(HTML5, CSS3, JavaScript ES6, JQuery, AJAX, TypeScript, Bootstrap 4, Node JS, Express JS, Mongo DB, Angular JS, Unit Testing)

Introduction to UI / UX

Web Application Architecture

List of Technologies used to Web Development Understanding 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 like WebStorm IDE

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

Basics of UI

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

(The Great India Website)

**HTML** forms

Introduction to HTML Forms

HTML Form Elements like Input, text area, select Box,

data list etc.

HTML Form Input Types

**HTML Form Attributes** 

HTML Field Set & Legend Tags

(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

(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 Horizontal Navigation bar

**CSS Dropdowns** 

CSS Dropdown Navigation bar

CSS Tooltips CSS Forms

CSS Image Gallery
CSS 2D Transformation

CSS 3D Transformation

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**CSS3 Transitions** 

**CSS3 Animations** 

**CSS3 Advanced Animations** 

**CSS3 Custom Buttons** 

CSS3 Real time Usage of Transformations

(Technology Portal Website)
(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 JavaScript Digital clocks

JavaScript Dependent Select Boxes

(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 (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 (JQuery Typing Tester App)

(JQuery Employee Registration App)

**TypeScript Development** 

Introduction to TypeScript

TypeScript Overview

Differences between JavaScript and TypeScript

TypeScript Editors
Installing TypeScript
Project Setup in TypeScript
TypeScript Hello World

TS Data Types TS Enums TS Functions

**TS Default Arguments** 

(HTML5, CSS3, JavaScript ES6, JQuery, AJAX, TypeScript, Bootstrap 4, Node JS, Express JS, Mongo DB, Angular JS, Unit Testing)

**TS Optional Arguments** 

TS Function Overloading

TS Interfaces

TS Classes

**TS Constructors** 

TS Methods

TS Getters & Setters

TS Lambda Expressions

#### **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 (Corporate Website Using Bootstrap)
(Admin Dashboard Website Using Bootstrap)

#### **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 with Bootstrap App PUG / JADE Template Engine and Usage PUG Template Engine with Bootstrap App

**HBS** Template Engine and Usage

EJS Template Engine and Usage

**HBS Template Engine with Bootstrap App** 

(HTML5, CSS3, JavaScript ES6, JQuery, AJAX, TypeScript, Bootstrap 4, Node JS, Express JS, Mongo DB, Angular JS, Unit Testing)

#### **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)

#### **Angular JS**

Introduction

What is Single Page Application?

**Declarative vs Imperative Programming** 

**How Angular Application Works** 

First Angular JS Application

**Angular Directives** 

**Angular Controllers** 

**Angular Modules** 

**Dependency Injection** 

Two way Data binding

Examples of Two way Data binding

Ng-init and ng-if Directives

Ng-model directives example

Angular JS Clock App

**Angular JS Nested Controllers** 

Angular JS Controller As Syntax

Angular JS Calculator App

Ng-show, ng-hide examples

Ng-repeat directives example

Angular JS Number Selection App

Angular JS Real world TODO App

(Angular JS Invoice App)

Final Mini Project (Angular JS, Bootstrap 4, Node JS, Express JS, Mongo DB)

### **Unit Testing with JavaScript**

Introduction to Unit Testing

Importance of UNIT Testing

Introduction to JavaScript Testing Libraries

Mocha Testing Library

Chai, Simon Testing Library

Introduction to Test Coverage

Istanbul Test Coverage Tool

JEST Testing Framework for JavaScript

Future Learnings and careers opportunities of UI and Certification in UI, Resume Preparation, Mock Interviews.

### **Course Highlights:**

- 1) Complete Real Time Oriented Course Structure
- Laptops are mandatory for attending this course.
- Each Technology will be covered from Zero to Hero strategy.
- 4) Each Technology is perfectly organized with Starter Template and Completed Template.
- 5) Complete Source code will be provided time to time after completion of each Technology.

Thanks for your interest in learning and Development of UI Technologies.

Naveen Saggam