

HTML5 – Day-2 Hands On – Srinu

Problem 1. Validation form

1.Problem Statement

Assessment Goal: Validate understanding of links and form elements.

Hands-on Tasks: Create two HTML pages and link them using navigation links Add a navigation bar with Home and Contact links Create a registration form with: Name Email Password Gender (radio buttons) Course selection (dropdown) Use required and placeholder attributes
Expected Outcome: A multi-page website with working navigation and a basic form.

2.HTML Code

home.html

```
<!-- HTML5-DAY-2-PROBLEM-1 -->
<!DOCTYPE html>
<html>
<head>
  <title>Home Page</title>
</head>
<body>
  <nav>
    <a href="home.html">Home</a> |
    <a href="contact.html">Contact</a>
  </nav>
  <h1>Welcome to Home Page</h1>
  <p>This is the home page of the website.</p>
  <h2>Registration Form</h2>
  <form action="./success.html">
    <label>Name:</label><br>
    <input type="text" placeholder="Enter your name" required>
    <br><br>
    <label>Email:</label><br>
    <input type="email" placeholder="Enter your email" required>
```

```
<br><br>
<label>Password:</label><br>
<input type="password" placeholder="Enter password" required>
<br><br>
<label>Gender:</label><br>
<input type="radio" name="gender" required> Male
<input type="radio" name="gender"> Female
<br><br>
<label>Course:</label><br>
<input type="text" list="courses" placeholder="Select course" required>
<datalist id="courses">
  <option value="HTML">
  <option value="CSS">
  <option value="JavaScript">
  <option value="React">
</datalist>
<br><br>
<button type="submit">Register</button>
</form>
</body>
</html>
```

Contact.html

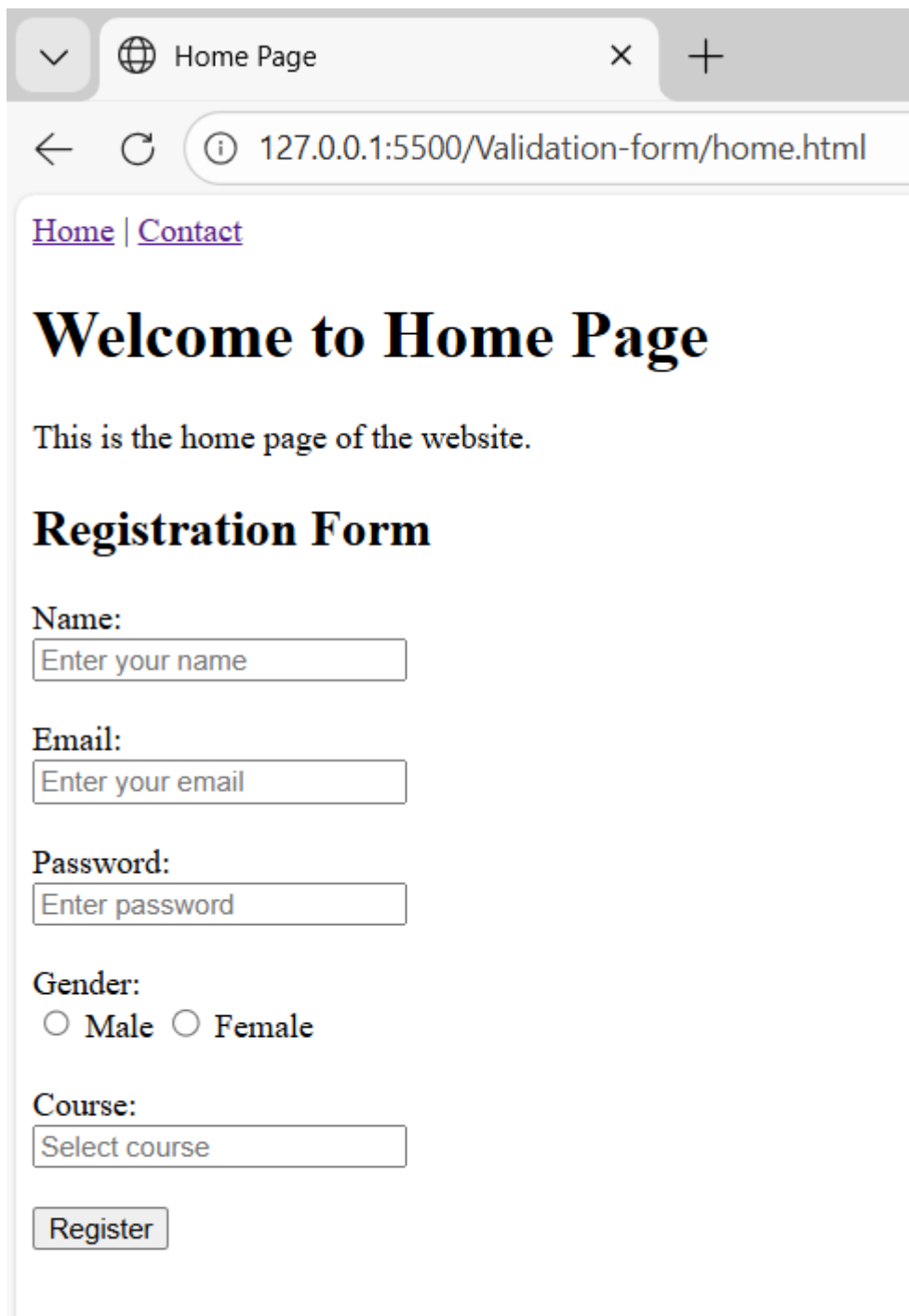
```
<!DOCTYPE html>
<html>
<head>
  <title>Contact Page</title>
</head>
<body>
<nav>
```

```
<a href="home.html">Home</a> |  
<a href="contact.html">Contact</a>  
</nav>  
<h1>Contact Page</h1>  
<p>Name: Srinu</p>  
<p>Email: srinu@gmail.com</p>  
<p>Phone: 9876543210</p>  
</body>  
</html>
```

Success.html

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
  <meta charset="UTF-8">  
  <meta name="viewport" content="width=device-width, initial-scale=1.0">  
  <title>Document</title>  
</head>  
<body>  
  <h1 align = "center">Successfully Submitted</h1>  
</body>  
</html>
```

3.Output Screenshot



A screenshot of a web browser displaying the Home Page. The browser's address bar shows the URL `127.0.0.1:5500/Validation-form/home.html`. The page has a navigation bar with links for [Home](#) and [Contact](#). The main heading is **Welcome to Home Page**, followed by the text "This is the home page of the website." Below this is a **Registration Form** containing several input fields: "Name:" with a placeholder "Enter your name", "Email:" with a placeholder "Enter your email", "Password:" with a placeholder "Enter password", "Gender:" with radio buttons for "Male" and "Female", and "Course:" with a placeholder "Select course". A "Register" button is located at the bottom of the form.

Home | [Contact](#)

Welcome to Home Page

This is the home page of the website.

Registration Form

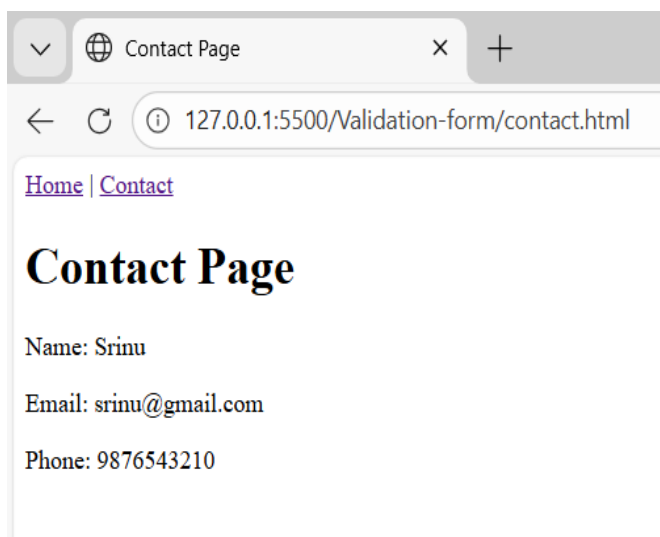
Name:

Email:

Password:

Gender:
☐ Male ☐ Female

Course:



A screenshot of a web browser displaying the Contact Page. The browser's address bar shows the URL `127.0.0.1:5500/Validation-form/contact.html`. The page has a navigation bar with links for [Home](#) and [Contact](#). The main heading is **Contact Page**. Below the heading, the contact information is displayed: "Name: Srinu", "Email: `srinu@gmail.com`", and "Phone: 9876543210".

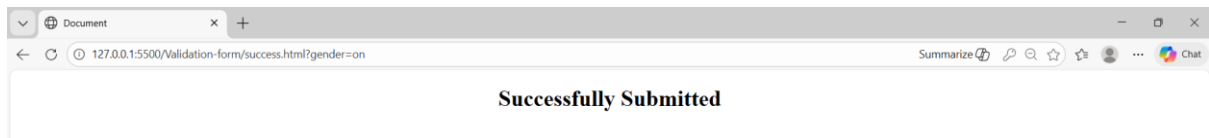
Home | [Contact](#)

Contact Page

Name: Srinu

Email: `srinu@gmail.com`

Phone: 9876543210



4. Code Explanation

`<!DOCTYPE html>` --> Declares the document type and specifies that this is an HTML5 document.

`<html>` --> Root element that contains the entire webpage content.

`<head>` --> Contains metadata and title information of the webpage.

`<title>` --> Defines the title displayed on the browser tab.

`<body>` --> Contains all visible elements such as navigation links, headings, form, and text.

`<nav>` --> Defines the navigation section used to move between Home and Contact pages.

`<a>` --> Anchor tag used to create hyperlinks for page navigation.

`href` attribute --> Specifies the destination page when the link is clicked.

`<h1>` --> Displays the main heading on the webpage.

`<h2>` --> Displays subheading such as Registration Form.

`<form>` --> Defines a form used to collect user input.

`action` attribute --> Specifies the page to open after form submission (success.html).

`<label>` --> Provides a description for input fields.

`<input>` --> Creates input fields for user data entry.

`type` attribute --> Specifies the input type such as text, email, password, or radio.

`name` attribute --> Groups radio buttons so only one option can be selected.

`placeholder` attribute --> Displays hint text inside input fields.

`required` attribute --> Makes the input field mandatory before submission.

`<datalist>` --> Provides predefined suggestions for the input field.

`<option>` --> Defines individual suggestion values in the datalist.

`list` attribute --> Connects the input field with the datalist suggestions.

`<button>` --> Creates a clickable button.

`type="submit"` --> Submits the form and redirects to the success page.

`align="center"` --> Aligns the success message to the center of the page.

Problem 2: Simple Website Navigation System (Level-1)

1.Problem Statement

A small coaching institute wants a basic static website with multiple pages so students can easily navigate between sections like Home, Courses, and Contact.

Requirements

Create 3 HTML pages: index.html (Home) courses.html contact.html Use: <nav> element to create a navigation menu <a> anchor tags for navigation Navigation menu should appear on all pages Use relative paths to link pages Include at least: One internal anchor link (#section) One external link (e.g., institute's social media)

2.HTML Code

Index.html

```
<!-- HTML5-DAY-2-PROBLEM-2 -->

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Coaching Institute - Home</title>

</head>

<body>

    <!-- Navigation Menu -->

    <nav>

        <a href="index.html">Home</a> |

        <a href="courses.html">Courses</a> |

        <a href="contact.html">Contact</a>

    </nav>

    <h1>Welcome to ABC Coaching Institute</h1>

    <p>This is the home page of our college.</p>

    <!-- Internal Anchor Link -->

    <a href="#about">About Section</a>
```

<h2 id="about">About Our Institute</h2>

<p>

We provide coaching for programming, web development, and aptitude.

Our mission is to help students build strong technical skills.

</p>

<!-- External Link -->

<p>

Visit our Instagram:

Our Social Media

</p>

</body>

</html>

Courses.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Courses - ABC Coaching Institute</title>

</head>

<body>

<!-- Navigation Menu -->

<nav>

Home |

Courses |

Contact

</nav>

```
<h1>Our Courses</h1>

<ul>

  <li>HTML Course</li>

  <li>CSS Course</li>

  <li>JavaScript Course</li>

  <li>Python Course</li>

</ul>

<!-- Internal Anchor -->

<a href="#details">Go to Course Details</a>

<h2 id="details">Course Details</h2>

<p>

  All courses include theory and practical sessions.

  Duration: 3 months.

</p>

</body>

</html>
```

Contact.html

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Contact - ABC Coaching Institute</title>

</head>

<body>

  <!-- Navigation Menu -->

  <nav>

    <a href="index.html">Home</a> |

    <a href="courses.html">Courses</a> |
```

```
<a href="contact.html">Contact</a>

</nav>

<h1>Contact Us</h1>

<p>Name: ABC Coaching Institute</p>

<p>Email: abc@gmail.com</p>

<p>Phone: 9876543210</p>

<!-- External Link -->

<p>Visit our Website:

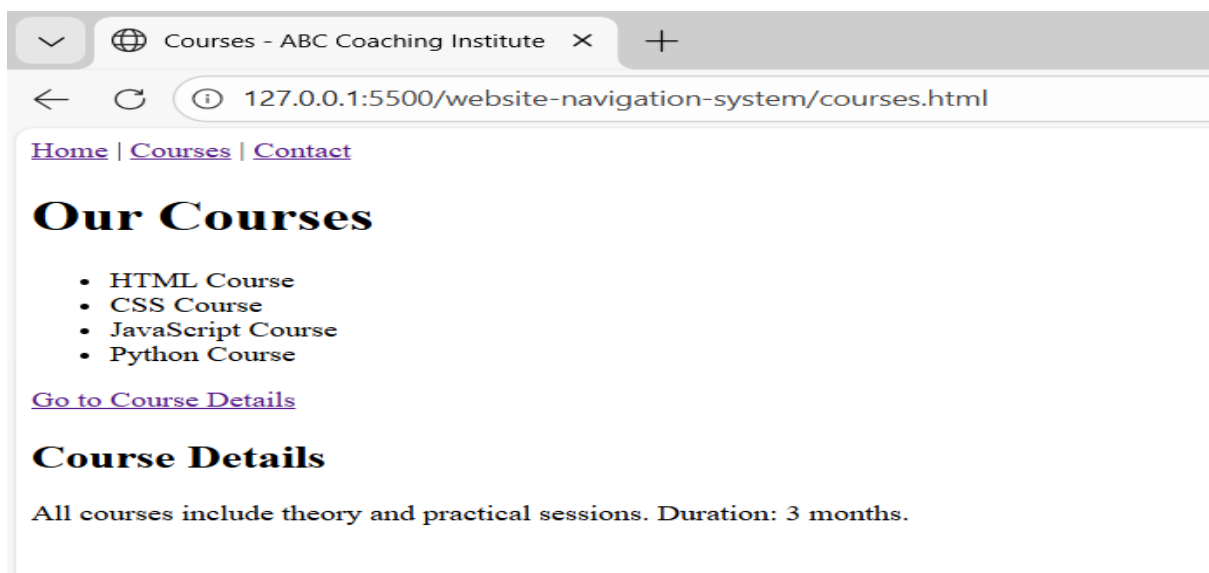
    <a href="https://www.google.com" target="_blank">www.abccoaching.com</a>

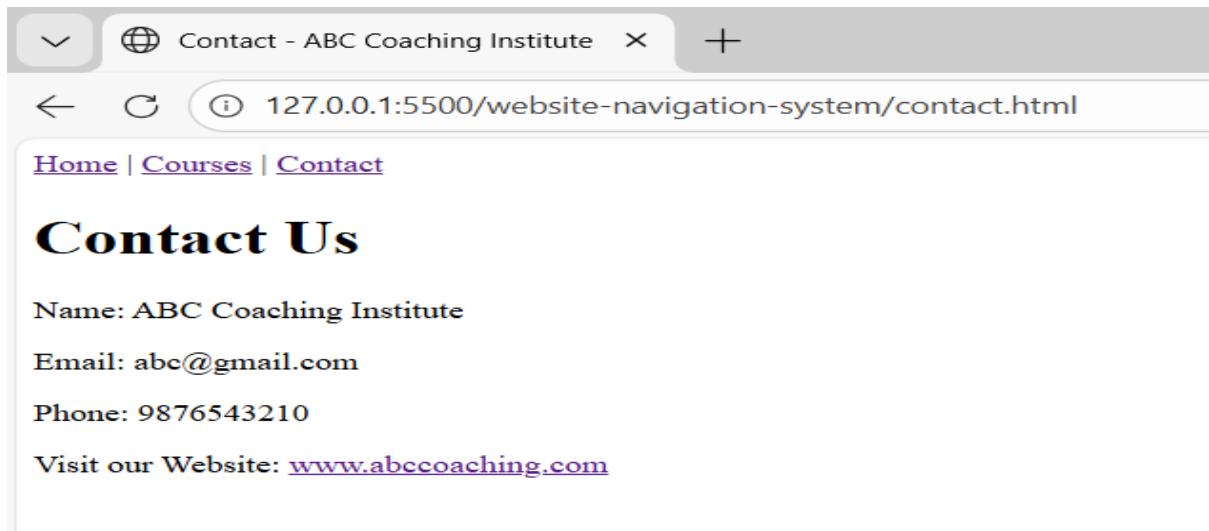
</p>

</body>

</html>
```

3.Output Screenshot





4. Code Explanation

`<!DOCTYPE html> -->` Declares the document type and specifies that this is an HTML5 document.

`<html lang="en"> -->` Root element of the webpage and specifies English as the language.

`<head> -->` Contains metadata like character encoding, viewport settings, and page title.

`<meta charset="UTF-8"> -->` Ensures proper display of text and special characters.

`<meta name="viewport"> -->` Makes the webpage responsive on different screen sizes.

`<title> -->` Defines the title displayed on the browser tab.

`<body> -->` Contains all visible content such as navigation menu, headings, and text.

`<nav> -->` Defines a semantic navigation section that contains links to different pages.

`<a> -->` Anchor tag used to create hyperlinks for navigation between pages.

`href="index.html", "courses.html", "contact.html" -->` Uses relative paths to link internal pages of the website.

Relative path --> Refers to linking pages within the same folder.

`<h1> -->` Displays the main heading of each webpage.

`<h2> -->` Displays subheadings like About section and Course Details.

`<p> -->` Displays paragraph text such as institute information and contact details.

` -->` Creates an unordered list to display courses.

` -->` Defines individual list items inside the list.

`href="#about"` and `href="#details"` --> Creates internal anchor links to jump to specific sections within the same page.

`id="about"` and `id="details"` --> Defines the target section for internal anchor navigation.

Internal anchor link --> Allows navigation within the same webpage.

`href="https://www.instagram.com"` --> Creates an external link to social media.

`href="https://www.google.com"` --> Creates an external link to another website.

External link --> Allows navigation to websites outside the current website.

`target="_blank"` --> Opens the external link in a new browser tab.

Problem 3: Student Registration Form with Input Types (Level-1)

1.Problem Statement

An institute wants a basic student registration form with built-in validation to reduce incorrect submissions.

Requirements Create an HTML webpage that includes: Create a form with following input types: text (Name) email tel number (Age) date Use HTML5 built-in validation: required min, max pattern (for phone number) Add submit button

2.HTML Code

registration.html

```
<!-- HTML5-DAY-2-PROBLEM-3 -->

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Student Registration Form</title>

</head>

<body>

    <h1>Student Registration Form</h1>

    <form action="/success.html">

        <!-- Name -->

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

        <input type="text" id="name" name="name" placeholder="Enter your name" required>

        <br><br>

        <!-- Email -->

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

        <input type="email" id="email" name="email" placeholder="Enter your email" required>

        <br><br>

        <!-- Phone Number -->
```

```

<label for="phone">Phone Number:</label><br>
    <input type="tel" id="phone" name="phone" placeholder="Enter 10-digit phone
number" pattern="[0-9]{10}"
    required>
<br><br>
<!-- Age -->
<label for="age">Age:</label><br>
<input type="number" id="age" name="age" min="18" max="60" required>
<br><br>
<!-- Date of Birth -->
<label for="dob">Date of Birth:</label><br>
<input type="date" id="dob" name="dob" required>
<br><br>
<!-- Submit Button -->
<button type="submit">Register</button>
</form>
</body>
</html>

```

Success.html

```

<!DOCTYPE html>
<html>
<head>
    <title>Registration Successful</title>
</head>
<body>
    <div align="center">
        <h1> Registration Successful!</h1>
        <p>Your form has been submitted successfully.</p>

        <p>Thank you for registering with our institute.</p>
    </div>

```

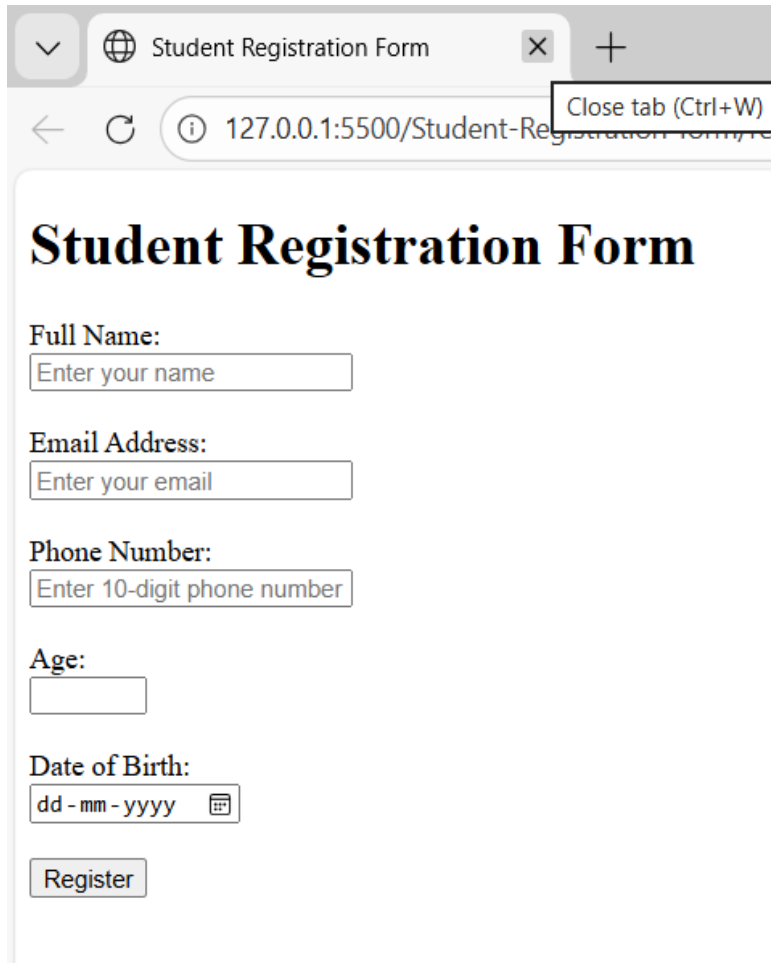

Go Back to Registration Page

</div>

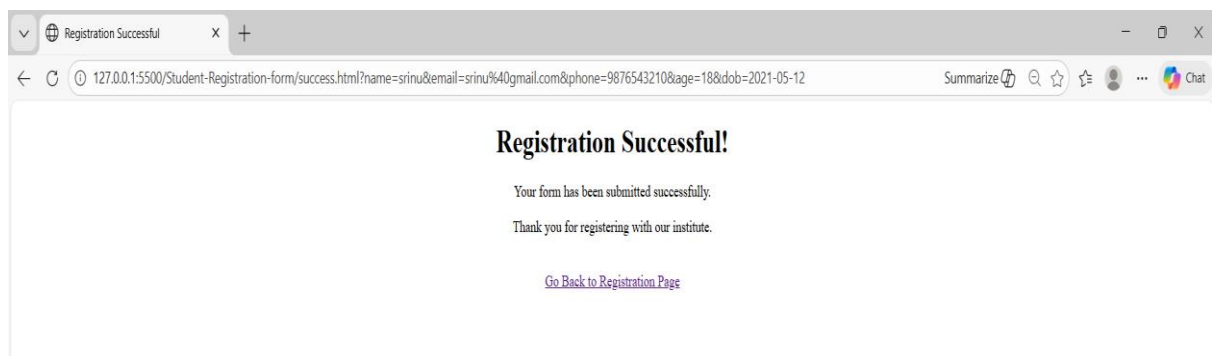
</body>

</html>

3.Output Screenshot



A screenshot of a web browser displaying a "Student Registration Form". The browser's address bar shows the URL "127.0.0.1:5500/Student-Registration-form/re". The form itself is titled "Student Registration Form" in a large, bold, black serif font. Below the title, there are five input fields, each with a label to its left: "Full Name:" with a text input field containing the placeholder "Enter your name"; "Email Address:" with a text input field containing the placeholder "Enter your email"; "Phone Number:" with a text input field containing the placeholder "Enter 10-digit phone number"; "Age:" with a small text input field; and "Date of Birth:" with a date picker showing "dd - mm - yyyy". At the bottom of the form is a "Register" button. A tooltip "Close tab (Ctrl+W)" is visible over the browser's tab bar.



A screenshot of a web browser displaying a "Registration Successful" confirmation page. The browser's address bar shows the URL "127.0.0.1:5500/Student-Registration-form/success.html?name=srinu&email=srinu%40gmail.com&phone=9876543210&age=18&dob=2021-05-12". The page content is centered and includes the heading "Registration Successful!" in a bold, black serif font. Below the heading, there are two lines of text: "Your form has been submitted successfully." and "Thank you for registering with our institute." At the bottom, there is a link labeled "Go Back to Registration Page" in a purple, underlined font. The browser's interface includes a "Summarize" button and a "Chat" icon in the top right corner.

4. Code Explanation

`<!DOCTYPE html>` --> Declares the document type and specifies that this is an HTML5 document.

`<html lang="en">` --> Root element of the webpage and specifies English as the language.

`<head>` --> Contains metadata and title information of the webpage.

`<meta charset="UTF-8">` --> Ensures proper display of text and special characters.

`<meta name="viewport">` --> Makes the webpage responsive on different screen sizes.

`<title>` --> Defines the title shown on the browser tab.

`<body>` --> Contains all visible content such as heading and registration form.

`<form>` --> Creates a form to collect student information.

`action="/success.html"` --> Specifies the page that opens after successful form submission.

`<label>` --> Provides a descriptive name for each input field.

`<input type="text">` --> Creates a text field to enter the student's name.

`<input type="email">` --> Creates an email field and validates correct email format.

`<input type="tel">` --> Creates a field to enter the phone number.

`pattern="[0-9]{10}"` --> Ensures the phone number contains exactly 10 digits.

`<input type="number">` --> Creates a field to enter numeric age value.

`<input type="date">` --> Creates a date picker to select date of birth.

`required` attribute --> Ensures the user must fill the field before submitting the form.

`placeholder` attribute --> Displays hint text inside the input field.

`<button type="submit">` --> Creates a submit button to send the form data.

`align="center"` --> Aligns the success message content to the center of the page.

Problem 4: Multi-Page Website with Breadcrumb Navigation

1.Problem Statement

A training portal website has multiple levels of pages and users often get confused about where they are. The company wants breadcrumbs for better navigation.

Requirements

Pages: Home Course Web Development HTML Course Implement: <nav> for main menu
Breadcrumb navigation using anchor tags Example: Home > Courses > Web Development >
HTML Use: Hierarchical linking Relative paths Breadcrumb should update based on page hierarchy

2.HTML Code

Index.html

```
<!-- HTML5-DAY-2-PROBLEM-4 -->

<!DOCTYPE html>

<html>

<head>

    <title>Home - Training Portal</title>

</head>

<body>

    <!-- Main Navigation -->

    <nav>

        <a href="index.html">Home</a> |

        <a href="courses/courses.html">Courses</a>

    </nav>

    <!-- Breadcrumb -->

    <p>

        <a href="index.html">Home</a>

    </p>

    <h1>Welcome to Training Portal</h1>

    <p>This is the Home Page.</p>

    <a href="courses/courses.html">Go to Courses</a>
```

```
</body>
```

```
</html>
```

Courses.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>Courses - Training Portal</title>
```

```
</head>
```

```
<body>
```

```
<!-- Main Navigation -->
```

```
<nav>
```

```
    <a href="../index.html">Home</a> |
```

```
    <a href="courses.html">Courses</a>
```

```
</nav>
```

```
<!-- Breadcrumb -->
```

```
<p>
```

```
    <a href="../index.html">Home</a> >
```

```
    <a href="courses.html">Courses</a>
```

```
</p>
```

```
<h1>Courses Page</h1>
```

```
<p>Select a course category.</p>
```

```
<a href="../web-development/web-dev.html">
```

```
Web Development Course
```

```
</a>
```

```
</body>
```

```
</html>
```

Web-dev.html

```
<!DOCTYPE html>

<html>

<head>

    <title>Web Development - Training Portal</title>

</head>

<body>

<!-- Main Navigation -->

<nav>

    <a href="../index.html">Home</a> |

    <a href="../courses/courses.html">Courses</a>

</nav>

<!-- Breadcrumb -->

<p>

    <a href="../index.html">Home</a> >

    <a href="../courses/courses.html">Courses</a> >

    <a href="../web-dev.html">Web Development</a>

</p>

<h1>Web Development</h1>

<p>Learn web development technologies.</p>

<a href="../HTML-Courses.html">HTML Course</a>

</body>

</html>
```

HTML-courses.html

```
<!DOCTYPE html>

<html>

<head>

    <title>HTML Course - Training Portal</title>
```

```
</head>

<body>

<!-- Main Navigation -->

<nav>

  <a href="../index.html">Home</a> |

  <a href="../courses/courses.html">Courses</a>

</nav>

<!-- Breadcrumb -->

<p>

  <a href="../index.html">Home</a> >

  <a href="../courses/courses.html">Courses</a> >

  <a href="../web-dev.html">Web Development</a> >

  <a href="../HTML-Courses.html">HTML Course</a>

</p>

<h1>HTML Course</h1>

<p>Welcome to HTML Course.</p>

<p>You will learn:</p>

<ul>

  <li>HTML Basics</li>

  <li>Forms</li>

  <li>Tables</li>

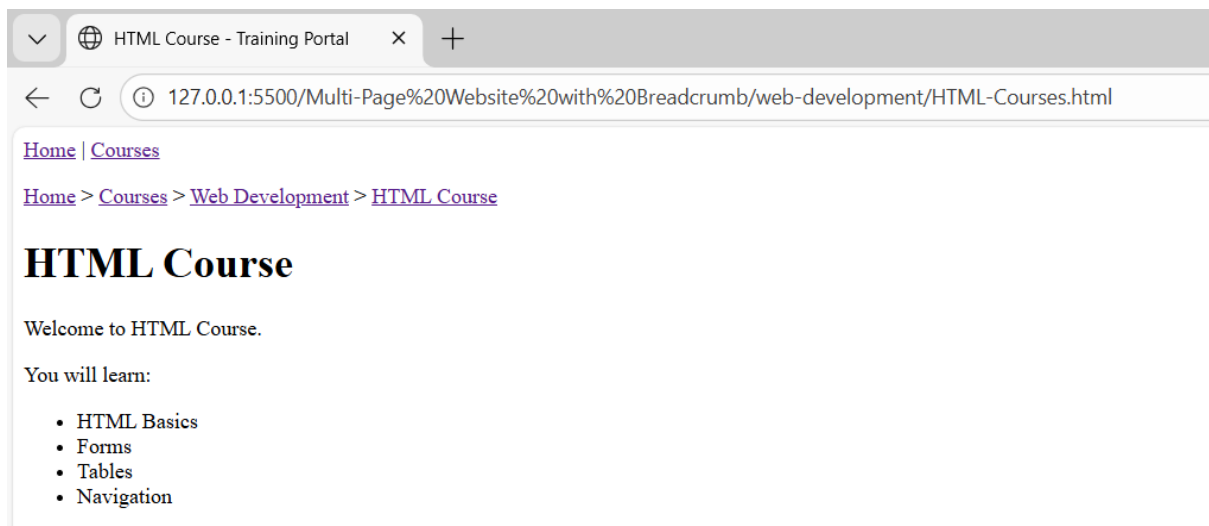
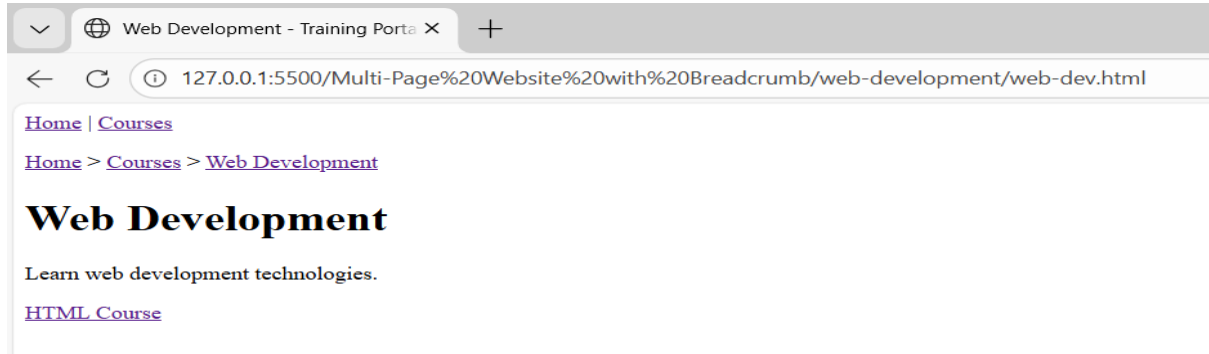
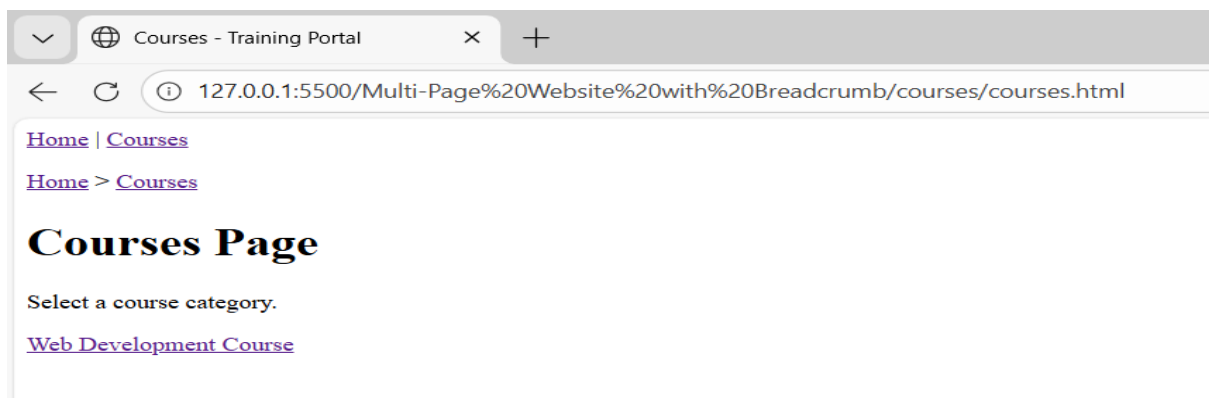
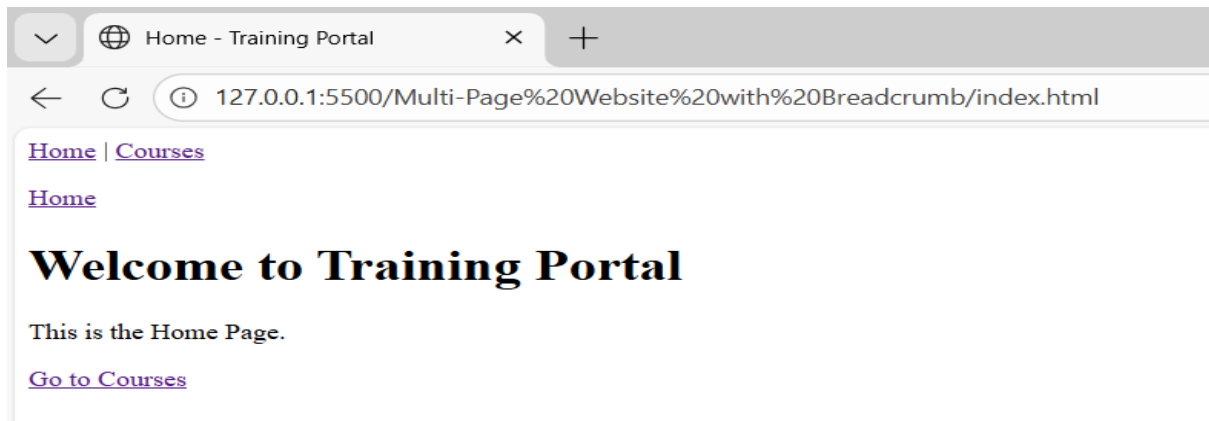
  <li>Navigation</li>

</ul>

</body>

</html>
```

3.Output Screenshot



4.Code Explanation

`<!DOCTYPE html>` --> Declares the document type and specifies that this is an HTML5 document.

`<html>` --> Root element that contains the entire webpage content.

`<head>` --> Contains metadata and title information of the webpage.

`<title>` --> Defines the title shown on the browser tab for each page.

`<body>` --> Contains all visible content such as navigation, breadcrumbs, headings, and links.

`<nav>` --> Defines the main navigation menu that appears on all pages for easy access.

`<a>` --> Anchor tag used to create hyperlinks between different pages.

Relative paths (example: "courses/courses.html", "../index.html") --> Used to link pages based on folder structure.

`../` --> Refers to moving one folder up in the directory hierarchy.

`./` --> Refers to the current folder.

Breadcrumb navigation --> Shows the user's current location in the website hierarchy.

Home > Courses > Web Development > HTML Course --> Represents hierarchical navigation structure.

Each breadcrumb `<a>` link --> Allows users to return to previous pages easily.

Hierarchical linking --> Connects pages in parent-child relationship (Home → Courses → Web Development → HTML Course).

`<h1>` --> Displays the main heading of each page.

`<p>` --> Displays descriptive text and breadcrumb structure.

`` --> Creates an unordered list to display course topics.

`` --> Defines individual list items inside the list.

Problem 5: Course Enrollment Form with Advanced HTML Elements

1.Problem Statement

An online learning platform wants to enhance user experience by showing course progress, skill levels, and suggested inputs while filling the form.

Requirements

Create an enrollment form using: <datalist> for course suggestions <progress> to show enrollment completion <meter> to indicate skill level (Beginner–Advanced)Include modern input types: email range number Use built-in validation

2.HTML Code

course-enrollment.html

```
<!-- HTML5-DAY-2-PROBLEM-5 -->

<!DOCTYPE html>

<html>

<head>

    <title>Course Enrollment Form</title>

</head>

<body>

    <!-- Header -->

    <header>

        <h1>Online Learning Platform</h1>

        <p>Course Enrollment Form</p>

    </header>

    <!-- Navigation -->

    <nav>

        <a href="#">Home</a> |

        <a href="#">Courses</a> |

        <a href="#">Contact</a>

    </nav>

    <!-- Main Content -->

    <main>
```

```
<section>

  <form action="/success.html" method="get">

    <!-- Name -->

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

      <input type="text" id="name" name="name" placeholder="Enter your name"
required>

    <br><br>

    <!-- Email -->

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

      <input type="email" id="email" name="email" placeholder="Enter your email"
required>

    <br><br>

    <!-- Course using datalist -->

    <label for="course">Select Course:</label><br>

      <input list="courses" id="course" name="course" placeholder="Choose or type
course" required>

    <datalist id="courses">

      <option value="HTML">

      <option value="CSS">

      <option value="JavaScript">

      <option value="React">

      <option value="Python">

      <option value="Java">

    </datalist>

    <br><br>

    <!-- Age using number -->

    <label for="age">Age:</label><br>

    <input type="number" id="age" name="age" min="16" max="60" required>

    <br><br>
```

```

<!-- Skill Level using range -->

<label for="skill">Skill Level (0-100):</label><br>

<input type="range" id="skill" name="skill" min="0" max="100" value="50">

<br><br>

<!-- Skill Meter -->

<label>Skill Level Indicator:</label><br>

<meter value="50" min="0" max="100">50%</meter>

<br><br>

<!-- Enrollment Progress -->

<label>Enrollment Progress:</label><br>

<progress value="70" max="100"></progress>

<br><br>

<!-- Submit -->

<button type="submit">Enroll Now</button>

</form>

</section>

</main>

</body>

</html>

```

Success.html

```

<!DOCTYPE html>

<html>

<head>

  <title>Registration Successful</title>

</head>

<body>

  <div align="center">

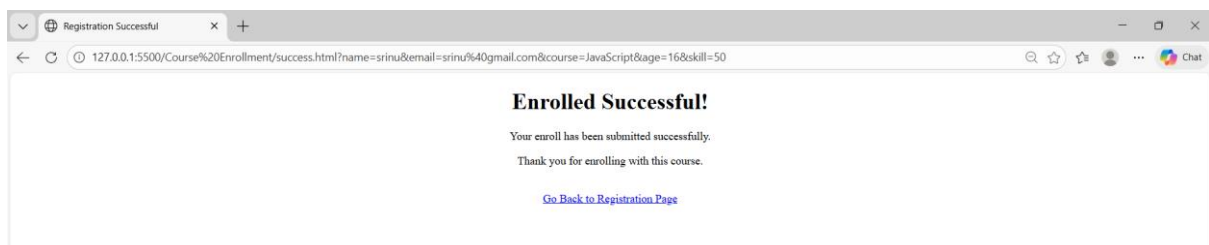
    <h1> Enrolled Successful!</h1>

```

```
<p>Your enroll has been submitted successfully.</p>
<p>Thank you for enrolling with this course.</p>
<br>
<a href="./course-enrollment.html">Go Back to Registration Page</a>
</div>
</body>
</html>
```

3.Output Screenshot

The screenshot shows a web browser window with the title "Course Enrollment Form". The address bar shows the URL "127.0.0.1:5500/Course%20Enrollment/course-enrollment.html". The page content includes a heading "Online Learning Platform" and a sub-heading "Course Enrollment Form". There are links for "Home", "Courses", and "Contact". The form fields are: "Full Name:" with a text input, "Email:" with a text input, "Select Course:" with a dropdown menu, "Age:" with a text input, "Skill Level (0-100):" with a range slider, "Skill Level Indicator:" with a progress bar, and "Enrollment Progress:" with a progress bar. An "Enroll Now" button is at the bottom.



4. Code Explanation

`<!DOCTYPE html>` --> Declares the document type and specifies that this is an HTML5 document.

`<html>` --> Root element that contains the entire webpage.

`<head>` --> Contains metadata and title of the webpage.

`<title>` --> Defines the title shown on the browser tab.

`<body>` --> Contains all visible content such as header, navigation, and form.

`<header>` --> Defines the top section containing the main heading and description.

`<h1>` --> Displays the main heading of the Online Learning Platform.

`<p>` --> Displays descriptive text such as form information and success message.

`<nav>` --> Defines the navigation menu for moving between pages.

`<main>` --> Represents the main content area of the webpage.

`<section>` --> Groups related content together, such as the enrollment form.

`<form>` --> Creates a form to collect user enrollment details.

`action="/success.html"` --> Specifies the page that opens after form submission.

`method="get"` --> Sends form data through the URL using GET method.

`<label>` --> Provides a name or description for input fields.

`<input type="text">` --> Creates a text field for entering the full name.

`<input type="email">` --> Creates an email field and validates correct email format.

`<input list="courses">` --> Connects the input field with course suggestions.

`<datalist>` --> Provides predefined course suggestions for the user.

`<option>` --> Defines individual course options like HTML, CSS, JavaScript, React, Python, and Java.

`<input type="number">` --> Creates a numeric field for entering age.

`min` and `max` attributes --> Define the allowed range of values for number input.

`<input type="range">` --> Creates a slider to select skill level between minimum and maximum values.

`value` attribute --> Sets the default value of the range slider.

`<meter>` --> Displays the skill level in visual meter form (Beginner to Advanced).

`<progress>` --> Shows the enrollment completion progress visually.

required attribute --> Ensures the user must fill the field before submitting the form.

placeholder attribute --> Displays hint text inside input fields.

<button type="submit"> --> Creates a button to submit the enrollment form.

align="center" --> Centers the success message content on the success page.

 --> Creates a hyperlink to return to the enrollment form page.