CCA-104: Web Technologies

Course Objective

To familiarize with basics of the Internet programming and acquire knowledge and skills for creation of web site considering both client and server-side programming. It emphasizes to gain ability to develop responsive web applications.

Course Outcomes

At the end of this course, student should be able to:

1. Implement interactive web page(s) using HTML, CSS and JavaScript.
2. Design a responsive web site using HTML5 and CSS3.
3. Demonstrate Rich Inter Application.
4. Build Dynamic web site using server-side PHP Programming and Database connectivity.
5. Describe and differentiate different Web Extensions and Web Services.

Course Outline

Unit I Designing and Planning Web Pages

Designing and Planning Web Pages, Surveying the Possibilities, Website Evaluation Tool, Color Theory in Web Designing, Selecting a Color Scheme, Web Standards & Accessible Design, How People with Disabilities Access the Web, Planning & Organizing a Website.

UNIT II Introduction to HTML

Creating Pages with HTML, Basic HTML Markup, Basic Elements of HTML, Essential Tags, Common Tags, HTML Lists, Unordered Lists, Ordered Lists, Nested Lists, Creating Links, Linking to External Internet Sites, Creating a Data Table, Formatting Web Pages with Style Sheets, Introduction to Cascading Style Sheets, Anatomy of a Style, Applying Styles, Applying Styles to Data Tables, Page Layout Techniques, Layout with CSS, Layout with Tables, Using an external style sheet, Linking to an External Style Sheet.

UNIT III Introduction to Web Graphics

Introduction to Web Graphics, Copyright Law and Graphics on the Web, Understanding Web

Graphics, Acquiring Images for Web Graphics, Cropping and Resizing, Adding Images to Your Web Page, Creating Navigation Buttons, Basic Shapes and Colors, Working With Text, Layer Basics, Basic Image Manipulation, Selection Tools, Layer Effects.

UNIT IV Scripting (JavaScript & CSS)
A Simple JavaScript Program, Validating a Website, Validating Your HTML, Validating Your CSS, Introduction to Web Authoring Software, Basic Features of Web Authoring Software, Constructing the Client Website.

UNIT V Introduction to Server, Database and PHP
Introduction to Server, Introduction to Server-Side Scripting, Database, Sever installation & Working (WAMP), Introduction to PHP, PHP Script designing, Registration & Login Page, Maintenance & Handling of Server, Creating contact us page, Database Creation & handling SQL Queries, Live Running of Website.

Reference books

1. Jeffrey C. Jackson, "Web Technologies-A Computer Science Perspective", Pearson Education 2006.
2. Web Technologies, Black Book, Dreamtech Press.
3. Web Applications: Concepts and Real World Design, Knuckles, Wiley-India.
4. Internet and World Wide Web How to Program, P. J. Deitel & H M Deitel, Pearson.
5. Learning PHP, MySQL and JavaScript, Robin Nixon, O'Reilly.