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. |  |  |
| 2 | JavaScript, Ajax and Json – Introduction, variable, Events and Event listener, Arrow Function, ES5 and ES6, DOM Nodes, Dom Collection, DOM node Lists etc. |  |  |
| 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 |  |  |
| 4 | ExpressJS – Introduction, routing, HTTP methods, URL binding, middle ware etc.  MongoDB – Create databse, Collections, Insert, Find Query Sort, Delete, Update, Join etc |  |  |
| 5 | Deployment in Heroku or AWS or Azure  Integrating Your app with custom domain |  |  |

**CURRICULUM**

## HTML

## Introduction to frontend

## Structure of HTML

## Tags and Attribute in HTML

## Description of tags and attributes:-headings, paragraphs, styles, comments

## Block and Inline

## How to use Images, Iframe, Links

## Classes and Id

## Forms

## How to use Media, Video, Audio, plug-ins, YouTube

1. **CSS**

## Introduction, Syntax, Selectors

## Colors, Backgrounds

1. Borders, Margins, Padding, Height, Width

## Text, Fonts, Links, Max-Width, Overflow, Float, Align

## Flex

1. Media Query

# JavaScript

## Introduction

## Output

## Comments

## Variable

## Operator

## Data Types

## Function

## Objects

1. 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

##### Components

##### ES6

##### JSX

##### States and SetState

##### Props

##### LifeCycle Method

##### React-Routing

##### Adding Bootstrap to our project

##### Events

##### Forms

##### Axios

##### 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

# NodeJS

1. Introduction

##### HTTP Modules

##### File System

##### Url Module

##### NPM

##### Events

# ExpressJS

##### Introduction

##### Routing

##### HTTP methods

##### URL binding

##### Middle Ware

##### Templating

##### Cookies

##### Sessions

##### Authentication

##### Making RESTful APIS

##### Testing the API using PostMan

##### Error Handling

## MongoDB

1. Create DataBase

##### Create Collections

##### MongoDB Insert

##### MongoDB find

##### MongoDB Query

##### MongoDB Sort

##### MongoDB Delete

##### MongoDB Drop Collection

##### MongoDB Update

##### MongoDB join

1. **Deployment in Heroku or AWS or Azure**

1. **Integrating Your app with custom domain**