**Practical – 5**

**Aim: Create an application which Perform different sting manipulation operations using PHP.**

**Exercise: Design a PHP application with a user-friendly interface to perform various string manipulation operations. The application should allow users to input a string and select one of the following operations:**

1. **Calculate Length of String**
2. **Convert to Lowercase or Uppercase**
3. **Calculate White Spaces**
4. **Calculate Words, Lines, and Characters**
5. **Find Position of Specific Word**
6. **Replace Word**
7. **Calculate Occurrence of Vowels**

<!DOCTYPE html>

<html>

<head>

<title>String Manipulation</title>

<style>

body {

font-family: Arial, sans-serif;

background-color: #f0f0f0;

margin: 0;

padding: 0;

display: flex;

justify-content: center;

align-items: center;

height: 100vh;

}

#container {

background-color: #fff;

padding: 20px;

border-radius: 10px;

box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);

width: 400px;

}

h2 {

text-align: center;

}

input[type="text"], select {

width: 100%;

padding: 10px;

margin: 8px 0;

box-sizing: border-box;

border: 1px solid #ccc;

border-radius: 4px;

}

input[type="submit"] {

background-color: #4CAF50;

color: white;

padding: 14px 20px;

margin: 8px 0;

border: none;

border-radius: 4px;

cursor: pointer;

width: 100%;

}

input[type="submit"]:hover {

background-color: #45a049;

}

</style>

</head>

<body>

<div id="container">

<h2>String Manipulation</h2>

<form method="post">

<input type="text" name="input\_string" placeholder="Enter a string">

<select name="operation" id="operation" onchange="toggleInputBox()">

<option value="length">Calculate Length of String</option>

<option value="lowercase">Convert to Lowercase</option>

<option value="uppercase">Convert to Uppercase</option>

<option value="whitespace">Calculate White Spaces</option>

<option value="words\_lines\_characters">Calculate Words, Lines, and Characters</option>

<option value="specific\_word\_position">Find Position of Specific Word</option>

<option value="replace\_word">Replace Word</option>

<option value="occurrence\_of\_vowels">Calculate Occurrence of Vowels</option>

</select>

<input type="text" name="word\_input" id="word\_input" style="display:none;" placeholder="Enter word">

<input type="text" name="new\_word\_input" id="new\_word\_input" style="display:none;" placeholder="Enter new word">

<input type="submit" value="Submit">

</form>

<?php

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$input\_string = $\_POST['input\_string'];

$operation = $\_POST['operation'];

// Get word input if operation is finding or replacing a word

$word\_input = isset($\_POST['word\_input']) ? $\_POST['word\_input'] : '';

$new\_word\_input = isset($\_POST['new\_word\_input']) ? $\_POST['new\_word\_input'] : '';

echo "<p>Your String: $input\_string</p>";

switch ($operation) {

case 'length':

echo "<p>Length of the string: " . calculateStringLength($input\_string) . "</p>";

break;

case 'lowercase':

echo "<p>Lowercase string: " . convertToLowercase($input\_string) . "</p>";

break;

case 'uppercase':

echo "<p>Uppercase string: " . convertToUppercase($input\_string) . "</p>";

break;

case 'whitespace':

echo "<p>Number of white spaces: " . calculateWhitespace($input\_string) . "</p>";

break;

case 'words\_lines\_characters':

$result = calculateWordsLinesCharacters($input\_string);

echo "<p>Number of words: " . $result['words'] . "</p>";

echo "<p>Number of lines: " . $result['lines'] . "</p>";

echo "<p>Number of characters: " . $result['characters'] . "</p>";

break;

case 'specific\_word\_position':

echo "<p>Position of the word '$word\_input': " . findWordPosition($input\_string, $word\_input) . "</p>";

break;

case 'replace\_word':

echo "<p>String after replacing '$word\_input' with '$new\_word\_input': " . replaceWord($input\_string, $word\_input, $new\_word\_input) . "</p>";

break;

case 'occurrence\_of\_vowels':

echo "<p>Occurrence of vowels: ";

print\_r(calculateVowelOccurrence($input\_string));

echo "</p>";

break;

default:

echo "<p>Please select a valid operation.</p>";

break;

}

}

function calculateStringLength($str) {

return strlen($str);

}

function convertToLowercase($str) {

return strtolower($str);

}

function convertToUppercase($str) {

return strtoupper($str);

}

function calculateWhitespace($str) {

return substr\_count($str, ' ');

}

function calculateWordsLinesCharacters($str) {

$words = str\_word\_count($str);

$lines = substr\_count($str, "\n") + 1; // Counting lines by counting newline characters

$characters = strlen($str);

return array('words' => $words, 'lines' => $lines, 'characters' => $characters);

}

function findWordPosition($str, $word) {

return strpos($str, $word);

}

function replaceWord($str, $old\_word, $new\_word) {

return str\_replace($old\_word, $new\_word, $str);

}

function calculateVowelOccurrence($str) {

$vowels = array('a', 'e', 'i', 'o', 'u');

$occurrences = array();

foreach ($vowels as $vowel) {

$occurrences[$vowel] = substr\_count(strtolower($str), $vowel);

}

return $occurrences;

}

?>

<script>

function toggleInputBox() {

var operation = document.getElementById("operation").value;

var wordInput = document.getElementById("word\_input");

var newWordInput = document.getElementById("new\_word\_input");

if (operation == "specific\_word\_position" || operation == "replace\_word") {

wordInput.style.display = "block";

newWordInput.style.display = "block";

} else {

wordInput.style.display = "none";

newWordInput.style.display = "none";

}

}

</script>

</div>

</body>

</html>

 

