

Assignment 03

Set A:

Q: 1) Write a script to accept two integers(Use html form having 2 textboxes). Write a PHP script to, a. Find mod of the two numbers. b. Find the power of first number raised to the second. c. Find the sum of first n numbers (considering first number as n) d. Find the factorial of second number. (Write separate function for each of the above operations.)

SetA_1.php

```
<!DOCTYPE html>
<html>

<head>
    <title>Mathematical Operations</title>

</head>

<body>
    <h1>Choose Menu</h1>
    <form name="f" method="get" action="calculate.php">
        <div >
            <label for="t1">Enter 1st number:</label>
            <input type="text" id="t1" name="t1" required>
        </div>
        <div >
            <label for="t2">Enter 2nd number:</label>
            <input type="text" id="t2" name="t2" required>
        </div>
        <div >
            <label>Select Operation:</label><br>
            <input type="radio" id="op1" name="op" value="1" required>
            <label for="op1">Find the mod of 2 numbers</label><br>
            <input type="radio" id="op2" name="op" value="2">
            <label for="op2">Find the power of the first number raised to the
second</label><br>
            <input type="radio" id="op3" name="op" value="3">
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        <label for="op3">Find the sum of the first n numbers (considering
first number as n)</label><br>
        <input type="radio" id="op4" name="op" value="4">
        <label for="op4">Find the factorial of the second number</label>
    </div>
    <div >
        <input type="submit" name="s" value="Submit">
    </div>
</form>
</body>

</html>

<?php
function mod($n, $m)
{
    $md = $n % $m;
    echo "Mod of " . $n . " and " . $m . " is " . $md;
}
function power($n, $m)
{
    $p = 1;
    for ($i = 0; $i < $m; $i++) {
        $p = $p * $n;
    }
    echo $p;
}
function sum($n)
{
    $s = 0;
    for ($i = 1; $i <= $n; $i++) {
        $s = $s + $i;
    }
    echo $s;
}
function fact($m)
{
    $f = 1;
    while ($m > 0) {
        $f = $f * $m;
        $m--;
    }
    echo $f;
}
?>

```

calculate.php

```
<?php
include("SetA_1.php");
$n = $_GET['t1'];

$m = $_GET['t2'];
$ch = $_GET['op'];
switch ($ch) {
    case 1:
        mod($n, $m);
        break;
    case 2:
        power($n, $m);
        break;
    case 3:
        sum($n);
        break;
    case 4:
        fact($m);
        break;
}
?>
```

Q: 2) Write a PHP script for the following: Design a form to accept a string.

- Write a function to find the length of given string without using built in functions.
- Write a function to count the total number of vowels i.e. (a,e,i,o,u)) from the string.
- Convert the given string to lowercase and then to Title case.
- Pad the given string with "*" from left and right both the sides.
- Remove the leading whitespaces from the given string. f. Find the reverse of given string.(use built-in functions) (Use radio buttons and the concept of function. Use 'include' construct or 'require' stmt.)

SetA_2.php

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>String Operations</title>
</head>
<body>
<h2>Enter a String</h2>
    <form action="string.php" method="post">
        <label for="inputString">String:</label>
        <input type="text" id="inputString" name="inputString"><br><br>

        <h3>Select an Operation:</h3>
        <input type="radio" id="length" name="operation" value="length">
        <label for="length">Find Length of the String</label><br>

        <input type="radio" id="vowelCount" name="operation" value="vowelCount">
        <label for="vowelCount">Count Total Number of Vowels</label><br>

        <input type="radio" id="toTitleCase" name="operation"
value="toTitleCase">
        <label for="toTitleCase">Convert to Title Case</label><br>
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        <input type="radio" id="padString" name="operation" value="padString">
        <label for="padString">Pad String with "*"</label><br>

        <input type="radio" id="removeWhitespace" name="operation"
value="removeWhitespace">
        <label for="removeWhitespace">Remove Leading Whitespaces</label><br>

        <input type="radio" id="reverseString" name="operation"
value="reverseString">
        <label for="reverseString">Reverse the String</label><br><br>

        <input type="submit" value="Perform Operation">
    </form>
</body>
</html>

```

string.php

```

<?php
// Function to find the length of a string without using built-in functions
function stringLength($str) {
    $length = 0;
    while (isset($str[$length])) {
        $length++;
    }
    return $length;
}

// Function to count the total number of vowels in a string
function countVowels($str) {
    $vowels = ['a', 'e', 'i', 'o', 'u'];
    $count = 0;
    $str = strtolower($str); // Convert the string to lowercase
    for ($i = 0; $i < stringLength($str); $i++) {
        if (in_array($str[$i], $vowels)) {
            $count++;
        }
    }
    return $count;
}

// Function to convert the given string to title case
function convertToTitleCase($str) {
    $str = strtolower($str); // Convert to lowercase first
    $words = explode(' ', $str);

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        foreach ($words as &$word) {
            if (isset($word[0])) {
                $word[0] = strtoupper($word[0]);
            }
        }
        return implode(' ', $words);
    }

    // Function to pad the string with "*"
    function padString($str) {
        return "*" . $str . "*";
    }

    // Function to remove leading whitespaces from the string
    function removeLeadingWhitespace($str) {
        $i = 0;
        while (isset($str[$i]) && $str[$i] === ' ') {
            $i++;
        }
        return substr($str, $i);
    }

    // Include or require functions (assuming they are in a separate file)
    // include('functions.php');
    // require('functions.php');

    // Retrieve the input string and selected operation
    if ($_SERVER["REQUEST_METHOD"] == "POST") {
        $inputString = $_POST['inputString'];
        $operation = $_POST['operation'];
        $result = "";

        // Perform the operation based on the selected radio button
        switch ($operation) {
            case 'length':
                $result = "Length of the string: " . strlen($inputString);
                break;
            case 'vowelCount':
                $result = "Total number of vowels: " . countVowels($inputString);
                break;
            case 'toTitleCase':
                $result = "Title case: " . convertToTitleCase($inputString);
                break;
            case 'padString':
                $result = "Padded string: " . padString($inputString);
                break;
        }
    }

```

```

        case 'removeWhitespace':
            $result = "String without leading whitespaces: '" .
removeLeadingWhitespace($inputString) . "'";
            break;
        case 'reverseString':
            $result = "Reversed string: " . strrev($inputString); // Using
built-in function
            break;
        default:
            $result = "Please select an operation.";
            break;
    }

    // Display the result
    echo "<h2>Result:</h2>";
    echo $result;
}
?>

```

SET B

Q. 1) :Write a PHP script for the following: Design a form to accept two strings from the user.

- a. Find whether the small string appears at the start of the large string.
- b. Find the position of the small string in the big string.
- c. Compare both the string for first n characters, also the comparison should not be case sensitive

SetB_1.php

```

<!DOCTYPE html>
<html>
<head>
    <title>String Operations</title>
</head>
<body>
    <h2>Enter Two Strings</h2>
    <form method="post">
        <label for="largeString">Large String:</label>
        <input type="text" id="largeString" name="largeString" required><br><br>
    </form>

```

```

<label for="smallString">Small String:</label>
<input type="text" id="smallString" name="smallString" required><br><br>

<label for="numChars">Number of Characters for Comparison (n):</label>
<input type="number" id="numChars" name="numChars" min="1"
required><br><br>

<input type="submit" value="Perform Operations">
</form>

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve the input values from the form
    $largeString = $_POST['largeString'];
    $smallString = $_POST['smallString'];
    $numChars = intval(value: $_POST['numChars']);

    // Function to check if the small string appears at the start of the
large string
    function startsWith($largeStr, $smallStr) {
        return substr(string: $largeStr, offset: 0, length:
strlen($smallStr)) === $smallStr;
    }

    // Function to find the position of the small string in the large string
    function findPosition($largeStr, $smallStr) {
        $position = strpos($largeStr, $smallStr);
        return $position !== false ? $position : "Not found";
    }

    // Function to compare the first n characters of both strings (case-
insensitive)
    function compareFirstNChars($str1, $str2, $n) {
        $substr1 = substr(strtolower($str1), 0, $n);
        $substr2 = substr(strtolower($str2), 0, $n);
        return $substr1 === $substr2 ? "Yes" : "No";
    }

    // Perform the operations
    $startsWithResult = startsWith($largeString, $smallString) ? "Yes" :
"No";
    $positionResult = findPosition($largeString, $smallString);
    $compareResult = compareFirstNChars($largeString, $smallString,
$numChars);

    // Display the results

```



```

        echo "<h2>Results:</h2>";
        echo "Does the small string appear at the start of the large string? " .
$startsWithResult . "<br>";
        echo "Position of the small string in the large string: " .
$positionResult . "<br>";
        echo "Are the first $numChars characters of both strings equal (case-
insensitive)? " . $compareResult . "<br>";
    }
    ?>
</body>
</html>

```

Q. 2) : Write a PHP script for the following: Design a form having a text box and a drop down list containing any 3 separators(e.g. #, |, %, @, ! or comma) accept a strings from the user and also a separator.

- Split the string into separate words using the given separator.
- Replace all the occurrences of separator in the given string with some other separator.
- Find the last word in the given string(Use strrchr() function).

SetB_2.php

```

<!DOCTYPE html>
<html>
<head>
    <title>String Separator Operations</title>
</head>
<body>
    <h2>String Separator Operations</h2>
    <form method="post">
        <label for="inputString">Enter String:</label>
        <input type="text" id="inputString" name="inputString" required><br><br>

        <label for="separator">Select Separator:</label>
        <select id="separator" name="separator" required>
            <option value="#">#</option>
            <option value="|">|</option>

```

```

        <option value="%">%</option>
        <option value="@">@</option>
        <option value="!">!</option>
        <option value=",">,</option>
    </select><br><br>

    <label for="replaceWith">Replace Separator With:</label>
    <input type="text" id="replaceWith" name="replaceWith" required><br><br>

    <input type="submit" value="Perform Operations">
</form>

<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    // Retrieve input values
    $inputString = $_POST['inputString'];
    $separator = $_POST['separator'];
    $replaceWith = $_POST['replaceWith'];

    // Function to split the string using the given separator
    function splitString($str, $sep) {
        return explode($sep, $str);
    }

    // Function to replace all occurrences of the separator with another
separator
    function replaceSeparator($str, $oldSep, $newSep) {
        return str_replace($oldSep, $newSep, $str);
    }

    // Function to find the last word in the string
    function findLastWord($str, $sep) {
        $pos = strrpos($str, $sep); // Find the position of the last
separator
        if ($pos !== false) {
            return substr($str, $pos + 1); // Extract the last word
        } else {
            return $str; // If no separator found, return the whole string
        }
    }

    // Perform the operations
    $words = splitString($inputString, $separator);
    $replacedString = replaceSeparator($inputString, $separator,
$replaceWith);
    $lastWord = findLastWord($inputString, $separator);

```

```

// Display the results
echo "<h2>Results:</h2>";
echo "Words split by '$separator':<br>";
echo "<ul>";
foreach ($words as $word) {
    echo "<li>" . htmlspecialchars($word) . "</li>";
}
echo "</ul>";

echo "String with '$separator' replaced by '$replaceWith': " .
htmlspecialchars($replacedString) . "<br>";
echo "Last word in the string: " . htmlspecialchars($lastWord) . "<br>";
}
?>
</body>
</html>

```

Q. 3) : Write a PHP script having 3 textboxes. The first textbox should be for accepting name of the student, second for accepting name of college and third for accepting a proper greeting message. Write a function for accepting all the three parameters and generating a proper greeting message. If any of the parameters are not passed, generate the proper greeting message. (Use the concept of missing parameters)

SetB_3.php

```

<!DOCTYPE html>
<html>
<head>
    <title>Greeting Message Generator</title>
    <style>
        .container {
            width: 50%;
            margin: 0 auto;
            padding: 20px;
            border: 1px solid #ccc;
            border-radius: 8px;
            background-color: #f9f9f9;
            font-family: Arial, sans-serif;

```

```

    }
    .form-group {
        margin-bottom: 15px;
    }
    .form-group label {
        display: block;
        margin-bottom: 5px;
    }
    .form-group input[type="text"] {
        width: calc(100% - 22px);
        padding: 10px;
        border: 1px solid #ccc;
        border-radius: 4px;
    }
    .form-group input[type="submit"] {
        background-color: #4CAF50;
        color: white;
        border: none;
        padding: 10px 20px;
        text-align: center;
        text-decoration: none;
        display: inline-block;
        font-size: 16px;
        margin: 4px 2px;
        border-radius: 4px;
        cursor: pointer;
    }
    .form-group input[type="submit"]:hover {
        background-color: #45a049;
    }
    .result {
        margin-top: 20px;
    }
</style>
</head>
<body>
    <div class="container">
        <h1>Greeting Message</h1>
        <form method="post" action="generate_greeting.php">
            <div class="form-group">
                <label for="student_name">Student Name:</label>
                <input type="text" id="student_name" name="student_name">
            </div>
            <div class="form-group">
                <label for="college_name">College Name:</label>
                <input type="text" id="college_name" name="college_name">
            </div>
        </form>
    </div>

```

```

        </div>
        <div class="form-group">
            <label for="greeting">Greeting Message:</label>
            <input type="text" id="greeting" name="greeting">
        </div>
        <div class="form-group">
            <input type="submit" value="Generate Greeting">
        </div>
    </form>
</div>
</body>
</html>

```

generate_greeting.php

```

<?php
// Function to generate a greeting message
function generateGreeting($studentName = null, $collegeName = null, $greeting =
null) {
    // Set default values if parameters are missing
    if (!$studentName) {
        $studentName = "Student";
    }
    if (!$collegeName) {
        $collegeName = "Your College";
    }
    if (!$greeting) {
        $greeting = "Hello and welcome!";
    }

    // Generate the greeting message
    return "$greeting, $studentName from $collegeName!";
}

// Handle form submission
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $studentName = isset($_POST['student_name']) ? $_POST['student_name'] : null;
    $collegeName = isset($_POST['college_name']) ? $_POST['college_name'] : null;
    $greeting = isset($_POST['greeting']) ? $_POST['greeting'] : null;

    // Call the function to generate the greeting
    $message = generateGreeting($studentName, $collegeName, $greeting);
}

```

```
// Display the generated greeting message
echo "<div class='container'>";
echo "<h2>Generated Greeting Message:</h2>";
echo "<p>" . htmlspecialchars($message) . "</p>";
echo "</div>";
}
?>
```