

HTML Advanced Topics & Project Integration

1. Embedding Content Like a Pro with HTML <iframe>

The <iframe> tag allows you to embed another HTML page, video, map, or document inside your page. Common uses include embedding YouTube videos, showing Google Maps, or displaying another website's content.

Example:

```
<iframe src='https://www.example.com' width='600' height='400'></iframe>
```

Key attributes: src, width, height, allowfullscreen, frameborder.

2. Adding Audio to Web Pages with <audio> Tag

The <audio> tag allows you to add sound/music to a webpage.

Example:

```
<audio controls>
  <source src='audio.mp3' type='audio/mpeg'>
</audio>
```

Attributes: controls, autoplay, loop.

3. Mastering Video Embedding with <video> Tag

The <video> tag is used to play videos directly on a webpage.

Example:

```
<video width='640' height='360' controls>
  <source src='video.mp4' type='video/mp4'>
</video>
```

Attributes: controls, autoplay, poster.

Hands-On Task 1

Create a webpage with:

- Embedded Google Map of your college location.
- An audio player with a free audio file.
- A video player with a sample MP4 file.

Save as media-page.html

4. Creating Interactive Forms with <form> and Input Elements

Forms allow users to submit data.

Example:

```
<form action='submit.php' method='post'>
  <input type='text' name='username'>
  <input type='submit'>
</form>
```

Common input types: text, email, password, radio, checkbox, date, file.

5. Enhancing Website Structure with HTML Semantic Elements

Semantic tags give meaning to HTML content.

Examples: <header>, <nav>, <main>, <article>, <footer>.

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Benefits: Better SEO, improved accessibility.

6. Boosting SEO with HTML <meta> Tags

Meta tags provide metadata to search engines.

Example:

```
<meta name='description' content='Learn HTML'>
```

Attributes: charset, name, content.

Hands-On Task 2

Update media-page.html:

- Add a contact form.
- Use semantic elements.
- Add meta tags.

Save as contact-page.html

7. Unveiling the Art of HTML SEO

SEO ensures websites appear higher in search results.

Best practices: proper headings, alt text for images, semantic tags, clean code.

8. HTML Final Mega Project

Build a Personal Portfolio Website:

- Home Page: intro + profile image + embedded video.
- Projects Page: project list + images + videos.
- Contact Page: form + Google Map + social links.

Use semantic HTML & SEO tags.

9. Website Performance Checkup

Test your website speed & SEO score with Google PageSpeed, GTmetrix, or Lighthouse.

10. Hosting Your Website Live for Free

Free hosting options: GitHub Pages, Netlify, Vercel.

Steps for GitHub Pages: create repo, upload files, enable Pages.

11. Hosting Your Website with Paid Options

Paid hosting benefits: custom domains, email hosting.

Examples: Hostinger, Bluehost, GoDaddy.

12. Wrapping Up

You now know how to embed media, create forms, use semantic HTML, apply SEO, and host websites.

Final takeaway: HTML is the foundation of web development.