Hands on

Workshop Week 6

Write a Program:

1. To count 5 to 15 using PHP loop.

   Code:

   ```
   D: > Collegestuff > Level 4- 2nd sem > Internet Software Architecture > Workshop > Workshop6 > 🐘 question 1.php
   1    <!-- Navneet Verma -->
   2
   3    <?php
   4    for ($i = 5; $i <= 15; $i++) {
   5        echo $i . "<br>";
   6    }
   7    ?>
   8
   ```
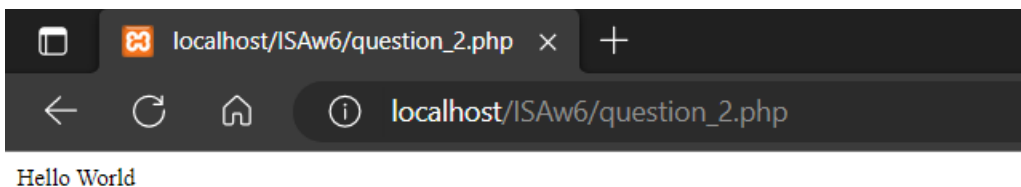
   Output:

   ```
   localhost/ISAw6/question 1.php    ×    +

   ←   C   ⌂        ⓘ  localhost/ISAw6/question%201.php

   5
   6
   7
   8
   9
   10
   11
   12
   13
   14
   15
   ```

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

   Code:

```php
1    <!-- Navneet Verma -->
2
3    <?php
4    $message = "Hello World";
5    echo $message;
6    ?>
7
```

Output:

localhost/ISAw6/question_2.php ✕ +

← C ⌂ ⓘ localhost/ISAw6/question_2.php

Hello World

3. To check student grade based on marks.

Code:

question 1.php   question 2.php   🐘 question 3.php ✕

```php
3    <?php
4    $marks = 95;
5
6    if ($marks >= 90) {
7        echo "Obtained Grade: A+";
8    } elseif ($marks >= 80) {
9        echo "Obtained Grade: A";
10   } elseif ($marks >= 70) {
11       echo "Obtained Grade:";
12   } elseif ($marks >= 60) {
13       echo "Obtained Grade: C";
14   } else {
15       echo "Sorry, you have failed.Please work hard from next time";
16   }
17   ?>
18
```

Output:

Obtained Grade: A+

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

Code:

question 1.php   question 2.php   question 3.php   question 4.php ×

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```php
1   <!-- Navneet Verma -->
2   <?php
3   $num = 5;
4   $factorial = 1;
5
6   for ($i = $num; $i >= 1; $i--) {
7       $factorial *= $i;
8   }
9
10  echo "The factorial of $num is $factorial";
11  ?>
12
```
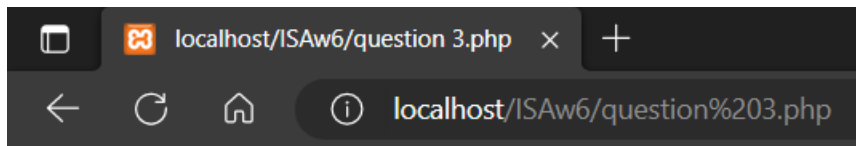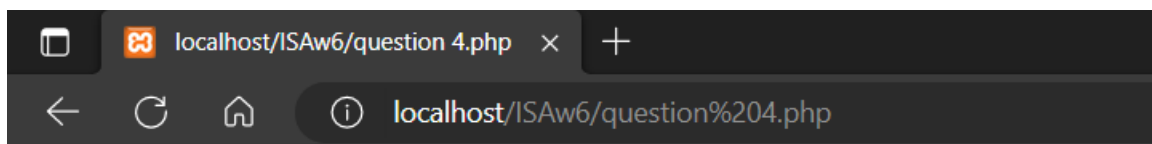
Output:

The factorial of 5 is 120

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

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

Code:

D: > Collegestuff > Level 4- 2nd sem > Internet Software Architecture > Workshop > Workshop6 > 🐘 question 5.php

```php
1    <!-- Navneet Verma -->
2
3    <?php
4    $rows = 8;
5
6    for ($i = 1; $i <= $rows; $i++) {
7        for ($j = 1; $j <= $i; $j++) {
8        echo "*";
9        }
10       echo "<br>";
11   }
12   ?>
13
```

Output:

localhost/ISAw6/question 5.php   ✕   +

← C ⌂   ⓘ localhost/ISAw6/question%205.php

```
*
**
***
****
*****
******
*******
********
```
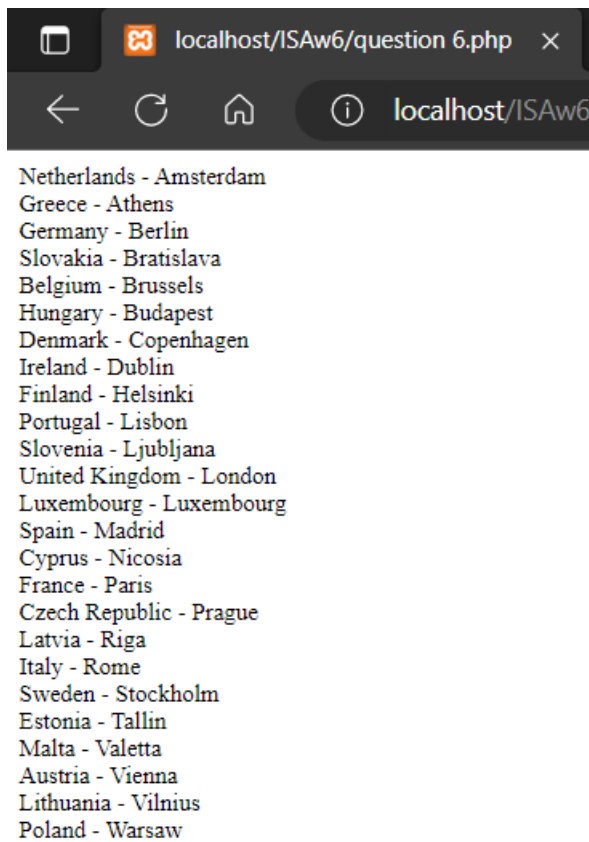
6. $list = array("Italy"=>"Rome", "Luxembourg"=>"Luxembourg", "Belgium"=> "Brussels",
   "Denmark"=>"Copenhagen", "Finland"=>"Helsinki", "France" => "Paris",
   "Slovakia"=>"Bratislava", "Slovenia"=>"Ljubljana", "Germany" => "Berlin", "Greece" =>
   "Athens", "Ireland"=>"Dublin", "Netherlands"=>"Amsterdam", "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.

   Code:

```php
<!-- Navneet Verma -->

(global variable) string[] $list
$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 => $country) {
    echo "$capital - $country<br>";
}
?>
```

Output:

Netherlands - Amsterdam
Greece - Athens
Germany - Berlin
Slovakia - Bratislava
Belgium - Brussels
Hungary - Budapest
Denmark - Copenhagen
Ireland - Dublin
Finland - Helsinki
Portugal - Lisbon
Slovenia - Ljubljana
United Kingdom - London
Luxembourg - Luxembourg
Spain - Madrid
Cyprus - Nicosia
France - Paris
Czech Republic - Prague
Latvia - Riga
Italy - Rome
Sweden - Stockholm
Estonia - Tallin
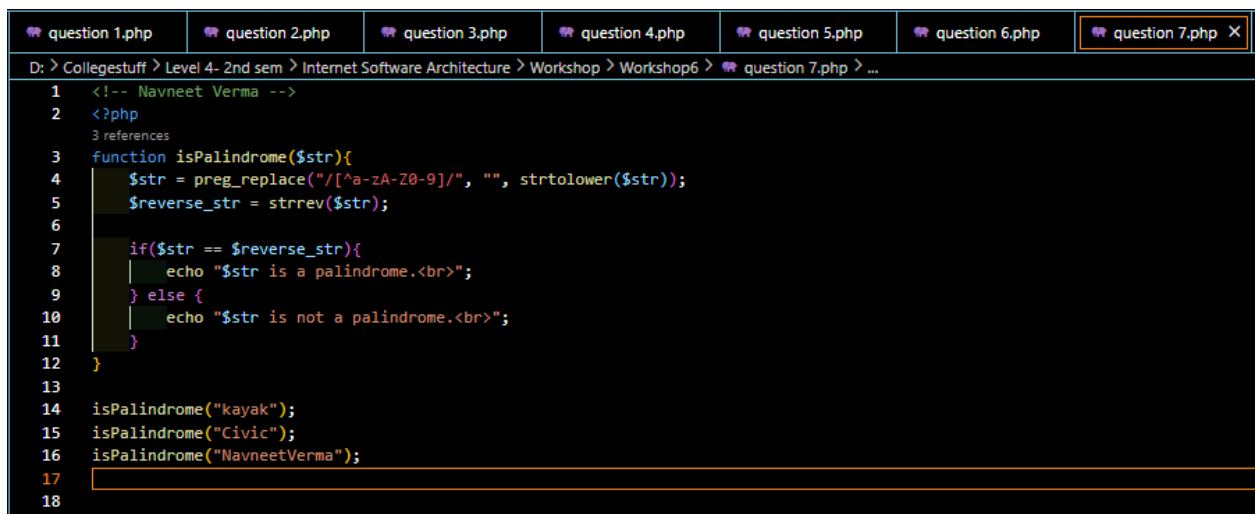Malta - Valetta
Austria - Vienna
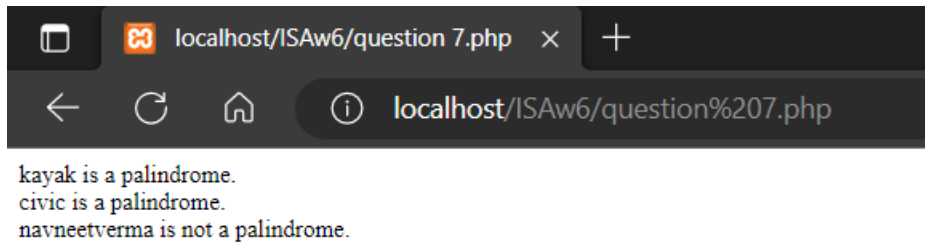Lithuania - Vilnius
Poland - Warsaw

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.

   Code:

```php
<!-- Navneet Verma -->
<?php
3 references
function isPalindrome($str){
    $str = preg_replace("/[^a-zA-Z0-9]/", "", strtolower($str));
    $reverse_str = strrev($str);

    if($str == $reverse_str){
        echo "$str is a palindrome.<br>";
    } else {
        echo "$str is not a palindrome.<br>";
    }
}

isPalindrome("kayak");
isPalindrome("Civic");
isPalindrome("NavneetVerma");
```

Output:

kayak is a palindrome.
civic is a palindrome.
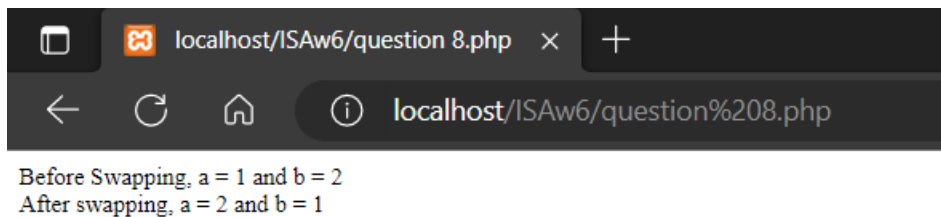navneetverma is not a palindrome.

8. To swap two variables

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

Code:


```
question 1.php    question 2.php    question 3.php    question 4.php    question 5.php    question 6.php    question 7.php    question 8.php
D: > Collegestuff > Level 4- 2nd sem > Internet Software Architecture > Workshop > Workshop6 > question 8.php
1    <!-- Navneet Verma -->
2
3    <?php
4    $a = 1;
5    $b = 2;
6
7    echo "Before Swapping, a = $a and b = $b </br>";
8
9    $temp = $a;
10   $a = $b;
11   $b = $temp;
12
13   echo "After swapping, a = $a and b = $b";
14
15   ?>
```

Output:

Before Swapping, a = 1 and b = 2
After swapping, a = 2 and b = 1

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.

Code:

```
question 1.php    question 2.php    question 3.php    question 4.php    question 5.php    question 6.php    question 7.php    question 8.php    question 9.php  ✕

D: > Collegestuff > Level 4- 2nd sem > Internet Software Architecture > Workshop > Workshop6 >  question 9.php > ...
 1    <!-- Navneet Verma -->
 2
 3    <?php
 4    define('a', 5);
 5
 6    for($i=1; $i<=10; $i++){
 7        $result = a * $i;
 8        echo $result."<br>";
 9    }
10    ?>
11
```

Output:


```
5
10
15
20
25
30
35
40
45
50
```

10. To find whether given number is Armstrong or not.

Example:

$number = 153

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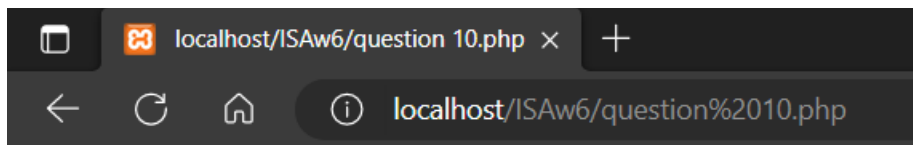
Return Armstrong number

Other number: 1, 0, 371, 407 etc

Code:

question 1.php   question 2.php   question 3.php   question 4.php   question 5.php   question 6.php   question 7.php   question 8.php   question 9.php   question 10.php ✕

D: > Collegestuff > Level 4- 2nd sem > Internet Software Architecture > Workshop > Workshop6 > question 10.php > ...

```php
1    <!-- Navneet Verma -->
2
3    <?php
     6 references
4    function isArmstrong($num) {
5        $sum = 0;
6        $temp = $num;
7        $n = strlen($num);
8        while ($temp > 0) {
9        $digit = $temp % 10;
10       $sum += pow($digit, $n);
11       $temp = (int)($temp / 10);
12       }
13       if ($num == $sum) {
14       echo "$num is an Armstrong number. </br>";
15       } else {
16       echo "$num is not an Armstrong number. </br>" ;
17       }
18   }
19
20   isArmstrong(153);
21   isArmstrong(370);
22   isArmstrong(371);
23   isArmstrong(407);
24   isArmstrong(9474);
25   isArmstrong(9475);
26   ?>
27
```

Output:

localhost/ISAw6/question 10.php ✕ +

localhost/ISAw6/question%2010.php

153 is an Armstrong number.
370 is an Armstrong number.
371 is an Armstrong number.
407 is an Armstrong number.
9474 is an Armstrong number.
9475 is not an Armstrong number.

11. Suppose you have the following JSON data. Display the output on a table in HTML.

```
[
        {
        "name" : "John Garg",
        "age" : "15",
        "school" : "Ahlcon Public school"
        },
        {
        "name" : "Smith Soy",
        "age" : "16",
        "school" : "St. Marie school"
        },
        {
        "name" : "Charle Rena",
        "age" : "16",
        "school" : "St. Columba School"
        }
]
```
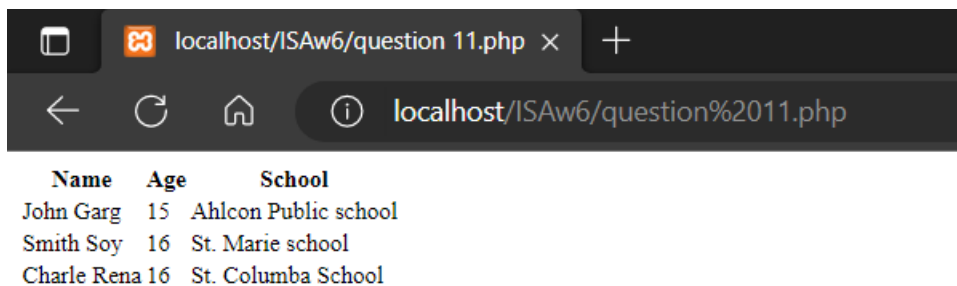
Write a php program to loop over the json data.

Note: PHP allows us to easily convert JSON to arrays. PHP provides predefined functions to easily encode and decode json string inti a php array.

Code:

question 1.php   question 2.php   question 3.php   question 4.php   question 5.php   question 6.php   question 7.php   question 8.php   question 9.php   question 10.php   question 11.php ✕

D: > Collegestuff > Level 4- 2nd sem > Internet Software Architecture > Workshop > Workshop6 > question 11.php

```php
1    <!-- Navneet Verma -->
2
3    <?php
4    $json = '[
5        {
6            "name": "John Garg",
7            "age": "15",
8            "school": "Ahlcon Public school"
9        },
10       {
11           "name": "Smith Soy",
12           "age": "16",
13           "school": "St. Marie school"
14       },
15       {
16           "name": "Charle Rena",
17           "age": "16",
18           "school": "St. Columba School"
19       }
20   ]';
21
22   $data = json_decode($json, true);
23
24   echo '<table>';
25   echo '<tr><th>Name</th><th>Age</th><th>School</th></tr>';
26
27   foreach ($data as $item) {
28       echo '<tr>';
29       echo '<td>' . $item['name'] . '</td>';
30       echo '<td>' . $item['age'] . '</td>';
31       echo '<td>' . $item['school'] . '</td>';
32       echo '</tr>';
33   }
34
35   echo '</table>';
36   ?>
37
```

Output:

localhost/ISAw6/question 11.php

localhost/ISAw6/question%2011.php

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