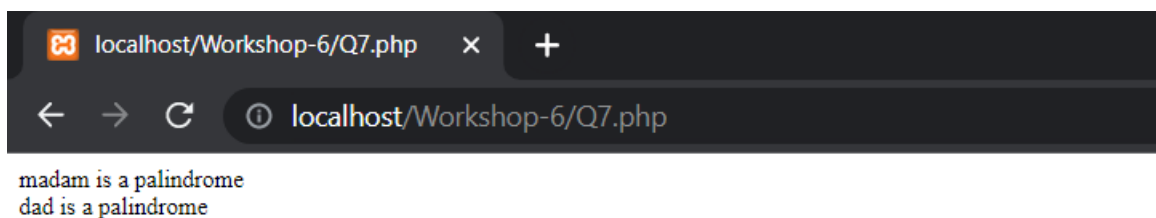
The capital of Amsterdam is Netherlands.
The capital of Athens is Greece.
The capital of Berlin is Germany.
The capital of Bratislava is Slovakia.
The capital of Brussels is Belgium.
The capital of Budapest is Hungary.
The capital of Copenhagen is Denmark.
The capital of Dublin is Ireland.
The capital of Helsinki is Finland.
The capital of Lisbon is Portugal.
The capital of Ljubljana is Slovenia.
The capital of London is United Kingdom.
The capital of Luxembourg is Luxembourg.
The capital of Madrid is Spain.
The capital of Nicosia is Cyprus.
The capital of Paris is France.
The capital of Prague is Czech Republic.
The capital of Riga is Latvia.
The capital of Rome is Italy.
The capital of Stockholm is Sweden.
The capital of Tallin is Estonia.
The capital of Valetta is Malta.
The capital of Vienna is Austria.
The capital of Vilnius is Lithuania.
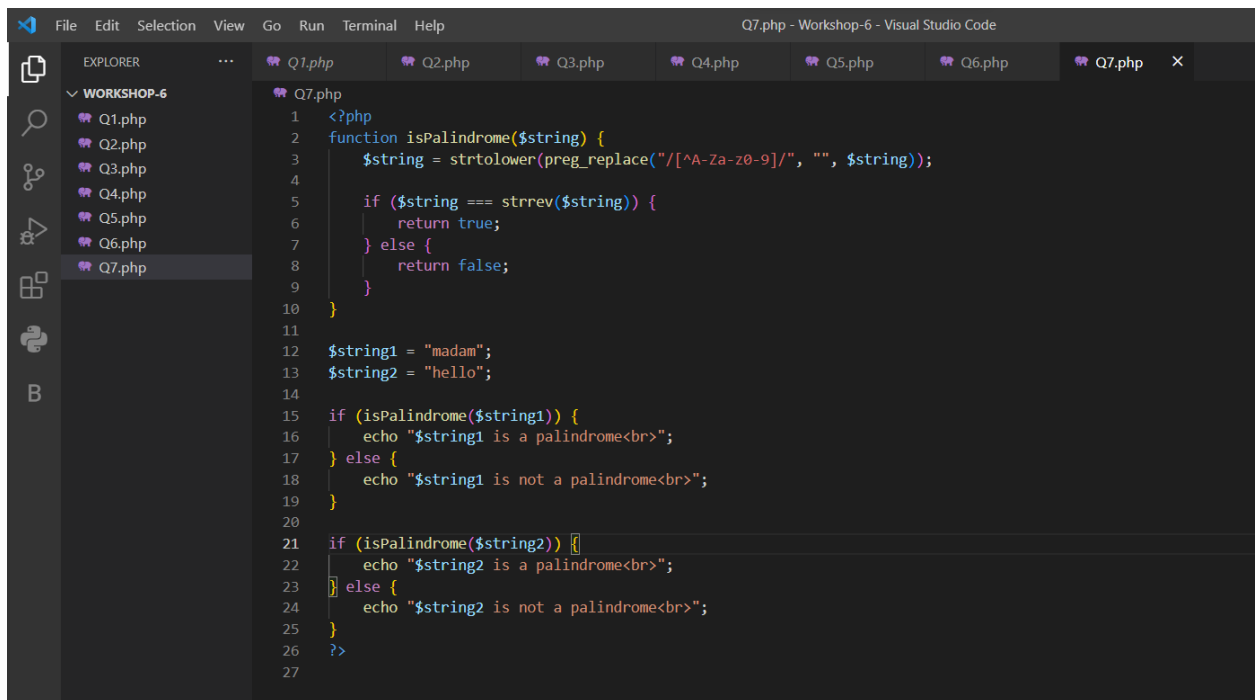The capital of Warsaw is Poland.

```php
<?php
    $list = array(
        "Italy"=>"Rome",
        "Luxembourg"=>"Luxembourg",
        "Belgium"=> "Brussels",
        "Denmark"=>"Copenhagen",
        "Finland"=>"Helsinki",
        "France" => "Paris",
        "Slovakia"=>"Bratislava",
        "Slovenia"=>"Ljubljana",
        "Germany" => "Berlin",
        "Greece" => "Athens",
        "Ireland"=>"Dublin",
        "Netherlands"=>"Amsterdam",
        "Portugal"=>"Lisbon",
        "Spain"=>"Madrid",
        "Sweden"=>"Stockholm",
        "United Kingdom"=>"London",
        "Cyprus"=>"Nicosia",
        "Lithuania"=>"Vilnius",
        "Czech Republic"=>"Prague",
        "Estonia"=>"Tallin",
        "Hungary"=>"Budapest",
        "Latvia"=>"Riga",
        "Malta"=>"Valetta",
        "Austria" => "Vienna",
        "Poland"=>"Warsaw"
    );

    asort($list);

    foreach($list as $capital => $country) {
        echo "The capital of $country is $capital. <br>";
    }
?>
```

7. Write a PHP function that checks whether a passed string is a palindrome or not?

A palindrome is word, phrase, or sequence that reads the same backward as forward, e.g., madam or dad or noon
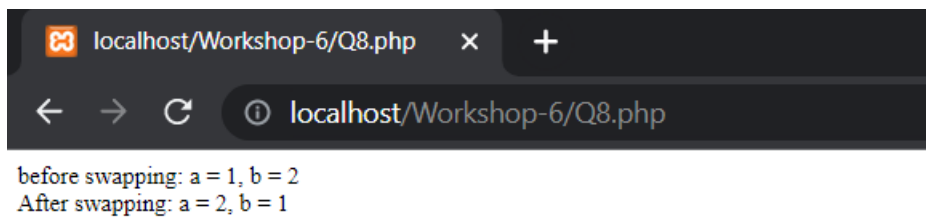
localhost/Workshop-6/Q7.php

localhost/Workshop-6/Q7.php

madam is a palindrome
dad is a palindrome

```php
<?php
function isPalindrome($string) {
    $string = strtolower(preg_replace("/[^A-Za-z0-9]/", "", $string));

    if ($string === strrev($string)) {
        return true;
    } else {
        return false;
    }
}

$string1 = "madam";
$string2 = "hello";

if (isPalindrome($string1)) {
    echo "$string1 is a palindrome<br>";
} else {
    echo "$string1 is not a palindrome<br>";
}

if (isPalindrome($string2)) {
    echo "$string2 is a palindrome<br>";
} else {
    echo "$string2 is not a palindrome<br>";
}
?>
```
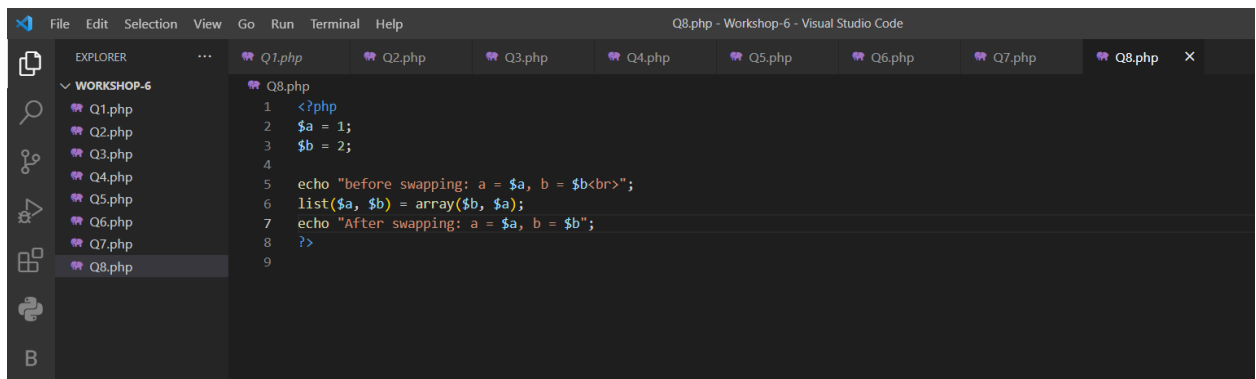
8. To swap two variables

   Eg: $a = 1; $b =2; Result: $a = 2; $b=1;

   localhost/Workshop-6/Q8.php

   localhost/Workshop-6/Q8.php

   before swapping: a = 1, b = 2
   After swapping: a = 2, b = 1

```php
<?php
$a = 1;
$b = 2;

echo "before swapping: a = $a, b = $b<br>";
list($a, $b) = array($b, $a);
echo "After swapping: a = $a, b = $b";
?>
```
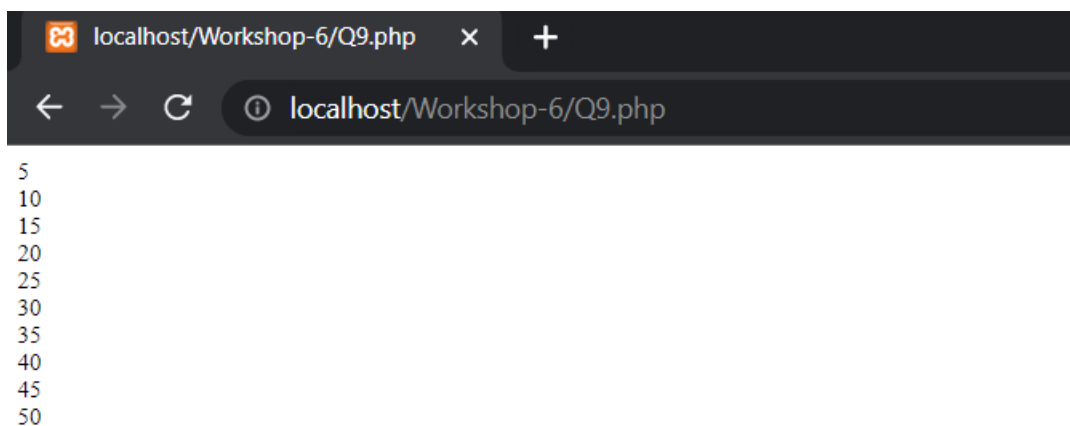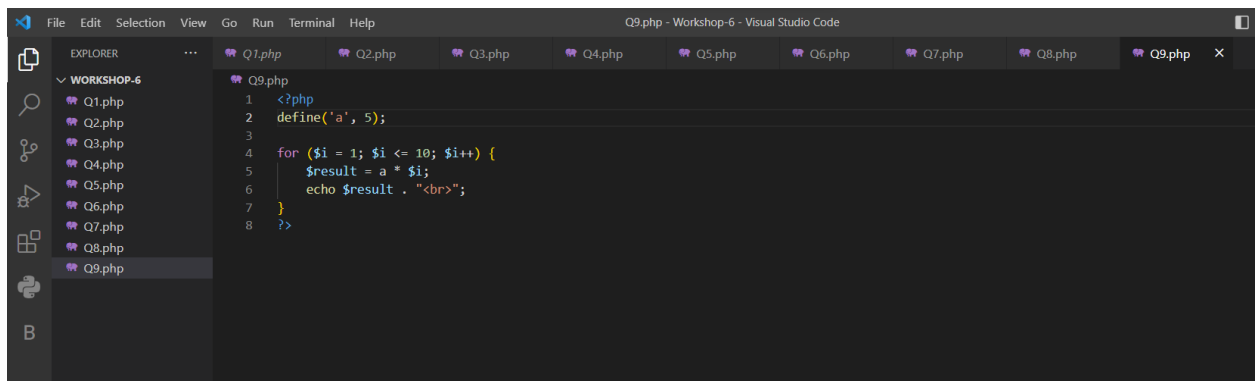
9. To print the multiple of a given number

Example:

define('a',5);

5 10 15 20 25 30 35 40 45 50 use <br> to print in each line

localhost/Workshop-6/Q9.php

localhost/Workshop-6/Q9.php

5
10
15
20
25
30
35
40
45
50

```php
<?php
define('a', 5);

for ($i = 1; $i <= 10; $i++) {
    $result = a * $i;
    echo $result . "<br>";
}
?>
```
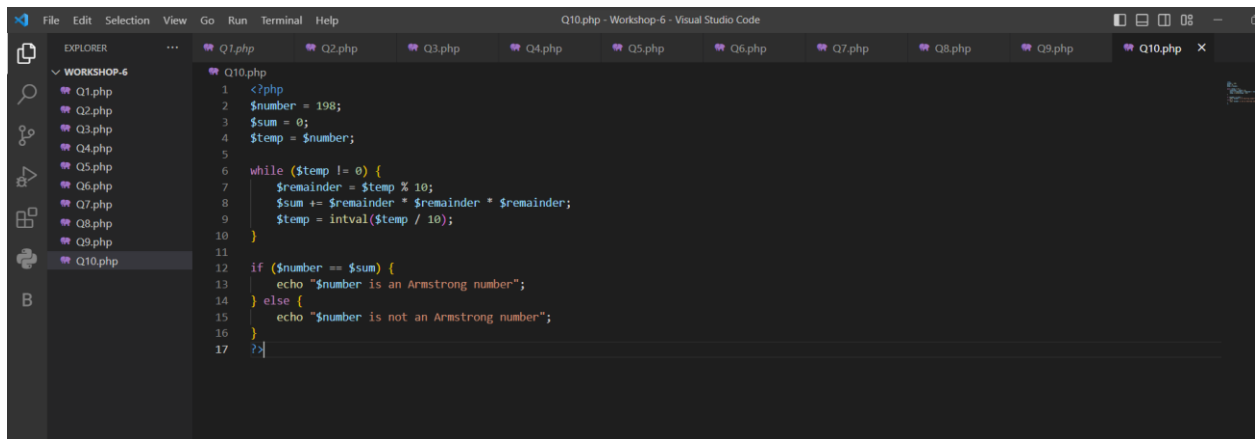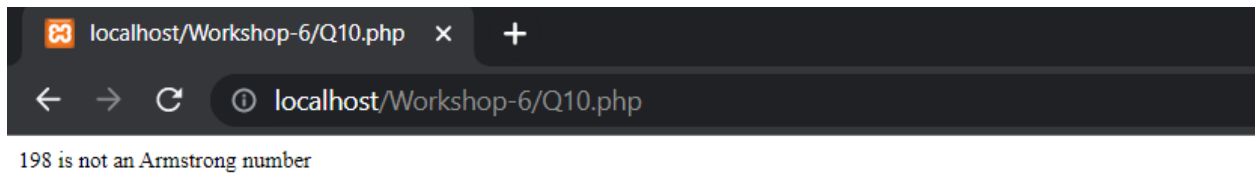
10. To find whether given number is Armstrong or not.

Example:

$number = 153

If ($number == 1*1*1+5*5*5+3*3*3)

Return Armstrong number

Other number: 1, 0, 371, 407 etc

198 is not an Armstrong number


```php
<?php
$number = 198;
$sum = 0;
$temp = $number;

while ($temp != 0) {
    $remainder = $temp % 10;
    $sum += $remainder * $remainder * $remainder;
    $temp = intval($temp / 10);
}

if ($number == $sum) {
    echo "$number is an Armstrong number";
} else {
    echo "$number is not an Armstrong number";
}
?>
```

11.

Name	Age	School
John Garg	15	Ahlcon Public school
Smith Soy	16	St. Marie school
Charle Rena	16	St. Columba School