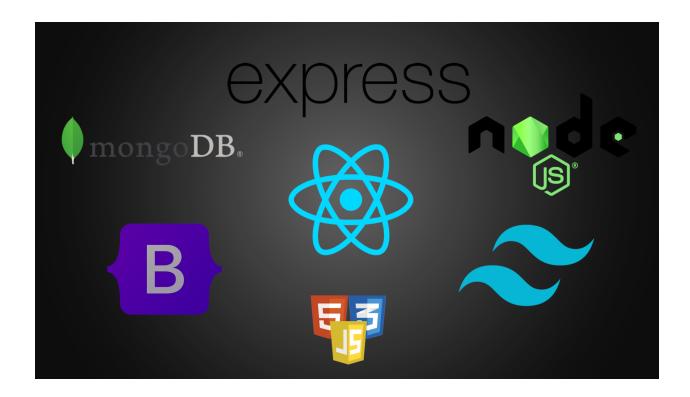


# FULL-STACK WEB DEVELOPMENT - MERN



#### Start with Us

Master MERN Stack development with our immersive hands-on training, equipping you to build dynamic web applications using MongoDB, Express.js, React, and Node.js. Start your journey today and unlock the full potential of this cutting-edge technology stack.

# INTRODUCTION (Day 1)

#### <u>Day 1</u>

- What is full-stack web development?
- What is a website / web application?
- How does a web site / web application work?
- History

## VCS (Day 2)

#### Day 2

- What is a Version Control System (VCS)
- Introduction to Git and GltHub
- Installing Git
- Configuring Git
- Basic Git commands
- Managing a git repository

## **HTML** (Day 3 - 8)

#### <u>Day 3</u>

- HTML introduction
- HTML page structure

#### Day 4

- HTML tags
- HTML5
- Comments

#### <u>Day 5</u>

- List
- Image
- Link

#### <u>Day 6</u>

• Form

#### <u>Day 7</u>

- Table
- Iframe
- Video

#### <u>Day 8</u>

• HTML div

## **CSS** (Day 9 - 15)

#### Day 9

- CSS introduction
- Selectors
- Inline vs Internal vs External Styling
- CSS Properties

#### Day 10

- Background, borders, margins and padding
- Font styling
- Font awesome / google font

#### <u>Day 11</u>

- Pseudo-elements and pseudo-classes
- Tool tips

#### **Day 12**

• Transitions, Transformation, Animations

- Box sizing
- Flex

#### <u>Day 14</u>

- Grid
- Creating a page design

#### **Day 15**

Mini project 1

## **BOOTSTRAP** (Day 16 - 20)

#### **Day 16**

- Bootstrap introduction
- Containers / container-fluid

#### **Day 17**

- Table
- Form

#### <u>Day 18</u>

- Colors
- Alerts and buttons
- Spinners and cards

#### <u>Day 19</u>

- Pagination and drop down
- Carousel

#### Day 20

• Mini project 2

## JAVASCRIPT (Day 21 - 44)

- JavaScript introduction
- Variable, scoping and data types

- Strings and numbers
- Comments
- Operators

#### Day 23

Conditional statements

#### Day 24

- Loops
- Break and continue

#### <u>Day 25</u>

- Arrays
- Stacks

#### Day 26

- Objects
- Maps

#### Day 27

• Regular expression

#### **Day 28**

Hashing

#### Day 29

Set timeout,setInterval,clear interval

#### <u>Day 30</u>

Working with DOM

#### <u>Day 31</u>

• Developers tools in Browsers

#### <u>Day 32</u>

• Call back function

#### <u>Day 33</u>

• Promise

#### Day 34

Async and await

JQuery

## Day 36

Prototypes

#### Day 37

- Closures
- Local Storage

#### <u>Day 38</u>

Ajax

#### Day 39 - 41

• Advanced javascript (ES6, ES7 & ES8)

#### Day 42 - 43

OOP concepts

#### <u>Day 44</u>

• Mini project 3

## **DATABASE** (Day 45 - 50)

#### Day 45

- Introduction
- SQL vs NoSQL
- SQL familiarization
- CRUD operations

## Day 46

- Introduction to MongoDB
- Installing MongoDB
- Creating database and create collection
- Connecting MongoDB

## Day 47

• Data modeling

• Creating and retrieving data

## Day 48

- Updating and deleting data
- Limit, sort and indexing

#### Day 49

- Data Types
- Aggregation

#### Day 50

- Database replication and sharing
- Drop database and drop collection
- MongoDB with ExpressJS

#### **NODEJS** (Day 51 - 62)

#### Day 51

- NodeJS introduction
- Install NodeJS
- Node Package Manager (NPM)

#### Day 52

- Create NodeJS app
- Simple server using NodeJS

#### Day 53

• Request and Response

#### Day 54

• Response types - JSON,HTML and XML

• Emitter

## Day 56

• Buffers

## <u>Day 57</u>

• Streams

## <u>Day 58</u>

- File system
- Global objects

## Day 59 - 60

• Utility modules

#### Day 61

- Web modules
- Rest API

## Day 62

- Scaling a NodeJS application
- Packaging

## EXPRESSJS (Day 63 - 74)

- ExpressJs introduction
- Install ExpressJS
- Creating express server

- Routing
- HTTP methods

#### **Day 65**

- HTTP response codes
- Express params and Query strings

## **Day 66**

- Middle wares
- Templates

## **Day 67**

- Static files
- Form data

#### <u>Day 68</u>

• Express with Database

## Day 69

- Cookies
- Sessions

## Day 70 - 71

- Authentication
- JWT token, Passport.js

## Day 72

Creating rest API

- Scaffolding
- Debugging

#### Day 74

• Mini project 4

## **REACTJS** (Day 75 - 92)

#### Day 75

- React introduction
- Installing React
- Creating react application
- Understanding basics of React app

## <u>Day 76</u>

JSX

#### **Day 77**

- React components
- Class components vs function components

#### <u>Day 78</u>

- Understanding virtual DOM and single page apps
- React lifecycle

#### **Day 79**

• States and props

• Conditional rendering

## <u>Day 80</u>

Event handling

## Day 81

- Forms
- Controlled vs Uncontrolled components

## Day 82

• Formik

## <u>Day 83</u>

Routes

#### Day 84

- Pure components
- High order components

## Day 85 - 87

Redux

## Day 88

• Babel and webpack

## Day 89 - 91

Axios

• Server side rendering

## **TAILWIND** (Day 93 - 99)

#### Day 93

- Tailwind introduction
- Why Tailwind?
- Layout

## Day 94

- Flexbox and grid
- Alignment, pacing and sizing

## Day 95

- Typography
- Backgrounds
- Borders
- Effects
- Filters

## Day 96

• Tables

- Transitions and Animation
- Transforms

#### <u>Day 98</u>

Interactivity

## Day 99

• Mini Project 5

## **DEPLOYMENT** (Day 100 - 105)

#### Day 100

- Building and file management
- Domain and subdomain
- Domain Name System

## Day 101

- Security Protocols
- SSL

## Day 102

• Firebase

## Day 103

- Deploy using Railway and MongoDB Atlas
- Deploy using netlify

## Day 104 - 105

• Deploy using AWS Ec2

# **PROJECTS** (Day 105 - 144)

## Day 106 - 124

• Portfolio website

## Day 125 - 144

• E-commerce application