University, Belagavi

SKILL LAB SESSION

-Hands On Session

Web Development

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Web Development Skill Lab Session Report

Session Overview:

The Web Development Skill Lab session conducted for first-year students was an endeavour to provide them with a solid introductory understanding of two pivotal components of web development: HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets). The session spanned two classes, each comprising a focused exploration of these technologies. The primary objective was to equip the students with the foundational knowledge and hands-on experience necessary for building and styling web pages. The following two classes of 2 hours each was repeated for two first year batches concluding in an 8 hours session.

Class 1:

Introduction to HTML and Hands-On Exercises In the first class, the students embarked on their journey into the world of web development by delving into HTML, the bedrock of structuring web content. The following key topics were addressed:

- 1. **Introduction to HTML:** The session commenced with an insightful overview of HTML, elucidating its pivotal role in constructing the structure of web pages and content dissemination.
- 2. **Tag Usage:** The students were introduced to the lexicon of HTML tags, each serving a unique purpose in defining the structure and semantic meaning of web content. This encompassed essential tags like headings, paragraphs, lists, and hyperlinks.
- 3. **Inline and Block Elements:** The distinction between inline and block elements was meticulously elucidated, accompanied by a discourse on their impact on content layout and presentation.
- 4. **Forms:** A comprehensive exploration of form elements ensued, including input fields, radio buttons, checkboxes, and buttons, highlighting their significance in facilitating user interactions and data collection.
- 5. **Tables:** The concept of tables in HTML was unravelled, revealing their capacity to organize and present tabular data in a structured manner.
- 6. **Less Common Tags:** The students were introduced to some lesser-known yet valuable HTML tags that hold the potential to enhance the user experience and information representation.
- 7. **Hands-On Exercise:** The pinnacle of the class was a practical, hands-on exercise where students were guided through the process of building a complete webpage using the HTML tags they had just learned.

Class 2:

Introduction to CSS and In-Depth Property Discussion The second class was dedicated to the exploration of CSS, a potent tool for imparting style and aesthetics to web content. The session encompassed the following salient topics:

- 1. **Introduction to CSS:** The significance of CSS in transforming plain HTML content into visually appealing and engaging web interfaces was expounded upon, emphasizing the separation of content and presentation.
- 2. **CSS Rendering:** The diverse methods of integrating CSS with HTML, encompassing inline, internal, and external styles, were discussed, enabling students to comprehend the flexible ways of styling content.
- 3. **CSS Property Discussion:** The students were immersed in an in-depth analysis of pivotal CSS properties, including fonts, borders, and the box model. This exploration shed light on how these properties can dramatically alter the appearance of web content.
- 4. **Creating a Navbar:** The students were empowered with the skills to craft a navigation bar (navbar) using CSS, a fundamental element of modern web design that enhances user navigation and experience.
- Layout Control: The intricacies of layout control were uncovered, including CSS
 positioning and display properties that wield influence over content arrangement on web
 pages.
- 6. **Flexbox and CSS Grid:** The session introduced contemporary layout techniques using Flexbox and CSS Grid, empowering students to craft responsive and dynamic layouts that adapt seamlessly to diverse screen sizes.
- 7. **Advanced Designs and Shortcuts:** The class culminated with the presentation of advanced CSS designs, inspiring students with the creative potential that CSS unlocks. Additionally, time-saving productivity shortcuts were shared, enabling efficient coding practices.

GitHub Repository: In a proactive step towards fostering continual learning, a GitHub repository (https://github.com/Dhanush333S/Skill-Lab) was established to house the codes, resources, and materials employed during the sessions. This repository serves as a dynamic knowledge hub, enabling students to revisit concepts, engage in self-paced practice, and explore web development beyond the classroom.

Conclusion: The Web Development Skill Lab sessions served as a cornerstone in introducing budding first-year students to the fascinating realm of web development. The meticulously crafted curriculum, coupled with hands-on experiences, has planted the seeds of curiosity and proficiency. By navigating through the intricacies of HTML and CSS, the students are now equipped to embark on a continuous journey of creativity, problem-solving, and innovation within the dynamic landscape of web development. The dedication of the instructor, the active engagement of the students, and the robust resources provided have collectively propelled the students into the realm of web development with enthusiasm and confidence.