Module 5 – Frontend - HTML5

Question 1:- Difference Between HTML & HTML5?

ANS :- HTML and HTML5 are versions of the HyperText Markup Language, the standard language for creating web pages. HTML5 is the latest major version, offering significant advancements over previous versions of HTML. Here's a breakdown of the differences.

1. Doctype Declaration

- HTML: The doctype declaration for HTML is longer and more complex. For example, HTML 4.01 uses:
- HTML5: The doctype declaration is simplified to a single line

2. New Semantic Elements

- HTML: Lacks many semantic elements that help define the structure of a webpage.
- HTML5: Introduces new semantic elements such as `<header>`, `<footer>`, `<article>`, `<section>`, `<nav>`, and `<aside>`, which improve the clarity and meaning of the content.

3. Multimedia Support

- HTML: Multimedia support was limited, requiring third-party plugins (like Flash) for audio and video.
- HTML5: Provides native support for audio and video with the `<audio>` and `<video>` elements, allowing for easier embedding of multimedia content without the need for plugins.

4. Form Enhancements

- HTML: Forms were limited in terms of input types and attributes.
- HTML5: Introduces new input types (e.g., email, date, url, range, color) and attributes (e.g., placeholder, required, autofocus) that enhance form functionality and user experience.

5. APIs and Features

- HTML: Lacks built-in support for many modern web features.
- HTML5: Introduces several APIs and features, including:
    - Canvas: For drawing graphics on the fly.
    - Geolocation: For accessing the user's location.
    - Web Storage: For storing data locally in the browser (localStorage and sessionStorage).
    - Web Workers: For running scripts in the background.

6. Compatibility

- HTML: Older versions may not be fully compatible with modern web standards.
- HTML5: Designed to be backward compatible with older HTML versions while also being forward-compatible with future web standards.

7. Error Handling

- HTML: Error handling was less forgiving, often leading to rendering issues.
- HTML5: Provides better error handling and is more forgiving of errors in markup, allowing browsers to render pages more consistently.

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

ANS :- 1. Multimedia Elements

These tags allow for the embedding of audio and video content:

- `<audio>`: Used to embed sound content in documents, supporting various audio formats and providing controls for playback.
- `<video>`: Used to embed video content in documents, supporting various video formats and providing controls for playback.
- `<track>`: Used within the `<video>` and `<audio>` elements to specify text tracks (such as subtitles or captions).

2. Graphics and Animation

These tags allow for drawing and creating graphics directly in the browser:

- `<canvas>`: A drawable region in HTML that can be used for rendering graphics on the fly using JavaScript.
- `<svg>`: Used to define vector-based graphics directly in the HTML document.

3. Form Enhancements

HTML5 introduced new input types and attributes to improve forms.

- **New Input Types:**
    - email, url, tel, date, time, datetime-local, month, week, number, range, color, **etc.**