

INT219:FRONT END WEB DEVELOPER

L:2 T:0 P:2 Credits:3

Course Outcomes: Through this course students should be able to

- CO1 :: understand the principles and tools that are used to develop web applications.
- CO2 :: apply HTML, CSS and JavaScript to develop dynamic web pages.
- CO3 :: use functions and events for user input processing and validation.
- CO4 :: apply advanced technologies to make web responsive and interactive web pages.
- CO5 :: explain Bootstrap to make customized applications.
- CO6 :: use Angular to develop mobile and web application.
- CO7 :: use HTML5, CSS3, JavaScript, Bootstrap, jQuery and Angular to build dynamic and responsive website content.

Unit I

Overview of HTML, CSS and JavaScript : Fundamentals of HTML, Creating Style Sheet, CSS Box Model- Border properties, Padding properties, Margin properties, Introduction to JavaScript, Working with Web Forms and validating user input, JavaScript functions and events, JavaScript Timing Events, JavaScript Image Slideshow, Recursive function in JavaScript, Error handling in JavaScript

Unit II

Document Object Model in JavaScript : Document Object Model, Programming HTML DOM with JavaScript, Assigning event handlers in JavaScript using DOM object property, addEventListener and removeEventListener in JavaScript, Event bubbling in JavaScript, Image gallery with thumbnails in JavaScript

Unit III

Working with jQuery and JSON : Basics of jQuery, jQuery Events, Benefits of using CDN, jQuery Selectors, jQuery input vs :input, jQuery DOM manipulation methods, jQuery Elements, Working with JSON Objects, JSON Arrays, Nested JSON object, Conversion of JSON object to string, Conversion of string to JSON object

Unit IV

Working with Angular : Component, Module, Data binding, Directives and Life cycle, Host Binding and Attribute Directives, Services & Dependency Injection, Handling Forms in Angular Apps, Using Pipes to Transform Output, Making HTTP Requests, Authentication & Route Protection in Angular Apps

Unit V

Working with Bootstrap : Introduction to Bootstrap, Setting up Bootstrap, Bootstrap Grid System, Bootstrap Image Gallery, Bootstrap Typography, Bootstrap Blockquotes and Lists, Bootstrap Code Blocks, Bootstrap Table Classes, Bootstrap Button Classes, Bootstrap Dropdown

Unit VI

Overview of Search Engine Optimization : Introduction to SEO, SEO Tactics and Methods, SEO Relevant Filenames, SEO Design and Layout, SEO Optimized Keywords, SEO Optimized Metatags, SEO Title Optimization

List of Practicals / Experiments:

List of Practicals

- Design web page using table and list concept in HTML.
- Design web page using images, links and frames in HTML.
- Design forms and perform various types of validations in HTML.
- Design attractive web page using CSS and JavaScript.
- Implement the concept of event handlers in JavaScript using DOM object property.
- Implement event bubbling in JavaScript.
- Make Image gallery with thumbnails in JavaScript.
- Design web page using jQuery Selectors and elements.

- Use JSON objects, arrays and string concept in your web pages.
- Design interactive website using Angular modules, directives concepts.
- Design interactive website using Angular filters and events concepts.
- Design customizable website using Bootstrap Grid System and Typography.
- Implement Bootstrap list, table, buttons and dropdowns.
- Implement search engine optimization as per SEO design and layout.

Text Books: 1. HTML 5 BLACK BOOK by DT EDITORIAL SERVICES, DREAMTECH PRESS

References: 1. LEARNING WEB DEVELOPMENT WITH BOOTSTRAP AND ANGULARJS by STEPHEN RADFORD, PACKT PUBLISHING