Basic Html structure

Title ,

head,

body

inline css

internal css

external css

dom

getElementById

alert

console

variable

for loop

**HTML (HyperText Markup Language):**

Introduction to HTML

What is HTML?

standard markup language for documents designed to be displayed in a web browser. It defines the meaning and structure of web content.

cornerstone Technology

Assisted by CSS JS

HTML Structure

Basic document structure: <!DOCTYPE>, <html>, <head>, <title>, <body>.

Elements, tags, and attributes.

Text Formatting

Headings (<h1>, <h2>, etc.).

Paragraphs (<p>).

Lists (<ul>, <ol>, <li>).

Links (<a>).

HTML Forms

Form elements (<form>, <input>, <textarea>, <button>).

|  |  |
| --- | --- |
| application/x-www-form-urlencoded | Default. All characters are encoded before sent (spaces are converted to "+" symbols, and special characters are converted to ASCII HEX values) |
| multipart/form-data | This value is necessary if the user will upload a file through the form |
| text/plain | Sends data without any encoding at all. Not recommended |

Form controls (text fields, radio buttons, checkboxes, etc.).

Images and Multimedia

Embedding images (<img>).

Embedding videos and audio (<video>, <audio>).

HTML Semantics

Semantic elements (<header>, <nav>, <main>, <footer>).

Importance of semantic HTML.

CSS (Cascading Style Sheets):

**Introduction to CSS**

What is CSS?

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML.

Separation of content and presentation.

CSS Selectors

Element selectors, class selectors, ID selectors.

Combining selectors (e.g., descendant, child, adjacent).

Styling Properties

Colors, fonts, text properties (size, alignment).

Margins, padding, borders.

Backgrounds.

Box Model

Understanding the box model (content, padding, border, margin).

Box sizing.

Layout

Display property (block, inline, inline-block).

Positioning (static, relative, absolute, fixed).

Flexbox and CSS Grid for layout.

Responsive Design

Media queries.

Fluid layouts and responsive units (e.g., percentages).

JavaScript:

**Introduction to JavaScript**

What is JavaScript?

Role in web development.

Variables and Data Types

Declaring variables (let, const, var).

Primitive data types (string, number, boolean).

Complex data types (arrays, objects).

Control Structures

Conditional statements (if, else, switch).

Loops (for, while).

Functions

Declaring functions.

Parameters and return values.

Scope (local vs. global).

DOM Manipulation

Accessing and modifying HTML elements using JavaScript.

Event handling (addEventListener).

Asynchronous Programming

Introduction to callbacks, promises, and async/await.

Making API requests with fetch.

Introduction to Libraries and Frameworks

Brief mention of popular libraries and frameworks like jQuery, React, Angular, and Vue.js.

Debugging and Development Tools

Use of browser developer tools for debugging.

Best Practices and Resources

Coding conventions.

Recommended books, courses, and websites for further learning.

Remember to illustrate concepts with examples and demonstrations to make the lecture engaging and informative for your audience.