

VERSION

24

PROFESSIONAL

**SR. CODE**

EAPL/PROF/PRTC07

**COURSE CODE**

EAPFR

**SUB CATEGORY**

FULL STACK DEVELOPMENT



TOTAL DURATION

**90**

HOURS



THEORY TAKEN

**30**

HOURS



PRACTICAL TAKEN

**60**

HOURS

ACADEMY  
ELYSIUM  
ACADEMY  
FULL STACK  
DEVELOPER  
JS FAMILY  
**ELYSIUM**  
**ACADEMY**  
**FULL STACK**  
**DEVELOPER**  
**JS FAMILY**  
ELYSIUM  
ACADEMY  
FULL STACK  
DEVELOPER



## COURSE DESCRIPTION



Full Stack Web developer course starts with introducing participants with front-end technologies (ex: HTML5) and makes them develop responsive one page web application. Followed by that it deep dives into Full stack components and brings hands-on perspective to building scalable web applications by leveraging “JavaScript everywhere” phenomenon. Throughout the course foundation paradigms are stressed to ensure participants clearly understand software engineering fundamentals and apply them.

## COURSE GOALS



The course covers various data-exchange mechanisms (ex: HTTP) to get complete perspective of Full Stack. When you navigate easily through a website or see those pretty designs on a website, a full stack developer is at work to make every experience easy for you.

## FUTURE SCOPE



A full-stack developer is a professional who can work with all layers of an application. The role can be compared to that of a chef who prepares the entire meal, not just one dish. The full-stack developer has a wide range of skills from backend development to frontend and mobile app development.



# 01

## CHAPTER

## HTML

### O1. HTML Overview

- a. HTML Editing Tools
- b. Document Structure
- c. HTML Tags
- d. Information browsers ignore
- e. Specifying Color in HTML

### O2. Structural HTML Tags

- a. Setting up an HTML document
- b. Using Tags
- c. Formatting Text
- d. Introduction to frames

### O3. Adding images and other page elements

- a. Horizontal rules
- b. The Image basics
- c. The IMG tag and its attributes
- d. Media queries

### O4. Tables

- a. Introduction to tables
- b. Affecting table appearance
- c. Table troubleshooting
- d. Standard table templates
- e. Multipart images in tables

### O5. Forms

- a. The basic form (FORM)



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- b. The FORM elements
- c. The New FORM attributes (HTML 4.0)
- d. Affecting the appearance of forms
- e. Unconventional use of FORM elements

# 02

## CHAPTER

### CSS

#### O1. Basic styling of web pages using

- a. Concept of CSS
- b. Creating Style Sheet
- c. CSS Properties

#### O2. Manipulate the display & position of HTML elements

- a. Setting up the initial HTML and CSS files
- b. Using the inline block value
- c. Changing a Table to Use a Display block
- d. Adding Small screen content Element

#### O3. Understand the Box Model concept

- a. Introduction,
- b. Border properties,
- c. Padding Properties,
- d. Margin properties



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## **O4. Design mobile friendly web pages using CSS Media Queries**

- a. RWD Introduction
- b. RWD Viewport
- c. RWD Gridview
- d. RWD Media Queries
- e. RWD Images
- f. RWD Videos
- g. RWD Frameworks
- h. RWD Templates

## **O5. Animate HTML elements using CSS animate property**

- a. CSS Animation
- b. CSS Animation property
- c. Delay an Animation
- d. Run Animation in reverse Direction or Alternate Cycles
- e. The speed curve of the Animation
- f. The fill-mode of an Animation

## **O6. Web page Layouts - CSS Flex Box & CSS Grid**

- a. How to Build the Navigation Bar
- b. How to Build the Showcase Section
- c. How to Build the Lower Section
- d. How to Build the Footer Section
- e. How to Make the Page Responsive



# 03

## CHAPTER

## **BOOTSTRAP**

### **O1. The Grid Layout**

- a. Grid System
- b. Stacked/Horizontal
- c. Grid small
- d. Grid large
- e. Grid medium
- f. Grid XXL

### **O2. Buttons and Dropdowns**

- a. Adding Dropdowns via Data Attributes
- b. Dropdown within a navbar
- c. Dropdowns within button
- d. Bootstrap Split button dropdown
- e. Dropdowns inside Button Groups
- f. Creating Dropup, Dropleft and Dropright Menus
- g. Creating the Right Aligned Dropdown Menus
- h. Adding Headers to Dropdown Items
- i. Disable Items within a Dropdown
- j. Adding Dropdowns via JavaScript
- k. Methods – toggle, show, hide, update, dispose, Events

### **O3. Navigation bar**

- a. Adding Logo images to Navbar
- b. Adding Dropdown to Navbars
- c. Placing search from inside Navbar
- d. Creating the color scheme for Navbars
- e. Bootstrap fixed Navbar
- f. Creating Navbar with Bootstrap

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## O4. Images and media

- a. Styling images with bootstrap
- b. Creating Response images and videos
- c. Horizontal alignment of images
- d. Using the media object
- e. Creating Nested media object

# 04

## CHAPTER

## JAVA SCRIPT

### O1. Introduction to Javascript

- a. Applying Javascript (internal and external)
- b. Understanding JS syntax
- c. Variables
- d. Data types
- e. Operators and termany operators
- f. Num type conversion

### O.2. Objects and arrays

### O.3. Date and time

### O4. Conditional Statements

- a. switch case
- b. looping in JS

### O5. Functions

- a. Types of functions (Arrow functions)
- b. Rest and default parameters



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## O6. Document Object Model

- a. Document structure
- b. Selecting document elements and query selectors
- c. Moving thorough DOM tree
- d. HTML elements and attributes
- e. Creating, changing and deleting nodes

## O7. Handling Events

- a. Event propagation
- b. Event handlers registering and invocation
- c. Event object
- d. Types of event

## O8. Ajax

- a. JavaScript and HTTP comunication
- b. Synchronous and asynchronous requests

# 05

CHAPTER

## JQUERY

### O1. JQuery Basics

- a. Introduction
- b. JQuery Syntax
- c. JQuery Selectors

### O2. JQuery Events



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## O3. JQuery Effects

- a. JQuery Hide/Show
- b. JQuery Fade
- c. JQuery slide
- d. JQuery Stop()
- e. JQueryCallback()

## O4. JQuery HTML

- a. JQuery Get/Set
- b. JQuery Add/Remove
- c. JQuery CSS Classes

## O5. Json

- a. Fetch Json file
- b. create Json & stringify methods for Json title

# 06

## CHAPTER

## NODE JS

### O1. NodeJS Overview

- a. NodeJS-Basic and installation setup
- b. NodeJS console
- c. NodeJS modules

### O2. About Express

- a. What is express JS
- b. Why use express JS
- c. Installation setup
- d. Express request
- e. Express response
- f. get, post, put and delete



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- g. express routing
- h. Rest full API's
- i. Express JS template, static files

# 07

## CHAPTER

### **MONGODB**

#### **O1.About Mongodb**

- a.What is Mongodb
- b.No SQL database
- c.Advantages over RDBMS

#### **O2. Collections**

- a. create, insert, find, update
- b. drop collection
- c. CRUD document



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# 08

## CHAPTER

### **REACT JS**

#### **O1.Introduction to React JS**

- a. what is react
- b. why react/react version
- c. using create-react app
- d. anatomy of react project
- e. running the app

#### **O2.Templating using JSX**

##### **2.1 Working with React JSX**

- a. expressions
- b. specifying attributes
- c. fragments



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## **O3. About Components**

### **3.1 Types of components**

- a. Functional components
- b. class components

## **O4. Working with State and Props**

- a. what is state and props
- b. purpose of state and props
- c. passing data to components using props and state

## **O5. Rendering lists**

- a. using react key
- b. using map function to iterate on a arrays to generate elements

## **O6.Event handling in React JS**

- a. understanding React events
- b. passing arguments to event handlers understanding components

## **O7.Understand the life cycle methods**

## **O8.Hooks**

- a. purpose of hooks
- b. create hooks
- c. different types of hooks
- d. using state and effect hooks
- e. rules of hooks



## **09. Working with react forms**

- a. React JS form validation
- b. How to write styles on it

## **10. Routing with react-router**

- a. setting up react-router
- b. understanding router in single page application
- c. working with browser router components
- d. navigating to pages using link components

## **11. Redux**

- a. What is redux
- b. Why redux
- c. redux principles
- d. install & setup redux

## **12. React - Redux**

- a. what is react redux
- b. why react redux
- c. install and setup
- d. Action reducers and stop



# 09

## CHAPTER

### **MATERIAL UI**

#### **O1.Introduction**

- a. Advantage of material UI
- B. Material UI vs Base UI
- c. Installation

#### **O2. Material Designs**

- a. with styled components
- b. peer dependencies
- c. roboto font
- d. google web fonts
- e. Icons, cdn



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# 10

## CHAPTER

### **ANGULAR**

- a.What is angular
- b.Angular CLI
- c.Setup a project
- d.Setup Node JS with angular
- e. Create your first app



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# 11

## CHAPTER

### **MODULES AND COMPONENTS**

- a.What is components in angular JS
- b.What is module in angular JS
- c.C. create and start component
- d.Why components are important
- e. Create components using CLI
- f. What is nesting component
- g.Component styles and selectors



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# 12

## CHAPTER

### DATA BINDING

- a. What is data binding
- b. String interpolation
- c. C. property binding
- d. Difference between proper binding and string interpolation
- e. What are binding properties and events
- f. Two way binding



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# 13

## CHAPTER

### DIRECTIVES IN ANGULAR JS

- a. What is directives
- b. What is ng if and else condition
- c. ng module
- d. Directive properties



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# 14

## CHAPTER

### DEPENDENCY INJECTION IN ANGULAR JS

- a. What is dependency injection
- b. What is services
- c. Create data service



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# 15

## CHAPTER

### ROUTING

- a. What is routing
- b. Navigation and its path
- c. Styling of router links



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