Day 1: Introduction to Semantic Web, HTML Basics, and GitHub

Contents Covered

Why Semantic Web?

The first day of the training commenced with an insightful exploration into the fundamental question: Why do we need the Semantic Web? Delving into this query revealed that while code can be written in numerous ways, adhering to certain standards is indispensable for optimizing performance. In essence, speed and efficiency are paramount considerations. For instance, some websites incorporate unnecessary div elements for headers, whereas employing the header tag itself suffices. Additionally, various coding alternatives such as PHP, React, etc., exist, each chosen based on specific requirements and performance expectations. Moreover, security tokens like JSON Web Tokens (JWT) constitute an integral facet of Semantic Web architecture. Subsequently, the session elucidated the rationale behind the emergence of Web 3.0, emphasizing its transformative impact on dynamics, e-commerce, search engine optimization (SEO), among others.

HTML Basics

Following the discussion on Semantic Web, participants received a basic revision or introduction to HTML. The practical segment entailed hands-on tasks involving the creation of headings, paragraphs, ordered and unordered lists, images, and the incorporation of relative paths and alt attributes in image tags. Furthermore, attendees gained proficiency in interlinking pages using anchor tags (`<a href>`), as well as constructing forms utilizing tables, legends, and a variety of input types including radio buttons, text fields, and checkboxes.

GitHub Exploration

Concluding the day's activities, participants were acquainted with GitHub, a widely-used platform for version control and collaborative development. Through a brief overview, attendees learned how to create repositories and push content to GitHub, laying the foundation for effective collaboration and code management.

Tasks

HTML Markup Tasks

- **Paragraphs and Anchor Tags:** Using the `<p>` tag to create paragraphs and the `<a href>` tag to create links between pages.
- **Forms Creation:** Constructing forms using tables, legends, and various input types such as radio buttons, text fields, and checkboxes.
- **Image Tag:** Incorporating images with the `<img>` tag, including the use of relative paths and alt attributes.
- **Lists Creation:** Creating ordered and unordered lists.

Tools Utilized

Visual Studio Code (VSCode)

The practical exercises were facilitated using Visual Studio Code (VSCode), a versatile and user-friendly code editor renowned for its robust features and seamless integration with various programming languages.

GitHub

Participants were also introduced to GitHub, a widely-used platform for version control and collaborative development. They learned how to create repositories and push content to GitHub, laying the foundation for effective collaboration and code management.

Summary

Day 1 of the training provided a comprehensive introduction to Semantic Web concepts, HTML fundamentals, and essential tools such as VSCode and GitHub. Participants gained insights into the significance of adhering to coding standards for optimal performance, along with practical experience in HTML markup and GitHub repository management. This foundational knowledge sets the stage for deeper exploration and hands-on learning in subsequent sessions.