

Day 7

Contents Covered:

History of the Web:

- **Web 1.0:**
 - Focused on static pages and linked pages.
 - Limited interaction and primarily read-only content.
 - Examples include early websites with basic HTML pages and hyperlinks.
- **Web 2.0:**
 - Emphasis on user-generated content, social media, and dynamic web applications.
 - Enhanced interactivity and collaboration.
 - Introduction of platforms like Facebook, Twitter, and enhanced indexing on Google.
- **Web 3.0:**
 - Focuses on intelligent data processing, semantics, and advanced tools.
 - Integration of AI technologies such as ChatGPT.
 - Improved data standards and interoperability.

Study of URL, URI, URN, and IRI:

- **URL (Uniform Resource Locator):** Specifies the address of a resource on the web.
- **URI (Uniform Resource Identifier):** A broader concept that includes both URLs and URNs.
- **URN (Uniform Resource Name):** Provides a unique identifier for a resource without specifying its location.
- **IRI (Internationalized Resource Identifier):** An extension of URI that supports characters from the Universal Character Set.

RDF as a Framework:

- RDF (Resource Description Framework) serves as a foundational framework for representing and exchanging data on the web.
- Provides a standardized method for describing relationships between data.

Common Representations of RDF:

- **Turtle:** A compact and readable syntax for writing RDF data.
- **XML:** Used for representing RDF in a structured and hierarchical format.
- **JSON-LD:** A lightweight Linked Data format for serializing RDF data using JSON.

Tasks:

Task 1: Creating a Website with Semantic Tags

The practical task for the day involved creating a website using HTML tags and sections, with a focus on utilizing semantic tags. Participants could choose any website concept to implement, enhancing their understanding of how semantic HTML contributes to better structure and accessibility.

Task 2: Solving and Finding Relationships from Turtle Syntax

This task involved working with Turtle syntax to identify and solve data relationships, reinforcing the understanding of RDF serialization and linked data principles.

Tools Suggested/Used:

VSCode:

The primary tool used for coding, allowing for efficient HTML manipulation, along with syntax highlighting and other coding features.

Summary:

Day 7 provided a comprehensive overview of the evolution of the web, focusing on the transition from Web 1.0 to Web 3.0, alongside a thorough examination of URL, URI, URN, and IRI. The session emphasized the importance of RDF as a framework for representing data relationships and covered various RDF serialization formats. Practical tasks included creating a website with semantic tags and solving relationships using Turtle syntax, equipping participants with essential knowledge and practical skills in web evolution, data representation, and advanced semantic HTML techniques.