Ex no:01	Create HTML Page with Lists, Tables, and Hyperlinks
Date:	

AIM:

To design a basic website using HTML to demonstrate text formatting and image insertion.

ALGORITHMM:

Step 1: Start with <!DOCTYPE html>, <html>, <head>, and <body> tags.

Step 2: Inside <head>, add a <title> for the webpage.

Step 3: Use ordered (<ol>) and unordered (<ul>) lists to display items.

Step 4: Add table using <table>, with <tr> for rows and <td> for cells.

Step 5: Use <th> to define table headers.

Step 6: Insert hyperlinks using Link Text.

Step 7: Apply basic formatting for neat display.

Step 8: Close all opened tags properly.

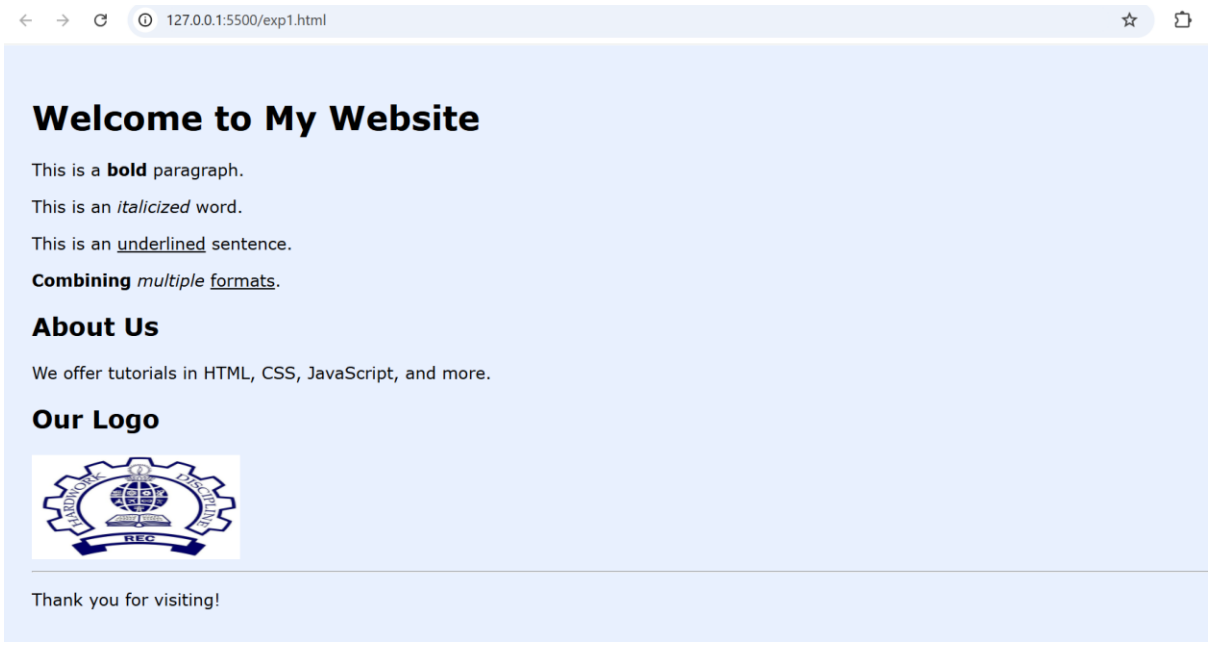
Step 9: Save the file with .html extension.

Step 10: Open in a browser to check lists, table, and links.

SOURCE CODE:

```
<!DOCTYPE html>
<html>
<head>
  <title>Text Formatting and Images</title>
  <style>
    body {
      font-family: Verdana;
      background-color: #e8f0fe;
      padding: 20px;
    }
  </style>
</head>
<body>
  <h1>Welcome to My Website</h1>
  <p>This is a <b>bold</b> paragraph.</p>
  <p>This is an <i>italicized</i> word.</p>
  <p>This is an <u>underlined</u> sentence.</p>
  <p><strong>Combining</strong> <em>multiple</em> <u>formats</u>.</p>
  <h2>About Us</h2>
  <p>We offer tutorials in HTML, CSS, JavaScript, and more.</p>
  <h2>Our Logo</h2>
  <img src="logo.png" alt="Logo" width="200" height="100">
  <hr>
  <p>Thank you for visiting!</p>
</body>
</html>
```

OUTPUT:



RESULT:

We have designed a basic website using HTML to demonstrate text formatting and image insertion.

Ex no:02	Basic Website using HTML (Text Formatting + Image)
Date:	

AIM:

To write a HTML program for creation of forms, links, and tables.

ALGORITHM:

Step 1: Start with <!DOCTYPE html>, <html>, <head>, and <body> tags.

Step 2: Inside <head>, add the <title> for the page.

Step 3: Start the <body> section for the main content.

Step 4: Add headings (<h1> to <h6>) to structure the page.

Step 5: Insert paragraphs (<p>) for regular text.

Step 6: Apply formatting tags like <b>, <i>, and <u> for styling.

Step 7: Use <hr> to add horizontal lines and
 for line breaks.

Step 8: Insert an image with the <img> tag and set src and alt.

Step 9: Close the </body> and </html> tags.

Step 10: Save the file as .html and view it in a browser.

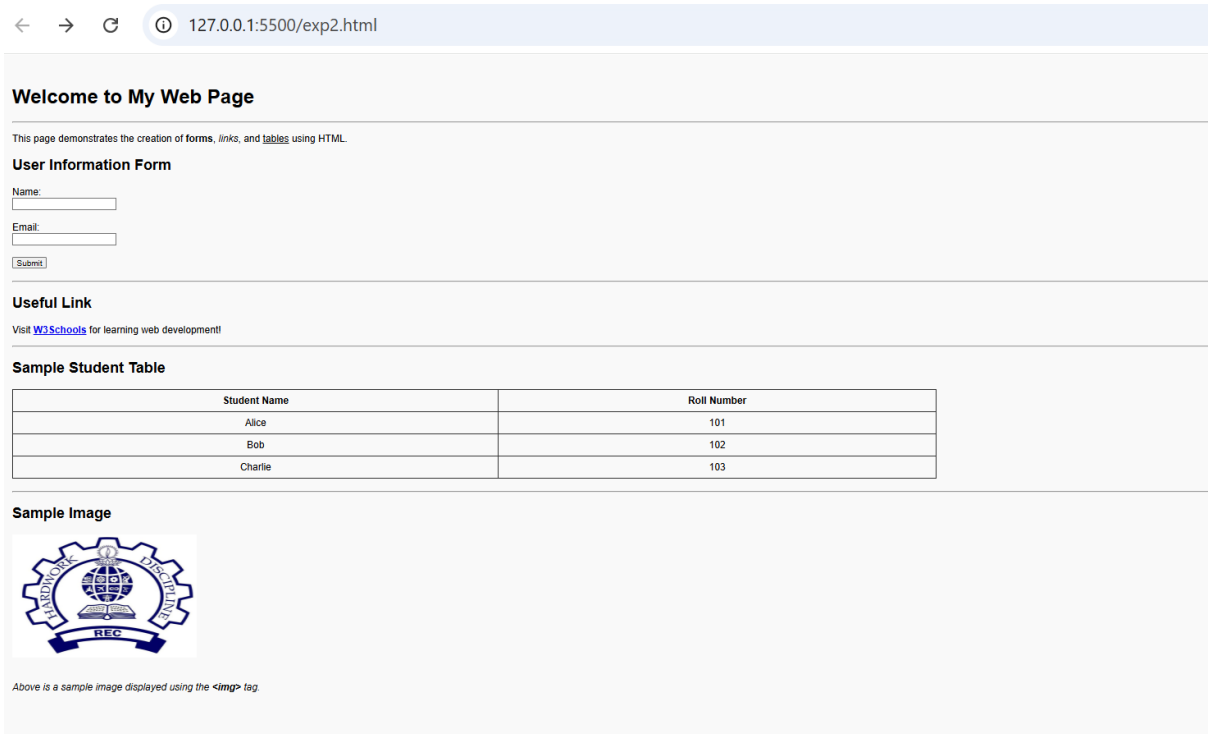
SOURCE CODE:

```
        <!DOCTYPE html>
<html>
<head>
  <title>Forms, Links, and Tables Example</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f9f9f9;
      padding: 20px;
    }
    form, table {
      margin-bottom: 20px;
    }
    table {
      border-collapse: collapse;
      width: 60%;
    }
    th, td {
      border: 1px solid #333;
      padding: 8px;
      text-align: center;
    }
  </style>
</head>
<body>
  <h1>Welcome to My Web Page</h1>
  <hr>
```

```
  <p>This page demonstrates the creation of <b>forms</b>, <i>links</i>, and <u>tables</u> using HTML.</p>

  <h2>User Information Form</h2>

  <form action="#">

    <label for="name">Name:</label><br>

    <input type="text" id="name" name="name" required><br><br>

    <label for="email">Email:</label><br>

    <input type="email" id="email" name="email" required><br><br>

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

  </form>

  <hr>

  <h2>Useful Link</h2>

  <p>Visit <a href="https://www.w3schools.com" target="_blank"><b>W3Schools</b></a> for learning web development!</p>

  <hr>

  <h2>Sample Student Table</h2>

  <table>

    <tr>

      <th>Student Name</th>

      <th>Roll Number</th>

    </tr>

    <tr>

      <td>Alice</td>

      <td>101</td>

    </tr>

    <tr>

      <td>Bob</td>

      <td>102</td>

    </tr>

    <tr>
```

```
    <td>Charlie</td>
    <td>103</td>
   </tr>
  </table>
  <hr>
  <h2>Sample Image</h2>
  <img src="logo.png" alt="Sample Image" width="300" height="200">
  <br><br>
  <p><i>Above is a sample image displayed using the <b>&lt;img&gt;</b> tag.</i></p>
</body>
</html>
```

OUTPUT:



RESULT:

Thus we have written a HTML program for creation of forms, links, and tables.

Ex no:03	Create a web page with HTML5 with image map, hotspot and information when hotspot is clicked
Date:	

AIM:

create an image map in a webpage, identify hotspots, and display related information when clicked.

ALGORITHM:

Step 1: Create a basic HTML page with a <form> inside <body>.

Step 2: Add input fields for name, email, password, etc., using <input> tags.

Step 3: Write a JavaScript function to check if all fields are filled.

Step 4: Use if-else conditions to validate inputs like email format.

Step 5: Display alerts or error messages if validation fails.

Step 6: Call the JavaScript function when the form is submitted using onsubmit.

Step 7: Prevent form submission if any field is incorrect.

Step 8: Save the HTML file with embedded or linked JavaScript.

Step 9: Open the file in a browser and test by submitting the form.

Step 10: Debug and fix errors if the form validation doesn't work properly.

SOURCE CODE:

```
<!DOCTYPE html>
<html>
<head>
  <title>Image Map Example</title>
  <style>
    body {
      font-family: Arial;
      background-color: #f0f8ff;
      padding: 20px;
    }
  </style>
</head>
<body>
  <h2>India Map - Image Map</h2>
  <p>Click on a region to learn more about it.</p>
  <!-- Replace with your actual image and usemap -->
  <img src="india-map.jpg" alt="India Map" usemap="#indiastates" width="600"
height="400">
  <map name="indiastates">
    <area shape="rect" coords="120,90,180,150" alt="Delhi"
href="https://en.wikipedia.org/wiki/Delhi" target="_blank">
    <area shape="circle" coords="300,200,40" alt="Mumbai"
href="https://en.wikipedia.org/wiki/Mumbai" target="_blank">
    <area shape="poly" coords="400,300,420,320,410,350,390,330" alt="Chennai"
href="https://en.wikipedia.org/wiki/Chennai" target="_blank">
  </map>
</body>
</html>
```

OUTPUT:

RESULT:

Thus we have created an image map in a webpage, identify hotspots, and display related information when clicked.

Ex no:04	Create a webpage with all types of CSS
Date:	

AIM:

To create a structured web page using HTML5 semantic elements.

ALGORITHM:

Step 1: Create an HTML structure with <!DOCTYPE html>, <html>, <head>, and <body> tags.

Step 2: Inside <head>, add a <title> for the page.

Step 3: Add a <style> tag inside <head> or link an external CSS file.

Step 4: Define CSS rules for body, headings, paragraphs, etc.

Step 5: Set background color, font size, font family, and text color using CSS.

Step 6: Apply margins, padding, and borders to elements.

Step 7: Style buttons, images, and links using CSS properties.

Step 8: Save the HTML and CSS files properly.

Step 9: Open the HTML file in a browser to check the styling.

Step 10: Make necessary adjustments if the page needs improvements.

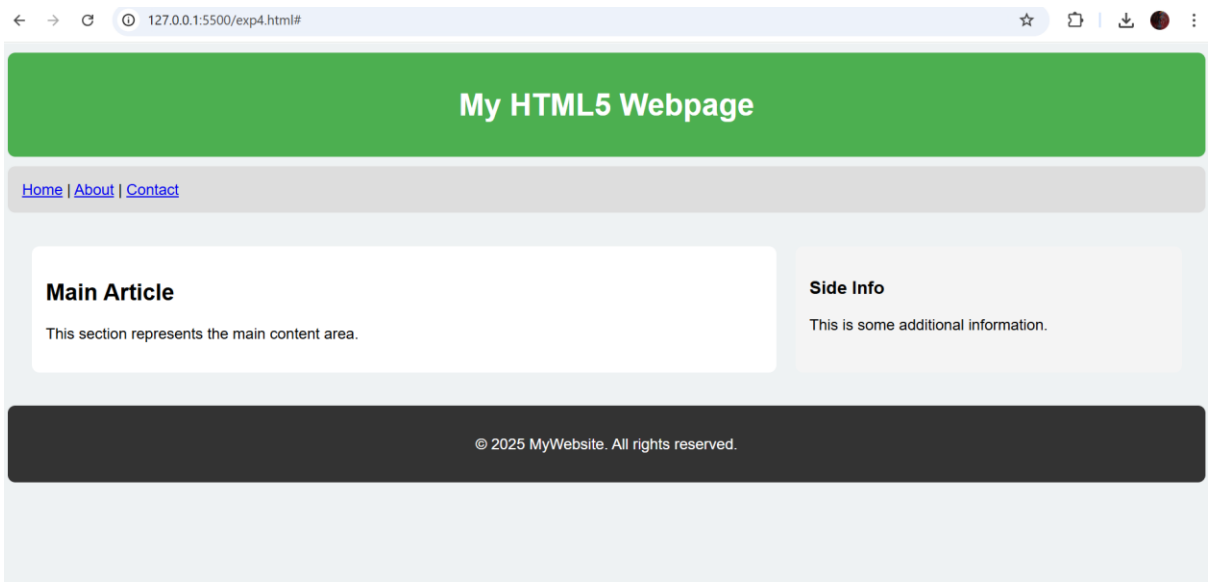
SOURCE CODE:

```
        <!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>HTML5 Semantic Page</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #eef2f3;
      margin: 0;
    }

    header, nav, section, article, aside, footer {
      padding: 15px;
      margin: 10px;
      border-radius: 8px;
    }
    header {
      background-color: #4CAF50;
      color: white;
      text-align: center;
    }
    nav {
      background-color: #ddd;
    }
    section {
      display: flex;
```

```
    }
    article {
      flex: 2;
      background-color: #fff;
    }
    aside {
      flex: 1;
      background-color: #f4f4f4;
    }
    footer {
      background-color: #333;
      color: white;
      text-align: center;
    }
  </style>
</head>
<body>
  <header>
    <h1>My HTML5 Webpage</h1>
  </header>
  <nav>

    <a href="#">Home</a> |
    <a href="#">About</a> |
    <a href="#">Contact</a>
  </nav>
  <section>
    <article>
      <h2>Main Article</h2>
```

```
      <p>This section represents the main content area.</p>
    </article>
    <aside>
      <h3>Side Info</h3>
      <p>This is some additional information.</p>
    </aside>
  </section>

  <footer>
    <p>&copy; 2025 MyWebsite. All rights reserved.</p>
  </footer>

</body>
</html>
```

OUTPUT:



RESULT:

We have created a structured web page using HTML5 semantic elements.

Ex no:05	Create a Simple Calculator Using JavaScript
Date:	

AIM:

To develop a basic calculator that performs addition, subtraction, multiplication, and division using JavaScript.

ALGORITHMM:

Step1: Create an HTML form with two input fields.

Step2: Add buttons for Add, Subtract, Multiply, and Divide.

Step3: Write JavaScript functions to do operations.

Step4: Read the input numbers inside JavaScript.

Step5: Perform calculations based on button clicked.

Step6: Display the result inside a div or paragraph.

Step7: Check for invalid input like division by zero.

Step8: Add proper event handlers for each button.

Step9: Save the file and open in browser.

Step10: Verify all calculator functions work properly.

SOURCE CODE

```
<!DOCTYPE html>
<html>
<head>
  <title>Simple Calculator</title>
  <style>
    body {
      font-family: Arial;
      background-color: #f2f2f2;
      padding: 20px;
    }
    input, button {
      padding: 8px;
      margin: 5px;
    }
    #result {
      font-weight: bold;
      margin-top: 10px;
    }
  </style>
</head>
<body>

  <h2>Simple Calculator</h2>

  <label>Enter First Number:</label>
  <input type="number" id="num1"><br>

  <label>Enter Second Number:</label>
```

```
<input type="number" id="num2"><br>

<button onclick="calculate('+')">Add</button>
<button onclick="calculate('-')">Subtract</button>
<button onclick="calculate('*')">Multiply</button>
<button onclick="calculate('/')">Divide</button>

<p id="result"></p>

<script>
  function calculate(operator) {
    var n1 = parseFloat(document.getElementById("num1").value);
    var n2 = parseFloat(document.getElementById("num2").value);
    var result;

    if (isNaN(n1) || isNaN(n2)) {
      document.getElementById("result").innerText = "Please enter valid numbers.";
      return;
    }

    switch (operator) {
      case '+':
        result = n1 + n2;
        break;
      case '-':
        result = n1 - n2;
        break;
      case '*':
        result = n1 * n2;
```

```
        break;
      case '/':
        result = n2 !== 0 ? (n1 / n2) : "Cannot divide by zero";
        break;
    }

    document.getElementById("result").innerText = "Result: " + result;
  }
 </script>

</body>
</html>
```

OUTPUT:

RESULT:

We have developed a basic calculator that performs addition, subtraction, multiplication, and division using JavaScript.

Ex no:06	Design a Registration Form
Date:	

AIM:

To design a registration form that validate fields such as name, email, and password using JavaScript before submitting the form.

ALGORITHM:

Step1: Design an HTML page with <input> fields for two numbers.

Step2: Create buttons for operations like Add, Subtract, Multiply, Divide.

Step3: Write JavaScript functions to perform each operation.

Step4: Fetch numbers from input fields inside functions.

Step5: Perform calculations and store results.

Step6: Display the output inside a paragraph or div.

Step7: Use onclick event for buttons to call the functions.

Step8: Check for invalid inputs like dividing by zero.

Step9: Close all tags and save the file.

Step10: Open the HTML file and test all operations.

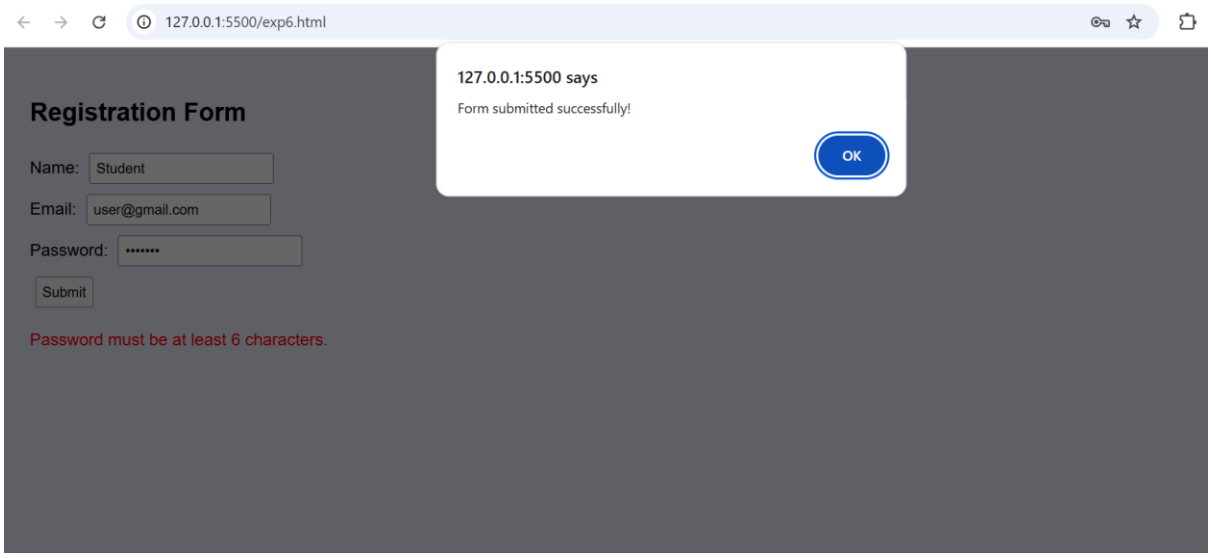
.

SOURCE CODE

```
<!DOCTYPE html>
<html>
<head>
  <title>Form Validation</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #eef;
      padding: 20px;
    }
    .error {
      color: red;
    }
    input {
      padding: 5px;
      margin: 5px;
    }
  </style>
</head>
<body>

  <h2>Registration Form</h2>
  <form name="regForm" onsubmit="return validateForm()">
    Name: <input type="text" name="name"><br>
    Email: <input type="text" name="email"><br>
    Password: <input type="password" name="password"><br>
    <input type="submit" value="Submit">
  </form>
```

```
  <p id="errorMsg" class="error"></p>

  <script>
    function validateForm() {
      let name = document.forms["regForm"]["name"].value;
      let email = document.forms["regForm"]["email"].value;
      let password = document.forms["regForm"]["password"].value;
      let errorMsg = document.getElementById("errorMsg");
      if (name == "" || email == "" || password == "") {
        errorMsg.innerHTML = "All fields must be filled out.";
        return false;
      }
      let emailPattern = /^[^ ]+@[^ ]+\.[a-z]{2,3}$/;
      if (!email.match(emailPattern)) {
        errorMsg.innerHTML = "Invalid email format.";
        return false;
      }
      if (password.length < 6) {
        errorMsg.innerHTML = "Password must be at least 6 characters.";
        return false;
      }
      errorMsg.innerHTML = "";
      alert("Form submitted successfully!");
      return true;
    }
  </script>
</body>
</html>
```

OUTPUT:



RESULT:

Thus we have created a Registration form that validates fields such as name, email, and password using JavaScript before submitting the form.

Ex no:07	**Develop a responsive website using bootstrap**

Date:	

AIM:

To develop a responsive website using Bootstrap that adjusts to different screen sizes (e.g., desktop, tablet, mobile).

ALGORITHM:

Step 1: Include the Bootstrap CSS and JS files.

Step 2: Set up the basic HTML structure for the web page.

Step 3: Create a navigation bar that adapts to different screen sizes.

Step 4: Use Bootstrap's grid system to create a responsive layout.

Step 5: Add images, text, or any other content within grid columns.

Step 6: Make the layout responsive by using appropriate Bootstrap classes.

Step 7: Add a footer that stays at the bottom of the page.

Step 8: Test the website on different screen sizes to ensure responsiveness.

Step 9: Style the website with custom CSS if needed.

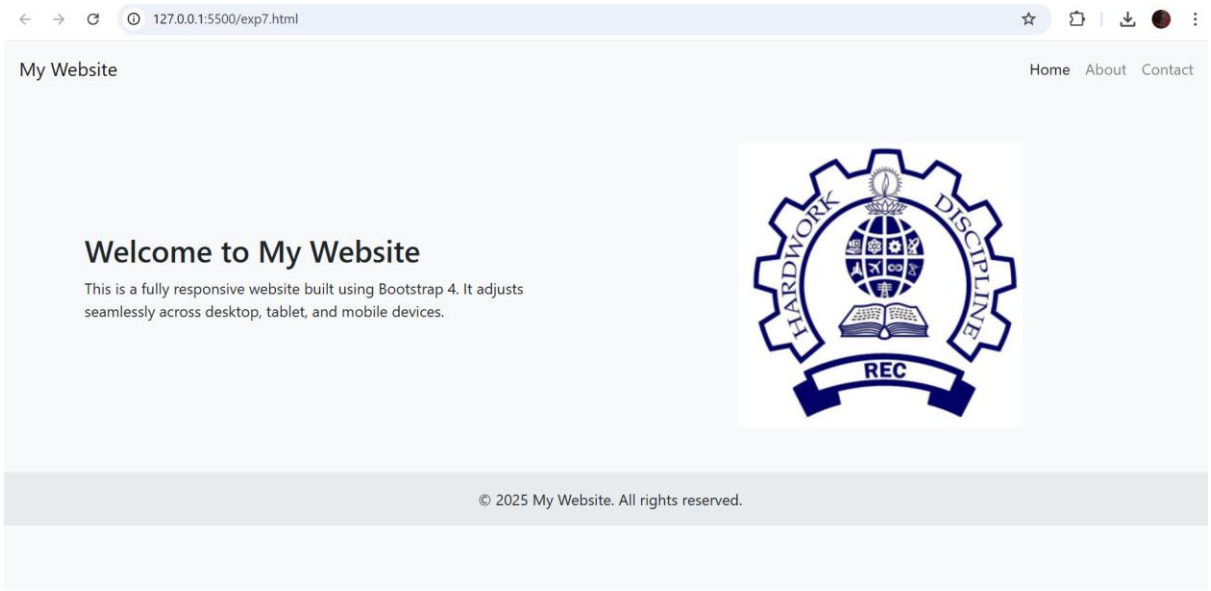
Step 10: Deploy the website and test it in various browsers.

SOURCECODE

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Responsive Website</title>
    <link href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>

    <nav class="navbar navbar-expand-lg navbar-light bg-light">
        <a class="navbar-brand" href="#">My Website</a>
        <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>
        <div class="collapse navbar-collapse" id="navbarNav">
            <ul class="navbar-nav ml-auto">
                <li class="nav-item active">
                    <a class="nav-link" href="#">Home</a>
                </li>
                <li class="nav-item">
                    <a class="nav-link" href="#">About</a>
                </li>
                <li class="nav-item">
                    <a class="nav-link" href="#">Contact</a>
                </li>
            </ul>
```

```
    </div>
  </nav>

  <div class="container my-5">
    <div class="row">
      <div class="col-md-6">
        <h2>Welcome to My Website</h2>
        <p>This is a responsive website built using Bootstrap.</p>
      </div>
      <div class="col-md-6">
        <img src="logo.png" class="img-fluid" alt="Responsive Image">
      </div>
    </div>
  </div>

  <footer class="bg-light py-3">
    <div class="container text-center">
      <p>&copy; 2025 My Website</p>
    </div>
  </footer>

  <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
  <script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.2/dist/umd/popper.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
</body>
</html>
```

OUTPUT



RESULT:

A responsive website with a navigation bar, content area, and footer. The layout adapts automatically based on the screen size (desktop, tablet, mobile).

Ex no:08	**Design a web page with grid system using Bootstrap**
Date:	

AIM:

To create a web page layout using Bootstrap's Grid System.

ALGORITHM:

Step 1: Create a new HTML file.

Step 2: Link Bootstrap CSS and JS files (via CDN).

Step 3: Create a container ( ).

Step 4: Create a row ( ).

Step 5: Add columns using Bootstrap classes like col-md-4.

Step 6: Add some sample content inside each column.

Step 7: Repeat rows and columns if needed.

Step 8: Style with background colors for better visualization.

Step 9: Save the HTML file.

Step 10: Open it in a browser to view the grid layout.

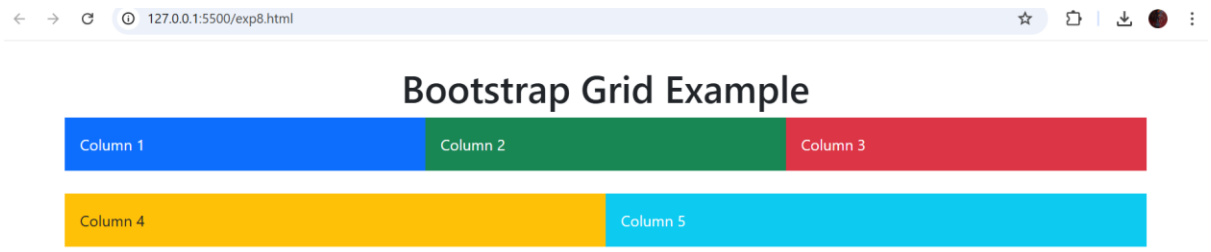
SOURCE CODE

<!DOCTYPE html>

<html lang="en">

```
<head>
    <meta charset="UTF-8">
    <title>Bootstrap Grid System</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
</head>
<body>

<div class="container mt-4">
    <h1 class="text-center">Bootstrap Grid Example</h1>

    <div class="row">
        <div class="col-md-4 bg-primary text-white p-3">Column 1</div>
        <div class="col-md-4 bg-success text-white p-3">Column 2</div>
        <div class="col-md-4 bg-danger text-white p-3">Column 3</div>
    </div>

    <div class="row mt-4">
        <div class="col-md-6 bg-warning text-dark p-3">Column 4</div>
        <div class="col-md-6 bg-info text-white p-3">Column 5</div>
    </div>
</div>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

OUTPUT:



RESULT:

Thus we have created A web page showing a grid with 3 columns in the first row and 2 columns in the second row, using Bootstrap.

Ex no:09	**Design a web page with dropdown navigation bar and pagination**

Date:	

AIM:

To create a navigation bar with a dropdown menu and a pagination component using Bootstrap.

ALGORITHM:

Step 1: Create a new HTML file.

Step 2: Link Bootstrap CSS and JS files.

Step 3: Create a <nav> tag for the navigation bar.

Step 4: Add brand name and links inside the navbar.

Step 5: Add a dropdown menu inside the navbar.

Step 6: Create the dropdown items inside it.

Step 7: Below the navbar, create a pagination component.

Step 8: Style the navbar and pagination.

Step 9: Save the HTML file.

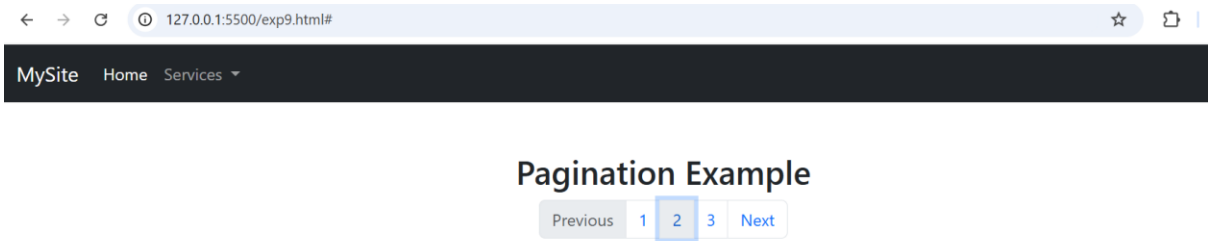
Step 10: Open it in a browser and test the dropdown and pagination.

SOURCE CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <title>Dropdown Navbar and Pagination</title>
   <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>

<nav class="navbar navbar-expand-lg navbar-dark bg-dark">
  <div class="container-fluid">
   <a class="navbar-brand" href="#">MySite</a>
   <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNavDropdown">
     <span class="navbar-toggler-icon"></span>
   </button>
   <div class="collapse navbar-collapse" id="navbarNavDropdown">
     <ul class="navbar-nav">
       <li class="nav-item">
         <a class="nav-link active" href="#">Home</a>
       </li>
       <li class="nav-item dropdown">
         <a class="nav-link dropdown-toggle" href="#" id="navbarDropdownMenuLink" role="button" data-bs-toggle="dropdown">
           Services
         </a>
         <ul class="dropdown-menu">
           <li><a class="dropdown-item" href="#">Web Design</a></li>
```

```
            <li><a class="dropdown-item" href="#">Development</a></li>
            <li><a class="dropdown-item" href="#">SEO</a></li>
          </ul>
        </li>
      </ul>
    </div>
  </div>
</nav>
<div class="container mt-5">
    <h2 class="text-center">Pagination Example</h2>
    <nav aria-label="Page navigation">
      <ul class="pagination justify-content-center">
        <li class="page-item disabled">
          <a class="page-link" href="#">Previous</a>
        </li>
        <li class="page-item"><a class="page-link" href="#">1</a></li>
        <li class="page-item"><a class="page-link" href="#">2</a></li>
        <li class="page-item"><a class="page-link" href="#">3</a></li>
        <li class="page-item">
          <a class="page-link" href="#">Next</a>
        </li>
      </ul>
    </nav>
</div>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

OUTPUT:



RESULT:

Thus we have created a navigation bar with a dropdown menu and a pagination component using Bootstrap.

Ex no:10	Design a web page with jQuery selector
Date:	

AIM:

To create a web page and demonstrate using jQuery selectors to manipulate HTML elements.

ALGORITHM:

Step 1: Create a new HTML file.

Step 2: Link jQuery library (via CDN).

Step 3: Create some HTML elements like heading, paragraph, button.

Step 4: Write a <script> tag.

Step 5: Use jQuery to select elements (like $("h1"), $(".class"), $("#id")).

Step 6: Apply effects like hide(), show(), toggle().

Step 7: Attach a click event to the button.

Step 8: Write jQuery code inside $(document).ready().

Step 9: Save the HTML file.

Step 10: Open it in a browser and test the selectors.

SOURCE CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>jQuery Selector Example</title>
    <script src="https://code.jquery.com/jquery-3.7.1.min.js"></script>
</head>
<body>

<h1 id="mainHeading">Welcome to jQuery Selector Example</h1>
<p class="info">This is a paragraph with class 'info'.</p>
<p>This is a normal paragraph.</p>
<button id="toggleButton">Toggle Info Paragraph</button>

<script>
$(document).ready(function(){
    $("#toggleButton").click(function(){
        $(".info").toggle();
    });
});
</script>

</body>
</html>
```

OUTPUT:

RESULT:

Thus we have created such that When the user clicks the button, the paragraph with class info will show/hide (toggle) using jQuery selector.

Ex no:11	Design a simple web page using jQuery for Animation Effects
Date:	

AIM:

To create a webpage that demonstrates basic jQuery animation effects such as hide, show, fade, and slide.

ALGORITHMM:

Step 1: Create an HTML page with a div or box.

Step 2: Link the jQuery library using a CDN in <head>.

Step 3: Add buttons like Hide, Show, FadeIn, FadeOut, SlideUp, SlideDown.

Step 4: Write jQuery code to perform animations.

Step 5: Use jQuery methods like .hide(), .show(), .fadeIn(), .fadeOut().

Step 6: Bind button clicks to respective jQuery functions.

Step 7: Save the file and open in browser.

Step 8: Click buttons and check if animation works.

Step 9: Fix errors if any animation does not happen.

Step 10: Test all animation effects.

SOURCE CODE:

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Animation Effects</title>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <style>
    #box {
      width: 200px;
      height: 200px;
      background-color: tomato;
      margin: 20px auto;
      text-align: center;
      line-height: 200px;
      font-weight: bold;
      color: white;
      font-size: 20px;
    }
    button {
      margin: 5px;
      padding: 10px 15px;
    }
  </style>
</head>
<body>

  <h2 style="text-align:center;">jQuery Animation Demo</h2>
```

```
<div id="box">Animate Me!</div>

<div style="text-align:center;">
  <button id="hideBtn">Hide</button>
  <button id="showBtn">Show</button>
  <button id="fadeOutBtn">Fade Out</button>
  <button id="fadeInBtn">Fade In</button>
  <button id="slideUpBtn">Slide Up</button>
  <button id="slideDownBtn">Slide Down</button>
  <button id="toggleBtn">Toggle</button>
</div>

<script>
  $(document).ready(function(){
    $("#hideBtn").click(function(){
      $("#box").hide();
    });

    $("#showBtn").click(function(){
      $("#box").show();
    });

    $("#fadeOutBtn").click(function(){
      $("#box").fadeOut();
    });

    $("#fadeInBtn").click(function(){
      $("#box").fadeIn();
    });
```

```
    $("#slideUpBtn").click(function(){
      $("#box").slideUp();
    });

    $("#slideDownBtn").click(function(){
      $("#box").slideDown();
    });

    $("#toggleBtn").click(function(){
      $("#box").toggle();
    });
  });
 </script>

</body>
</html>
```

OUTPUT:

RESULT:

Thus we have created a webpage that demonstrates basic jQuery animation effects such as hide, show, fade, and slide.

Ex no:12	A web page to calculate the factorial of a number using php
Date:	

AIM:

To create a simple web page where users can input a number, and the page will display its factorial.

ALGORITHM:

Step 1: Create an HTML form to accept a number input.

Step 2: Define a PHP script to handle the form submission.

Step 3: Retrieve the number input using $_POST.

Step 4: Define a function to calculate the factorial.

Step 5: Use a loop to calculate the factorial of the entered number.

Step 6: Display the result on the web page.

Step 7: If the input is invalid (e.g., negative or non-numeric), show an error message.

Step 8: Allow users to enter another number for calculation.

Step 9: Style the form using basic CSS.

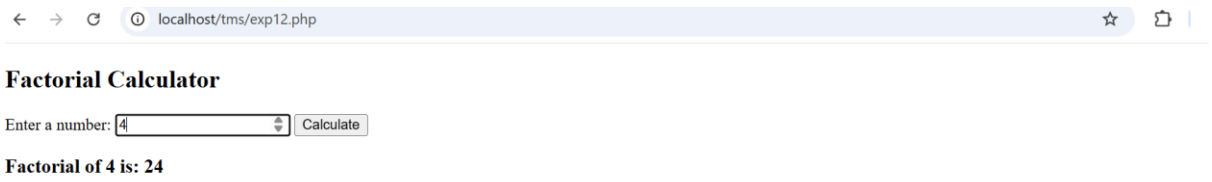
Step 10: Test the page with various inputs and display the correct factorial.

SOURCE CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Factorial Calculator</title>
</head>
<body>
    <h2>Factorial Calculator</h2>
    <form method="post">
        <label for="number">Enter a number:</label>
        <input type="number" id="number" name="number" required>
        <input type="submit" value="Calculate">
    </form>

    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST") {
            $number = $_POST['number'];
            if (is_numeric($number) && $number >= 0) {
                function factorial($n) {
                    $result = 1;
                    for ($i = 1; $i <= $n; $i++) {
                        $result *= $i;
                    }
                    return $result;
                }

                $result = factorial($number);
```

```
            echo "<p>The factorial of $number is: $result</p>";
        } else {
            echo "<p>Please enter a valid positive number.</p>";
        }
    }
?>
</body>
</html>
```

OUTPUT:



RESULT:

We have created a simple web page where users can input a number, and the page will display its factorial.

Ex no:13	A Web page to Perform Arithmetic Operations Using PHP
Date:	

AIM:

To create a PHP webpage that performs arithmetic operations (addition, subtraction, multiplication, division) on two numbers entered by the user.

ALGORITHMM:

Step 1: Start with a basic HTML form inside a .php file.

Step 2: Create two input fields for the numbers.

Step 3: Add a dropdown menu to select the operation (Addition, Subtraction, Multiplication, Division).

Step 4: Set the form method to POST to securely send data.

Step 5: Retrieve the input values in PHP using $_POST.

Step 6: Apply conditional logic (if-else statements) to check which operation is selected.

Step 7: Perform the selected arithmetic operation and calculate the result.

Step 8: Display the calculated result dynamically after the form is submitted.

Step 9: Handle special cases like division by zero to avoid errors.

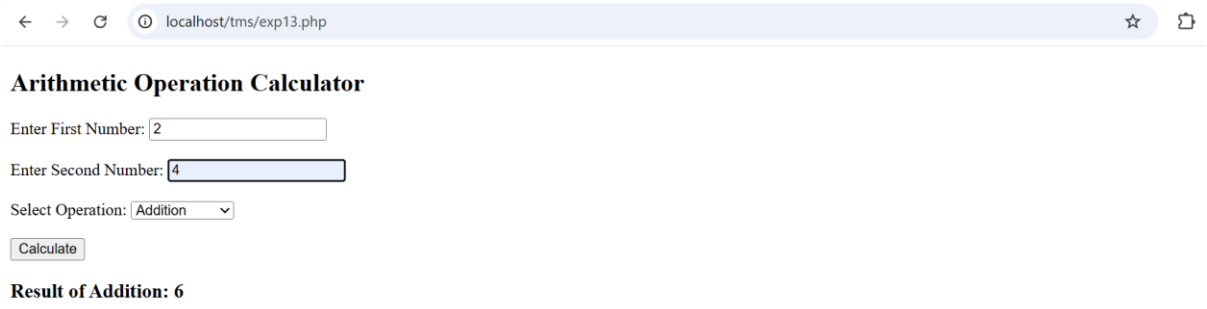
Step 10: Save the file with a .php extension and run it using a local server (like XAMPP) to test.

SOURCE CODE

```
<!DOCTYPE html>
<html>
<head>
   <title>Arithmetic Operations</title>
</head>
<body>

<h2>Arithmetic Operation Calculator</h2>

<form method="post">
   Enter First Number: <input type="text" name="num1" required><br><br>
   Enter Second Number: <input type="text" name="num2" required><br><br>

   Select Operation:
   <select name="operation">
      <option value="add">Addition</option>
      <option value="subtract">Subtraction</option>
      <option value="multiply">Multiplication</option>
      <option value="divide">Division</option>
   </select><br><br>

   <input type="submit" name="submit" value="Calculate">
</form>
<?php
if(isset($_POST['submit'])){
   $num1 = $_POST['num1'];
```

```
    $num2 = $_POST['num2'];
    $operation = $_POST['operation'];

    if($operation == "add"){
        $result = $num1 + $num2;
        echo "<h3>Result of Addition: $result</h3>";
    }
    elseif($operation == "subtract"){
        $result = $num1 - $num2;
        echo "<h3>Result of Subtraction: $result</h3>";
    }
    elseif($operation == "multiply"){
        $result = $num1 * $num2;
        echo "<h3>Result of Multiplication: $result</h3>";
    }
    elseif($operation == "divide"){
        if($num2 != 0){
            $result = $num1 / $num2;
            echo "<h3>Result of Division: $result</h3>";
        } else {
            echo "<h3>Cannot divide by zero!</h3>";
        }
    } else {
        echo "<h3>Invalid Operation Selected</h3>";
    }
}
?>
</body>
</html>
```

OUTPUT:



RESULT:

Thus, the PHP webpage for performing arithmetic operations was successfully created and tested.

Ex no:14	Program using regular expression in PHP
Date:	

AIM:

To write a PHP program that uses regular expressions to validate strings like email addresses and phone numbers.

ALGORITHMM:

Step 1: Open a new PHP file and use <?php and ?> tags to start the script.

Step 2: Define sample input strings for email and phone number.

Step 3: Create a regular expression pattern to validate the email format.

Step 4: Create a regular expression pattern to validate the phone number (10 digits).

Step 5: Use preg_match() function to check if the email matches the email pattern.

Step 6: Use preg_match() function to check if the phone number matches the phone number pattern.

Step 7: If the email matches the pattern, display a success message ("Email is valid").

Step 8: If the email does not match the pattern, display an invalid message ("Invalid email format").

Step 9: If the phone number matches the pattern, display a success message ("Phone number is valid").

Step 10: If the phone number does not match the pattern, display an invalid message ("Invalid phone number format").

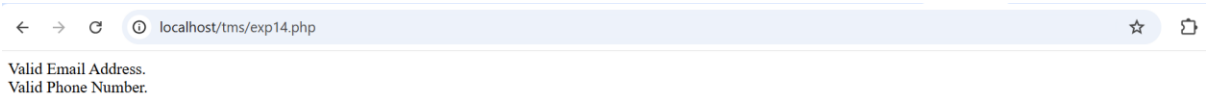
Step 11: Save the PHP file with a .php extension and run it on a local server like XAMPP or WAMP.

Step 12: Test the code with different sample inputs to check the validation results.

SOURCE CODE

```
<?php
// Example for validating an email
$email = "example@gmail.com";

if (preg_match("/^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$/", $email)) {
    echo "Valid Email Address.<br>";
} else {
    echo "Invalid Email Address.<br>";
}

// Example for validating a phone number
$phone = "9876543210";

if (preg_match("/^[0-9]{10}$/", $phone)) {
    echo "Valid Phone Number.";
} else {
    echo "Invalid Phone Number.";
}
?>
```

OUTPUT



Valid Email Address.
Valid Phone Number.

RESULT:

Thus, a PHP program using regular expressions to validate email addresses and phone numbers was successfully developed and tested.