Module 5 – Mernstack – HTML5

**Question 1: Difference b/w HTML & HTML5?**

| **Feature** | **HTML (Older versions)** | **HTML5 (Latest version)** |
| --- | --- | --- |
| **1. Version** | HTML 4.01 was the last major version | HTML5 is the latest standard |
| **2. Doctype Declaration** | Long and complex:  <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"> | Simple:  <!DOCTYPE html> |
| **3. Multimedia Support** | No native support for audio/video – required plugins like Flash | Native support using <audio> and <video> tags |
| **4. New Elements** | Limited semantic tags | New semantic tags like <header>, <footer>, <section>, <article> |
| **5. Graphics** | No <canvas> or <svg> support | Supports <canvas>, <svg> for drawing graphics |
| **6. Form Features** | Limited input types | New input types like email, date, number, range |
| **7. Storage** | Data stored using cookies | Supports localStorage and sessionStorage |
| **8. Geolocation API** | Not supported | Geolocation API supported |
| **9. Mobile Friendly** | Not optimized for mobile devices | Designed for cross-platform and mobile compatibility |
| **10. Error Handling** | Poor error handling | Improved error handling in browsers |

**Question 2: What are the additional tags used in HTML5?**

HTML5 introduced several **new tags** to improve the **structure, readability, multimedia support, and form features** of web pages.

**1. Semantic Tags (for better structure)**

These tags define the meaning of the content.

| **Tag** | **Description** |
| --- | --- |
| <header> | Defines the header section of a page or section |
| <footer> | Defines the footer section |
| <nav> | Defines navigation links |
| <article> | Defines an independent, self-contained content |
| <section> | Groups related content together |
| <aside> | Sidebar content, like ads or notes |
| <main> | The main content of the document |
| <figure> | Container for media like images, diagrams |
| <figcaption> | Caption for the content inside <figure> |
| <mark> | Highlights text |
| <time> | Represents a specific time or date |

**2. Multimedia Tags**

For embedding audio and video content.

| **Tag** | **Description** |
| --- | --- |
| <audio> | Embeds sound/audio files |
| <video> | Embeds video files |
| <source> | Specifies multiple media sources |
| <track> | Adds subtitles or captions to video/audio |

**3. Graphics Tags**

Used for drawing and visual content.

| **Tag** | **Description** |
| --- | --- |
| <canvas> | Used to draw graphics via JavaScript |
| <svg> | Scalable Vector Graphics – for vector drawings |

**4. Form Input Tags & Attributes**

HTML5 improved forms with new input types and attributes.

| **Tag/Attribute** | **Description** |
| --- | --- |
| <datalist> | Provides auto complete options |
| <output> | Shows the result of a calculation |
| <progress> | Displays progress of a task |
| <meter> | Represents a scalar value or measurement (e.g., disk usage) |

**New Input Types in HTML5**

| **Type** | **Example** |
| --- | --- |
| email | <input type="email"> |
| date | <input type="date"> |
| number | <input type="number"> |
| range | <input type="range"> |
| search | <input type="search"> |
| url | <input type="url"> |
| tel | <input type="tel"> |
| color | <input type="color"> |
|  |  |