

HTML5_Day – 2_Hands_On -- Kaveri Harish Babu

Problem 1

Problem Statement:

Assessment Goal: Validate understanding of links and form elements.

Hands-on Tasks:

1. Create two HTML pages and link them using navigation links
2. Add a navigation bar with Home and Contact links
3. Create a registration form with:
 - o Name
 - o Email
 - o Password
 - o Gender (radio buttons)
 - o Course selection (dropdown)
4. Use required and placeholder attributes

Expected Outcome:

A multi-page website with working navigation and a basic form.

Source Code:

File Name: Index.html

```
1 | <!--HTML_Day2_Hands_on_Problem_Statement1_HarishBabuKaveri-->
2 | <!DOCTYPE html>
3 | <html>
4 |   <head>
5 |     <meta charset="UTF-8">
6 |     <title>Registration Form</title>
7 |   </head>
8 |   <body>
9 |     <nav>
10 |       <a href="index.html">Home</a> | 
11 |       <a href="contact.html">Contact</a>
12 |     </nav>
13 |
14 |     <h3> Registration Form </h3>
15 |
16 |     <form>
17 |       <label>Name:</label>
18 |       <input type="text" placeholder="Type your Name" required>
19 |       <br><br>
20 |       <label>Email:</label>
21 |       <input type="email" placeholder="Type your Email Id" required>
22 |       <br><br>
23 |       <label>Password:</label>
24 |       <input type="password" placeholder="Type your Password" required>
25 |       <br><br>
26 |       <label>Gender:</label>
27 |       <input type="radio" name="Gender"> Male
28 |       <input type="radio" name="Gender"> Female
29 |       <br><br>
30 |       <label for="Courses">Select Course:</label>
31 |       <input type="text" id="Courses" name="Courses" list="Course">
32 |       <datalist id="Course">
33 |         <option value="Python">
34 |         <option value="Java">
35 |         <option value="HTML">
36 |       </datalist>
37 |       <br><br>
38 |       <button type="submit">Submit</button>
39 |     </form>
40 |   </body>
41 | </html>
```

File Name: contact.html

```
1 | <!--HTML_Day2_Hands_on_Problem_Statement1_HarishBabuKaveri-->
2 | <!DOCTYPE html>
3 | <html>
4 |   <head>
5 |     <title>Contact Page</title>
6 |   </head>
7 |   <body>
8 |     <nav>
9 |       <a href="index.html">Home</a> |
10 |       <a href="contact.html">Contact</a>
11 |     </nav>
12 |
13 |     <h1>Contact Us</h1>
14 |     <p>Email: XYZ@abc.com</p>
15 |     <p>Phone: +91 XXXXX XXXXX</p>
16 |
17 |   </body>
18 | </html>
```

Output:

Output File: index.html

[Home](#) | [Contact](#)

Registration Form

Name:

Email:

Password:

Gender: Male Female

Select Course:

Output File: contact.html

[Home](#) | [Contact](#)

Contact Us

Email: XYZ@abc.com

Phone: +91 XXXXX XXXXX

Explanation:

This code creates two simple webpages: one is a Registration Form and the other is a Contact Page, connected using navigation links (Home | Contact). The registration page collects name, email, password, gender, and course details, while the contact page shows email and phone information.

Problem 2

Problem Statement:

Simple Website Navigation System (Level-1)

Scenario

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)

Technical Constraints

- Only HTML5
- No CSS or JavaScript
- Navigation must be semantic (<nav>)

Learning Outcome

You should be able to:

- Use `<nav>` and `<a>` elements
- Understand relative paths
- Build a simple multi-page navigation structure
- Users should move seamlessly between pages
- Code should be readable and well-indented
- Navigation links should work correctly

Source Code:

File Name: index.html

```
1  <!--HTML_Day2_Hands_on_Problem_Statement2_HarishBabuKaveri-->
2  <!DOCTYPE html>
3  <html>
4  <head>
5      <meta charset="UTF-8">
6      <title>HBK Coaching Institute</title>
7  </head>
8  <body>
9      <nav>
10         <a href="index.html">Home</a> | 
11         <a href="courses.html">Courses</a> | 
12         <a href="contact.html">Contact</a>
13     </nav>
14
15     <h2>Welcome to our HBK Coaching Institute</h2>
16     <p>We provide quality education and professional guidance to help students achieve academic excellence.</p>
17
18     <a href="#mission">Go to Our Mission</a>
19
20     <h2 id="mission">Our Mission</h2>
21     <p> Our mission is to empower students with knowledge, skills, and confidence to succeed in their careers.</p>
22
23     <p>Follow us on <a href="https://www.facebook.com" target="_blank">Facebook</a></p>
24
25
26     </body>
27 </html>
```

File Name: courses.html

```
1  <!--HTML_Day2_Hands_on_Problem_Statement2_HarishBabuKaveri-->
2  <!DOCTYPE html>
3  <html>
4  <head>
5      <title>Courses</title>
6  </head>
7  <body>
8      <nav>
9          <a href="index.html">Home</a> | 
10         <a href="courses.html">Contact</a> | 
11         <a href="contact.html">Contact</a>
12     </nav>
13
14     <h1>Courses Offered:</h1>
15     <p>Python</p>
16     <p>Java</p>
17     <p>DotNet</p>
18     <p>Automation Testing</p>
19     <p>Manual Testing</p>
20
21     </body>
22 </html>
```

File Name: contact.html

```
1 | <!--HTML_Day2_Hands_on_Problem_Statement2_HarishBabuKaveri-->
2 | <!DOCTYPE html>
3 | <html>
4 | <head>
5 |   <title>Contact Page</title>
6 | </head>
7 | <body>
8 |   <nav>
9 |     <a href="index.html">Home</a> | 
10 |     <a href="courses.html">Contact</a> |
11 |     <a href="contact.html">Contact</a>
12 |   </nav>
13 |
14 |   <h1>Contact Us</h1>
15 |   <p>Email: XYZ@abc.com</p>
16 |   <p>Phone: +91 XXXXX XXXXX</p>
17 |   <p>Address: Door No.: XXX, Y Street, XY City, XYZ. Pincode-XXX XXX</p>
18 |
19 | </body>
20 | </html>
```

Output:

Output File: index.html

[Home](#) | [Courses](#) | [Contact](#)

Welcome to our HBK Coaching Institute

We provide quality education and professional guidance to help students achieve academic excellence.

[Go to Our Mission](#)

Our Mission

Our mission is to empower students with knowledge, skills, and confidence to succeed in their careers.

Follow us on [Facebook](#)

Output File: courses.html

[Home](#) | [Contact](#) | [Contact](#)

Courses Offered:

Python

Java

DotNet

Automation Testing

Manual Testing

Output File: contact.html

[Home](#) | [Contact](#) | [Contact](#)

Contact Us

Email: XYZ@abc.com

Phone: +91 XXXXX XXXXX

Address: Door No.: XXX, Y Street, XY City, XYZ. Pincode-XXX XXX

Explanation:

This code creates a small website for Coaching Institute with three pages: Home, Courses, and Contact, all connected using navigation links. The Home page shows a welcome message and mission, the Courses page lists available courses, and the Contact page displays email, phone, and address details.

Problem 3

Problem Statement:

Student Registration Form with Input Types (Level-1)

Scenario

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

Technical Constraints

- HTML5 only
- No JavaScript validation
- Use proper <label> tags

Learning Outcome

You will be able to:

- Use advanced input types
- Apply built-in HTML5 validation
- Improve form usability without JavaScript
- Browser should show validation errors automatically
- Inputs should restrict invalid values
- Form should be user-friendly

Source Code:

File Name: index.html

```
1 | <!--HTML_Day2_Hands_on_Problem_Statement3_HarishBabuKaveri-->
2 | <!DOCTYPE html>
3 | <html>
4 |   <head>
5 |     <meta charset="UTF-8">
6 |     <title>Student Registration Form</title>
7 |   </head>
8 |   <body>
9 |     <h3> Student Registration Form </h3>
10 |    <form>
11 |      <label>Name:</label>
12 |      <input type="text" min="5" max="50" placeholder="Type your Name" required>
13 |      <br><br>
14 |      <label>Email:</label>
15 |      <input type="email" placeholder="Type your Email Id" required>
16 |      <br><br>
17 |      <label>Mobile Number:</label>
18 |      <input type="tel" pattern="{10}" placeholder="Type your Mobile Number" required>
19 |      <br><br>
20 |      <label>Age:</label>
21 |      <input type="number" placeholder="Enter your Age" required>
22 |      <br><br>
23 |      <label>Date of Birth</label>
24 |      <input type="date" required>
25 |      <br><br>
26 |      <button type="submit">Submit</button>
27 |    </form>
28 |  </body>
29 | </html>
```

Output:

Output File: index.html

Student Registration Form

Name:

Email:

Mobile Number:

Age:

Date of Birth 

Explanation:

This code creates a simple **Student Registration Form** where students can enter their name, email, mobile number, age, and date of birth. It uses different input types like email, number, date, and also includes validation with required fields.

Problem 4

Problem Statement:

Multi-Page Website with Breadcrumb Navigation (Level-2)

Scenario

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
- Courses
- 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

Technical Constraints

- HTML5 only
- No CSS frameworks
- Semantic elements preferred

Learning Outcome

Learners should be able to:

- Breadcrumbs must reflect correct page structure
- Navigation must work without broken links
- Clear hierarchy in folder structure
- Design hierarchical navigation
- Implement breadcrumbs
- Understand real-world website structure

Source Code:

File Name: index.html

```
1 | <!--HTML_Day2_Hands_on_Problem_Statement4_HarishBabuKaveri-->
2 | <!DOCTYPE html>
3 | <html lang="en">
4 | <head>
5 |     <meta charset="UTF-8">
6 |     <title>Home</title>
7 | </head>
8 | <body>
9 |
10 |     <!-- Main Navigation -->
11 |     <nav>
12 |         <a href="index.html">Home</a> |
13 |         <a href="courses.html">Courses</a> |
14 |         <a href="web_development.html">Web Development</a> |
15 |         <a href="html_course.html">HTML Course</a>
16 |     </nav>
17 |     <h1>Home</h1>
18 | </body>
19 | </html>
```

File Name: courses.html

```
1  <!--HTML_Day2_Hands_on_Problem_Statement4_HarishBabuKaveri-->
2  <!DOCTYPE html>
3  <html lang="en">
4  <head>
5      <meta charset="UTF-8">
6      <title>Courses</title>
7  </head>
8  <body>
9  <nav>
10     <a href="index.html">Home</a> |
11     <a href="courses.html">Courses</a> |
12     <a href="web_development.html">Web Development</a> |
13     <a href="html_course.html">HTML Course</a>
14 </nav>
15 <p> <a href="index.html">Home</a> &gt; Courses</p>
16 <h1>Courses</h1>
17 <a href="web_development.html">Web Development</a>
18 </body>
19 </html>
```

File Name: web_development.html

```
1  <!--HTML_Day2_Hands_on_Problem_Statement4_HarishBabuKaveri-->
2  <!DOCTYPE html>
3  <html lang="en">
4  <head>
5      <meta charset="UTF-8">
6      <title>Web Development</title>
7  </head>
8  <body>
9  <nav>
10     <a href="index.html">Home</a> |
11     <a href="courses.html">Courses</a> |
12     <a href="web_development.html">Web Development</a> |
13     <a href="html_course.html">HTML Course</a>
14 </nav>
15 <p>
16     <a href="index.html">Home</a> &gt;
17     <a href="courses.html">Courses</a> &gt;
18     Web Development
19 </p>
20 <h1>Web Development</h1>
21 <a href="html_course.html">HTML Course</a>
22 </body>
23 </html>
```

File Name: html_course.html

```
1  <!--HTML_Day2_Hands_on_Problem_Statement4_HarishBabuKaveri-->
2  <!DOCTYPE html>
3  <html lang="en">
4  <head>
5      <meta charset="UTF-8">
6      <title>HTML Course</title>
7  </head>
8  <body>
9  <nav>
10     <a href="index.html">Home</a> |
11     <a href="courses.html">Courses</a> |
12     <a href="web_development.html">Web Development</a> |
13     <a href="html_course.html">HTML Course</a>
14 </nav>
15 <p>
16     <a href="index.html">Home</a> &gt;
17     <a href="courses.html">Courses</a> &gt;
18     <a href="web_development.html">Web Development</a> &gt;
19     HTML Course
20 </p>
21 <h1>HTML Course</h1>
22 </body>
23 </html>
```

Output:

Output File: index.html

[Home](#) | [Courses](#) | [Web Development](#) | [HTML Course](#)

Home

Output File: courses.html

[Home](#) | [Courses](#) | [Web Development](#) | [HTML Course](#)

[Home](#) > Courses

Courses

[Web Development](#)

Output File: web_development.html

[Home](#) | [Courses](#) | [Web Development](#) | [HTML Course](#)

[Home](#) > [Courses](#) > Web Development

Web Development

[HTML Course](#)

Output File: html_course.html

[Home](#) | [Courses](#) | [Web Development](#) | [HTML Course](#)

[Home](#) > [Courses](#) > [Web Development](#) > HTML Course

HTML Course

Explanation:

This code creates a small multi-page website with **Home**, **Courses**, **Web Development**, and **HTML Course** pages, all connected using navigation links. It also uses breadcrumb links (Home > Courses > Web Development > HTML Course) to show the user's current page location.

Problem 5

Problem Statement:

Course Enrollment Form with Advanced HTML Elements

Scenario

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

Technical Constraints

- HTML5 only
- No JavaScript or CSS
- Must use semantic elements

Learning Outcome

You will be able to:

- Use advanced HTML5 elements
- Enhance form UX without JavaScript
- Understand real-time data representation in HTML

Browser should display:

- Dropdown suggestions via <datalist>
- Progress bar updates (static value)
- Meter shows skill level visually

Clean and structured form layout

Source Code:

File Name: index.html

```
1  <!--HTML_Day2_Hands_on_Problem_Statement5_HarishBabuKaveri-->
2  <!DOCTYPE html>
3  <html lang="en">
4  <head>
5      <meta charset="UTF-8">
6      <title>Course Enrollment Form</title>
7  </head>
8  <body>
9
10 <header>
11     <h1>Welcome to HBK Institute</h1>
12     <h2>This is the Online Course Enrollment Form</h2>
13     <p>Fill this form to enroll your course.</p>
14 </header>
15
16 <main>
17     <section>
18         <h2>Enrollment Form</h2>
19
20         <form>
21             <label>Full Name:</label>
22             <input type="text" placeholder="Enter your Full Name" required>
23             <br><br>
24
25             <label>Email Address:</label>
26             <input type="email" placeholder="Enter your Email Id" required>
27             <br><br>
28
29             <label for="course">Select Course:</label>
30             <input list="courses" id="course" name="course" placeholder="Select your Course" required>
31
32             <datalist id="courses">
33                 <option value="HTML">
34                 <option value="CSS">
35                 <option value="JavaScript">
36                 <option value="Java">
37                 <option value="Python">
```

Continuation...

```
34      <option value="CSS">
35      <option value="JavaScript">
36      <option value="Java">
37      <option value="Python">
38  </datalist>
39  <br><br>
40
41  <label>Age:</label>
42  <input type="number" min="16" max="60" required>
43  <br><br>
44
45  <label>Skill Level (1 = Beginner, 10 = Advanced):</label>
46  <input type="range" min="1" max="10">
47  <br><br>
48
49  <label>Your Skill Indicator:</label>
50  <meter min="1" max="10" value="4"></meter>
51  <br><br>
52
53  <label>Enrollment Completion:</label>
54  <progress min="10" max="100" value="70"></progress>
55  <br><br>
56
57      <button type="submit">Submit</button>
58  </form>
59  </section>
60</main>
61<footer>
62  <h3>Contact Us</h3>
63  <p>Email: XYZ@abc.com</p>
64  <p>Phone: +91 XXXXX XXXXX</p>
65</footer>
66</body>
67</html>
```

Output:

Welcome to HBK Institute

This is the Online Course Enrollment Form

Fill this form to enroll your course.

Enrollment Form

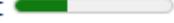
Full Name:

Email Address:

Select Course:

Age:

Skill Level (1 = Beginner, 10 = Advanced): 

Your Skill Indicator: 

Enrollment Completion: 

Contact Us

Email: XYZ@abc.com

Phone: +91 XXXXX XXXXX

Explanation:

This code creates an **Online Course Enrollment Form** for Institute. It collects details like name, email, course selection (with suggestions), age, and skill level, and also shows a skill meter and enrollment progress bar.