

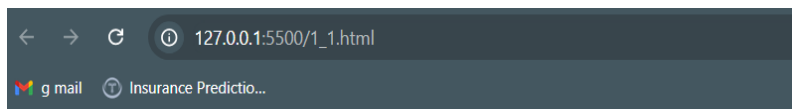
Web Technology lab

Record Questions

1. HTML

1.1 Create a simple HTML page that displays your name and a brief introduction about yourself. Use inline styles to change the color of your name.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Anjali Nazrin</title>
</head>
<body>
  <h1 style="color: blue;">ANJALI NAZRIN</h1>
  <p>Hi, I am ANJALI NAZRIN, a Data Analytics student from Rajagiri College
of Social Sciences.</p>
</body>
</html>
```



ANJALI NAZRIN

Hi, I am ANJALI NAZRIN, a Data Analytics student from Rajagiri College of Social Sciences.

1.2 Create an HTML page for a simple registration form. Include input fields for name, email, and password. Use the align attribute to center the form fields.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Registration Form</title>
</head>
```

```
<body>
  <h2 align="center">Registration Form</h2>
  <form align="center">
    <table align="center">
      <tr>
        <td><label for="name">Name:</label></td>
        <td><input type="text" id="name" name="name" required></td>
      </tr>
      <tr>
        <td><label for="email">Email:</label></td>
        <td><input type="email" id="email" name="email" required></td>
      </tr>
      <tr>
        <td><label for="password">Password:</label></td>
        <td><input type="password" id="password" name="password"
required></td>
      </tr>
      <tr>
        <td colspan="2" align="center">
          <button type="submit">Register</button>
        </td>
      </tr>
    </table>
  </form>
</body>
</html>
```

Registration Form

Name:	<input type="text"/>
Email:	<input type="text"/>
Password:	<input type="password"/>
<input type="submit" value="Register"/>	

1.3 Develop an HTML page for a travel destination. Include a header with a navigation menu, a main section with a hero image and destination information, and a footer with social media links. Use the width and height attributes to set the size of the hero image.

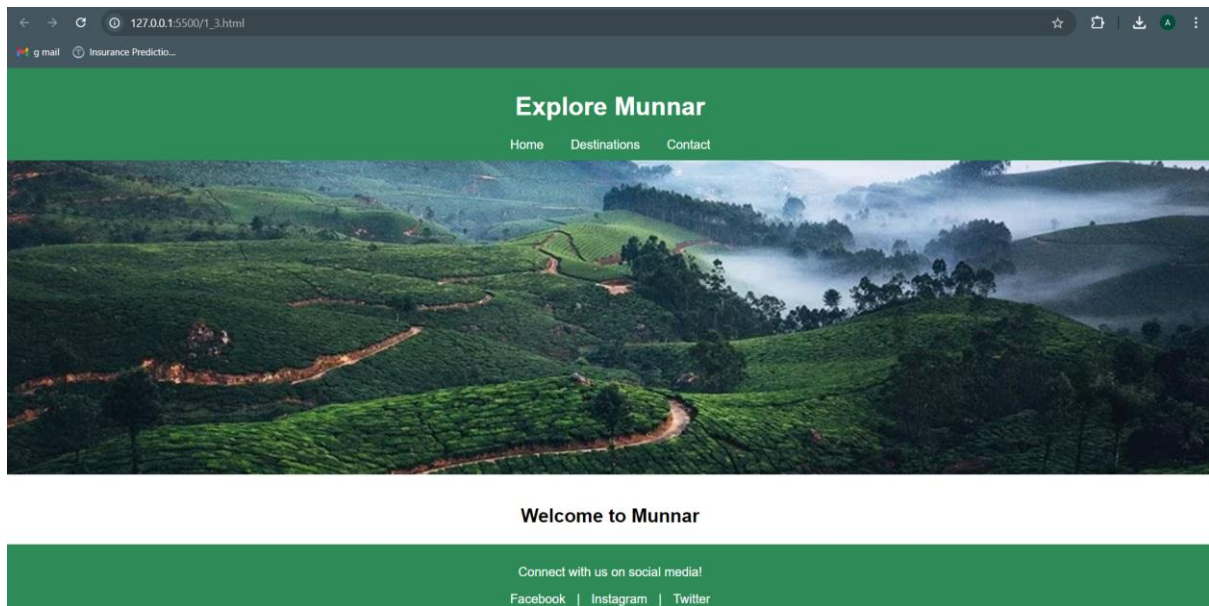
```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Explore Munnar</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
    }
    header {
      background-color: #2E8B57;
      color: white;
      padding: 10px 0;
      text-align: center;
    }
    nav ul {
      list-style-type: none;
      margin: 0;
      padding: 0;
    }
    nav ul li {
      display: inline;
      margin: 0 15px;
    }
    nav ul li a {
      color: white;
      text-decoration: none;
    }
    .hero-image {
      width: 100%;
      height: 400px;
      background-image: url('https://www.oyorooms.com/blog/wp-content/uploads/2017/11/Feature-Image-min-8-1080x720.jpg');
      background-size: cover;
      background-position: center;
    }
    .main-content {
      padding: 20px;
      text-align: center;
    }
    footer {
```

```
        background-color: #2E8B57;
        color: white;
        text-align: center;
        padding: 10px 0;
        position: fixed;
        width: 100%;
        bottom: 0;
    }
    footer a {
        color: white;
        margin: 0 10px;
        text-decoration: none;
    }
</style>
</head>
<body>
    <header>
        <h1>Explore Munnar</h1>
        <nav>
            <ul>
                <li><a href="#home">Home</a></li>
                <li><a href="#destinations">Destinations</a></li>
                <li><a href="#contact">Contact</a></li>
            </ul>
        </nav>
    </header>

    <div class="hero-image"></div>

    <div class="main-content">
        <h2>Welcome to Munnar</h2>
        <p>Munnar, a serene hill station located in the Western Ghats of Kerala, India, is known for its sprawling tea gardens, mist-covered mountains, and diverse wildlife. It's a perfect getaway for nature lovers and adventure seekers alike.</p>
    </div>

    <footer>
        <p>Connect with us on social media!</p>
        <a href="https://www.facebook.com">Facebook</a> |
        <a href="https://www.instagram.com">Instagram</a> |
        <a href="https://www.twitter.com">Twitter</a>
    </footer>
</body>
</html>
```



2. HTML, CSS

2.1 Create an HTML page for a personal portfolio. Include a header with a navigation menu, a main section with your name and a brief introduction, and a footer with contact information. Use CSS to style the page with a consistent color scheme, font styles, and layout.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Anjali Nazrin's Portfolio</title>
  <style>
    body {
      font-family: 'Arial', sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
      color: #333;
    }
    header {
      background-color: #4CAF50;
      color: white;
      padding: 15px 0;
      text-align: center;
    }
    nav ul {
```

```
        list-style-type: none;
        margin: 0;
        padding: 0;
        text-align: center;
    }
    nav ul li {
        display: inline;
        margin: 0 20px;
    }
    nav ul li a {
        color: white;
        text-decoration: none;
        font-weight: bold;
    }
    .main-content {
        padding: 50px;
        text-align: center;
        background-color: white;
        margin: 20px;
        border-radius: 8px;
        box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
    }
    .main-content h1 {
        color: #4CAF50;
        font-size: 36px;
    }
    .main-content p {
        font-size: 18px;
        line-height: 1.6;
    }
    footer {
        background-color: #333;
        color: white;
        text-align: center;
        padding: 20px 0;
        position: relative;
        bottom: 0;
        width: 100%;
    }
    footer p {
        margin: 0;
        font-size: 14px;
    }
</style>
</head>
<body>
    <header>
        <h1>Anjali Nazrin's Portfolio</h1>
```

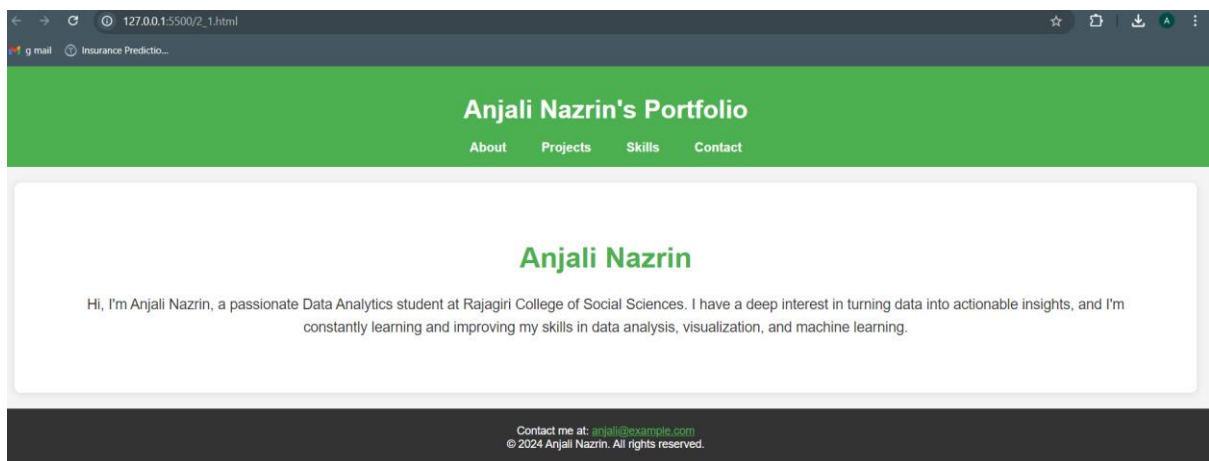
```

<nav>
  <ul>
    <li><a href="#about">About</a></li>
    <li><a href="#projects">Projects</a></li>
    <li><a href="#skills">Skills</a></li>
    <li><a href="#contact">Contact</a></li>
  </ul>
</nav>
</header>

<div class="main-content">
  <h1>Anjali Nazrin</h1>
  <p>Hi, I'm Anjali Nazrin, a passionate Data Analytics student at
Rajagiri College of Social Sciences. I have a deep interest in turning data
into actionable insights, and I'm constantly learning and improving my skills
in data analysis, visualization, and machine learning.</p>
</div>

<footer>
  <p>Contact me at: <a href="mailto:anjali@gmail.com" style="color:
#4CAF50;">anjali@example.com</a></p>
  <p>&copy; 2024 Anjali Nazrin. All rights reserved.</p>
</footer>
</body>
</html>

```



2.2 Design an HTML page for a travel destination. Include a header with a navigation menu, a main section with a hero image, destination information, and a booking form, and a footer with social media links. Use CSS to style the page with a visually appealing layout, appropriate spacing between elements, and a responsive design that maintains the layout structure across different screen sizes.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Explore Munnar</title>
  <style>
    body {
      font-family: 'Arial', sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f5f5f5;
      color: #333;
    }
    header {
      background-color: #2E8B57;
      color: white;
      padding: 20px 0;
      text-align: center;
    }
    nav ul {
      list-style-type: none;
      margin: 0;
      padding: 0;
      text-align: center;
    }
    nav ul li {
      display: inline;
      margin: 0 15px;
    }
    nav ul li a {
      color: white;
      text-decoration: none;
      font-weight: bold;
    }
    .hero {
      background-image:
url('https://wallpapercave.com/wp/wp3555744.jpg');
      background-size: cover;
      background-position: center;
      height: 500px;
      display: flex;
      justify-content: center;
      align-items: center;
      color: white;
      text-shadow: 2px 2px 4px rgba(0, 0, 0, 0.7);
    }
    .hero h1 {
```



```
        font-size: 48px;
        margin: 0;
    }
    .main-content {
        padding: 40px 20px;
        text-align: center;
    }
    .main-content h2 {
        font-size: 32px;
        margin-bottom: 20px;
        color: #2E8B57;
    }
    .main-content p {
        font-size: 18px;
        line-height: 1.6;
        margin-bottom: 40px;
    }
    .booking-form {
        background-color: white;
        padding: 30px;
        border-radius: 8px;
        box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
        max-width: 500px;
        margin: 0 auto;
    }
    .booking-form h3 {
        margin-bottom: 20px;
        color: #2E8B57;
    }
    .booking-form label {
        display: block;
        text-align: left;
        margin-bottom: 10px;
        font-weight: bold;
    }
    .booking-form input[type="text"],
    .booking-form input[type="email"],
    .booking-form input[type="date"],
    .booking-form select {
        width: 100%;
        padding: 10px;
        margin-bottom: 20px;
        border: 1px solid #ccc;
        border-radius: 4px;
    }
    .booking-form button {
        width: 100%;
        padding: 10px;
```

```

        background-color: #2E8B57;
        color: white;
        border: none;
        border-radius: 4px;
        font-size: 18px;
        cursor: pointer;
    }
    .booking-form button:hover {
        background-color: #3CB371;
    }
    footer {
        background-color: #333;
        color: white;
        text-align: center;
        padding: 20px 0;
        margin-top: 40px;
    }
    footer a {
        color: white;
        margin: 0 10px;
        text-decoration: none;
    }
    @media (max-width: 768px) {
        .hero h1 {
            font-size: 36px;
        }
        .main-content h2 {
            font-size: 28px;
        }
        .booking-form {
            padding: 20px;
        }
        .booking-form h3 {
            font-size: 24px;
        }
    }
</style>
</head>
<body>
    <header>
        <h1>Explore Munnar</h1>
        <nav>
            <ul>
                <li><a href="#home">Home</a></li>
                <li><a href="#about">About</a></li>
                <li><a href="#booking">Booking</a></li>
                <li><a href="#contact">Contact</a></li>
            </ul>

```

```
        </nav>
    </header>

    <div class="hero">
        <h1>Discover the Beauty of Munnar</h1>
    </div>

    <div class="main-content">
        <h2>Welcome to Munnar</h2>
        <p>Munnar, located in the Western Ghats of Kerala, India, is a
breathtaking hill station known for its lush tea plantations, mist-covered
mountains, and exotic wildlife. Whether you're seeking adventure or
tranquility, Munnar has something to offer everyone. Plan your perfect getaway
today!</p>

        <div class="booking-form">
            <h3>Book Your Stay</h3>
            <form>
                <label for="name">Name:</label>
                <input type="text" id="name" name="name" required>

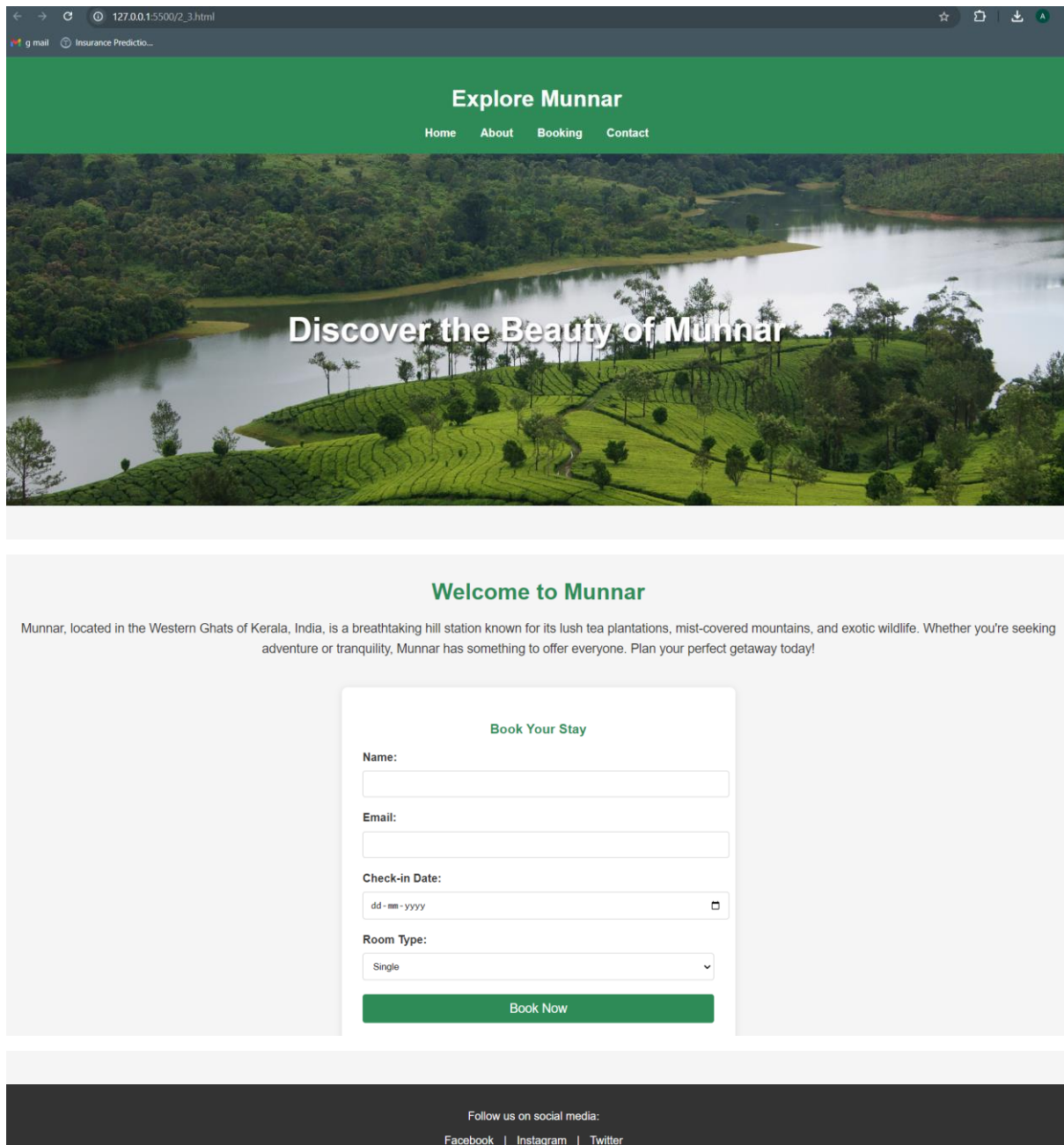
                <label for="email">Email:</label>
                <input type="email" id="email" name="email" required>

                <label for="date">Check-in Date:</label>
                <input type="date" id="date" name="date" required>

                <label for="room">Room Type:</label>
                <select id="room" name="room" required>
                    <option value="single">Single</option>
                    <option value="double">Double</option>
                    <option value="suite">Suite</option>
                </select>

                <button type="submit">Book Now</button>
            </form>
        </div>
    </div>

    <footer>
        <p>Follow us on social media:</p>
        <a href="https://www.facebook.com">Facebook</a> |
        <a href="https://www.instagram.com">Instagram</a> |
        <a href="https://www.twitter.com">Twitter</a>
    </footer>
</body>
</html>
```



3. HTML,CSS, JAVASCRIPT

3.1 Create an HTML page for a personal portfolio. Include a header with a navigation menu, a main section with your name and a brief introduction, and a footer with contact information. Use CSS to style the page with a consistent color scheme, font styles, and layout. Implement JavaScript to create a smooth scrolling effect when clicking on the navigation menu links.

```
<!DOCTYPE html>

<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Anjali Nazrin's Portfolio</title>
  <style>
    body {
      font-family: 'Arial', sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
      color: #333;
    }
    header {
      background-color: #2E8B57;
      color: white;
      padding: 20px 0;
      text-align: center;
    }
    nav ul {
      list-style-type: none;
      margin: 0;
      padding: 0;
      text-align: center;
    }
    nav ul li {
      display: inline;
      margin: 0 15px;
    }
    nav ul li a {
      color: white;
      text-decoration: none;
      font-weight: bold;
    }
    .main-content {
      padding: 40px 20px;
      text-align: center;
    }
    .main-content h1 {
      font-size: 36px;
      margin-bottom: 20px;
      color: #2E8B57;
    }
    .main-content p {
      font-size: 18px;
```

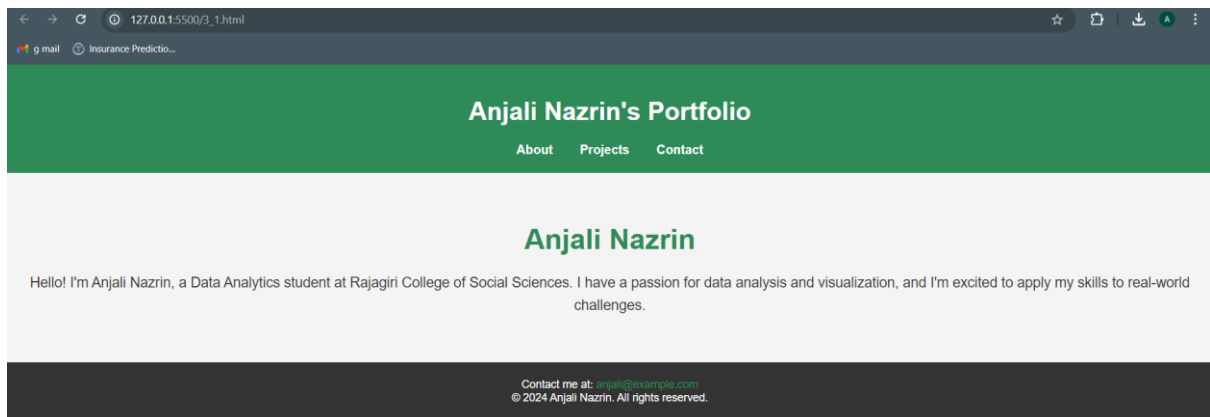
```
        line-height: 1.6;
    }
    footer {
        background-color: #333;
        color: white;
        text-align: center;
        padding: 20px 0;
        position: relative;
        bottom: 0;
        width: 100%;
    }
    footer p {
        margin: 0;
        font-size: 14px;
    }
    footer a {
        color: #2E8B57;
        text-decoration: none;
    }
    footer a:hover {
        text-decoration: underline;
    }
</style>
</head>
<body>
    <header>
        <h1>Anjali Nazrin's Portfolio</h1>
        <nav>
            <ul>
                <li><a href="#about">About</a></li>
                <li><a href="#projects">Projects</a></li>
                <li><a href="#contact">Contact</a></li>
            </ul>
        </nav>
    </header>

    <div class="main-content" id="about">
        <h1>Anjali Nazrin</h1>
        <p>Hello! I'm Anjali Nazrin, a Data Analytics student at Rajagiri College of Social Sciences. I have a passion for data analysis and visualization, and I'm excited to apply my skills to real-world challenges.</p>
    </div>

    <footer>
        <p>Contact me at: <a href="mailto:anjali@example.com">anjali@example.com</a></p>
        <p>&copy; 2024 Anjali Nazrin. All rights reserved.</p>
```

```
</footer>

<script>
  // Smooth scrolling effect
  document.querySelectorAll('nav ul li a').forEach(anchor => {
    anchor.addEventListener('click', function(e) {
      e.preventDefault();
      document.querySelector(this.getAttribute('href')).scrollIntoVi
ew({
      behavior: 'smooth'
    });
  });
});
</script>
</body>
</html>
```



PHP

1. Write a PHP function that calculates the factorial of a given number.

```
<?php
$number = 5;

if ($number < 0) {
    echo "Invalid input. Factorial is not defined for negative numbers.";
} else {

    $result = 1;

    for ($i = 1; $i <= $number; $i++) {
        $result *= $i;
    }

    echo "Factorial of $number is $result";
}
?>
```

A terminal window with a dark background. The prompt is 'PS C:\Users\Hi\OneDrive\Desktop\assignments>'. The command 'php 2.php' has been executed, and the output 'Factorial of 5 is 120' is displayed on the next line.

```
PS C:\Users\Hi\OneDrive\Desktop\assignments> php 2.php
Factorial of 5 is 120
```

2. Create a PHP program that determines whether a given number is prime.

```
<?php
$number = 29;
if ($number <= 1) {
    echo "$number is not a prime number.";
} else {
    $isPrime = true;

    for ($i = 2; $i < $number; $i++) {
        if ($number % $i == 0) {
            $isPrime = false;
            break;
        }
    }
}
```



```

if ($isPrime) {
    echo "$number is a prime number.";
} else {
    echo "$number is not a prime number.";
}
}
?>

```

```

● PS C:\Users\Hi\OneDrive\Desktop\assignments> php 3.php
29 is a prime number.

```

- 3. Write a PHP script to generate and print the Fibonacci sequence up to a specified number of terms.**

```

<?php
$terms = 10;
$fibonacci = [0, 1];

for ($i = 2; $i < $terms; $i++) {
    $fibonacci[$i] = $fibonacci[$i - 1] + $fibonacci[$i - 2];
}

echo "Fibonacci sequence up to $terms terms: " . implode(" ", $fibonacci);
?>

```

```

● PS C:\Users\Hi\OneDrive\Desktop\assignments> php 4.php
Fibonacci sequence up to 10 terms: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34

```

- 4. Implement a PHP function to find the greatest common divisor (GCD) of two numbers.**

```

<?php
function gcd($a, $b) {
    $a = abs($a);
    $b = abs($b);
    while ($b != 0) {
        $temp = $b;
        $b = $a % $b;
        $a = $temp;
    }

    return $a;
}

$num1 = 56;
$num2 = 98;
echo "The GCD of $num1 and $num2 is " . gcd($num1, $num2);
?>

```

```
● PS C:\Users\Hi\OneDrive\Desktop\assignments> php 5.php
The GCD of 56 and 98 is 14
```

5. Write a PHP script to check if a string is a palindrome.

```
<?php
function isPalindrome($string) {

    $cleanedString = strtolower(preg_replace("/[^A-Za-z0-9]/", "", $string));

    return $cleanedString === strrev($cleanedString);
}
echo "Enter a string: ";
$handle = fopen ("php://stdin","r");
$testString = trim(fgets($handle));

if (isPalindrome($testString)) {
    echo "\"$testString\" is a palindrome.\n";
} else {
    echo "\"$testString\" is not a palindrome.\n";
}
?>
```

```
● PS C:\Users\Hi\OneDrive\Desktop\assignments> php 6.php
Enter a string: malayalam
"malayalam" is a palindrome.
● PS C:\Users\Hi\OneDrive\Desktop\assignments> php 6.php
Enter a string: apple
"apple" is not a palindrome.
```

**6. Create a PHP function that finds the largest number in an array. **

```
<?php
function findLargestNumber($array) {
    // Check if the array is empty
    if (empty($array)) {
        return null; // Return null if the array is empty
    }

    // Initialize the largest number with the first element of the array
    $largestNumber = $array[0];

    // Iterate through the array
    foreach ($array as $number) {
        // Update the largest number if a larger number is found
        if ($number > $largestNumber) {
            $largestNumber = $number;
        }
    }
}
```

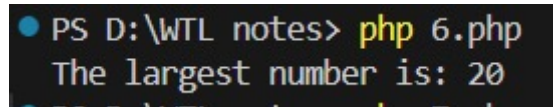
```

    }

    return $largestNumber; // Return the largest number
}

// Example usage
$numbers = [10, 5, 8, 20, 3];
echo "The largest number is: " . findLargestNumber($numbers);
?>

```



```

PS D:\WTL notes> php 6.php
The largest number is: 20

```

7. Write a PHP program that sorts an array of numbers in ascending order without using built-in sorting functions.

```

<?php
function bubbleSort(&$array) {
    $n = count($array);

    // Traverse through all elements in the array
    for ($i = 0; $i < $n - 1; $i++) {
        // Last i elements are already in place, so we can reduce the number of comparisons
        for ($j = 0; $j < $n - $i - 1; $j++) {
            // Swap if the current element is greater than the next element
            if ($array[$j] > $array[$j + 1]) {
                $temp = $array[$j];
                $array[$j] = $array[$j + 1];
                $array[$j + 1] = $temp;
            }
        }
    }
}

// Example usage
$numbers = [64, 34, 25, 12, 22, 11, 90];
echo "Original array:\n";
print_r($numbers);

bubbleSort($numbers);
echo "Sorted array in ascending order:\n";
print_r($numbers);
?>

```

```

PS D:\WTL notes> php 7.php
Original array:
Array
(
    [0] => 64
    [1] => 34
    [2] => 25
    [3] => 12
    [4] => 22
    [5] => 11
    [6] => 90
)
Sorted array in ascending order:
Array
(
    [0] => 11
    [1] => 12
    [2] => 22
    [3] => 25
    [4] => 34
    [5] => 64
    [6] => 90
)

```

8. Implement a PHP function to calculate the sum of all digits in a given integer.

```

<?php
function sumOfDigits($number) {
    // Convert the number to a positive value if it's negative
    $number = abs($number);
    $sum = 0;

    // Loop through each digit
    while ($number > 0) {
        // Get the last digit
        $digit = $number % 10;
        // Add the digit to the sum
        $sum += $digit;
        // Remove the last digit from the number
    }
}

```

```

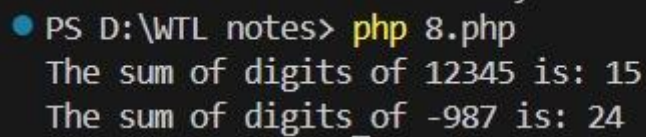
        $number = (int)($number / 10);
    }

    return $sum;
}

// Example usage
$number = 12345;
echo "The sum of digits of $number is: " . sumOfDigits($number) . "\n";

$number = -987;
echo "The sum of digits of $number is: " . sumOfDigits($number) . "\n";
?>

```



```

PS D:\WTL notes> php 8.php
The sum of digits of 12345 is: 15
The sum of digits of -987 is: 24

```

9. Write a PHP script to convert a binary number to a decimal number.

```

<?php
function binaryToDecimal($binary) {
    $decimal = 0;
    $length = strlen($binary);

    // Loop through each character in the binary string
    for ($i = 0; $i < $length; $i++) {
        // Get the current character (0 or 1)
        $bit = $binary[$length - $i - 1];
        // Calculate the decimal value and add it to the result
        if ($bit == '1') {
            $decimal += pow(2, $i);
        }
    }

    return $decimal;
}

// Example usage
$binaryNumber = "1011";
echo "The decimal value of binary number $binaryNumber is: " .
    binaryToDecimal($binaryNumber) . "\n";

$binaryNumber = "110110";
echo "The decimal value of binary number $binaryNumber is: " .
    binaryToDecimal($binaryNumber) . "\n";
?>

```

```
● PS D:\WTL notes> php 9.php
The decimal value of binary number 1011 is: 11
The decimal value of binary number 110110 is: 54
```

10. Create a PHP function that finds the length of the longest word in a string.

```
<?php
function lengthOfLongestWord($string) {
    // Remove any extra whitespace and split the string into words
    $words = preg_split('/\s+/', trim($string));

    // Initialize variable to hold the length of the longest word
    $maxLength = 0;

    // Iterate through each word
    foreach ($words as $word) {
        // Update the maximum length if the current word is longer
        $length = strlen($word);
        if ($length > $maxLength) {
            $maxLength = $length;
        }
    }

    return $maxLength;
}

// Example usage
$string = "Find the length of the longest word in this string";
echo "The length of the longest word is: " . lengthOfLongestWord($string)
. "\n";

$string = "PHP is fun";
echo "The length of the longest word is: " . lengthOfLongestWord($string)
. "\n";
?>
```

```
● PS D:\WTL notes> php 10.php
The length of the longest word is: 7
The length of the longest word is: 3
```

11. Write a PHP script to reverse the words in a given string.

```
<?php
$string = "Hello World";
$words = explode(" ", $string);
$reversedWords = array_reverse($words);
$reversedString = implode(" ", $reversedWords);
echo $reversedString;
```

?>

```
PS D:\WTL notes> php 11.php
World Hello
```

12. Implement a PHP function that removes duplicate values from an array.

```
<?php
function removeDuplicates($array) {
    $uniqueArray = array_unique($array);
    return $uniqueArray;
}

$numbers = array(1, 2, 2, 3, 4, 4, 5);
$uniqueNumbers = removeDuplicates($numbers);
print_r($uniqueNumbers);
?>
```

```
PS D:\WTL notes> php 12.php
Array
(
    [0] => 1
    [1] => 2
    [3] => 3
    [4] => 4
    [6] => 5
)
```

13. Write a PHP script to find the second largest number in an array.

```
<?php
$numbers = array(10, 20, 30, 40, 50);
sort($numbers);
$secondLargest = $numbers[count($numbers) - 2];
echo "The second largest number is: $secondLargest";
?>
```

```
PS D:\WTL notes> php 13.php
The second largest number is: 40
```

14. Create a PHP program to count the occurrences of each character in a string.

```
<?php
$string = "hello world";
```

```
$charCount = count_chars($string, 1);

foreach ($charCount as $char => $count) {
    echo "Character " . chr($char) . " appears $count times.<br>";
}
?>
```

```
PS D:\WTL notes> php 14.php
Character  appears 1 times.<br>Character d appears 1 times.<br>Character e
s.<br>Character o appears 2 times.<br>Character r appears 1 times.<br>Chara
```

15. Write a PHP function to calculate the power of a number using recursion.

```
<?php

function power($base, $exp) {
    if ($exp == 0) {
        return 1;
    } else {
        return $base * power($base, $exp - 1);
    }
}
```

```
echo power(2, 3); // 2^3 = 8

?>
```

```
PS D:\WTL notes> php 15.php
8
```