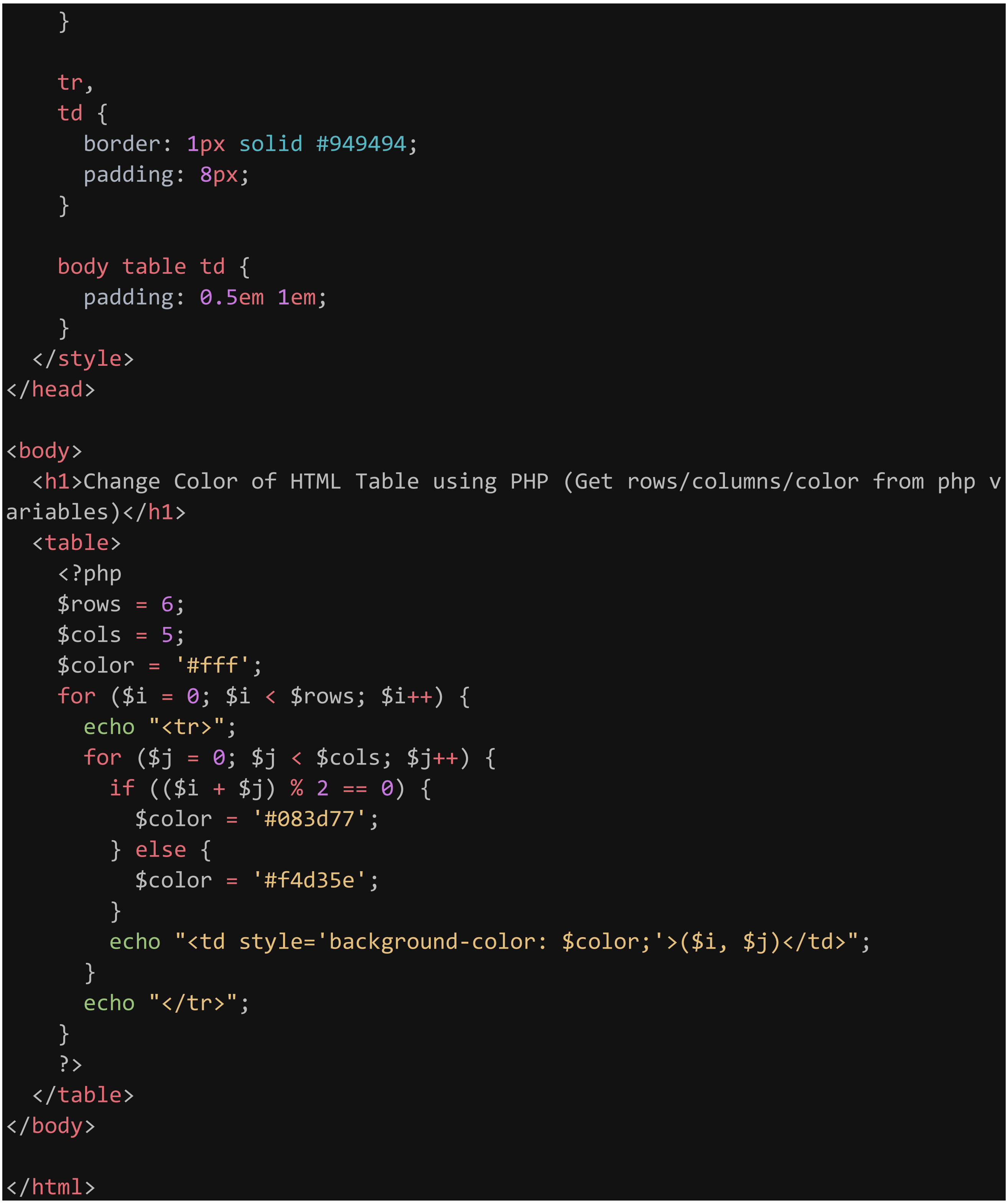
AWT Practical

Week - 3 Task

1. Change Color of HTML Table using PHP (Get rows/columns/color from php variables)

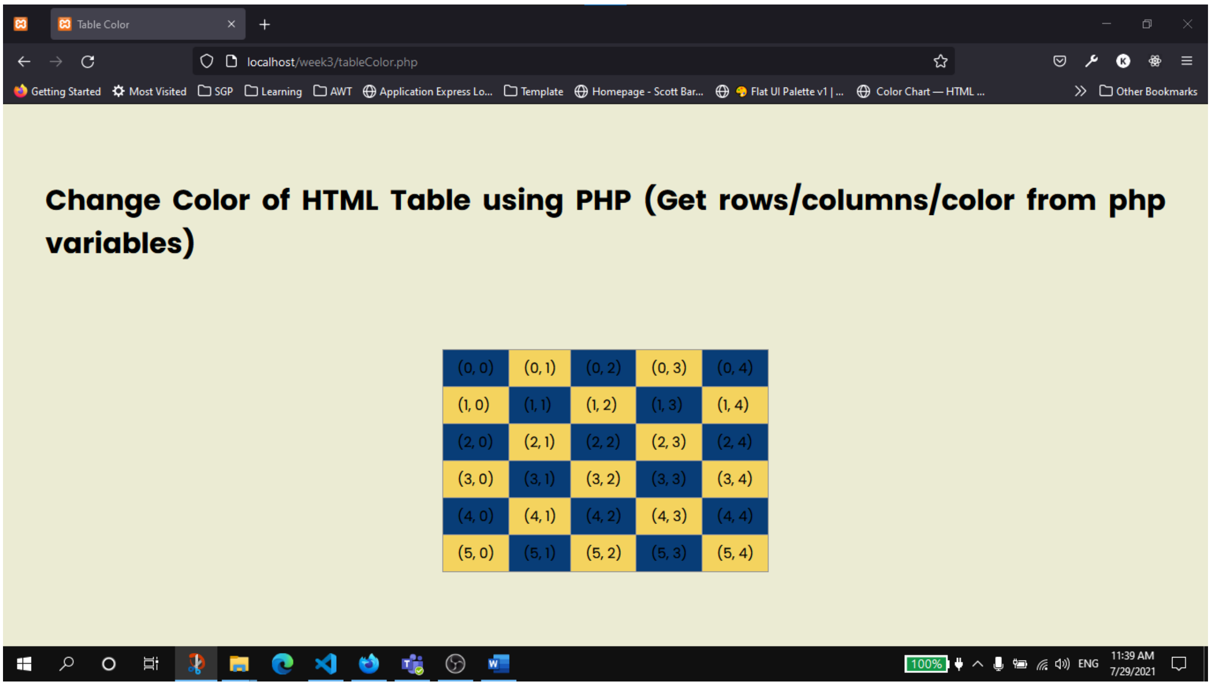
Code:

```
<!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">
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600;7
00;800;900&display=swap" rel="stylesheet">
  <link rel="stylesheet" href="css/tableColor.css">
  <title>Table Color</title>
  <style>
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: "Poppins", sans-serif;
    }

    body {
      height: 100vh;
      width: 100vw;
      display: flex;
      flex-direction: column;
      justify-content: center;
      align-items: center;
      padding: 1em 3em;
      background-color: #ebebd3;
    }

    body h1 {
      margin-bottom: 3em;
      text-align: justify;
    }

    table {
      border-collapse: collapse;
```



```
    }

    tr,
    td {
      border: 1px solid #949494;
      padding: 8px;
    }

    body table td {
      padding: 0.5em 1em;
    }
  </style>
</head>

<body>
  <h1>Change Color of HTML Table using PHP (Get rows/columns/color from php v
ariables)</h1>
  <table>
    <?php
    $rows = 6;
    $cols = 5;
    $color = '#fff';
    for ($i = 0; $i < $rows; $i++) {
      echo "<tr>";
      for ($j = 0; $j < $cols; $j++) {
        if (($i + $j) % 2 == 0) {
          $color = '#083d77';
        } else {
          $color = '#f4d35e';
        }
        echo "<td style='background-color: $color;'>($i, $j)</td>";
      }
      echo "</tr>";
    }
    ?>
  </table>
</body>

</html>
```

Output:



Change Color of HTML Table using PHP (Get rows/columns/color from php variables)

(0, 0)	(0, 1)	(0, 2)	(0, 3)	(0, 4)
(1, 0)	(1, 1)	(1, 2)	(1, 3)	(1, 4)
(2, 0)	(2, 1)	(2, 2)	(2, 3)	(2, 4)
(3, 0)	(3, 1)	(3, 2)	(3, 3)	(3, 4)
(4, 0)	(4, 1)	(4, 2)	(4, 3)	(4, 4)
(5, 0)	(5, 1)	(5, 2)	(5, 3)	(5, 4)

2. Get Password from PHP variable & Display following info in table

   - Count Total Characters
   - Count Total Number of digits
   - Count Total Special Characters
   - Display Password strength
   - ○ Not Acceptable
   - ○ Weak
   - ○ Strong

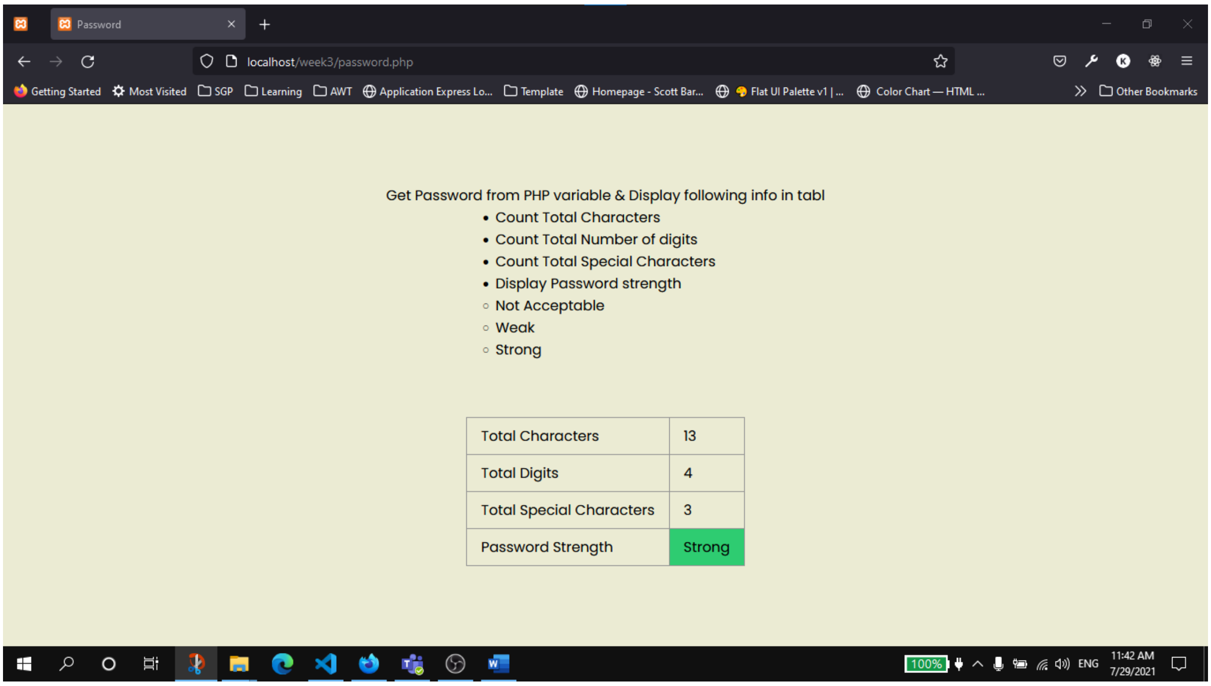
Code:

```
<!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">
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600;700;800;900&display=swap" rel="stylesheet">
  <title>Password</title>
  <style>
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: "Poppins", sans-serif;
    }

    body {
      height: 100vh;
      width: 100vw;
      display: flex;
      flex-direction: column;
      justify-content: center;
      align-items: center;
      padding: 1em 3em;
      background-color: #ebebd3;
    }

    body h1 {
      margin-bottom: 3em;
      text-align: justify;
    }

    table {
      border-collapse: collapse;
    }

    tr,
    td {
      border: 1px solid #949494;
      padding: 8px;
    }

    ul {
      margin-bottom: 2em;
    }

    body table td {
      padding: 0.5em 1em;
    }
  </style>
</head>

<body>
  <p>Get Password from PHP variable & Display following info in tabl</p>
  <ul>
    <li>Count Total Characters</li>
    <li>Count Total Number of digits</li>
    <li>Count Total Special Characters</li>
    <li>Display Password strength
      <ul>
```

```
        <li>Not Acceptable</li>
        <li>Weak</li>
        <li>Strong</li>
      </ul>
    </li>
  </ul>
  <table>
    <?php
    $password = "krutik2001!@#";
    $totalChar = strlen($password);
    $totalDigits = preg_match_all("/[0-9]/", $password);
    $totalSpecialChar = preg_match_all("/[$&+,:;=?@#|'<>.-
^*()%!]/", $password) - $totalDigits;
    $passStrength = 'Not Acceptable';
    $color = '#e74c3c';

    if ($totalChar > 8 && ($totalDigits == 0 || $totalSpecialChar == 0)) {
      $passStrength = "Week";
      $color = '#f1c40f';
    }
    if ($totalChar > 8 && $totalDigits != 0 && $totalSpecialChar != 0) {
      $passStrength = "Strong";
      $color = '#2ecc71';
    }


    echo "<tr>
        <td>Total Characters</td>
        <td>$totalChar</td>
      </tr>
      <tr>
        <td>Total Digits</td>
        <td>$totalDigits</td>
      </tr>
      <tr>
        <td>Total Special Characters</td>
        <td>$totalSpecialChar</td>
      </tr>
      <tr>
        <td>Password Strength</td>
        <td style='background-color: $color;'>$passStrength</td>
      </tr>"
    ?>
  </table>
</body>
```

```
</html>
```

Output:



Get Password from PHP variable & Display following info in tabl

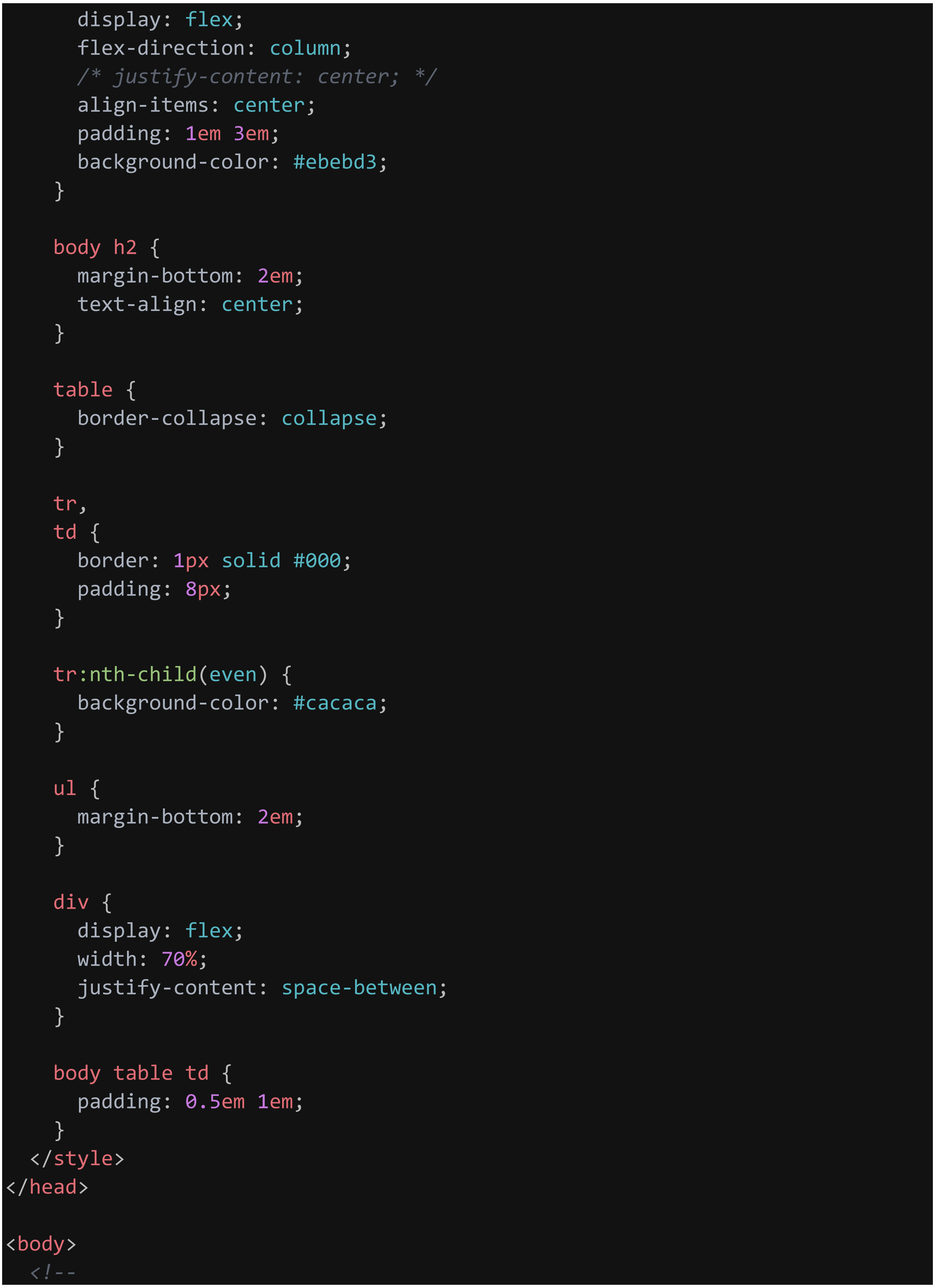
- Count Total Characters
- Count Total Number of digits
- Count Total Special Characters
- Display Password strength
  - Not Acceptable
  - Weak
  - Strong

Total Characters	13
Total Digits	4
Total Special Characters	3
Password Strength	Strong

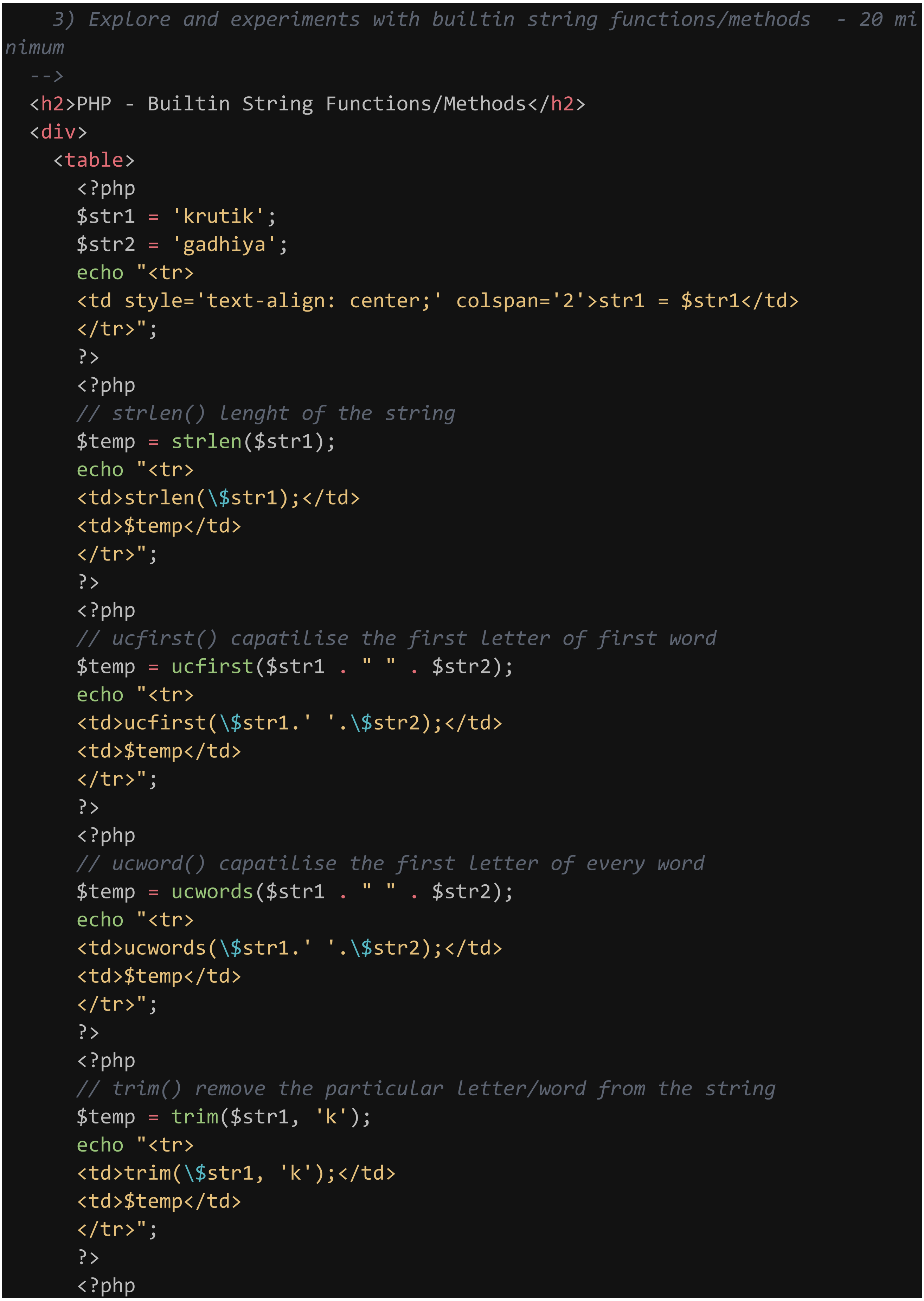
3. Explore and experiments with builtin string functions/methods - 20 minimum

Code:

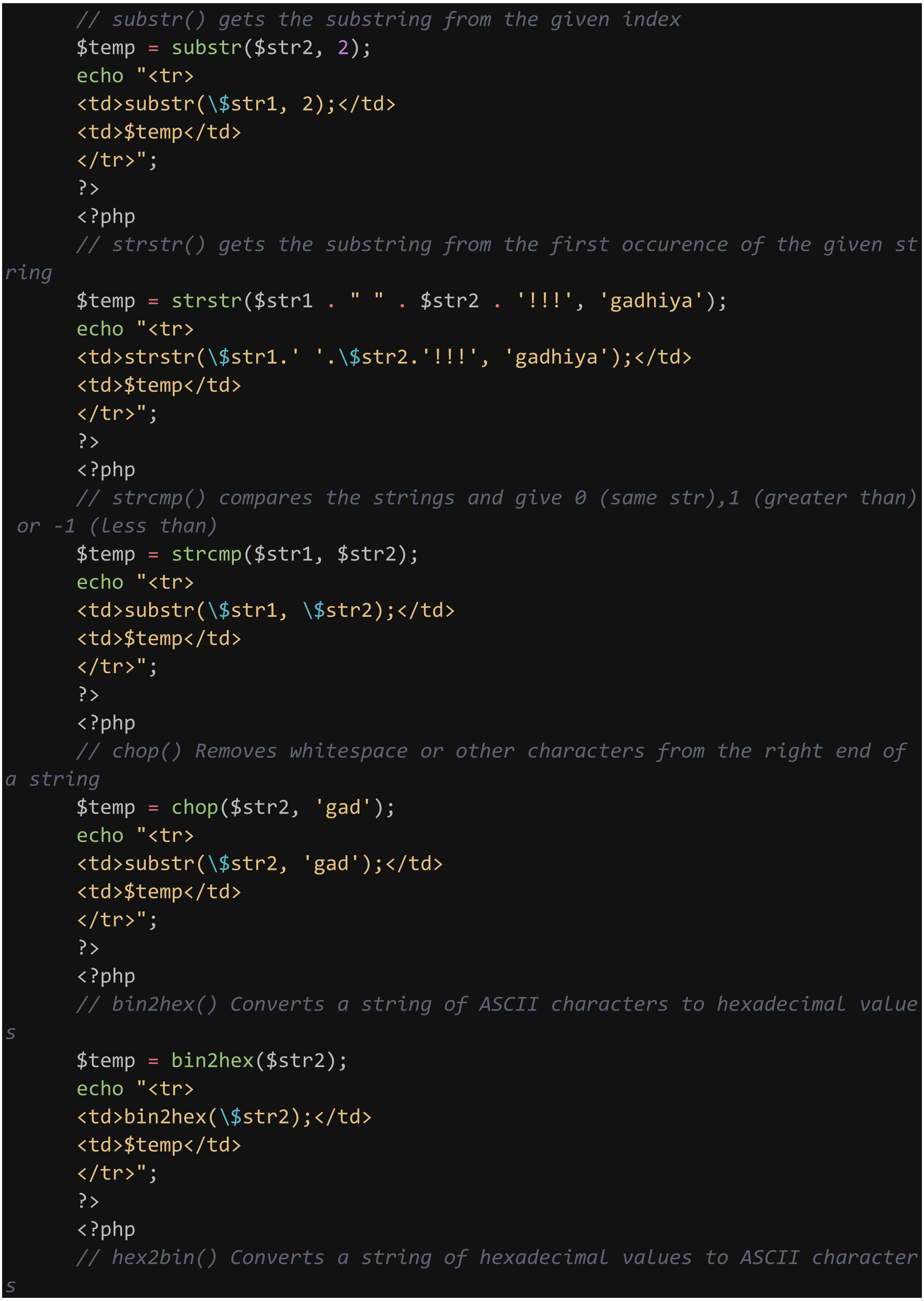
```
<!DOCTYPE html>
<html lang="en">

<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">
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600;700;800;900&display=swap" rel="stylesheet">
  <title>String Functions/Methods</title>
  <style>
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: "Poppins", sans-serif;
    }

    body {
```



```
      display: flex;
      flex-direction: column;
      /* justify-content: center; */
      align-items: center;
      padding: 1em 3em;
      background-color: #ebebd3;
    }

    body h2 {
      margin-bottom: 2em;
      text-align: center;
    }

    table {
      border-collapse: collapse;
    }

    tr,
    td {
      border: 1px solid #000;
      padding: 8px;
    }

    tr:nth-child(even) {
      background-color: #cacaca;
    }

    ul {
      margin-bottom: 2em;
    }

    div {
      display: flex;
      width: 70%;
      justify-content: space-between;
    }

    body table td {
      padding: 0.5em 1em;
    }
  </style>
</head>

<body>
  <!--
```

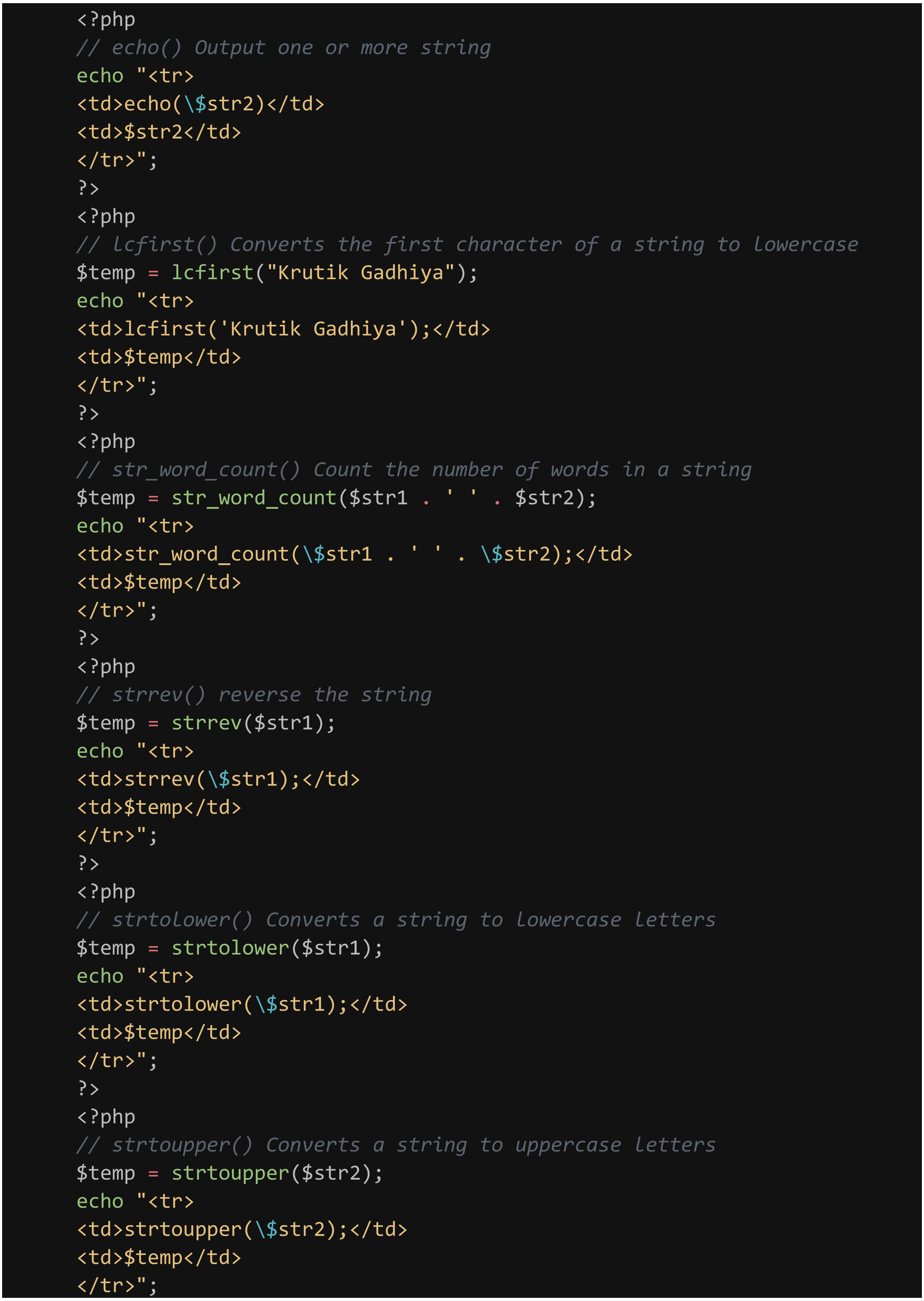


```
    3) Explore and experiments with builtin string functions/methods  - 20 mi
nimum
  -->
  <h2>PHP - Builtin String Functions/Methods</h2>
  <div>
    <table>
      <?php
      $str1 = 'krutik';
      $str2 = 'gadhiya';
      echo "<tr>
      <td style='text-align: center;' colspan='2'>str1 = $str1</td>
      </tr>";
      ?>
      <?php
      // strlen() lenght of the string
      $temp = strlen($str1);
      echo "<tr>
      <td>strlen(\$str1);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // ucfirst() capatilise the first letter of first word
      $temp = ucfirst($str1 . " " . $str2);
      echo "<tr>
      <td>ucfirst(\$str1.' '.\$str2);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // ucword() capatilise the first letter of every word
      $temp = ucwords($str1 . " " . $str2);
      echo "<tr>
      <td>ucwords(\$str1.' '.\$str2);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // trim() remove the particular letter/word from the string
      $temp = trim($str1, 'k');
      echo "<tr>
      <td>trim(\$str1, 'k');</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
```



```
      // substr() gets the substring from the given index
      $temp = substr($str2, 2);
      echo "<tr>
      <td>substr(\$str1, 2);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // strstr() gets the substring from the first occurence of the given st
ring
      $temp = strstr($str1 . " " . $str2 . '!!!', 'gadhiya');
      echo "<tr>
      <td>strstr(\$str1.' '.\$str2.'!!!', 'gadhiya');</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // strcmp() compares the strings and give 0 (same str),1 (greater than)
 or -1 (less than)
      $temp = strcmp($str1, $str2);
      echo "<tr>
      <td>substr(\$str1, \$str2);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // chop() Removes whitespace or other characters from the right end of
a string
      $temp = chop($str2, 'gad');
      echo "<tr>
      <td>substr(\$str2, 'gad');</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // bin2hex() Converts a string of ASCII characters to hexadecimal value
s

      $temp = bin2hex($str2);
      echo "<tr>
      <td>bin2hex(\$str2);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // hex2bin() Converts a string of hexadecimal values to ASCII character
s
```

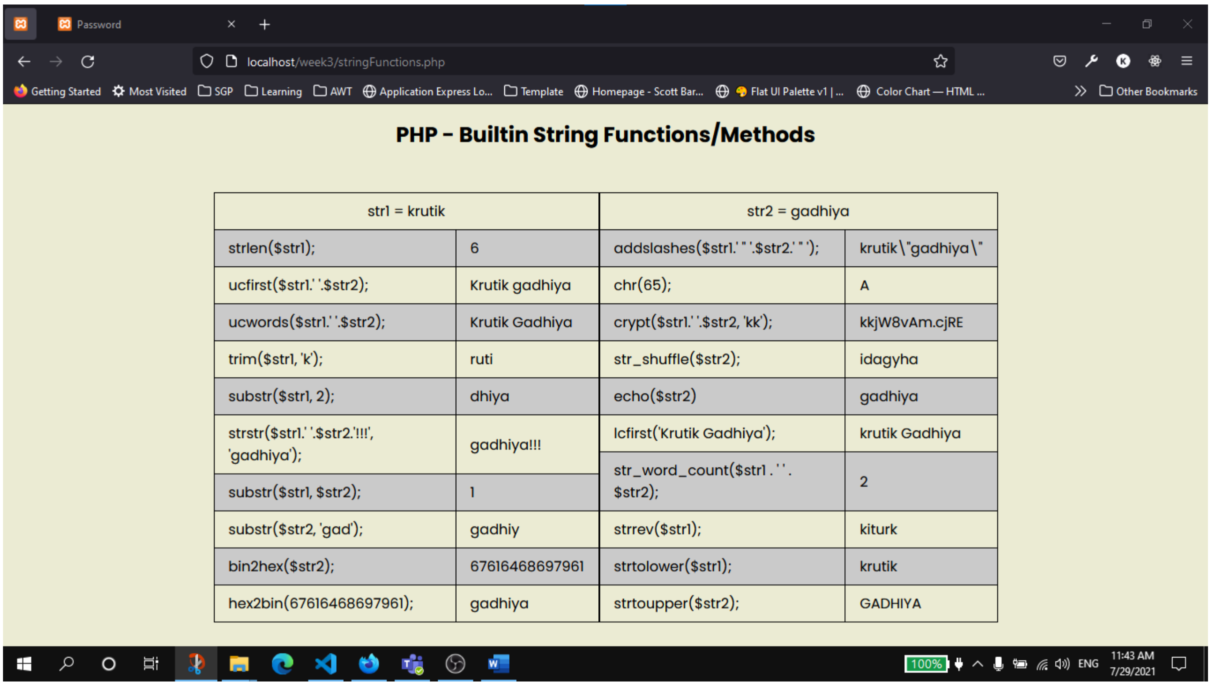
```
      $temp1 = hex2bin($temp);
      echo "<tr>
      <td>hex2bin($temp);</td>
      <td>$temp1</td>
      </tr>";
      ?>
    </table>
    <table>
      <?php
      echo "<tr>
      <td style='text-align: center;' colspan='2'>str2 = $str2</td>
      </tr>";
      ?>
      <?php
      // addslashes() Returns a string with backslashes in front of predefine
d characters
      $temp = addslashes($str1 . '"' . $str2 . '"');
      echo "<tr>
      <td>addslashes(\$str1.' \" '.\$str2.' \" ');</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // chr() Returns a character from a specified ASCII value
      $temp = chr(65);
      echo "<tr>
      <td>chr(65);</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // crypt() One-way string hashing
      $temp = crypt($str1 . " " . $str2, 'kk');
      echo "<tr>
      <td>crypt(\$str1.' '.\$str2, 'kk');</td>
      <td>$temp</td>
      </tr>";
      ?>
      <?php
      // str_shuffle() Randomly shuffles all characters in a string
      $temp = str_shuffle($str2);
      echo "<tr>
      <td>str_shuffle(\$str2);</td>
      <td>$temp</td>
      </tr>";
      ?>
```



```
<?php
// echo() Output one or more string
echo "<tr>
<td>echo(\$str2)</td>
<td>$str2</td>
</tr>";
?>
<?php
// lcfirst() Converts the first character of a string to lowercase
$temp = lcfirst("Krutik Gadhiya");
echo "<tr>
<td>lcfirst('Krutik Gadhiya');</td>
<td>$temp</td>
</tr>";
?>
<?php
// str_word_count() Count the number of words in a string
$temp = str_word_count($str1 . ' ' . $str2);
echo "<tr>
<td>str_word_count(\$str1 . ' ' . \$str2);</td>
<td>$temp</td>
</tr>";
?>
<?php
// strrev() reverse the string
$temp = strrev($str1);
echo "<tr>
<td>strrev(\$str1);</td>
<td>$temp</td>
</tr>";
?>
<?php
// strtolower() Converts a string to lowercase letters
$temp = strtolower($str1);
echo "<tr>
<td>strtolower(\$str1);</td>
<td>$temp</td>
</tr>";
?>
<?php
// strtoupper() Converts a string to uppercase letters
$temp = strtoupper($str2);
echo "<tr>
<td>strtoupper(\$str2);</td>
<td>$temp</td>
</tr>";
```

```
      ?>
    </table>
  </div>
</body>

</html>
```

Output:



PHP - Builtin String Functions/Methods

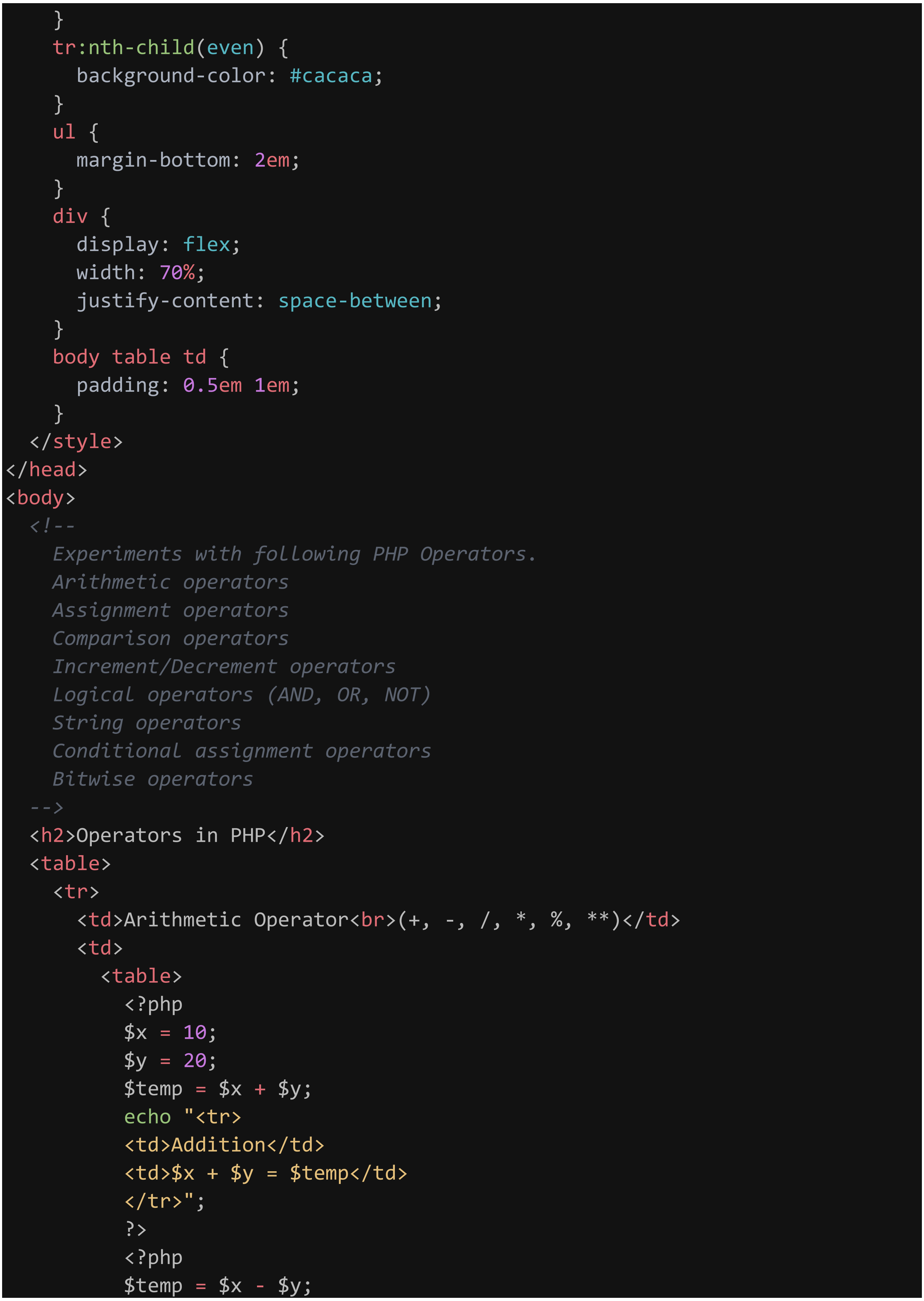
str1 = krutik		str2 = gadhiya	
strlen($str1);	6	addslashes($str1.' " '.$str2.' " ');	krutik\"gadhiya\"
ucfirst($str1.' '.$str2);	Krutik gadhiya	chr(65);	A
ucwords($str1.' '.$str2);	Krutik Gadhiya	crypt($str1.' '.$str2, 'kk');	kkjW8vAm.cjRE
trim($str1, 'k');	ruti	str_shuffle($str2);	idagyha
substr($str1, 2);	dhiya	echo($str2)	gadhiya
strstr($str1.' '.$str2.'!!!', 'gadhiya');	gadhiya!!!	lcfirst('Krutik Gadhiya');	krutik Gadhiya
substr($str1, $str2);	1	str_word_count($str1 . ' ' . $str2);	2
substr($str2, 'gad');	gadhiy	strrev($str1);	kiturk
bin2hex($str2);	67616468697961	strtolower($str1);	krutik
hex2bin(67616468697961);	gadhiya	strtoupper($str2);	GADHIYA

4. Experiments with following PHP Operators.
    - Arithmetic operators
    - Assignment operators
    - Comparison operators
    - Increment/Decrement operators
    - Logical operators (AND, OR, NOT)

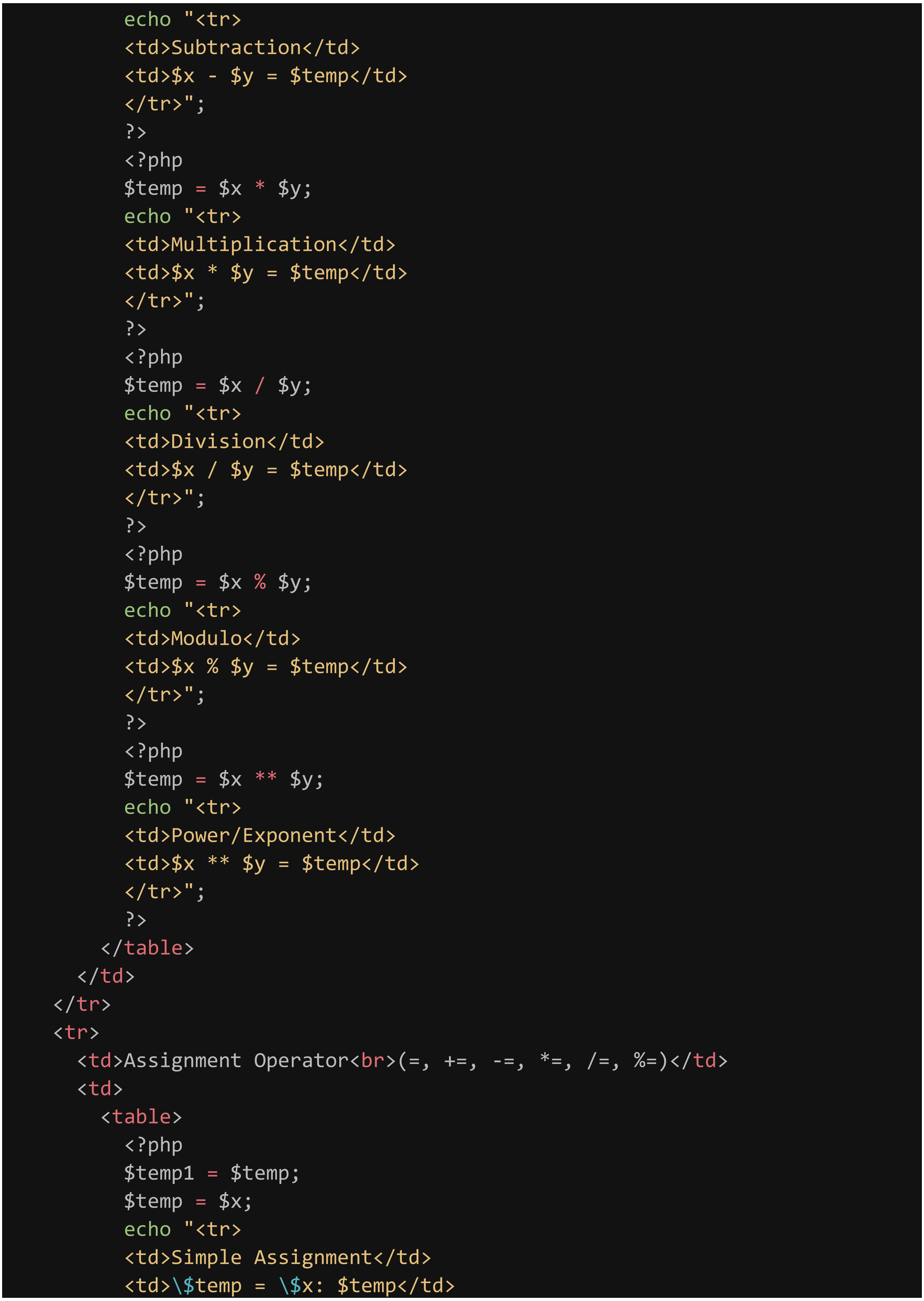
- String operators
- Conditional assignment operators
- Bitwise operators

Code:

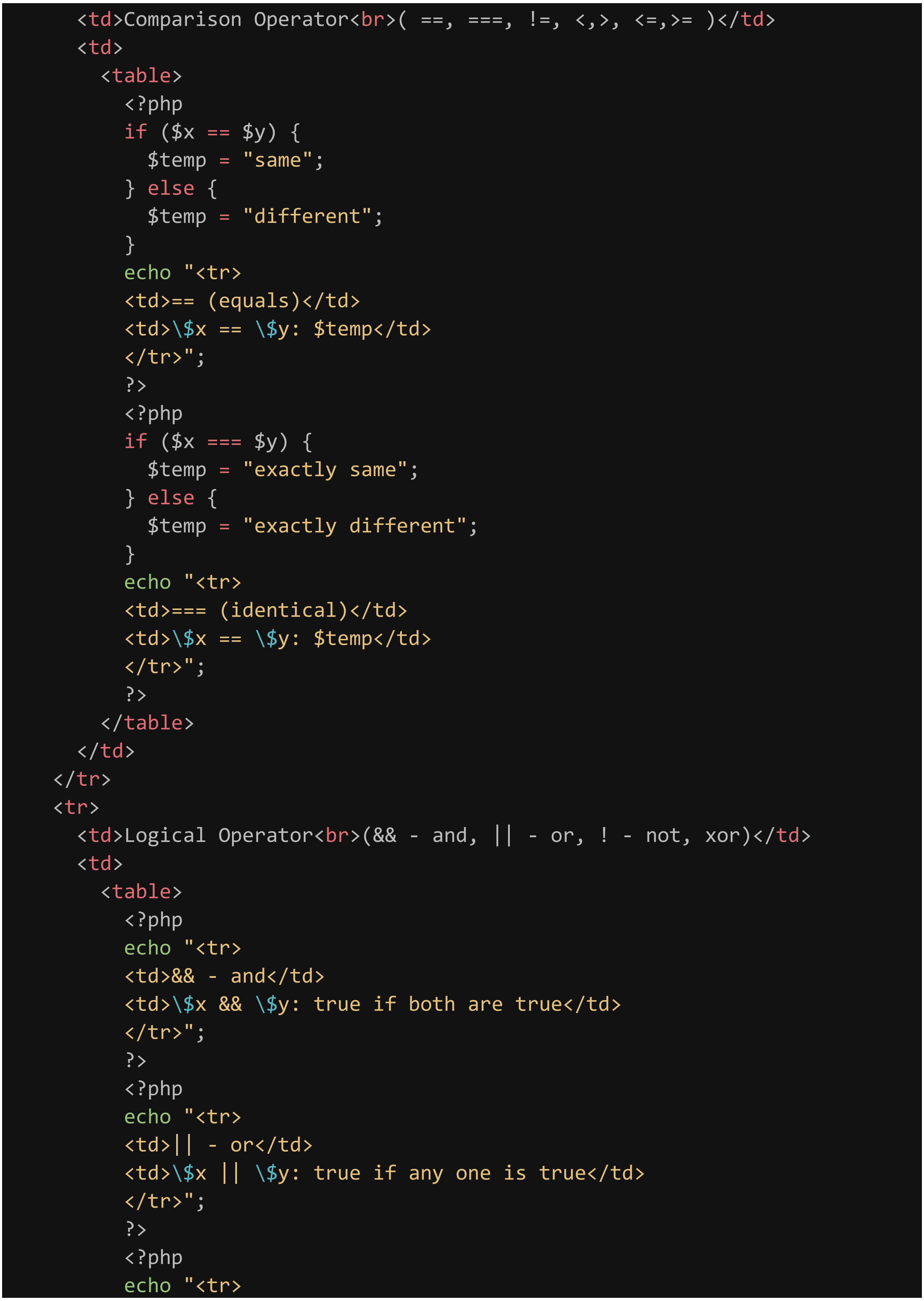
```
<!DOCTYPE html>
<html lang="en">

<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">
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
  <link href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;600;700;800;900&display=swap" rel="stylesheet">
  <title>Document</title>
  <style>
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: "Poppins", sans-serif;
    }
    body {
      display: flex;
      flex-direction: column;
      /* justify-content: center; */
      align-items: center;
      padding: 1em 3em;
      background-color: #ebebd3;
    }
    body h2 {
      margin-bottom: 2em;
      text-align: center;
    }
    table {
      border-collapse: collapse;
    }
    tr,
    td {
      border: 1px solid #000;
      padding: 8px;
    }
    tr {
      background-color: #ebebd3;
```



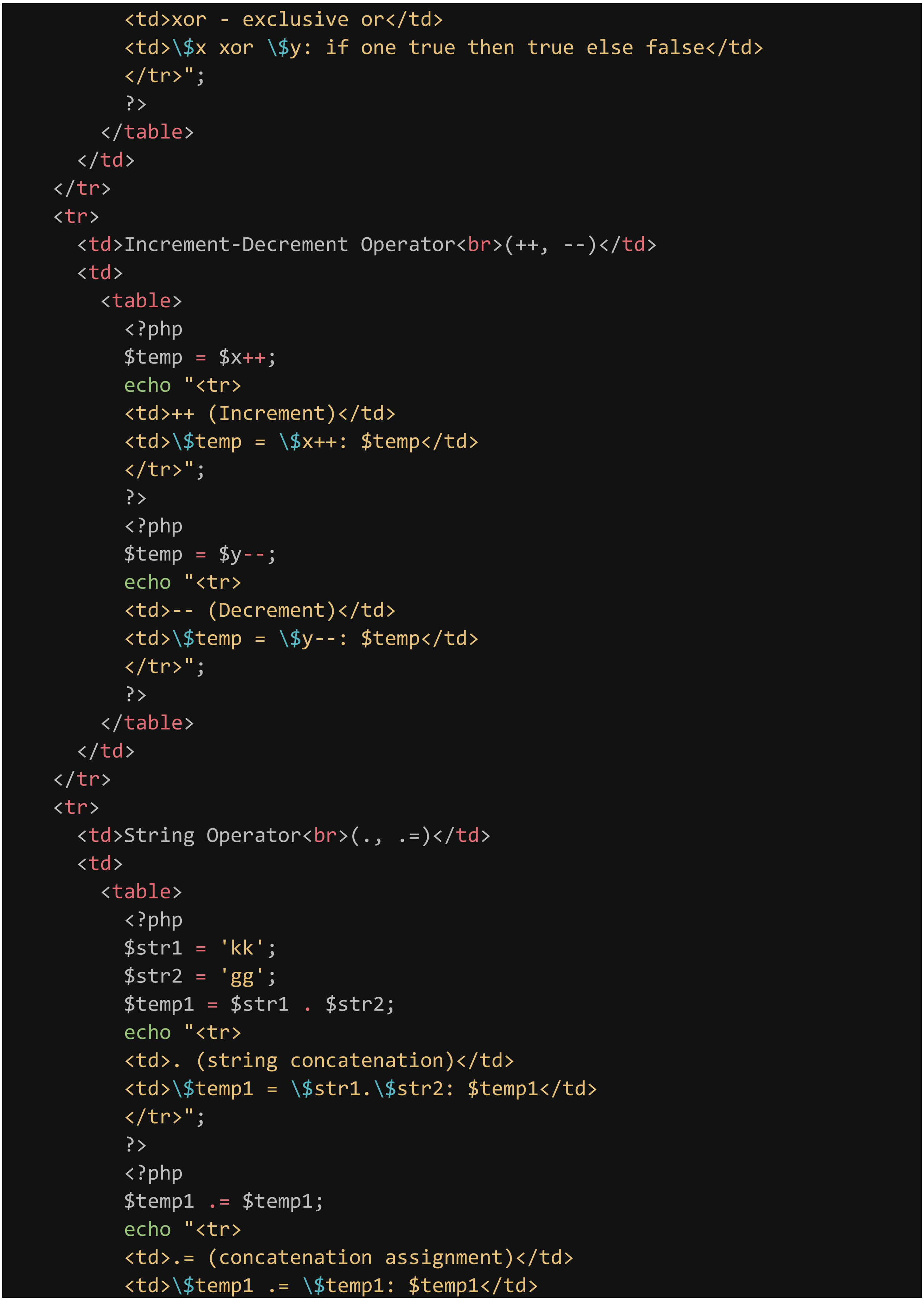
```
    }
    tr:nth-child(even) {
      background-color: #cacaca;
    }
    ul {
      margin-bottom: 2em;
    }
    div {
      display: flex;
      width: 70%;
      justify-content: space-between;
    }
    body table td {
      padding: 0.5em 1em;
    }
  </style>
</head>
<body>
  <!--
    Experiments with following PHP Operators.
    Arithmetic operators
    Assignment operators
    Comparison operators
    Increment/Decrement operators
    Logical operators (AND, OR, NOT)
    String operators
    Conditional assignment operators
    Bitwise operators
  -->
  <h2>Operators in PHP</h2>
  <table>
    <tr>
      <td>Arithmetic Operator<br>(+, -, /, *, %, **)</td>
      <td>
        <table>
          <?php
          $x = 10;
          $y = 20;
          $temp = $x + $y;
          echo "<tr>
          <td>Addition</td>
          <td>$x + $y = $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x - $y;
```



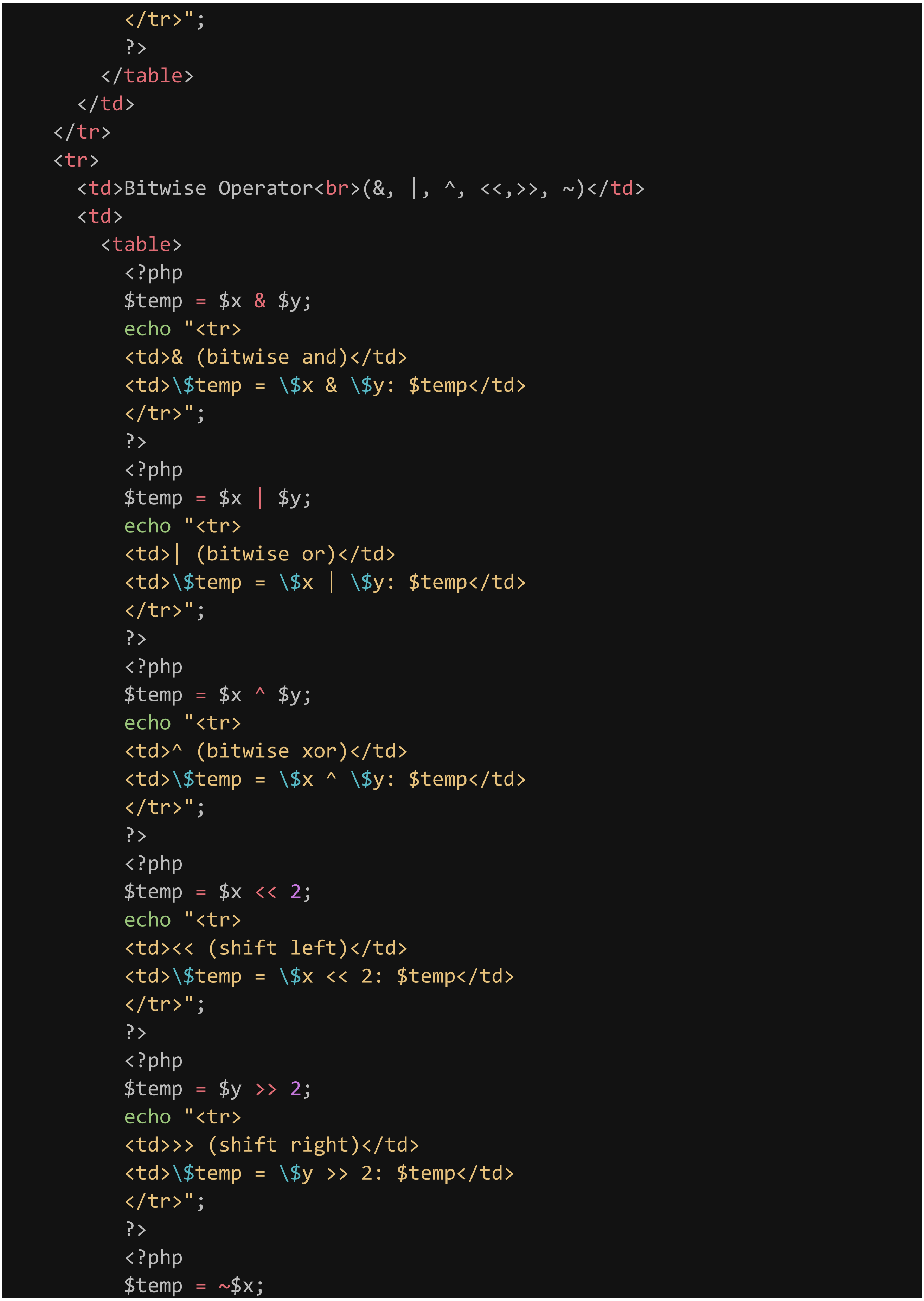
```
          echo "<tr>
          <td>Subtraction</td>
          <td>$x - $y = $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x * $y;
          echo "<tr>
          <td>Multiplication</td>
          <td>$x * $y = $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x / $y;
          echo "<tr>
          <td>Division</td>
          <td>$x / $y = $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x % $y;
          echo "<tr>
          <td>Modulo</td>
          <td>$x % $y = $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x ** $y;
          echo "<tr>
          <td>Power/Exponent</td>
          <td>$x ** $y = $temp</td>
          </tr>";
          ?>
        </table>
      </td>
    </tr>
    <tr>
      <td>Assignment Operator<br>(=, +=, -=, *=, /=, %=)</td>
      <td>
        <table>
          <?php
          $temp1 = $temp;
          $temp = $x;
          echo "<tr>
          <td>Simple Assignment</td>
          <td>\$temp = \$x: $temp</td>
          </tr>";
          ?>
          <?php
          $temp1 = $temp;
          $temp += $x;
          echo "<tr>
          <td> += </td>
          <td>$temp1 += $x: $temp</td>
          </tr>";
          ?>
          <?php
          $temp1 = $temp;
          $temp *= $x;
          echo "<tr>
          <td> *= </td>
          <td>$temp1 *= $x: $temp</td>
          </tr>";
          ?>
          <?php
          $temp1 = $temp;
          $temp /= $y;
          echo "<tr>
          <td> /= </td>
          <td>$temp1 /= $y: $temp</td>
          </tr>";
          ?>
          <?php
          $temp1 = $temp;
          $temp -= $y;
          echo "<tr>
          <td> -= </td>
          <td>$temp1 -= $y: $temp</td>
          </tr>";
          ?>
          <?php
          $temp1 = $temp;
          $temp %= $x;
          echo "<tr>
          <td> %= </td>
          <td>$temp1 %= $x: $temp</td>
          </tr>";
          ?>
        </table>
      </td>
    </tr>
    <tr>
```



```
      <td>Comparison Operator<br>( ==, ===, !=, <,>, <=,>= )</td>
      <td>
        <table>
          <?php
          if ($x == $y) {
            $temp = "same";
          } else {
            $temp = "different";
          }
          echo "<tr>
          <td>== (equals)</td>
          <td>\$x == \$y: $temp</td>
          </tr>";
          ?>
          <?php
          if ($x === $y) {
            $temp = "exactly same";
          } else {
            $temp = "exactly different";
          }
          echo "<tr>
          <td>=== (identical)</td>
          <td>\$x == \$y: $temp</td>
          </tr>";
          ?>
        </table>
      </td>
    </tr>
    <tr>
      <td>Logical Operator<br>(&& - and, || - or, ! - not, xor)</td>
      <td>
        <table>
          <?php
          echo "<tr>
          <td>&& - and</td>
          <td>\$x && \$y: true if both are true</td>
          </tr>";
          ?>
          <?php
          echo "<tr>
          <td>|| - or</td>
          <td>\$x || \$y: true if any one is true</td>
          </tr>";
          ?>
          <?php
          echo "<tr>
```

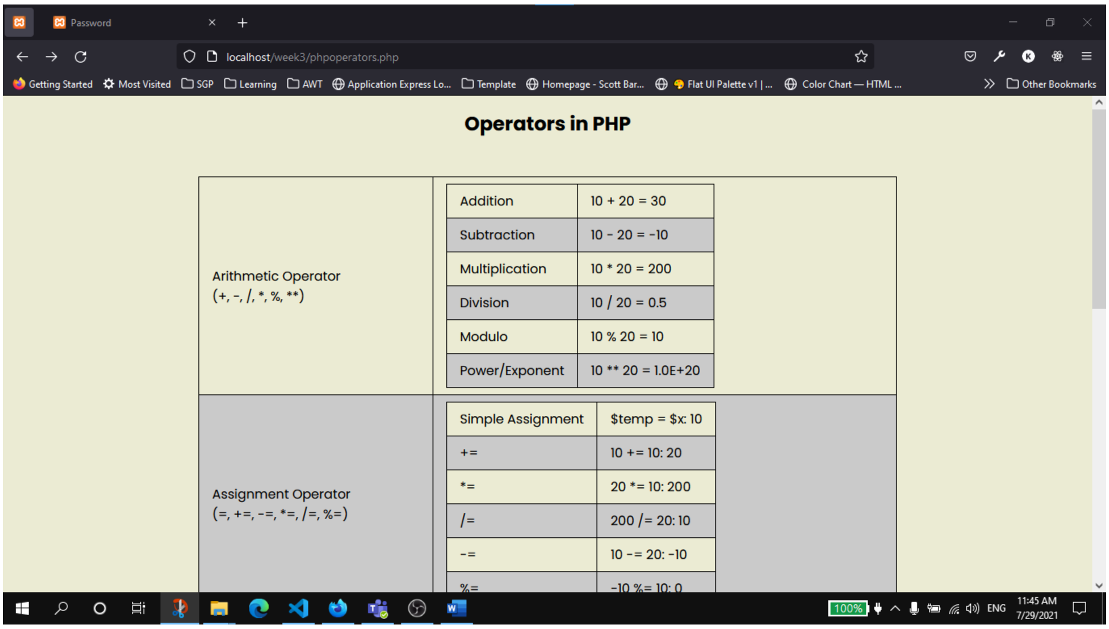


```
          <td>xor - exclusive or</td>
          <td>\$x xor \$y: if one true then true else false</td>
          </tr>";
          ?>
        </table>
      </td>
    </tr>
    <tr>
      <td>Increment-Decrement Operator<br>(++, --)</td>
      <td>
        <table>
          <?php
          $temp = $x++;
          echo "<tr>
          <td>++ (Increment)</td>
          <td>\$temp = \$x++: $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $y--;
          echo "<tr>
          <td>-- (Decrement)</td>
          <td>\$temp = \$y--: $temp</td>
          </tr>";
          ?>
        </table>
      </td>
    </tr>
    <tr>
      <td>String Operator<br>(., .=)</td>
      <td>
        <table>
          <?php
          $str1 = 'kk';
          $str2 = 'gg';
          $temp1 = $str1 . $str2;
          echo "<tr>
          <td>. (string concatenation)</td>
          <td>\$temp1 = \$str1.\$str2: $temp1</td>
          </tr>";
          ?>
          <?php
          $temp1 .= $temp1;
          echo "<tr>
          <td>.= (concatenation assignment)</td>
          <td>\$temp1 .= \$temp1: $temp1</td>
```



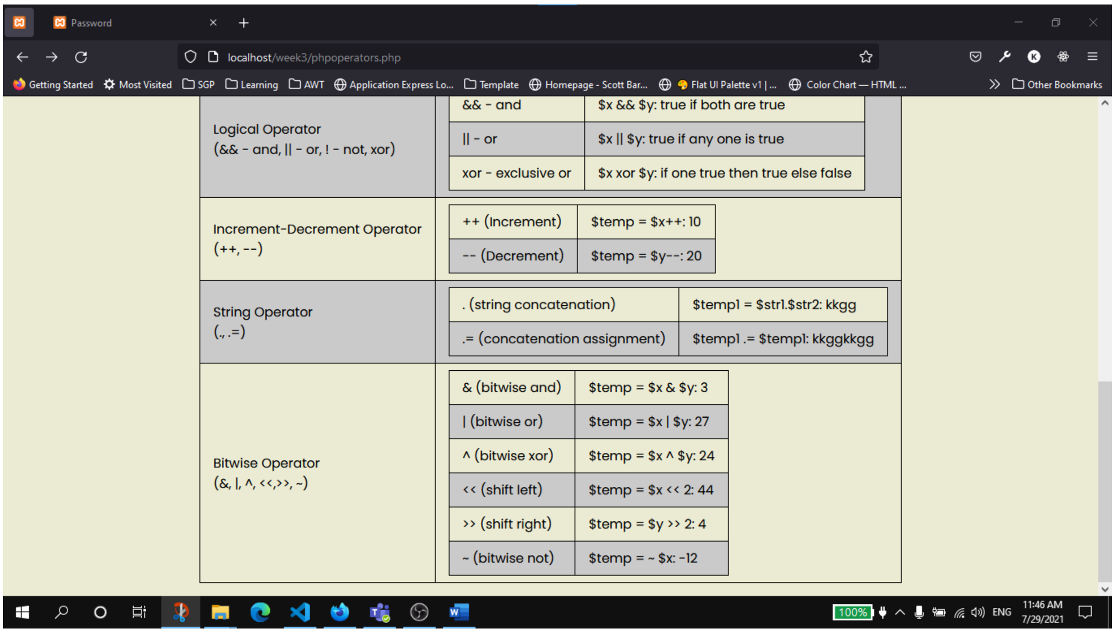
```
          </tr>";
          ?>
        </table>
      </td>
    </tr>
    <tr>
      <td>Bitwise Operator<br>(&, |, ^, <<,>>, ~)</td>
      <td>
        <table>
          <?php
          $temp = $x & $y;
          echo "<tr>
          <td>& (bitwise and)</td>
          <td>\$temp = \$x & \$y: $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x | $y;
          echo "<tr>
          <td>| (bitwise or)</td>
          <td>\$temp = \$x | \$y: $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x ^ $y;
          echo "<tr>
          <td>^ (bitwise xor)</td>
          <td>\$temp = \$x ^ \$y: $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $x << 2;
          echo "<tr>
          <td><< (shift left)</td>
          <td>\$temp = \$x << 2: $temp</td>
          </tr>";
          ?>
          <?php
          $temp = $y >> 2;
          echo "<tr>
          <td>>> (shift right)</td>
          <td>\$temp = \$y >> 2: $temp</td>
          </tr>";
          ?>
          <?php
          $temp = ~$x;
          echo "<tr>
          <td>~ (bitwise not)</td>
          <td>\$temp = ~ \$x: $temp</td>
          </tr>";
          ?>
        </table>
      </td>
    </tr>
  </table>
</body>
</html>
```

Output:



Operators in PHP

Arithmetic Operator (+, -, /, *, %, **)	Addition	10 + 20 = 30
	Subtraction	10 - 20 = -10
	Multiplication	10 * 20 = 200
	Division	10 / 20 = 0.5
	Modulo	10 % 20 = 10
	Power/Exponent	10 ** 20 = 1.0E+20
Assignment Operator (=, +=, -=, *=, /=, %=)	Simple Assignment	$temp = $x: 10
	+=	10 += 10: 20
	*=	20 *= 10: 200
	/=	200 /= 20: 10
	-=	10 -= 20: -10
	%=	-10 %= 10: 0



Logical Operator (&& - and, || - or, ! - not, xor)	&& - and	$x && $y: true if both are true
	|| - or	$x || $y: true if any one is true
	xor - exclusive or	$x xor $y: if one true then true else false
Increment-Decrement Operator (++, --)	++ (Increment)	$temp = $x++: 10
	-- (Decrement)	$temp = $y--: 20
String Operator (., .=)	. (string concatenation)	$temp1 = $str1.$str2: kkgg
	.= (concatenation assignment)	$temp1 .= $temp1: kkggkkgg
Bitwise Operator (&, |, ^, <<,>>, ~)	& (bitwise and)	$temp = $x & $y: 3
	| (bitwise or)	$temp = $x | $y: 27
	^ (bitwise xor)	$temp = $x ^ $y: 24
	<< (shift left)	$temp = $x << 2: 44
	>> (shift right)	$temp = $y >> 2: 4
	~ (bitwise not)	$temp = ~ $x: -12