Date: 15/02/23

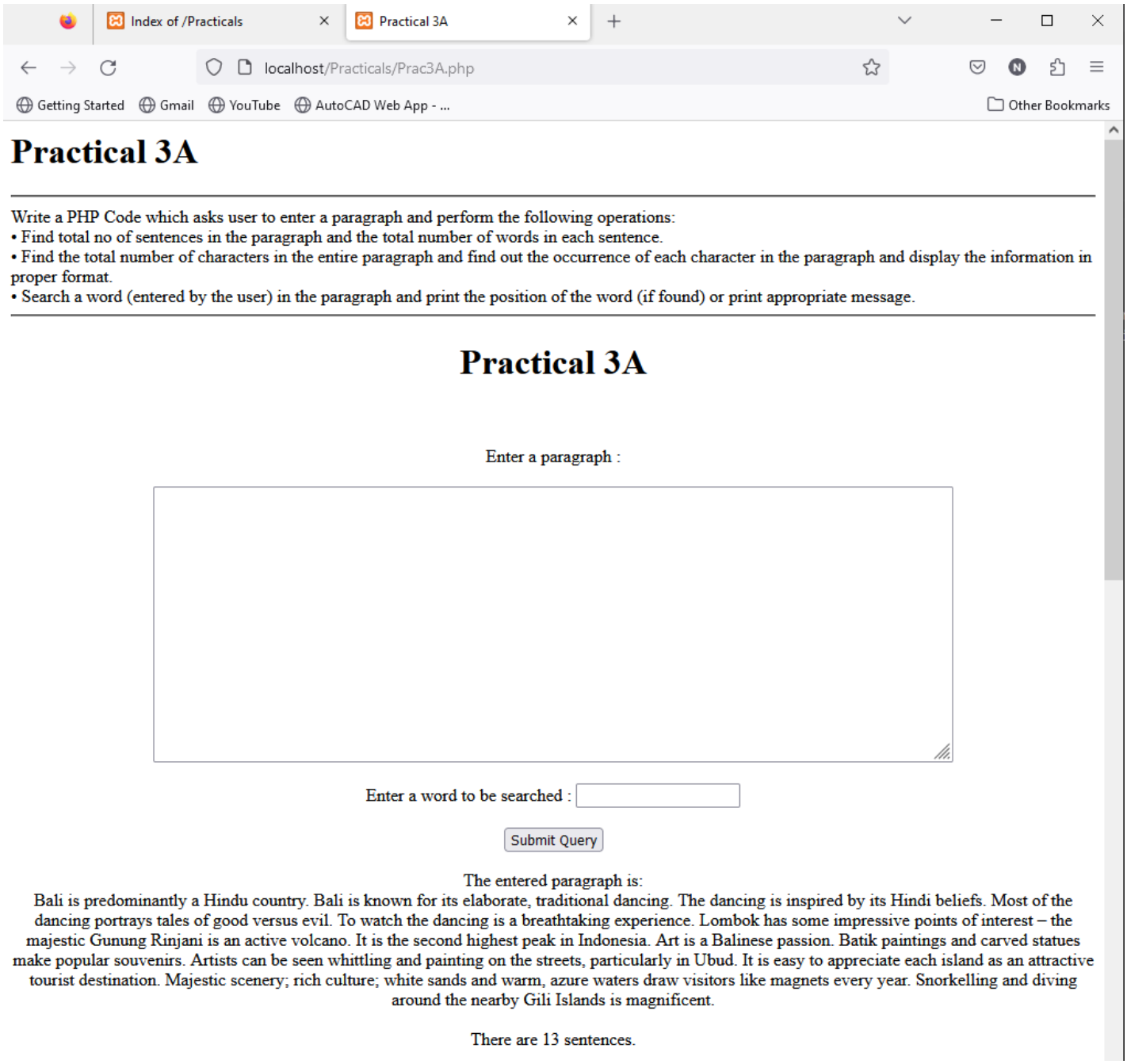
Roll No. and Name: 20BCE204 Dhyan Patel
Course Code and Name: 2CSDE69 LAMP Technology
Practical No. 3A
AIM: Write a PHP Code which asks user to enter a paragraph and perform the following operations:
• Find total no of sentences in the paragraph and the total number of words in each sentence.
• Find the total number of characters in the entire paragraph and find out the occurrence of each character in the paragraph and display the information in proper format.
• Search a word (entered by the user) in the paragraph and print the position of the word (if found) or print appropriate message.

Methodology followed:

```
<html>
    <body>
        <h1 align="center">Practical 3A</h1><br><br>
        <form align="center" method="post" action="<?php echo $_SERVER['PHP_SELF'];?>">

        Enter a paragraph : <br><textarea name="para"></textarea><br><br>
        Enter a word to be searched : <input type="text" name="word"><br><br>
        <input type="submit" >
        </form>

        <?php
            if($_SERVER["REQUEST_METHOD"]=="POST"){

                $txt=$_POST['para'];
                $word=$_POST['word'];

                echo "<center> The entered paragraph is: <br>$txt</center>";

                //total sentences

                $p=preg_split('/[?.]+/',$txt);

                //print_r($p);

                echo "<center> <br>There are ".(count($p)-1)." sentences.<br><br>";
                for($i=0;$i<count($p)-1;$i++){
                    echo "Sentence ".($i+1)." contains ".str_word_count($p[$i])." words.";
                    echo "<br>";
                }
                //total characters

                $y=count_chars($txt, 1)[32];

                echo "<br>There were ".(strlen($txt)-$y)." characters in the
paragraph.<br><br>";
```

```
            //frequency of each character
            foreach (count_chars($txt, 1) as $i => $val) {
                echo "Frequency of \"", chr($i) , "\" is : ", $val, ".<br>";

             }

            //search a word
            $ans=strpos($txt,$word);
            if(json_encode($ans)!="false")
            echo "<br><br>The position of \"$word\" is : ".($ans+1)."<br><br>";
            else
            echo "<br><br>The searched word \"$word\" was not found.<br><br>";

            echo "</center>";



        }
    ?>

</body>
<html>
```

Output: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Practical 3A
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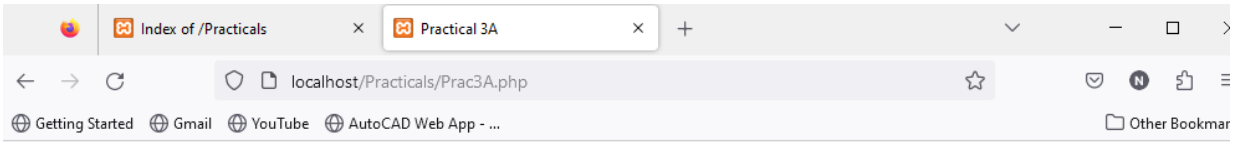
• Find total no of sentences in the paragraph and the total number of words in each sentence.
• Find the total number of characters in the entire paragraph and find out the occurrence of each character in the paragraph and display the information in proper format.
• Search a word (entered by the user) in the paragraph and print the position of the word (if found) or print appropriate message.
Practical 3A
Enter a paragraph :
Enter a word to be searched :
Submit Query
The entered paragraph is:
Bali is predominantly a Hindu country. Bali is known for its elaborate, traditional dancing. The dancing is inspired by its Hindi beliefs. Most of the dancing portrays tales of good versus evil. To watch the dancing is a breathtaking experience. Lombok has some impressive points of interest – the majestic Gunung Rinjani is an active volcano. It is the second highest peak in Indonesia. Art is a Balinese passion. Batik paintings and carved statues make popular souvenirs. Artists can be seen whittling and painting on the streets, particularly in Ubud. It is easy to appreciate each island as an attractive tourist destination. Majestic scenery; rich culture; white sands and warm, azure waters draw visitors like magnets every year. Snorkelling and diving around the nearby Gili Islands is magnificent.
There are 13 sentences.

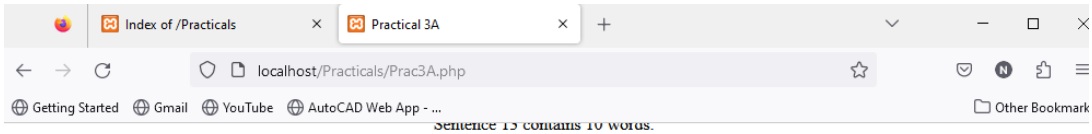


The entered paragraph is:

Bali is predominantly a Hindu country. Bali is known for its elaborate, traditional dancing. The dancing is inspired by its Hindi beliefs. Most of the dancing portrays tales of good versus evil. To watch the dancing is a breathtaking experience. Lombok has some impressive points of interest – the majestic Gunung Rinjani is an active volcano. It is the second highest peak in Indonesia. Art is a Balinese passion. Batik paintings and carved statues make popular souvenirs. Artists can be seen whittling and painting on the streets, particularly in Ubud. It is easy to appreciate each island as an attractive tourist destination. Majestic scenery; rich culture; white sands and warm, azure waters draw visitors like magnets every year. Snorkelling and diving around the nearby Gili Islands is magnificent.

There are 13 sentences.

Sentence 1 contains 6 words.
Sentence 2 contains 8 words.
Sentence 3 contains 8 words.
Sentence 4 contains 10 words.
Sentence 5 contains 8 words.
Sentence 6 contains 15 words.
Sentence 7 contains 8 words.
Sentence 8 contains 5 words.
Sentence 9 contains 8 words.
Sentence 10 contains 13 words.
Sentence 11 contains 12 words.
Sentence 12 contains 16 words.
Sentence 13 contains 10 words.



Sentence 13 contains 10 words.

There were 680 characters in the paragraph.

Frequency of " " is : 128.
Frequency of "," is : 3.
Frequency of "." is : 13.
Frequency of ";" is : 2.
Frequency of "A" is : 2.
Frequency of "B" is : 4.
Frequency of "G" is : 2.
Frequency of "H" is : 2.
Frequency of "I" is : 4.
Frequency of "L" is : 1.
Frequency of "M" is : 2.
Frequency of "R" is : 1.
Frequency of "S" is : 1.
Frequency of "T" is : 2.
Frequency of "U" is : 1.
Frequency of "a" is : 65.
Frequency of "b" is : 8.
Frequency of "c" is : 22.
Frequency of "d" is : 25.
Frequency of "e" is : 64.
Frequency of "f" is : 6.
Frequency of "g" is : 15.
Frequency of "h" is : 16.
Frequency of "i" is : 72.
Frequency of "j" is : 3.
Frequency of "k" is : 8.
Frequency of "l" is : 21.
Frequency of "m" is : 9.
Frequency of "n" is : 62.
Frequency of "o" is : 32.
Frequency of "p" is : 15.
Frequency of "r" is : 37.
Frequency of "s" is : 56.
Frequency of "t" is : 56.
Frequency of "u" is : 15.
Frequency of "v" is : 11.
Frequency of "w" is : 7.
Frequency of "x" is : 1.
Frequency of "y" is : 10.
Frequency of "z" is : 1.
Frequency of "" is : 1.
Frequency of "" is : 1.
Frequency of "" is : 1.

The position of "magnet" is : 719

Practical No. 3B

AIM: Write a PHP Code which takes a string (maximum 80 characters terminated by a full stop. The words in this string are assumed to be separated by one or more blanks.

Arrange the words of the input string in descending order of their lengths. Same length words should be sorted alphabetically. Each word must start with an uppercase letter and the sentence should be terminated by a full stop.

SAMPLE DATA:

INPUT:

"This is human resource department."

OUTPUT:

Department Resource Human This Is.

INPUT:

"To handle yourself use your head and to handle others use your heart."

OUTPUT:

Yourself Handle Handle Others Heart Head Your Your And Use Use To To.

Methodology Followed:

```
<!DOCTYPE html>

<html>

<head>
    <title>Practical 3B</title>
    <style>
        table,
        th,
        td {
            border: 1px solid black;
            border-collapse: collapse;
            text-align: center;
        }

        th {
            padding: 1rem 0.5rem;
        }
    </style>
</head>

<body>
```

```
    <h1>Practical 3B</h1>

    <hr />
            Write a PHP Code which takes a string (maximum 80 characters
            terminated by a full stop. The words in this string are assumed to be
            separated by one or more blanks.
            Arrange the words of the input string in descending order of their
            lengths. Same length words should be sorted alphabetically. Each word
            must start with an uppercase letter and the sentence should be
            terminated by a full stop.
    <hr />

    <form method="POST" action="<?php echo $_SERVER["PHP_SELF"] ?>">
        <textarea name="textbox" id="textbox" cols="100" rows="15" required>Length and
appearance do not.Write a PHP code.</textarea>
        <div>
            <input type="submit" value="submit" />
        </div>
    </form>
    <p>
        <strong>Solution:<br /></strong>
        <?php
        if ($_SERVER['REQUEST_METHOD'] == 'POST') {

            $para = $_POST['textbox'];
            $text = sanitize($para);

            if (strlen($text) < 80) {
                $words = explode(".", $text);
                $words = implode($words);
                $words = explode(" ", $words);

                $arr = array();

                $arr_count_of_words = array();

                for ($i = 0; $i < count($words); $i++) {
                    $arr_count_of_words[ucfirst($words[$i])] = 0;
                    $arr[strlen($words[$i])] = array();
                }

                // arr is 2d array [][]
                foreach ($words as $key => $val) {
                    $w = ucfirst($val);
                    $arr_count_of_words[$w]++;
                    array_push($arr[strlen($val)], $w);
                }

                krsort($arr);
```

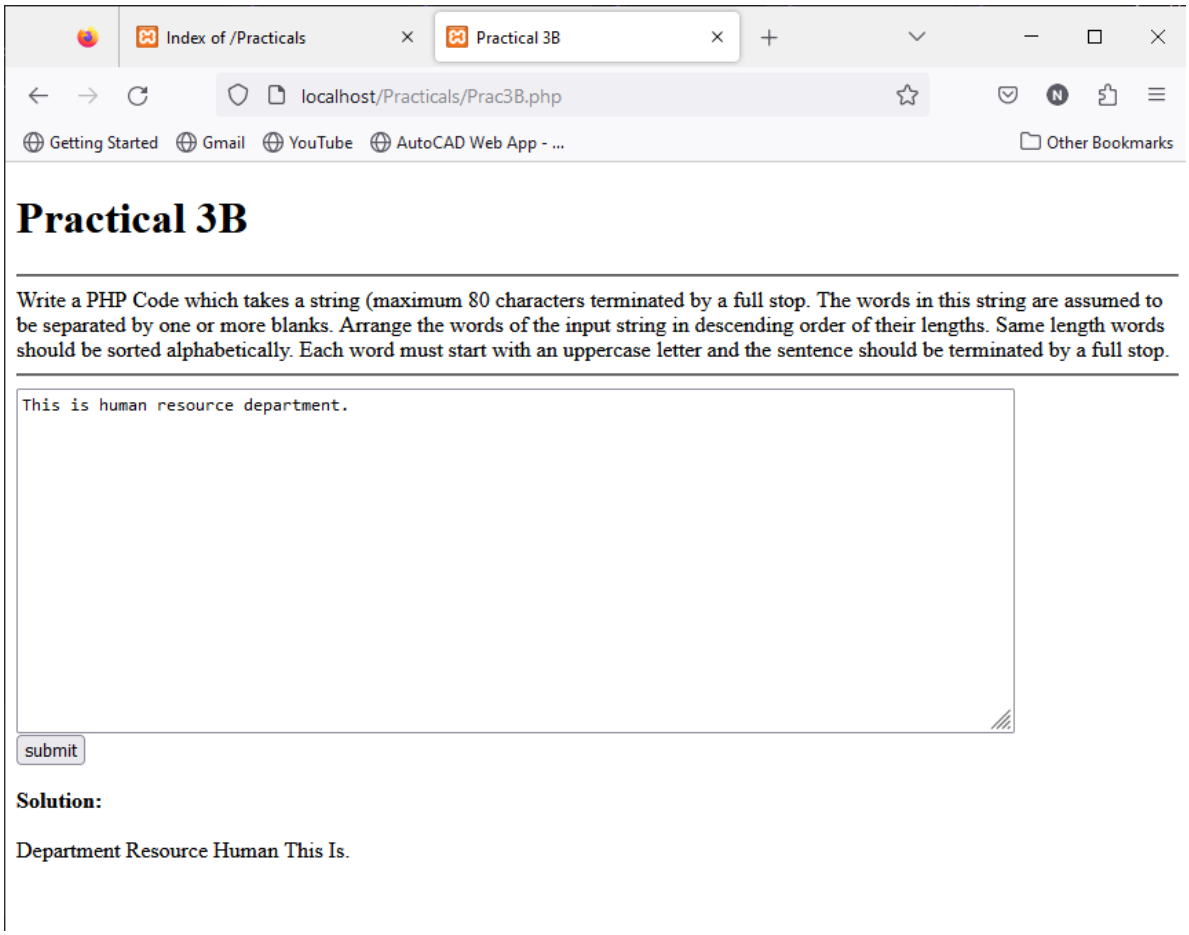
```
                for ($i = 0; $i < count($words); $i++) {
                    asort($arr[strlen($words[$i])]);
                }

                echo"<br>";

                foreach ($arr as $arr_key => $arr_val) {
                    foreach ($arr_val as $key => $val) {
                        echo " $val";
                    }
                }
                echo ".<br/>";
            } else {
                echo "more than 80 characters<br/>";
            }
        }
        function sanitize($text)
        {
            $text = trim($text);
            $text = htmlspecialchars($text); // to prevent XSS
            return $text;
        }
        ?>
    </p>
</body>

</html>
```

Output: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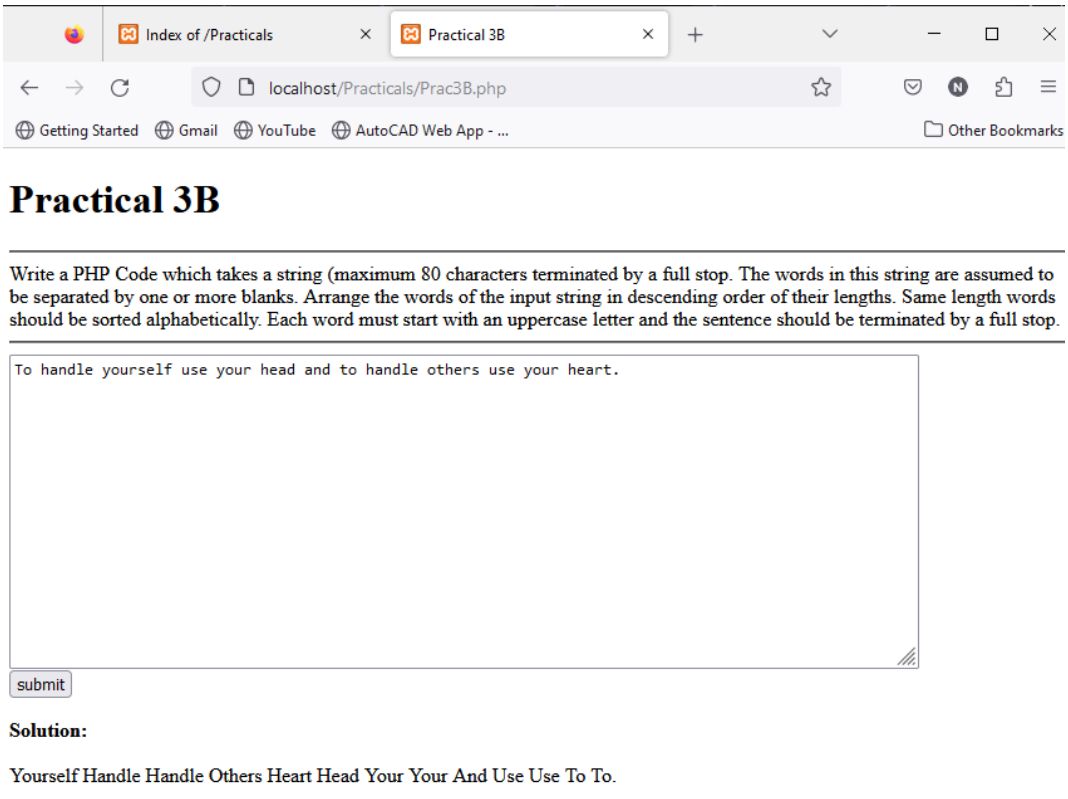
This is human resource department.
submit
Solution:
Department Resource Human This Is.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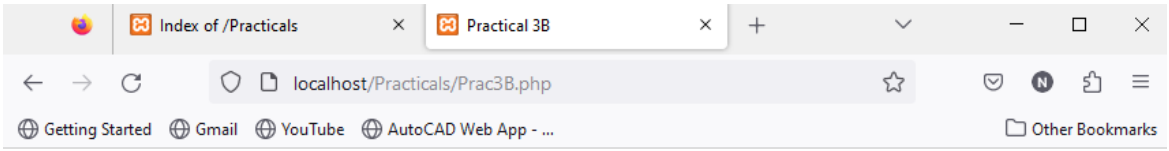
To handle yourself use your head and to handle others use your heart.
submit
Solution:
Yourself Handle Handle Others Heart Head Your Your And Use Use To To.



Practical 3B

Write a PHP Code which takes a string (maximum 80 characters terminated by a full stop. The words in this string are assumed to be separated by one or more blanks. Arrange the words of the input string in descending order of their lengths. Same length words should be sorted alphabetically. Each word must start with an uppercase letter and the sentence should be terminated by a full stop.

```
To handle yourself use your head and to handle others use your heart.Write a PHP Code which takes a string.
```

submit

Solution:
more than 80 characters

Practice Problems:

String Comparison Functions:

1. strcasecmp

```php
<?php
    echo "strcasecmp:  <br>";
    echo strcasecmp("Dhyan Patel","dhyan patel");
    echo "<br>";
    echo strcasecmp("Dhyan","DHYAN");

    echo "<br><br>Comparing two strings <br>";
    echo strcasecmp("Nirma Uni","NIRMA")."<br>";
    echo strcasecmp("Nirma Uni","NIRMA UNI")."<br>";
    echo strcasecmp("NIRMA","Nirma university")."<br>";
?>
```

Output:

strcasecmp:
0
0

Comparing two strings
1
0
-1

2. strcmp

```php
<?php
    echo "strcmp:  <br>";
    echo strcmp("Dhyan Patel","dhyan patel");
    echo "<br>";
    echo strcmp("Dhyan","DHYAN");

    echo "<br><br>Comparing two strings <br>";
    echo strcmp("Nirma Uni","NIRMA")."<br>";
    echo strcmp("Nirma Uni","Nirma Uni")."<br>";
    echo strcmp("Nirma Uni","NIRMA UNI")."<br>";
    echo strcmp("NIRMA","Nirma university")."<br>";
?>
```

Output:

strcmp:
-1
1

Comparing two strings
1
0
1
-1

3. substr_compare:

```php
<?php
    echo "substr_compare <br>";
    echo substr_compare("hello world","Hello world",0);

    echo "<br>";
    echo substr_compare("Hello world","world",6);

    echo "<br>";
    echo substr_compare("world","or",1,2)."<br>";
    echo substr_compare("world","ld",-2,2)."<br>";
    echo "Output: ".
    substr_compare("LAMP Technologies","hno",-
9,3)."<br>";
    echo substr_compare("world","ORL",1,2)."<br>";
    echo substr_compare("world","OR",1,2,TRUE)."<br>";
    echo substr_compare("world","or",1,3)."<br>";
```

Output:

substr_compare
1
0
0
0
Output: 0
1
0
1
-1
Strings comparison
0
1
-1
0

```
    echo substr_compare("world","rl",1,2)."<br>";

    echo "Strings comparison<br>";
    echo substr_compare("Hello world!","Hello
world!",0)."<br>";
    echo substr_compare("Hello
world!","Hello",0)."<br>";
    echo substr_compare("Hello world!","Hello world!
Hello!",0)."<br>";
    echo substr_compare("Hello
world!","Hello",0,strlen("Hello"))."<br>";
?>
```

Conclusion:

From this practical, we learnt different types of string functions and where they can be implemented.