CAP756:WEB TECHNOLOGIES

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

Course Outcomes: Through this course students should be able to

CO1 :: remember the latest HTML5 and CSS3 to add unique styling to Bootstrap

CO2 :: understand the components, props, states and component life cycle methods in React JS

CO3 :: apply the single page applications with React JS

CO4 :: analyze the web pages with Grid CSS and Flexbox features

CO5 :: evaluate the reusable React components

Unit I

HTML : basic tags, images and attributes, lists, block level- inline elements, tables, forms

Unit II

CSS : intro to css, css basics, css colors, background and border, selector, text and font, debugging in css, box model, css position, css float, display property, media queries, flexbox introduction, flexbox properties, grid css intro

Unit III

Bootstrap : what is bootstrap?, including bootstrap in project, web design, nav bar, grid system, header section, css file, font and feature section, bootstrap modals, bootstrap card, carousel, css z-index, image gallery, forms

Unit IV

Basics of React : obstacles and roadblocks, react's future, keeping up with the changes, working with the files

Functional Programming with JavaScript : declaring variables in es6, arrow functions, transpiling es6, es6 objects and arrays, promises, classes, es6 modules, commonjs, what it means to be functional, imperative versus declarative, functional concepts

Unit V

Pure React : page setup, the virtual DOM, react elements, react DOM, children, constructing elements with data, react components, DOM rendering, factories

React with JSX : react elements as JSX, babel, recipes as JSX, intro to webpack.

Unit VI

Props, State, and the Component Tree : property validation, refs, react state management, state within the component tree

React Router and Server : incorporating the router, router parameters, server rendering, communication with the server

Text Books:

1. HTML & CSS: THE COMPLETE REFERENCE by THOMAS A POWELL, Mc Graw Hill Education

2. LEARNING REACT: MODERN PATTERNS FOR DEVELOPING REACT APPS by ALEX BANKS, EVE PORCELLO, O'REILLY

References:

1. WEB ENABLED COMMERCIAL APPLICATION DEVELOPMENT USING HTML, JAVASCRIPT, DHTML AND PHP by IVAN BAYROSS, BPB PUBLICATIONS

2. ADVANCED WEB DEVELOPMENT WITH REACT by MEHUL MOHAN, BPB PUBLICATIONS

3. LEARNING REACT NATIVE: BUILDING NATIVE MOBILE APPS WITH JAVASCRIPT by BONNIE EISENMAN, O'REILLY