Full Stack Development MERN

# DETAILED SYLLABUS

## INTRO TO WEB DEVELOPMENT

* 1. What is web development?
  2. How websites work?
  3. Advantages of learning web development

## HTML – PART 1

* 1. What is HTML?
  2. Structure of Webpage
  3. HTML Tags
  4. Adding and formatting texts, title, paragraph, body
  5. Lists – Ordered/Unordered
  6. Images
  7. Forms

## HTML – PART 2 | CSS – PART 1

* 1. Links
  2. Table
  3. Anchor tags
  4. HTML Divs
  5. CSS Introduction
  6. Inline vs Internal vs External styling
  7. CSS Display

## CSS– PART 2 | ADVANCED CSS – PART 1

* 1. CSS Backgrounds, Borders, Margins, Padding
  2. CSS Font Styling
  3. Stylings Lists
  4. Styling Tables, Forms
  5. Gradients
  6. Font Awesome

## ADVANCED CSS – PART 2

* 1. Tool tips
  2. Buttons
  3. Transitions, Transformation, Animations
  4. Box sizing
  5. Flex
  6. Grid
  7. **Project 1 - To-do App – Frontend using HTML/CSS**

## PROJECT BUILDING

* 1. Responsive Media Queries
  2. Discuss TO-DO App

## BOOTSTRAP – PART 1

* 1. Bootstrap containers
  2. Tables, Images, Colors
  3. Alerts, Buttons
  4. Cards

## BOOTSTRAP – PART 2

* 1. Pagination, Drop Down
  2. Carousel
  3. To-do App – Develop To-do App Frontend using Bootstrap
  4. Project 2 - Blog – Add blog frontend using HTML/CSS

## JAVASCRIPT – PART 1

* 1. Introduction to JavaScript
  2. Variables, scoping, Data type
  3. Strings and Numbers
  4. Operators and loops
  5. Functions

## JAVASCRIPT – PART 2 (DATA STRUCTURES)

* 1. Arrays
  2. What is Linked List,Stacks,Queues & Maps

## JAVASCRIPT – PART 3

* 1. Understanding and working with DOM
  2. JQuery
  3. Project 2 – Add Functionalities to Blog

## JAVASCRIPT – PART 4

* 1. Prototypes
  2. Closures
  3. Local Storage
  4. Promises

## JAVASCRIPT – PART 5

* 1. Es6 and Es7

## REACT – PART 1

* 1. React Intro
  2. Install node
  3. Create an app using create-react-app
  4. Understanding basics of react app
  5. Understanding JSX
  6. Understanding virtual DOMS, Single page apps

## REACT – PART 2

* 1. React Lifecycle
  2. States
  3. Class components vs functions components
  4. Event handling
  5. Props
  6. Building a basic Forms using React
  7. **Project – Project using React**

## REACT – PART 3

* 1. Routes
  2. Conditional Rendering
  3. Pure Components
  4. High Order components
  5. Controlled vs Uncontrolled components

## REACT – PART 5

* 1. Axios
  2. Server-Side Rendering
  3. **Project - Fetch Data in project from an API**

## NODE.JS – PART 1

* 1. Simple Server
  2. Response Types – HTML, JSON
  3. Routing
  4. Express Intro
  5. Make a call from frontend to server
  6. **Project – Create API to fetch data from DB**

## NODE.JS – PART 2

* 1. Express js
  2. API Authentication

## NODE.JS – PART 3

* 1. Socket Programming
  2. **Project - Build Chat App**

## DATABASE – PART 1

* 1. SQL vs NO SQL
  2. MongoDB / DynamoDB overview
  3. Installing MongoDB
  4. Connecting and inserting data

## DATABASE – PART 2

* 1. Deleting and updating data
  2. CRUD