FULL STACK WEB DEVELOPMENT

(HTML5, CSS3, JavaScript, ES6, JQuery, AJAX, Bootstrap 4, MONGODB, NODEJS, EXPRESSJS, ANGULAR ….)

Introduction to UI / UX

Web Application Architecture
Technologies used to Web Development
Project Development Process
List of environments involved in Development
Types of Software Companies
Roles of UI Developer
Roles of UI Designer
Difference between UI Developer & UI Designer

Tools Used for UI / UX

Development Environment Setup
Installation of Editors
Installation of Node JS
Installation of Live Server
How to download source code for development
Integrate the source code with the editor
Usage of live server
Usage of Source Code
Introduction to Web

Introduction to HTML 5

How it works
Structure of an HTML Doc
HTML First Application
Rules of HTML coding
HTML Headings
HTML Paragraphs
HTML DIV Tag
HTML Span Tag
HTML Text Formatting Tags
HTML Un ordered Lists
HTML Ordered Lists
HTML Images
HTML Tables
HTML Links
HTML Entities
HTML I frames

HTML Forms

Introduction to HTML Forms
HTML Form Elementslike Input,text area, select Box,data list etc.
HTML Form Input Types
HTML Form Attributes
HTML Field Set& Legend Tags
Project: Online Job Application Form

Layout Elements in HTML 5

Introduction
HTML Header Tag
HTML footer Tag
HTML Section , Article Tags
HTML Aside Tag
HTML Nav Tag
HTML figure ,figcaption tags
HTML Details , Summary tags
HTML Audio , Video tags
Project: Corporate Training Website

Introduction to CSS3

Introduction,
CSS Selectors, CSS Pseudo classes selection
Inline CSS, Internal CSS, External CSS
CSS Basics
CSS Colors RGB , HEX , HSL , RGBA , HSLA
CSS Backgrounds
CSS Borders
CSS Margins
CSS Paddings
CSS Outlines
CSS Text Formattings
CSS Fonts
CSS Links
CSS Tables
CSS Positions
CSS Box Model
CSS Display Properties
CSS Floats
CSS Vertical Navigation bar
CSS Dropdowns
CSS Dropdown Navigation bar
CSS Tooltips
CSS Forms
CSS Image Gallery
CSS 2D Transformation
CSS 3D Transformation
CSS3 Transitions
CSS3 Animations
CSS3 Advanced Animations
CSS3 Custom Buttons
CSS3 Flex Boxes
CSS3 Media Queries
CSS3 SASS, LESS
CSS Minifies
Best Practices in CSS
Project: Technology Portal Website
Project: Online Resume Website

JavaScript with ES6

Introduction to JavaScript
JavaScript features
Understanding Runtime Env
Why to Learn JavaScript
Setting up Development Env
JavaScript Variable Declaration
JavaScript Data Types
JavaScript Operators
JavaScript Conditional Statements
JavaScript Intro Data Structures
JavaScript Objects
JavaScript Arrays
JavaScript Functions
JavaScript Math , Date , String , Number Objects
JavaScript DOM Intro
JavaScript DOM Manipulations
JavaScript Event Handling
JavaScript Event Listeners
JavaScript Form validation
JavaScript Number App
JavaScript Calculator App
JavaScript SMS App

Project: The Yummy Foods Website	CSS Horizontal Navigation bar	JavaScript Digital clocks
JavaScript Dependent Select Boxes **Project: JavaScript Typing Tester App** **Advanced JavaScript** JavaScript Callback Functions JavaScript Promises JavaScript Scopes & Closures ES6 features ES6 Template Strings ES6 for-of loops ES6 Lamda / Arrow Functions ES6 DE structuring Concept ES6 Spread Operators ES6 Classes ES6 Inheritance with Classes ES6 Collections like Map, Set JavaScript Exception Handling **Project: JavaScript Book Store App** **JQuery** Introduction JQuery Basics JQuery Selectors JQuery Events JQuery Effects JQuery Examples JQuery DOM Manipulation JQuery forms Manual JQuery forms Automatic JQuery with Bootstrap App JQuery Magnifier Plugin JQuery Count To Plugin JQuery Gauge Plugin JQuery Calculator App JQuery Dependent Select boxes JQuery Form Validation AJAX Basics JSON Basics	JavaScript AJAX JQuery AJAX JQuery AJAX with Bootstrap **Project: JQuery Typing Tester App** **Project: JQuery Employee Registration App** **Bootstrap 4** What is Bootstrap? Features of Bootstrap History of Bootstrap Bootstrap Overview Bootstrap Installation Tools Used for Web Development Setting Development Environment Bootstrap First Application Bootstrap Components Overview Basic Typography Text Alignment & Display Floats Position in Bootstrap Colors Background Spacing in Bootstrap Sizing in Bootstrap Breakpoints in Bootstrap Buttons in Bootstrap Navigation bars in Bootstrap List groups and Badges in Bootstrap Forms in Bootstrap Input groups in Bootstrap Alerts & Progress bars in Bootstrap Tables & Pagination in Bootstrap Cards in Bootstrap Media Objects Grid System in Bootstrap Grid Alignments in Bootstrap Flex boxes in Bootstrap	Auto margin & wrapping order in Carousels in bootstrap Collapse classes in Bootstrap Tooltips in Bootstrap Popovers in Bootstrap Modals in bootstrap **Project: Corporate Website** **Project: Admin Dashboard Website**

NODE JS

What is Node JS?
Why Use Node JS
Features of Node JS
Traditional Webserver Model
Node JS Webserver Model
Node JS Installation
Node JS Console, REPL
REPL Commands
Node JS Basics
Node JS Modules Intro
Export and Import Modules
Node JS Core Modules
Node JS Custom Modules
Node JS NPM Nodules
Creating Node JS Web Server
Node JS Routing System
Frameworks for Node JS

Express JS

Introduction to Express JS
Express JS Installation
Creating Webserver using Express JS
Express JS Routing System
Handling Requests with Express JS
GET Request Parameters with Express JS
GET Request Queries with Express JS
POST Request handling with Express JS
Serving Static files with Express JS
MVC architecture with Express JS
Express JS with Bootstrap Integration
Template Engines Introduction
Express Generator Tool and Usage
EJS Template Engine and Usage
EJS Template Engine with Bootstrap App
REST API with Express JS

Mongo DB

Introduction to Databases
Advantages of Mongo DB over RDBMS
Installation of Mongo DB
Usage of Mongo DB Shell
Mongo DB Create / DROP Database
Mongo DB Create / DROP Collections
Mongo DB READ operations
Mongo DB UPDATE Operations
Mongo DB DELETE Operations
Integration of MongoDB to Node JS App
Integration of MongoDB to Express JS Web App
Integration Express JS ,MongoDB , Bootstrap
Server Side Form Validation using Express Validator
(ACT Service Website using Express JS, Mongo DB)

Unit Testing

Introduction to Unit Testing
Advantages of Unit Testing
Roles of Developer in Unit Testing
Various Unit Testing libraries and frameworks
Setting up environment with Unit Testing
Mocha Library Integration
Chai Library
JEST testing framework
Importance of Test Coverage in Unit testing
Test coverage reports
Generating test coverage reports with Istanbul
Generating test coverage reports with JEST

Type Script

Introduction to typescript
TypeScript Installation
Typescript variable declarations
Typescript data types
Typescript conditional / looping statements
Typescriptobjects , Arrays
Typescript functions
Object orientation concepts
->private , protected , public
->objects
->classes
->constructors
->encapsulations
->inheritance
->interfaces
->getters , setters
->methods
Collections in typescript
Exception handling in typescript
Modules in typescript

Design patterns in typescript

Angular 9

Angular Introduction
Angular JS vs Angular
Angular Architecture
What is Single Page Application?
Introduction to Angular CLI
Software setup of Angular
Angular CLI Commands
Creating AngularApplication
Angular Modules Creation
Angular Components Creation
Angular Template Generation
ConfiguringStyles with Angular Application like CSS , Bootstrap frameworks

Data Binding with Angular
Angular Interpolation
Angular Event Binding (template to class)
Angular Template Reference Variables

Angular Two-way Data Binding (FormsModule)
-> username change
-> select box change
-> show password example
-> sms application
-> dependentselectbox
-> Range selection
-> form Submission

Importance form validations
Template Driven Form Validation
Reactive Form Validation
Demo App on Form Validation + Routing + HTTP + Routing + Bootstrap

Introduction to Authentication & Authorization
JWT Web tokens & Sessions
Configuring JWT with Angular
Local Storage of Tokens in Angular
Verification of Tokens with NODE JS server
Demo App on Login & Logout Mechanism

Angular Material

Angular Material Introduction
Angular Material Integration
Angular Material Form Components
Checkbox, date picker, radio buttons, select, slider
Angular Material Navigations Menu, sidebars, Navigation bars
Angular Material Layout components
Cards, grid list, steppers,tabs, trees
Angular Material Buttons, Badges, chips, progress bars, tooltips, Pagination, tables etc.

Angular Structural Directives -> ng-if -> ng-switch -> ng-for -> Usecases **Demo App on Angular Directives** Angular component Lifecycle **Demo Products Kart Application** Angular Components Interaction Angular Pipes | Filters Examples What is Angular Services &Usage Dependent Injection Creating Angular Services using CLI Configuring Angular Services, Custom Services **Demo App on Angular Services + Bootstrap** Use of Angular with HTTP Module Configuring HTTP clients with Angular Introduction of Angular Observables Angular Handling HTTP Errors **Demo App on Angular HTTP + Bootstrap**	Importance of Routing in Angular Configuring Angular Routes Configuring Navigation links with Angular **Demo App on Angular Routing & Bootstrap** Integrating Angular apps with Server environments like Node JS , Express JS Form handling with client and server with databases. Integrating Angular apps with Firebase Webhosting of Angular App on Heroku and Netlify websites.	**Projects in Angular** 1) Github finder App 2) Spotify Music App using Angular 3) Events Booking App with JWT Authentication with Server & MongoDB 4) Employee Portal App