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**

```html
<!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;

    }
```

```css
#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">
```

```php
        <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':
```

```php
        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;

    }

  }
```

```php
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) {
```

```php
    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;

  }

  ?>
```

```html
  <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>
```

String Manipulation

adeshara brijesh

Calculate Length of String

Submit

Your String: adeshara brijesh

String after replacing 'brijesh' with 'BRIJESH': adeshara BRIJESH

String Manipulation

adeshara brijesh

Calculate Length of String

Submit

Your String: adeshara brijesh

Uppercase string: ADESHARA BRIJESH

String Manipulation

adeshara brijesh

Calculate Length of String

Submit

Your String: adeshara brijesh

Number of words: 2

Number of lines: 1

Number of characters: 16

String Manipulation

adeshara brijesh

Replace Word

brijesh

BRIJESH

Submit

Your String: adeshara brijesh

String after replacing 'brijesh' with 'BRIJESH': adeshara BRIJESH