

Assignment 2

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Course/Year: MCA 1st Year

Question 1 –

CODE:

```
<?php
    echo "Welcome to NITW";
?>
```

OUTPUT:

A screenshot of a web browser displaying the text "Welcome to NITW" in a blue, serif font. The text is centered within a white rectangular box that has a thin grey border and a subtle drop shadow.

Question 2 -

CODE:

```
<?php

$string = "Hello World!";

echo "Length of string: " . strlen($string) . "<br>";

echo "Replaced string: " . str_replace("World", "NITW", $string) . "<br>";

echo "Position of 'o' in string: " . strpos($string, "o") . "<br>";

echo "Position of 'O' in string: " . stripos($string, "O") . "<br>";
```

```
echo "Word count in string: " . str_word_count($string) . "<br>";  
  
echo "Lowercase string: " . strtolower($string) . "<br>";  
  
echo "Uppercase string: " . strtoupper($string) . "<br>";  
  
echo "Reversed string: " . strrev($string) . "<br>";  
  
$string_with_whitespace = " Hello World! ";  
echo "Trimmed string: " . trim($string_with_whitespace) . "<br>";  
  
echo "Substring: " . substr($string, 6, 5) . "<br>";
```

?>

OUTPUT:

```
Length of string: 12  
Replaced string: Hello NITW!  
Position of 'o' in string: 4  
Position of 'O' in string: 4  
Word count in string: 2  
Lowercase string: hello world!  
Uppercase string: HELLO WORLD!  
Reversed string: !dlroW olleH  
Trimmed string: Hello World!  
Substring: World
```

3. Write a program to show day of the week (for example: Monday) based on numbers

using switch/case statements.

CODE:

```
<?php

// Example day of the week number (1 = Monday, 2 = Tuesday, etc.)
$day_number = 3;

switch ($day_number) {
    case 1:
        echo "Monday";
        break;
    case 2:
        echo "Tuesday";
        break;
    case 3:
        echo "Wednesday";
        break;
    case 4:
        echo "Thursday";
        break;
    case 5:
        echo "Fri day";
        break;
    case 6:
        echo "Saturday";
        break;
    case 7:
        echo "Sunday";
        break;
    default:
        echo "Invalid day number";
        break;
}

?>
```

OUTPUT:

Day Selected : 3
Wednesday

Day Selected : 5
Friday

Question 4 -

CODE:

```
<?php

$temperatures = array(78, 60, 62, 68, 71, 68, 73, 85, 66, 64, 76, 63, 75, 76, 73, 68, 62, 73,
72, 65, 74, 62, 62, 65, 64, 68, 73, 75, 79, 73);

$average = array_sum($temperatures) / count($temperatures);

sort($temperatures);

$lowest_temperatures = array_slice($temperatures, 0, 7);

$highest_temperatures = array_slice($temperatures, -7);

echo "Average Temperature is: " . number_format($average, 1) . "<br>";
echo "List of seven lowest temperatures: " . implode(" ", $lowest_temperatures) .
"<br>";
echo "List of seven highest temperatures: " . implode(" ", $highest_temperatures);

?>
```

OUTPUT:

Average Temperature is: 69.8

List of seven lowest temperatures: 60, 62, 62, 62, 62, 63, 64

List of seven highest temperatures: 75, 75, 76, 76, 78, 79, 85

Question 5 -

CODE:

```
<?php

$number1 = 4;
$number2 = 8;
function fact($num){
```

```

$factorial = 1;

for ($i = $num; $i > 0; $i--) {
    $factorial *= $i;
}

echo "The factorial of " . $num . " is " . $factorial . "<br><br>";
}

fact($number1);
fact($number2);
?>

```

OUTPUT:

```

The factorial of 4 is 24

The factorial of 8 is 40320

```

Question 6 -

CODE:

```

<?php
    echo '<table cellpadding="3px" cellspacing="0px" border="1">';

    for ($i = 1; $i <= 6; $i++) {
        echo '<tr>';
        for ($j = 1; $j <= 5; $j++) {
            echo '<td>' . $i . ' * ' . $j . ' = ' . ($i * $j) . '</td>';
        }
        echo '</tr>';
    }

    echo '</table>';

?>

```

OUTPUT:

1 * 1 = 1	1 * 2 = 2	1 * 3 = 3	1 * 4 = 4	1 * 5 = 5
2 * 1 = 2	2 * 2 = 4	2 * 3 = 6	2 * 4 = 8	2 * 5 = 10
3 * 1 = 3	3 * 2 = 6	3 * 3 = 9	3 * 4 = 12	3 * 5 = 15
4 * 1 = 4	4 * 2 = 8	4 * 3 = 12	4 * 4 = 16	4 * 5 = 20
5 * 1 = 5	5 * 2 = 10	5 * 3 = 15	5 * 4 = 20	5 * 5 = 25
6 * 1 = 6	6 * 2 = 12	6 * 3 = 18	6 * 4 = 24	6 * 5 = 30

Question 7 –

CODE:

```
<?php
for ($i = 1; $i <= 50; $i++) {
    $output = "";

    if ($i % 3 == 0) {
        $output .= 'Fizz';
    }

    if ($i % 5 == 0) {
        $output .= 'Buzz';
    }

    if (empty($output)) {
        $output = $i;
    }

    echo $output . '<br>';
}
?>
```

OUTPUT:

```
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
11
Fizz
13
14
FizzBuzz
16
17
Fizz
19
Buzz
Fizz
22
23
Fizz
Buzz
26
Fizz
28
29
FizzBuzz
```

Question 8 –

CODE:

```
<?php
    $string = 'The quick brown fox';
    $words = explode(' ', $string);
    array_pop($words);

    $newString = implode(' ', $words);
    echo $newString;
?>
```

OUTPUT:

Previous String : The quick brown fox

New String : The quick brown

Question 9 –

CODE:

```
<?php
$string = "The quick " " brown fox";

echo "Previous String : ". $string . "<br><br>";

$newString = str_replace(' ', "", $string);

echo "New String : " . $newString;
?>
```

OUTPUT:

Previous String : The quick " " brown fox

New String : Thequick""brownfox

Question 10 –

CODE:

```
<?php
$string = 'abcde$ddfd @abcd )der]';

echo "Previous String : ". $string . "<br><br>";

$newString = preg_replace('/[^a-zA-Z0-9 ]/', "", $string);
```



```
    echo "New String : " . $newString;  
?>
```

OUTPUT:

```
Previous String : abcde$ddfd @abcd )der]  
  
New String : abcdedddfd abcd der
```

Question 11 –

CODE:

```
<?php  
    echo "Today is " . date("l, F j, Y");  
?>
```

OUTPUT:

```
Today is Thursday, March 30, 2023
```

Question 12 –

CODE:

```
<?php  
    $date1 = "1981-11-04";  
    $date2 = "2013-09-04";  
  
    $diff = date_diff(date_create($date1), date_create($date2));  
  
    echo "Date 1: " . $date1 . "<br>";  
    echo "Date 2: " . $date2 . "<br>";  
    echo "Difference: " . $diff->format("%y years, %m months, %d days");  
?>
```

OUTPUT:

Date 1: 1981-11-04
Date 2: 2013-09-04
Difference: 31 years, 10 months, 0 days

Question 13 –

CODE:

```
<?php
    $date = "2012-09-12";

    $new_date = date("d-m-Y", strtotime($date));

    echo "Original date: " . $date . "<br>";
    echo "Converted date: " . $new_date;
?>
```

OUTPUT:

Original date: 2012-09-12
Converted date: 12-09-2012

Question 14 –

CODE:

```
<?php
    $str = "the quick brown fox jumps over the lazy dog";

    $str_upper = strtoupper($str);
    echo "All uppercase: " . $str_upper . "<br>";

    $str_lower = strtolower($str);
    echo "All lowercase: " . $str_lower . "<br>";

    $str_ucfirst = ucfirst($str);
    echo "First character uppercase: " . $str_ucfirst . "<br>";

    $str_ucwords = ucwords($str);
```

```
echo "First character of all words uppercase: " . $str_ucwords;
?>
```

OUTPUT:

All uppercase: THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG

All lowercase: the quick brown fox jumps over the lazy dog

First character uppercase: The quick brown fox jumps over the lazy dog

First character of all words uppercase: The Quick Brown Fox Jumps Over The Lazy Dog

Question 15 –

CODE:

```
<?php
    $ages = array("Sophia" => "31", "Jacob" => "41", "William" => "39", "Ramesh"
=> "40");

    asort($ages);
    echo "Ascending order sort by value: <br>";
    foreach ($ages as $key => $value) {
        echo $key . " => " . $value . "<br>";
    }

    ksort($ages);
    echo "<br>Ascending order sort by key: <br>";
    foreach ($ages as $key => $value) {
        echo $key . " => " . $value . "<br>";
    }

    arsort($ages);
    echo "<br>Descending order sorting by value: <br>";
    foreach ($ages as $key => $value) {
        echo $key . " => " . $value . "<br>";
    }

    krsort($ages);
    echo "<br>Descending order sorting by key: <br>";
    foreach ($ages as $key => $value) {
        echo $key . " => " . $value . "<br>";
    }
?>
```

OUTPUT:

```
Ascending order sort by value:
Sophia => 31
William => 39
Ramesh => 40
Jacob => 41

Ascending order sort by key:
Jacob => 41
Ramesh => 40
Sophia => 31
William => 39

Descending order sorting by value:
Jacob => 41
Ramesh => 40
William => 39
Sophia => 31

Descending order sorting by key:
William => 39
Sophia => 31
Ramesh => 40
Jacob => 41
```

Question 16 –

CODE:

```
<?php

$marks1 = array(360, 310, 310, 330, 313, 375, 456, 111, 256);
$marks2 = array(350, 340, 356, 330, 321);
$marks3 = array(630, 340, 570, 635, 434, 255, 298);

echo "Array 1 : ";
    for($i=0; $i<9; $i++){
        echo $marks1[$i];
        echo " ";
    }
echo "<br>";
```

```

echo "Array 2: ";
for($i=0; $i<5; $i++){
    echo $marks2[$i];
    echo " ";
}
echo "<br>";

echo "Array 3: ";
for($i=0; $i<7; $i++){
    echo $marks3[$i];
    echo " ";
}
echo "<br><br>";

$max_marks = max(max($marks1), max($marks2), max($marks3));
$min_marks = min(min($marks1), min($marks2), min($marks3));

echo "Maximum marks: " . $max_marks . "<br>";
echo "Minimum marks: " . $min_marks;

```

?>

OUTPUT:

```

Array 1 : 360 310 310 330 313 375 456 111 256
Array 2: 350 340 356 330 321
Array 3: 630 340 570 635 434 255 298

Maximum marks: 635
Minimum marks: 111

```

Question 17 –

CODE:

```

<?php
echo "Entered String : ";
$str = "carrac";

echo $str;
echo "<br><br>";

$flag = TRUE;

```

```

$j = strlen($str) - 1;
for($i=0; $i<$j; $i++){
    if($str[$i] != $str[$j--]){
        $flag = FALSE;
        echo "GIVEN STRING IS NOT PALINDROME";
        break;
    }
}

```

```

if($flag == TRUE)
    echo "GIVEN STRNG IS A PALINDROME";

```

?>

OUTPUT:

Entered String : carrac

PALINDROME

Question 18 –

CODE:

```
<?php
```

```

$arr = array(5,7,1,2,8);

```

```

echo "Input Array : ";
for($i=0; $i<5; $i++){
    echo $arr[$i];
    echo " ";
}

```

```

for($i=0; $i<5; $i++){
    for($j=0; $j<5; $j++){
        if($arr[$i] < $arr[$j]){
            $temp = $arr[$i];
            $arr[$i] = $arr[$j];
            $arr[$j] = $temp;
        }
    }
}

```

```

echo "<br><br>";
echo "Sorted Array : ";
for($i=0; $i<5; $i++){
    echo $arr[$i];
    echo " ";
}
?>

```

OUTPUT:

```

Input Array : 5 7 1 2 8

Sorted Array : 1 2 5 7 8

```

Question 19 –

CODE:

```

<!DOCTYPE html >
<html >
<head>
    <title>User Name Form</title>
</head>
<body>
    <h1>User Name Form</h1>

    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST") {
            // get user name from form submission
            $name = $_POST["name"];

            // display greeting
            echo "<h1>Hello, {$name}!</h1>";
        }
    ?>

    <form method="POST">
        <label for="name">Name: </label >
        <input type="text" id="name" name="name" required>
        <br>
        <input type="submit" value="Submit">
    </form>

</body>

```

</html >

OUTPUT:



The screenshot shows a web form with a title "User Name Form". Below the title, there is a label "Name:" followed by a text input field. Below the input field, there is a button labeled "Submit".

Question 20 –

CODE:

```
<!DOCTYPE html>
<html>
<head>
  <title>Registration Form</title>
</head>
<body>
  <h1>Registration Form</h1>
  <?php
    // check if form submitted
    if ($_SERVER["REQUEST_METHOD"] == "POST") {
      // get input values from form submission
      $name = $_POST["name"];
      $email = $_POST["email"];
      $phone = $_POST["phone"];
      $password = $_POST["password"];

      // display user details
      echo "<p><strong>Name:</strong> {$name}</p>";
      echo "<p><strong>Email:</strong> {$email}</p>";
      echo "<p><strong>Phone:</strong> {$phone}</p>";
      echo "<p><strong>Password:</strong> {$password}</p>";
    }
  ?>
  <form method="POST">
    <table>
      <tr>
```



```
<td><label for="name">Name:</label></td>
<td><input type="text" id="name" name="name" required></td>
</tr>
<tr>
<td><label for="email">Email:</label></td>
<td><input type="email" id="email" name="email" required></td>
</tr>
<tr>
<td><label for="phone">Phone:</label></td>
<td><input type="tel" id="phone" name="phone" required></td>
</tr>
<tr>
<td><label for="password">Password:</label></td>
<td><input type="password" id="password" name="password" required></td>
</tr>
<tr>
<br><td><input type="submit" value="Register"></td>
</tr>
</table>

</form>
</body>
</html>
```

OUTPUT:

Registration Form

Name: ABC

Email: fardoreyde@vusra.com

Phone: 9876543210

Password: 1234

Name:	<input type="text" value="ABC"/>
Email:	<input type="text" value="fardoreyde@vusra.com"/>
Phone:	<input type="text" value="9876543210"/>
Password:	<input type="password" value="...."/>
<input type="button" value="Register"/>	

Question 21 –

CODE:

```
<!DOCTYPE html>
<html>
<head>
  <title>Login</title>
</head>
<body>
  <h1>Login</h1>
  <?php
    // check if form submitted
    if ($_SERVER["REQUEST_METHOD"] == "POST") {
      // get input values from form submission
      $username = $_POST["username"];
      $password = $_POST["password"];

      // check if username and password match correct credentials
      if ($username == "admin" && $password == "godsgift") {
        // display welcome message
```

```

        echo "<h2>Welcome, {$username}!</h2>";
    } else {
        // display error message and redirect to login page
        echo "<p>Incorrect username or password. Please try again.</p>";
        header("Location: Q21.php");
        exit();
    }
}
?>
<form method="POST">
    <table>
        <tr>
            <td><label for="username">Username:</label></td>
            <td><input type="text" id="username" name="username" required></td>
        </tr>
        <tr>
            <td><label for="password">Password:</label></td>
            <td><input type="password" id="password" name="password" required></td>
        </tr>
        <tr>
            <td>
                <input type="submit" value="Login">
            </td>
        </tr>
    </table>
</form>
</body>
</html>

```

OUTPUT:

Login

Welcome, admin!

Username:

Password:

Question 22 –

CODE:

```
<?php
    $months = ["January", "February", "March", "April", "May", "June", "July", "August",
"September", "October", "November", "December"];
    $pay = 0;
    $date = "";
    $hours = 0;
    $success = 0;
    if(isset($_POST['submit'])) {
        $date = date("M d, Y", mktime(0, 0, 0, $_POST['month'], $_POST['day'], $_POST['year']));
        $hours = $_POST['hoursworked'];
        $pay = $_POST['payrate'];
        $success = 1;
    } else if(isset($_POST['reset'])) {
        header("Refresh: 0");
    }
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <title>Get Pay</title>
    <link rel="stylesheet" href="/style.css">
</head>
<body>
    <div class="container">
        <form action="" method="post" class="form">
            <?php if(!$success) { ?>
                <fieldset>
                    <legend>Pay period ending</legend>
                    <div class="input-group">
                        <select name="month" id="month" required>
                            <option value="">Select Month</option>
                            <?php for($i = 1; $i <= 12; $i++) { ?>
                                <option value="<?= $i; ?>"><?= $months[$i - 1] ?></option>
                            <?php } ?>
                        </select>
                        <select name="day" id="day" required>
                            <option value="">Select Day</option>
                            <?php for($i = 1; $i < 31; $i++) { ?>
                                <option value="<?= $i; ?>"><?= $i; ?></option>
                            <?php } ?>
                    </div>
                </fieldset>
            </div>
        </form>
    </div>
</body>
</html>
```

```

        </select>
        <select name="year" id="year" required>
            <option value="">Select Year</option>
            <?php for($i = 2023; $i > 2000; $i--) { ?>
                <option value="<?=$i; ?>"><?=$i; ?></option>
            <?php } ?>
        </select>
    </div>
</fieldset>
<fieldset>
    <legend>Hours worked and Pay rate</legend>
    <div class="input-group">
        <label for="hours">Hours Worked</label>
        <input type="number" name="hoursworked" id="hours" placeholder="Enter Hours
Worked" required>
    </div>
    <div class="input-group">
        <label for="rate">Pay Rate</label>
        <input type="number" step="0.01" name="payrate" id="rate" placeholder="Enter
Pay Rate" required>
    </div>
    <button type="submit" name="submit">Calculate Pay</button>
</fieldset>
<?php } else { ?>
    <fieldset class="success">
        <legend>Get Pay</legend>
        <table border="1" cellspacing="0">
            <caption>Earnings for pay period ending <?=$date; ?></caption>
            <thead>
                <tr>
                    <th>Hours Worked</th>
                    <th>Pay Rate</th>
                    <th>Amount Earned</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <td><?=$hours; ?></td>
                    <td>$ <?=$pay; ?></td>
                    <td>$ <?= number_format($hours * $pay, 2) ?></td>
                </tr>
            </tbody>
        </table>
        <button type="submit" name="reset">Calculate Another Pay</button>
    </fieldset>
<?php } ?>

```

```

    </form>
  </div>
</body>
</html>

```

OUTPUT:

Pay period ending

Select Month ▼
Select Day ▼
Select Year ▼

Hours worked and Pay rate

Hours Worked

Enter Hours Worked

Pay Rate

Enter Pay Rate

CALCULATE PAY

Get Pay

Earnings for pay period ending Jun 09, 2021

Hours Worked	Pay Rate	Amount Earned
50	\$ 800	\$ 40,000.00

CALCULATE ANOTHER PAY

Question 23 –

CODE:

```
<?php
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Retrieve form data
    $name = $_POST['name'];
    $sex = $_POST['sex'];
    $eye_color = $_POST['eye_color'];
    $abilities = $_POST['abilities'];
    $description = $_POST['description'];

    // Output submitted data
    echo "<h2>Information submitted:</h2>";
    echo "<p><strong>Name:</strong> $name</p>";
    echo "<p><strong>Sex:</strong> $sex</p>";
    echo "<p><strong>Eye Color:</strong> $eye_color</p>";
    echo "<p><strong>Abilities:</strong> ";
    if (empty($abilities)) {
        echo "None selected";
    } else {
        echo implode(", ", $abilities);
    }
    echo "</p>";
    echo "<p><strong>Description:</strong> $description</p>";
}
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Personal Information</title>
</head>
<body>
    <form method="post">
        <table border="1">
            <tr style="background-color: rgb(202, 170, 255);">
                <th>Name</th>
                <th>Value</th>
            </tr>
            <tr>
                <td>Name :</td>
                <td><input type="text" name="name"> </td>
            </tr>
            <tr>
                <td>Sex :</td>
                <td>
                    <input type="radio" name="sex" id="sex" value="male">
                    <label for="male">Male </label><br>
                    <input type="radio" name="sex" id="sex" value="female">

```

```

        <label for="male">Female </label>
    </td>
</tr>
<tr>
    <td>Eye Color :</td>
    <td>
        <select name="eye_color">
            <option value="black">Black</option>
            <option value="brown">Brown</option>
            <option value="blue">Blue</option>
            <option value="grey">Grey</option>
            <option value="green">Green</option>
        </select>
    </td>
</tr>
<tr>
    <td>Check all that apply :</td>
    <td>
        <input type="checkbox" value="height" id="height"
name="abilities[]">
        <label for="height">Over 6 ft Tall</label><br>
        <input type="checkbox" value="weight" id="weight"
name="abilities[]">
        <label for="height">Over 50 kilogram</label>
    </td>
</tr>
<tr>
    <td colspan="2">
        Describe your athletic ability :<br>
        <textarea cols="50" rows="8" name="description"
id="description"></textarea>
    </td>
</tr>
<tr>
    <td colspan="2">
        <center>
            <input type="submit" value="Enter my information">
        </center>
    </td>
</tr>
</table>
</form>
</body>
</html>

```

OUTPUT:

Name	Value
Name :	<input type="text" value="ABC"/>
Sex :	<input checked="" type="radio"/> Male <input type="radio"/> Female
Eye Color :	<input type="text" value="Black"/> ▼
Check all that apply :	<input checked="" type="checkbox"/> Over 6 ft Tall <input checked="" type="checkbox"/> Over 50 kilogram
Describe your atheletic ability :	
<input type="text" value="Hello I am ABC"/>	
<input type="button" value="Enter my information"/>	

Question 24 –

CODE:

```
<?php
function validateEmail ($email) {
    $pattern = '/^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$/';
    return preg_match($pattern, $email);
}

// example usage:
$email1 = "example@gmail.com";
$email2 = "example+123@yahoo.co.uk";
$email3 = "example@hotmail.com";
$email4 = "example@outlook";
$email5 = "example@outlook.com.";

echo "Email 1 example@gmail.com : " . ($isValid = validateEmail ($email1) ?
"valid" : "invalid") . "<br>";
echo "Email 2 example123@yahoo.co.uk : " . ($isValid = validateEmail ($email2)
? "valid" : "invalid") . "<br>";
echo "Email 3 example@hotmail.com : " . ($isValid = validateEmail ($email3) ?
"valid" : "invalid") . "<br>";
```

```

        echo "Email 4 example@look : " . ($isValid = validateEmail($email4) ? "valid"
: "invalid") . "<br>";
        echo "Email 5 exale@outlook.com : " . ($isValid = validateEmail($email5) ?
"valid" : "invalid") . "<br>";
?>

```

OUTPUT:

```

Email 1 example@gmail.com : valid
Email 2 example+123@yahoo.co.uk : valid
Email 3 example@@hotmail.com : invalid
Email 4 example@outlook : invalid
Email 5 example@outlook.com : invalid

```

Question 25 –

CODE:

```

<?php
function floydTriangle($n) {
    $count = 1;
    for ($i = 1; $i <= $n; $i++) {
        for ($j = 1; $j <= $i; $j++) {
            echo $count++ . " ";
        }
        echo "<br>";
    }
}

// example usage:
echo "Floyd Triangle with 5 rows: <br>";
floydTriangle(5);

echo "<br>";

echo "Floyd Triangle with 11 rows: <br>";
floydTriangle(11);
?>

```

OUTPUT:

Floyd Triangle with 5 rows:

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

Floyd Triangle with 11 rows:

```
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 32 33 34 35 36
37 38 39 40 41 42 43 44 45
46 47 48 49 50 51 52 53 54 55
56 57 58 59 60 61 62 63 64 65 66
```