**DEVIKTECH**

Curriculum for the course of

FULLSTACK DEVELOPMENT

Course Instructor –

**Learning Objectives**

This course will serve as a comprehensive introduction to various topics in Full Stack Development. This course is a proper blend of theory and the practical hands on session for each and every concept. Throughout the course participants will work and learn about frontend, backend and also implement the concepts learned during the course.

**Learning Outcomes**

At the end of the course participants should be able to -

* Build his own website.
* Perform reading and writing of data with MongoDb database.
* Use node as a web server and API server.
* Build Full featured, data-driven application.

**Prerequisites**

There are no prerequisites required for the course. But a little knowledge of programming and high school mathematics is a benefit for candidate.

**Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Topic** |  | **Total hours** |
| 1 | Html and CSS –Introduction, Structure of html, tags and attributes, block and lines, form, Color background, Flex, Media query etc. |  | 6 |
| 2 | JavaScript, Ajax and Json – Introduction, variable, Events and Event listener, Arrow Function, ES5 and ES6, DOM Nodes, Dom Collection, DOM node Lists etc. |  | 6 |
| 3 | React and NodeJS–Introduction, Components, ES6, JSX, States, Props, React routing, Events, Forms, Axios, Redux, Projects, HTTP Modules, File system, URL Module, NPM etc |  | 12 |
| 4 | ExpressJS – Introduction, routing, HTTP methods, URL binding, middle ware etc.  MongoDB – Create database, Collections, Insert, Find Query Sort, Delete, Update, Join etc |  | 12 |
| 5 | Deployment in Heroku or AWS or Azure  Integrating Your app with custom domain |  | 3 |

**CURRICULUM**

1. **HTML**
2. Introduction to frontend
3. Structure of HTML
4. Tags and Attribute in HTML
5. Description of tags and attributes:-headings, paragraphs, styles, comments
6. Block and Inline
7. How to use Images, Iframe, Links
8. Classes and Id
9. Forms
10. How to use Media, Video, Audio, plug-ins, YouTube
11. **CSS**
12. Introduction, Syntax, Selectors
13. Colors, Backgrounds
14. Borders, Margins, Padding, Height, Width
15. Text, Fonts, Links, Max-Width, Overflow, Float, Align
16. Flex
17. Media Query
18. **JavaScript**
19. Introduction
20. Output
21. Comments
22. Variable
23. Operator
24. Data Types
25. Function
26. Objects
27. Events and Event Listener

j. String and String Methods

k. Array and Array Method

l. Condition and Loop

m. This, Let, Const

n. Arrow Function

o. ES5 and ES6

p. DOM Nodes

q. DOM Collections

r. DOM Node Lists

1. **Ajax**
2. **Json**
3. **React**
4. Installation and understanding folder Structure
5. Components
6. ES6
7. JSX
8. States and Set State
9. Props
10. Life Cycle Method
11. React-Routing
12. Adding Bootstrap to our project
13. Events
14. Forms
15. Axios
16. Redux

**Project 1.** Making a Login and SignUp Form

**Project 2.** Making a project using third party API

**Project 3.** Making a Project with Dashboard

1. **NodeJS**
2. Introduction
3. HTTP Modules
4. File System
5. Url Module
6. NPM
7. Events
8. **ExpressJS**
9. Introduction
10. Routing
11. HTTP methods
12. URL binding
13. MiddleWare
14. Templating
15. Cookies
16. Sessions
17. Authentication
18. Making RESTful APIS
19. Testing the API using PostMan
20. Error Handling
21. **MongoDB**
22. Create Data Base
23. Create Collections
24. MongoDB Insert
25. MongoDB find
26. MongoDB Query
27. MongoDB Sort
28. MongoDB Delete
29. MongoDB Drop Collection
30. MongoDB Update
31. MongoDB join
32. **Deployment in Heroku or AWS or Azure**
33. **Integrating Your app with custom domain**