

The background of the slide is a light beige color. In the top left corner, there is a corkboard with a few papers pinned to it. In the center, there is a large, stylized illustration of a laptop. The laptop screen displays a website layout with a blue header, a main content area with a colorful bar chart, and a footer with three grey rectangular boxes. To the left of the laptop, there is a complex system of grey pipes and red valves, resembling a mechanical or industrial setup. Above the laptop, there are several colorful circles (bubbles) containing text: a blue circle with 'www', a red circle with 'HTML5', a red circle with 'js', a grey circle with 'Cloud', an orange circle with 'XML', and a green circle with 'PHP'. Dotted lines connect some of these circles, suggesting a network or flow. The overall theme is web technologies and engineering.

ECAP472

WEB TECHNOLOGIES

Dr. Pritpal Singh

Associate Professor

Learning Outcomes



After this lecture, you will be able to

- Understand basic of HTML and HTML5.
- Know briefly history of HTML
- Realize basic features of HTML5.

What is html...?

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

- HTML is Hyper Text Mark-up Language where mark-up language is used to define the text document within tag which defines the structure of web pages.
- So HTML is the combination of Hypertext and Mark-up language.



What is html used for?

```
<html>  
  <head>  
    <title>...</title>  
  
</html>
```

- HTML (Hypertext Markup Language) is the code that is used to structure a web page and its content.
- For example, content could be structured within a set of paragraphs, a list of bulleted points, or using images and data tables.



Why to learn html?

```
<html>  
  <head>  
    <title>...</title>  
  
</html>
```

Create Web site - You can create a website or customize an existing web

Become a web designer - If you want to start a carrier as a professional web designer

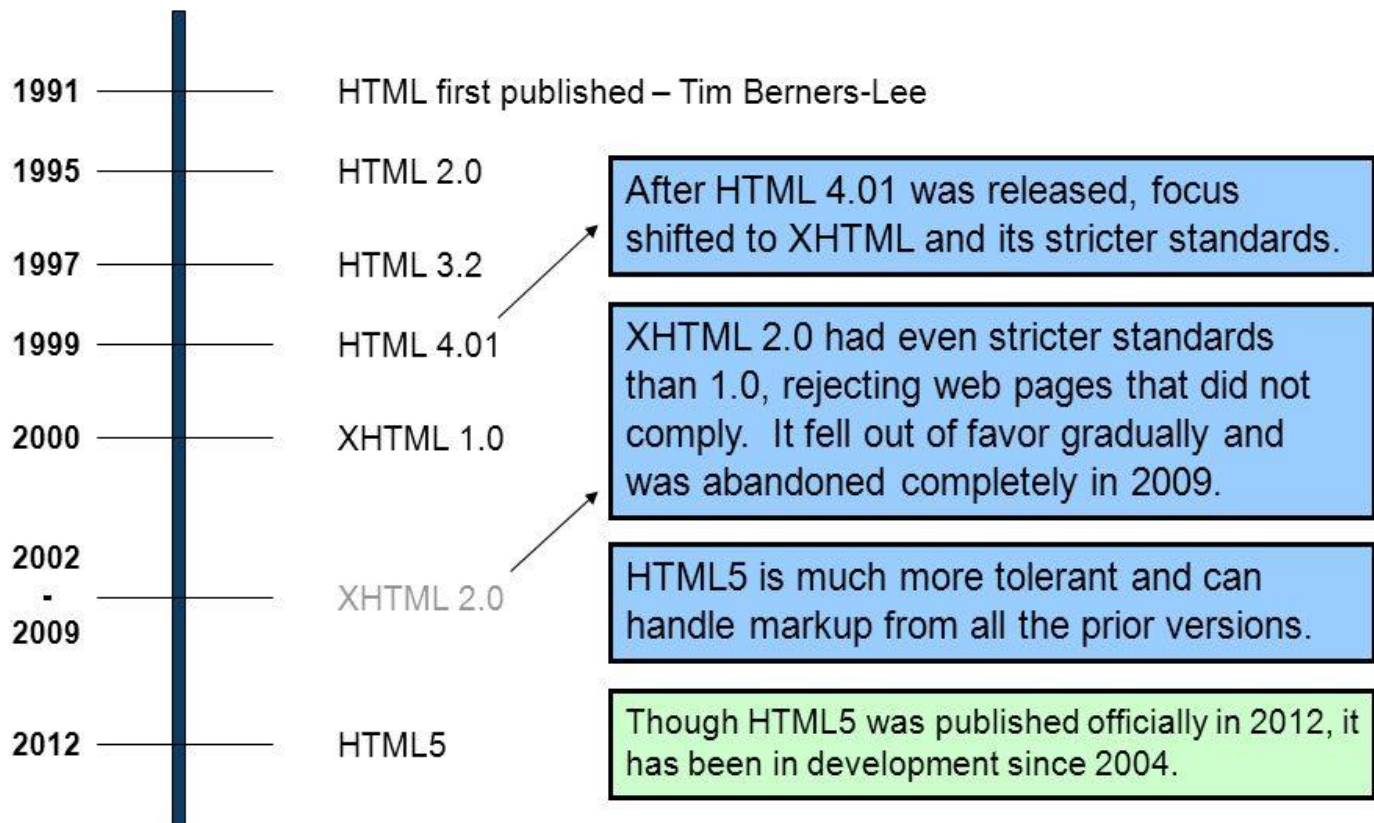
Understand web - If you want to optimize your website, to boost its speed and performance,

Learn other languages - other related technologies like javascript , php, or angular are become easier to understand



HTML History

History of HTML



Tags In HTML

- The essence of HTML programming is tags
- A tag is a keyword enclosed by angle brackets
 - Example: <|>
- There are opening and closing tags .
- The affected text is between the two tags

Opening and Closing Tags

- The opening and closing tags use the same command except the closing tag contains an additional forward slash /.
- For example, the expression ` Warning ` would cause the word 'Warning' to appear in bold face on a Web page.

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Nested Tags

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- Example:

```
<H1> <I> The Nation </I> </H1>
```

Title Tag

- The <TITLE> Tag
- Choose the title of your Web page carefully; The title of a Web page determines its ranking in certain search engines.
- The title will also appear on Favorite lists, History lists, and Bookmark lists to identify your page.

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Text Formatting

- Manipulating text in HTML can be tricky; Oftentimes, what you see is NOT what you get
- For instance, special HTML tags are needed to create paragraphs, move to the next line, and create headings
- `< Bold Face `
- `<I> Italics </I>`
- `<U> Underline </U>`
- `<P> New Paragraph </P>`
- `
 Next Line`

Comments Statements

- **Comment statements are notes in the HTML code that explain the important features of the code.**
- The comments do not appear on the Web page itself but are a useful reference to the author of the page and other programmers
- To create a comment, statement use the
- `<!-- -->` tags.

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Page Formatting

- To define the background color, use the BGCOLOR attribute in the <BODY> tag
- To define the text color, use the TEXT attribute in the <BODY> tag
- To define the size of the text, type <BASEFONT SIZE=n>

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Page Formatting-Example

- `<HTML>`
- `<HEAD>`
- `<TITLE> Example </TITLE>`
- `</HEAD>`
- `<BODY BGCOLOR="black" TEXT="white">`
- `<BASEFONT SIZE=7>`This is where you would include the text and images on your Web page.
- `</BODY>`
- `</HTML>`

Inserting Images

- Type ``, where `image.ext` indicates the location of the image file
- The `WIDTH=n` and `HEIGHT=n` attributes can be used to adjust the size of an image
- The attribute `BORDER=n` can be used to add a border `n` pixels thick around

What Is HTML5 ?

```
<html>  
  <head>  
    <title>...</title>  
  
</html>
```



What Is HTML5 ?

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

- HTML5 is a markup language used for structuring and presenting content on the World Wide Web.
- It is the fifth and last major HTML version that is a World Wide Web Consortium (W3C) recommendation.



Why HTML5 ?

```
<html>
  <head>
    <title>...</title>

  </html>
```

- Video and Audio Support
- Doctype
- Smarter Storage
- Cleaner Code
- Better Interactions
- Game Development
- Legacy/Cross Browser Support
- Mobile, Mobile, Mobile
- It's the Future, Get With It!



Backward Compatibility

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

- HTML5 is designed, as much as possible, to be backward compatible with existing web browsers. Its new features have been built on existing features and allow you to provide fallback content for older browsers.



Video and Audio

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

- Forget about Flash Player and other third party media players, make your videos and audio truly accessible with the new HTML5 `<video>` and `<audio>` tags. Getting your media to play correctly has always been pretty much a nightmare, you had to use the `<embed>` and `<object>` tags and assign a huge list of parameters just to get the thing visible and working correctly/



DOCTYPE

```
<html>  
  <head>  
    <title>...</title>  
  
</html>
```

- Yup that's it, that is the doctype, nothing more, nothing less. Pretty simple right? No more cutting and pasting some long unreadable line of code and no more dirty head tags filled with doctype attributes. You can simply and easily type it out and be happy. The really great thing about it though, beyond the simplicity, is that it works in every browser



Smarter Storage

```
<html>  
  <head>  
    <title>...</title>  
  
</html>
```

- One of the coolest things about HTML5 is the new local storage feature. It's a little bit of a cross between regular old cookies and a client-side database. It's better than cookies because it allows for storage across multiple windows, it has better security and performance and data will persist even after the browser is closed. Because it's essentially a client side data base you don't have to worry about the user deleting cookies and it is been adopted by all the popular browsers.



Better Interactions

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

We all want a more dynamic website that responds to the user and allows the user to enjoy/interact your content instead of just look at it. Enter `<canvas>`, the drawing HTML5 tag that allows you to do most (if not more) interactive and animated possibilities than the previous rich internet application platforms like Flash. Beyond `<canvas>`, HTML5 also comes with a slew of great APIs that allow you to build a better user experience and a beefier, more dynamic web application.



Game Development

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

- That is correct, you can develop games using HTML5's `<canvas>` tag. HTML5 provides a great, mobile friendly way to develop fun, interactive games. If you've built Flash games before, you'll love building HTML5 games./



Legacy/cross browser support

```
<html>  
  <head>  
    <title>...</title>  
  
  </html>
```

- Modern, popular browsers all support HTML5 (Chrome, Firefox, Safari IE9 and Opera) and the HTML5 doctype was created so that all browsers, even the really old and annoying ones, er, IE6 can use it. But just because old browsers recognize the doctype that doesn't mean they can use all the new HTML5 tags and goodies.



It's the future, get with it!

```
<html>  
  <head>  
    <title>...</title>  
  
</html>
```

- The reason why you should start using HTML5 today is this: it's the future, start using it now so you don't get left behind. HTML5 is not going anywhere and as more and more elements get adopted more and more companies will start to develop in HTML5. HTML5 is essentially just HTML



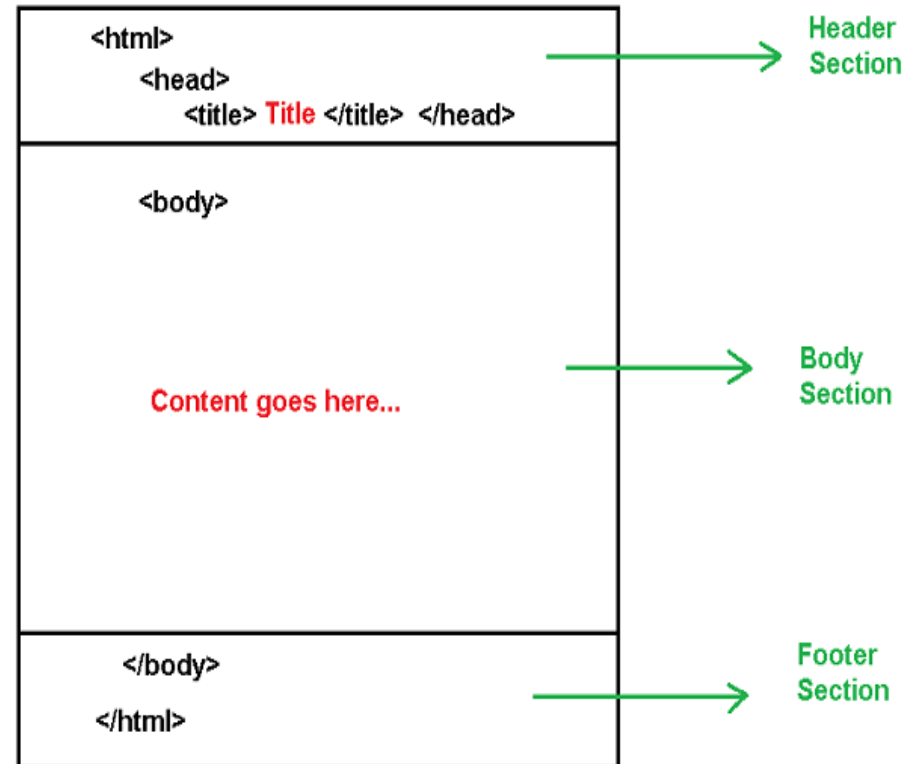
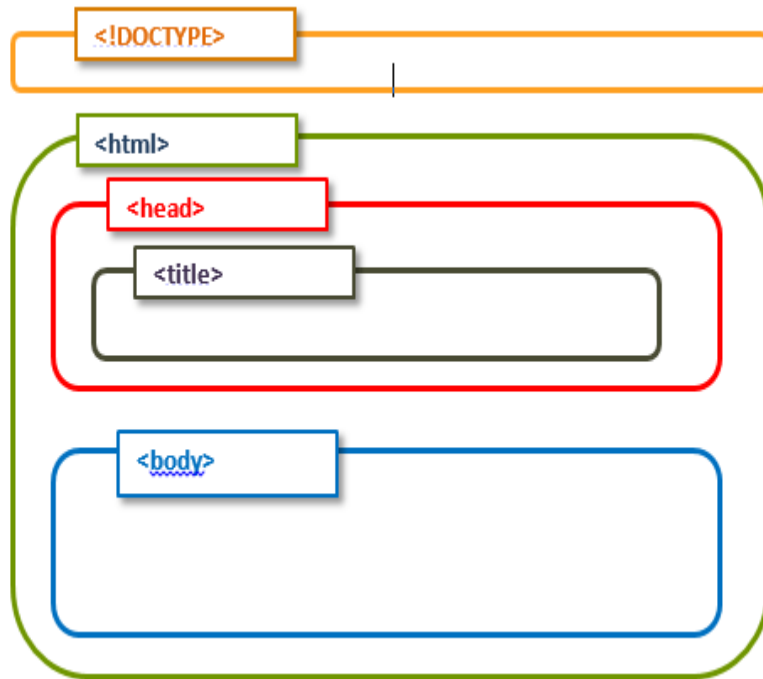
HTML Documents

- All HTML documents must start with a document type declaration: `<!DOCTYPE html>`.
- The HTML document itself begins with `<html>` and ends with `</html>`.
- The visible part of the HTML document is between `<body>` and `</body>`.

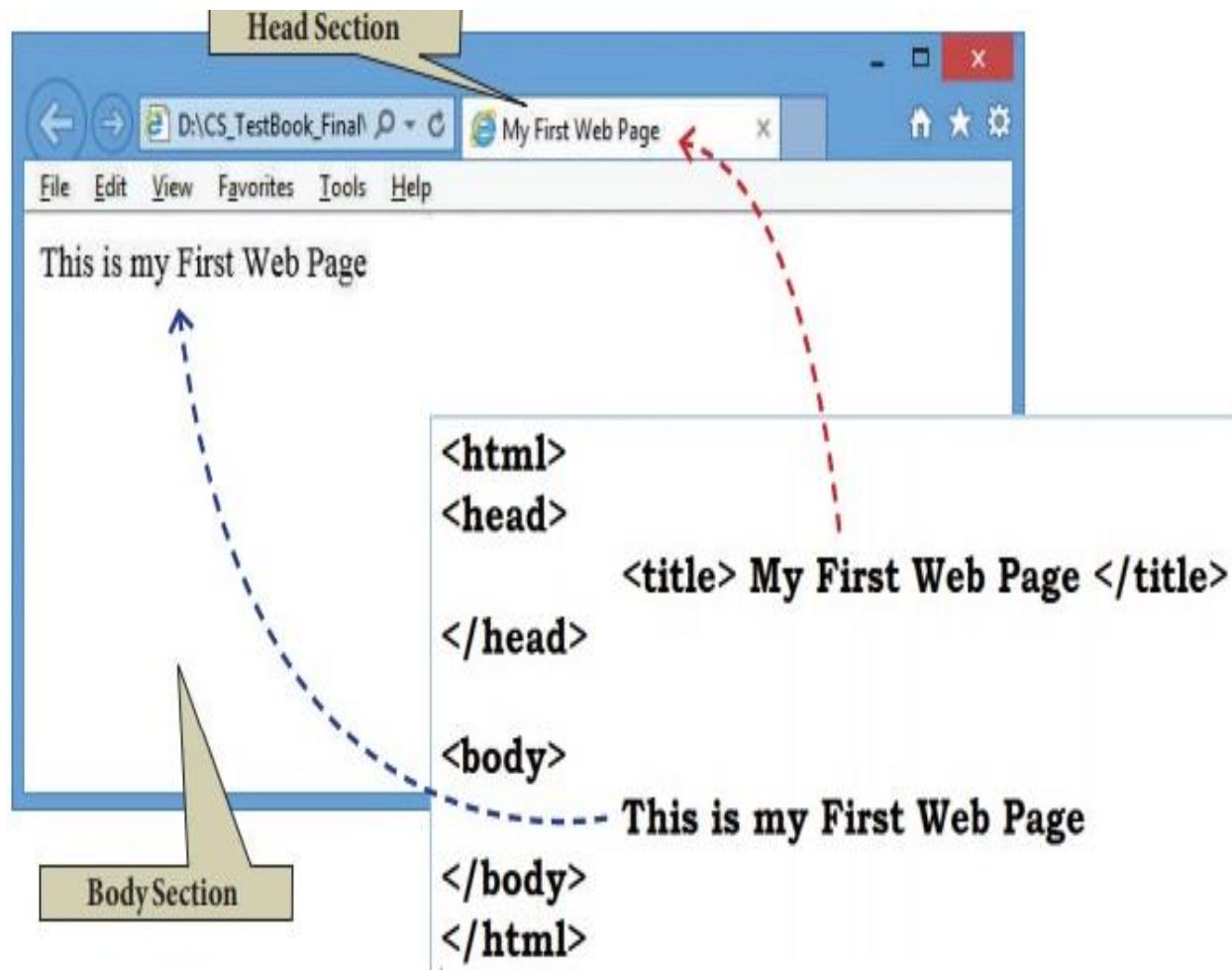
HTML Documents

- The `<!DOCTYPE>` declaration represents the document type, and helps browsers to display web pages correctly.
- It must only appear once, at the top of the page (before any HTML tags).
- The `<!DOCTYPE>` declaration is not case sensitive.

Structure of Webpage



Structure of Webpage



Explanation of Page Structure

`<!DOCTYPE html>` ← Tells version of HTML

`<html>` ← HTML Root Element

`<head>` ← Used to contain page HTML metadata

`<title>Page Title</title>` ← Title of HTML page

`</head>`

`<body>` ← Hold content of HTML

`<h2>Heading Content</h2>` ← HTML heading tag

`<p>Paragraph Content</p>` ← HTML paragraph tag

`</body>`

`</html>`

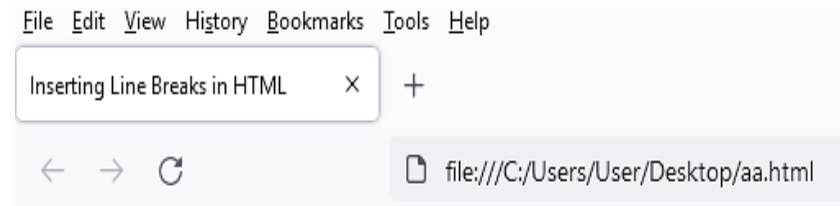
HTML Page Structure

Basic HTML Code

- Html code

- `<!DOCTYPE html>`
- `<html lang="en">`
- `<head>`
- `<title>Inserting Line Breaks in HTML</title>`
- `</head>`
- `<body>`
- `<p>This is a paragraph
 with line break.</p>`
- `<p>This is
another paragraph
with line breaks.</p>`
- `</body>`
- `</html>`

- Output in Browser



This is a paragraph
with line break.

This is
another paragraph
with line breaks.



That's all for now...