

# INT219:FRONT END WEB DEVELOPER

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

**Course Outcomes:** Through this course students should be able to

CO1 :: apply basic HTML elements, CSS properties and Bootstrap to create visually appealing web pages.

CO2 :: use JavaScript variables, functions, and events to enhance user interactivity on web pages.

CO3 :: develop interactive web forms and validate user input to enhance form handling.

CO4 :: manipulate HTML elements, handle events, and create dynamic web content using JavaScript and DOM.

CO5 :: employ jQuery for efficient element manipulation and work with JSON objects for seamless data exchange.

CO6 :: develop dynamic web applications using Angular, and HTTP requests with forms, components, and directives.

## 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 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, Create a customized application using Bootstrap

## Unit V

**Basics of Angular** : Introduction to Angular, features, Installation, architecture, basics of TypeScript, modules, components, directives-ngIf, ngStyle, Databinding- string interpolation, event binding, property binding.

## Unit VI

**Handling forms and HTTP requests in Angular** : Forms- reactive forms, template-driven forms, using angular pipes to transform output, HTTP requests, using services and Dependency Injection, REST API call in Angular

### 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 HTTP requests and dependency injection in Angular

**Text Books:**

1. HTML5 BLACK BOOK by KOGENT LEARNING SOLUTIONS INC., DREAMTECH PRESS

**References:**

1. MASTERING HTML, CSS & JAVA SCRIPT WEB PUBLISHING by LAURA LE MAY, RAFAEL COLBURN, JENNIFER KYRNIN, BPB PUBLICATIONS
2. ANGULAR ESSENTIALS by DHANANJAY KUMAR, BPB PUBLICATIONS