

## HTML5 Lab Exercise Sheet

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### HTML5 Lab Exercise – Intermediate Level

#### Lab Objectives

By the end of this lab, you will be able to:

- Use **Semantic HTML5 elements**
  - Implement **new HTML5 input controls**
  - Apply **new HTML5 attributes**
  - Use **<datalist> for dynamic input suggestions**
  - Embed and control **audio and video media**
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#### ◆ **Exercise 1 – Build a Semantic Blog Layout**

#### Task:

Create a blog webpage using **HTML5 semantic elements**.

#### Requirements:

You must use:

- <header>
- <nav>
- <section>
- <article>
- <aside>
- <footer>
- <main>
- <figure> and <figcaption>

#### Scenario:

Create a blog page titled “**Tech Trends 2026**”

 **Structure Guide:**

Header → Website title + navigation menu

Main

Section

    Article 1

    Article 2

Aside → Related links

Footer → Copyright

 **Expected Features:**

- Navigation menu with 4 links
  - 2 articles inside a section
  - Each article should contain:
    - Heading
    - Paragraph
    - Image with caption
  - Sidebar with related links
  - Footer with copyright
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 **Exercise 2 – HTML5 New Input Controls Form**

 **Task:**

Create a **User Registration Form** using HTML5 input types.

 **Must Use Input Types:**

- email
- url
- number

- range
- date
- datetime-local
- color
- search
- tel
- month
- week
- time

 **Scenario:**

Design a registration form for an Online Training Portal.

 **Requirements:**

1. Email field must validate automatically.
  2. Website field must accept valid URL only.
  3. Age should accept only numbers between 18 and 60.
  4. Skill level using range (1–10).
  5. Preferred color theme using color picker.
  6. Course start date using date picker.
  7. Meeting time using time input.
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◆ **Exercise 3 – Implement New HTML5 Attributes**

 **Task:**

Enhance the registration form using new attributes.

 **Use the following attributes:**

- required
- placeholder

- pattern
- autofocus
- autocomplete
- min
- max
- step
- readonly
- disabled
- multiple
- novalidate

 **Requirements:**

- Phone number must accept only 10 digits using pattern.
  - Age must use min, max, step.
  - Email should have autocomplete="on".
  - One field should be readonly.
  - One field should be disabled.
  - Add a file upload that allows multiple files.
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 **Exercise 4 – List Control (Data Source) Using <datalist>**

 **Task:**

Create an auto-suggestion input using <datalist>.

 **Scenario:**

User selects their preferred programming language.

 **Requirements:**

- Input box linked with <datalist>
- Include at least 8 options

- Allow user to type custom value (not restricted dropdown)

 **Hint:**

```
<input list="languages">  
  
<datalist id="languages">  
  <option value="HTML">  
  <option value="CSS">  
</datalist>
```

 **Advanced Task:**

Create another `<datalist>` for selecting cities.

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◆ **Exercise 5 – HTML5 Media Controls**

 **Task:**

Create a Multimedia Webpage.

 **Must Include:**

 **Audio:**

- Use `<audio>`
- Add controls
- Add autoplay
- Add loop
- Add multiple `<source>` formats

 **Video:**

- Use `<video>`
- Add controls
- Add width and height
- Add poster

- Add multiple <source> formats

 **Scenario:**

Create a page titled “**Welcome to Our Media Portal**”

 **Requirements:**

- 1 background introduction audio
  - 1 promotional video
  - Add fallback message for unsupported browsers
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 **Final Integrated Mini Project**

 **Task:**

Create a **Complete HTML5 Company Website** using all learned topics.

 **Website Name:**

“**NextGen Solutions**”

 **Must Include:**

**1 Semantic Layout**

- Header
- Navigation
- Main
- Section
- Article
- Aside
- Footer

**2 Registration Form**

- All new input types
- All new attributes

- <datalist> integration

### **3 Media Section**

- Audio introduction
  - Company video presentation
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