

Web Design and Development Training Course Content

1:Foundations of HTML:Building Blocks for Web Development

- HTML Introduction
- Basic HTML Structure
- HTML Editors Overview
- Understanding HTML Tags
- Text Elements: Paragraphs, Headings, and Text
- Formatting Text in HTML
- Creating Lists in HTML
- Add Images to HTML
- Working with HTML Tables
- Implementing HTML Forms
- Incorporating Media in HTML

2:CSS Essentials: From Basics to Responsive Design

- Introduction to CSS and Linking Methods
- Understanding CSS Properties: Key-Value Pairs and Network Tab
- Utilizing Comments, Colors, Backgrounds, and Images
- Text Properties: Font Size, Weight, and Style
- Exploring the Box Model: Padding, Margin, Border, and Main Content with Inspect Tab
- Introduction to CSS Positioning
- Manipulating Height, Width, and Selectors
- Implementing Float (Left, Right), Z-Index, and Opacity
- Responsive Design Principles and Media Queries
- Flexbox: A Responsive Design Approach
- Grid Systems for Responsive Design

Projects Covered

- Project1: YouTube Gallery (Modified iframe Version):

Description: Create a custom-styled YouTube gallery using iframes, showcasing videos with personalized design and layout.

- Project2: Sign-in Form Styling:

Description: Enhance the visual appeal and usability of a sign-in form through CSS, focusing on improving aesthetics and user experience.

- Project3: Image Gallery Enhancement:

Description: Transform a basic image gallery into an aesthetically pleasing and user-friendly interface by applying advanced CSS techniques.

3:Project Management

Software Development Life Cycle

- Aligning project management with software development lifecycle

Agile Methodologies:

- Understanding Agile principles and values
- Scrum and other Agile frameworks
- Sprint planning and execution

Waterfall Methodology:

- Overview of the Waterfall model
- Pros and cons of Waterfall vs. Agile

Version Control Systems:

- Introduction to Git and GitHub
- Collaborative coding with version control
- Branching and merging strategies



Task Management Tools:

- Overview of popular task management tools(e.g.,Jira,Trello)
- Creating and managing tasks
- Assigning and tracking progress

4:BootstrapEssentials

- Framework Fundamentals: Bootstrap Introduction
- Building Bootstrap Templates Offline
- Responsive Design Basics: Containers, Rows, Columns
- Creating Navigational Elements: Navbar, Colors, Accordions, Alerts, Badges
- Utilizing Placeholders, Popovers, Progress Bars, Spinners
- Practical Application: Project Implementation with Bootstrap

Projects:

- **Project1:** Develop Your Company Portfolio Website
- **Project2:** Build a Mock Flip cart E-commerce Platform

5:Figma–DesignTool

- Introduction to Figma
- Using Figma to create,share & test designs.
- Converting images to HTML templates

6:JavaScript Essentials: Core Concepts and Practical Applications

- Introduction to JavaScript
- Integrating JavaScript into HTML
- Fundamentals of Variables
- Data Types and Operations
- Conditional Statements in JavaScript
- Understanding JavaScript Objects
- Manipulating States and the Document Object Model (DOM)
- Functions and Event Handling
- Exploring JavaScript Arrays
- Synchronous and Asynchronous Programming Concepts
- Commenting in JavaScript Code
- Basics of Loops
- Mastering the Document Object Model (DOM)



- Advanced Concepts: Promises, Async/Await, Fetch, Axios
- Utilizing Spread and Rest Operators
- Deconstructing Arrays and Objects
- Module Management in JavaScript

7:TypeScript Topics

- Introduction to TypeScript
- Simple and Special Types in TypeScript
- Understanding TypeScript Generics
- Exploring TypeScript Interfaces
- Working with Object Types in TypeScript
- Mastering TypeScript Classes

Projects Covered

- **Project 1: Dynamic Calculator**
Create an interactive calculator with basic and advanced arithmetic operations.
- **Project 2: Stopwatch Application**
Build a stopwatch with start, stop, and reset functionality.
- **Project 3: Digital Clock Implementation**
Develop a digital clock displaying hours, minutes, and seconds.
- **Project 4: Guessing Game Project**
Design a game where users guess a randomly generated number within a range.
- **Project 5: Geolocation Tracker**
Develop an app to track and display the user's current location on a map.

8: ReactJS Essentials – Key Concepts and Applications

- Introduction to ReactJS
- Exploring the State of JavaScript Survey
- Building React Web Apps
- Grasping ReactJS Fundamentals
- Utilizing Fragments, Hooks, and React Router DOM
- Learning MUI and Its Setup
- Integrating MUI Tabs
- Managing Props in React
- Creating UI Components for Social Media Sharing



ProjectsCovered:

- Project1: Enhancing your company Portfolio website.
- Project2: Enhance Fake Flip-Cart ecommerce website

9: MongoDB Database Essentials

- Database Fundamentals Overview
- MongoDB Installation
- Configuring MongoDB
- CRUD Operations: Create, Read, Update, Delete
- Schema Creation
- Installing MongoDB Compass

10: MySQL Database Essentials

- MySQL DB Fundamentals
- MySQL vs. MongoDB: A Comparative Analysis
- Setting Up MySQL DB: Installation
- Database Configuration
- Database Creation in MySQL
- Table Creation in MySQL
- CRUD Operations in MySQL: Create, Read, Update, Delete

11: Web Hosting and GitHub Collaboration

- Understanding Web Hosting
- Introduction to GitHub
- Repository Management: Creation and Merging
- Collaborative Workflows: Pushing and Pulling Requests
- Utilizing gh-pages for React Projects

