

### Course Outline

- **HTML5 & CSS3**
- **JavaScript**
- **Bootstrap**
- **Angular OR React**
- **Python**
- **MySQL**

**Duration: 3Month**

**Price: 35,000 + 18% GST**

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### HTML – Introduction

- HTML – Elements
- HTML – Tags
- HTML – Text
- HTML – Formatting
- HTML – Pre
- HTML – Attributes
- HTML – Font
- HTML – Text Links
- HTML – Comments
- HTML – Lists
- HTML – Images
- HTML – Image Links
- HTML – Tables
- HTML – Bgcolor
- HTML – Color Codes
- HTML – Color Chart
- HTML – Background

### Web Forms

- HTML – Forms
- HTML – Input
- HTML – Text Fields

### **Hidden Fields**

- HTML – Password
- HTML – Reset
- HTML – Submit
- HTML – Checkboxes
- HTML – Radio
- HTML – Select
- HTML – Hidden Fields
- HTML – Upload
- HTML – Textarea

### **Special Tags**

- HTML – Body
- HTML – Meta
- HTML – Style
- HTML – Div
- HTML – Layouts
- HTML – Frames

### **Formatting Tags**

- HTML – Bold
- HTML – Paragraphs
- HTML – Headings
- HTML – Line Breaks

### **HTML – Horizontal Rule**

- HTML – Email
- HTML – Italic

### **HTML5 Syllabus**

#### **Semantic Elements**

- <article>
- <aside>
- <figcaption>

- `<figure>`
- `<footer>`
- `<header>`
- `<mark>`
- `<nav>`
- `<progress>`
- `<section>`
- `<summary>`
- `<time>`

#### **Form Elements**

- `<datalist>`
- `<keygen>`
- `<output>`

#### **Form Input Types**

- Color
- Date
- Datetime
- Datetime-local
- Email
- Month
- Number
- Range
- Search
- Tel
- Url
- Time
- Week

#### **Form Attributes**

- autocomplete
- autofocus

- form
- formaction
- formenctype
- formmethod
- formnovalidate
- formtarget
- height and width
- list
- min and max
- multiple
- pattern (regexp)

### **CSS Introduction**

- CSS Syntax
- CSS Selectors (ID, Class, Tags, Attributes)
- CSS Styling

### **Styling Backgrounds**

- Styling Text
- Styling Fonts
- Styling Links
- Styling Lists
- Styling Tables

### **CSS Box Model**

- CSS Border
- CSS Outline
- CSS Margin
- CSS Padding
- CSS Dimension
- CSS Display
- CSS Positioning
- CSS Floating

- CSS Navigation Bar
- CSS Image Gallery
- CSS Image Opacity
- CSS Align

## **CSS3**

### **CSS3 Introduction**

- Borders
- border-radius
- Border Images
- Backgrounds
- Background Size
- background-origin
- Text Effects
- text-shadow
- box-shadow
- Text
- text-overflow
- word-wrap
- word-break
- Fonts

### **Transforms**

- 2D Transforms
- 3D Transforms

### **Transitions**

- transition-delay
- transition-duration
- transition-property
- transition-timing-function

### **JavaScript Introduction**

- What is JavaScript?

- What Is AJAX?

### **Developer Essentials**

- The development workflow
- Selecting the right tools for the job
- Just enough HTML and CSS
- Understanding objects
- Understanding variables
- Making comparisons
- Understanding events

### **Starting to Code**

- Writing your first script
- Internal vs. external scripts
- Using comments in scripts
- Using the NoScript tag in HTML

### **Interacting with Users**

- Creating alert dialogs
- Understanding conditional statements
- Getting confirmations from users
- Creating prompts for users
- Understanding functions
- Making links smarter
- Using switch/case statements
- Handling errors

### **JavaScript Language Essentials**

- Getting started
- Creating loops
- Passing values to functions
- Detecting objects
- Reading arrays
- Returning values from functions

- Writing arrays
- Building do and while loops
- Re-using functions

### **Creating Rollovers and More**

- Creating a basic image rollover
- How to write a better rollover
- Creating a three-state rollover
- Making rollovers accessible and 508 compliant
- Making disjointed rollovers
- Creating slideshows
- Displaying random images

### **Building Smarter Forms**

- Getting started
- Creating jump menus
- Creating dynamic menus
- Requiring fields
- Cross-checking fields
- Displaying more informative errors
- Verifying radio button selections
- Setting one field with another field
- Verifying email addresses

### **Handling Events**

- Responding to window events
- Responding to mouse movements
- Responding to mouse clicks
- Responding to onBlur form events
- Responding to onFocus form events
- Responding to keyboard events

### **Working with Cookies**

- Demystifying cookies

- Writing a cookie
- Reading a cookie
- Displaying a cookie
- Counting with cookies
- Deleting cookies
- Handling multiple cookies
- Cookies in action

### **The DOM, Nodes, and Objects**

- Understanding the DOM
- Adding nodes to the DOM
- Deleting nodes from the DOM
- Deleting specific nodes
- Inserting nodes into the DOM
- Replacing nodes in the DOM

### **Working with Dates and Times**

- Displaying dates
- Displaying times
- Creating a countdown

### **Real-World Applications of JavaScript**

- Creating sliding menus
- Creating pop-up menus
- Creating slideshows with captions
- Creating a stylesheet switcher

### **Bootstrap Training**

### **Angular Training**

- Introduction
- Dynamic Binding
- Directives
- Controllers
- Scope

- Services
- Factories
- Expressions
- Form Validations
- Filters
- Custom Directives
- Routing
- Making an API Call
- Modules
- Dependency Injection

### **Best Angular 10 / 11 / 12 Training**

Before Started with Angular 5 Topics we will give basic Overview on Angular 2/4 Versions. Learn depth knowledge in Angular Versions 2,4,5,6 with the help of Real Time Experts. We listed below the latest version of Angular 5 Topics.

### **Angular 5 Training**

#### **Section 1: Getting Started with Angular 5**

- Course Introduction
- What is Angular
- Angular vs Angular 2 vs Angular 4 vs Angular 5
- CLI Deep Dive
- Project Setup and First App
- The Course Structure
- What is TypeScript
- A basic setup of Bootstrap for Styling

#### **Section 2: The Basics of Angular 5**

- Module Introduction
- How an Angular App gets loaded and started
- Components
- Creating new Component
- Understanding the role of AppModule and Component Declaration

- Understanding Component Templates
- Understanding Component Styles
- Understanding Component Selector

### **Section 3: Databinding & Directive Concepts**

- Module Introduction
- What is Databinding
- String Interpolation
- Property Binding
- Property Binding vs String Interpolation
- Event Binding
- Bindable Properties and Events
- Passing and Using Data using Event Binding
- Two-Way Binding
- Forms Module and Two Way Binding
- Understanding Directives
- Using ngIf and Else Conditions
- Using ngStyle for Styling Angular App
- Applying CSS Class dynamically with ngClass
- Displaying Lists using ngFor

### **Section 4: Advanced Component and Databinding**

- Module Introduction
- Dividing the App into multiple components
- Property and Event Binding deep dive
- Binding to custom properties
- Binding to custom events
- View Encapsulation
- Understanding Local Reference inside Templates
- Getting Access to the templates using @ViewChild.
- Exploring Component Life Cycle
- Life cycle hooks deep dive

### **Section 5: Advance Directive Concepts**

- Creating a basic custom attribute directive
- Exploring Renderer to create a Directive
- Understanding HostListener and HostBinding
- Binding to Directive's Properties
- Building Structural Directives
- Exploring switch

### **Section 6: Understanding Services and Implementing Dependency Injection**

- Module Introduction
- Why Services are required
- Creating a Service
- Injecting the service into components
- Understanding Dependency Hierarchical Injector
- Injecting a Service into other services

### **Section 7: Routing in Angular 5**

- Module Introduction
- Understanding the need of a Router
- Setting Up and implementing Routes
- Navigating to Router Links
- Understanding Router Paths
- Styling Active Router Links
- Understanding Navigation Paths
- Styling Router Links
- Navigating Dynamically
- Using Relative Paths
- Passing Parameters to Routes and fetching route parameters
- Fetching route parameters in a Reactive Way
- Passing query parameters and fragments
- Understanding Nested Routes
- Redirecting and Wildcard routes

- Redirection Path Matching
- Outsourcing the Route Configuration
- Introduction to Guards
- Understanding can activate
- Understanding can activate child
- Understanding can deactivate
- Passing Static Data to a Route
- Understanding Resolve Guard
- Exploring Location Strategies

### **Section 8: Observables in Angular 5**

- Module Introduction
- Understanding built-in Angular Observable
- Creating Observables
- Using a Custom observable
- Unsubscribe
- Using Subjects to pass and Listen to Data
- Understanding Observable Operators

### **Section 9: Forms in Angular 5**

- Module Introduction
- Need of Angular's help
- Template Driven vs Reactive Approach

#### **Template Driven Approach**

- TD: Creating the Form and Registering the controls
- TD: Submitting and Using the form
- TD: Understanding Form's State
- TD: Accessing Form using @ViewChild
- TD: Adding Validation to user input
- TD: Built-in Validator and using HTML 5 Validation
- TD: Understanding Form State
- TD: Outputting Validation Error Messages

- TD: Set Default Value with ngModel Property Binding
- TD: Using ngModel and two-way binding
- TD: Grouping Form Controls
- TD: Using Form Data

### **Reactive Form Approach**

- Reactive: Creating a Form in Code
- Reactive: Submitting the form
- Reactive: Adding Validation
- Reactive: Getting Access to Controls
- Reactive: Grouping Controls
- Reactive: FormArray
- Reactive: Custom Validators
- Reactive: Exploring Error Codes
- Reactive: Custom Async Validator

### **Section 10: Exploring Pipes in Angular 5**

- Module Introduction
- Using Pipes
- Parameterizing Pipes
- Chaining Multiple Pipes
- Creating a custom Pipe
- Pure & Impure Pipes
- Understanding the Async Pipe

### **Section 11: Making HTTP Requests in Angular 5**

- Introduction & how HTTP request works in SPAs
- Sending POST Request
- Adjusting request headers
- Sending GET requests
- Sending PUT Requests
- Response with observable operators
- Catching HTTP errors

- Using the async pipe with HTTP Requests

## **Section 12: Authentication & Route Protection in Angular Apps**

- Module Introduction
- How Authentication works in SPAs
- Introduction to JWT
- Creating a Signup Page and Route
- Setting up Firebase SDK
- Signing users up
- Signing users in
- Token introduction
- Sending a token
- Route protection and redirection example.

## **Section 13: Typescript Introduction**

- Module Introduction
- Using types
- Classes
- Interface
- Generics
- Wrap up & Modules
- Deep dive into typescripts.

## **Angular 9 Syllabus**

### **TypeScript v.3**

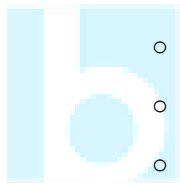
- **Introduction to TypeScript**
  - Overview of TypeScript
  - Why TypeScript?
  - JavaScript vs TypeScript
- **Installation of tools**
  - Installing Brackets – an IDE
  - Installing TypeScript using npm
- **Datatypes in TypeScript**

- Primitive Datatypes
- User-defined Datatypes
- Tuples and Unions
- Variables and Operators
- **Decision Makers and Loops**
  - if, if-else, switch statements
  - for, while loops
  - forEach in TypeScript
- **Functions in TypeScript**
  - Defining and Calling a Function
  - Returning functions
  - Parameterized functions
  - Arrow functions
- **Inbuilt methods in TypeScript**
  - String methods
  - Array methods
  - Other inbuilt methods
- **Oops in TypeScript**
  - Introduction to Classes and Objects
  - Interfaces
  - Inheritance
- **Winding up with TypeScript**
  - Revising the TypeScript Concepts
  - Bridging TypeScript to Angular

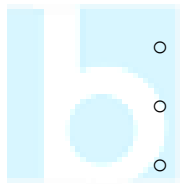
## Angular 9

- **Introduction to Angular**
  - What is Angular?
  - Features of Angular
  - Angular versions
  - AngularJS vs Angular 2+

- What's new in **Angular 9**
- **Installation of tools**
  - Installing the latest version of nodeJS
  - Installing Angular 9 using a node package manager (npm)
  - Installing an IDE like Visual studio code
- **Getting started with our First Angular Project**
  - List of commands for creating, running and building a project
  - Create a new Angular project
  - The folder structure of an Angular Project
  - Linking bootstrap with Angular
  - Linking icons, fonts with the Projects
- **Angular Components and Modules**
  - What are the components?
  - Structure of a component
  - Default vs custom components
  - Creating components manually
  - Creating components using npm
  - Calling a component
  - Nesting components
  - Execution flow of Angular applications
  - Component Interactions
  - Introduction to Modules
- **Navigation using Routers**
  - Introduction to Angular routings
  - Nested routes
  - Relative path vs Absolute paths
  - Lazy loading modules
  - Pre-loading modules
  - Preventing unauthorized access using protected routes
- **Angular Templates and Directives**



- Angular elements
- Advance concepts of components
- Angular Lifecycle hooks
- Structural directives
- Attribute directives
- Custom directives
- **Data Binding**
  - Introduction to data binding
  - String Interpolation
  - Property Binding
  - Event Binding
  - Two-way data binding
- **Services and Dependency injection**
  - What are Services?
  - Need for Services
  - Creating a Service
  - Achieving inter-component data exchange
  - Dependency injection in Angular
  - Creating an injectable service in a class
  - Injecting services
- **Angular Animations**
  - Introduction to Angular Animations
  - Creating a Basic Animation
  - Example for Advanced Animations
  - Creating Re-usable Angular Animations
- **Angular Pipes and Maps**
  - Introduction to Pipes
  - Importing and using pipes
  - Parameterizing pipes
  - Chaining pipes



- Custom pipes
- Creating a Filter pipe
- **Angular Forms**
  - Introduction to Angular Forms
  - Template-driven forms
  - Reactive forms
  - TDD vs Reactive forms
  - Adding validations to forms
  - Displaying error messages
- **Angular Observables and RxJS**
  - Introduction to Observables
  - Using observables to pass data
  - Type-ahead suggestions using Observables
  - Introduction to RxJS library
- **Server Interactions using HTTP**
  - Introduction to Http Client Services
  - HTTP get vs post
  - Requesting and sending data to the server
  - Sending get Request
  - Sending put Request
  - Adjusting Request Headers
- **Deployment of the Application**
  - Building the Application
  - Steps to host the application on some server
  - Hosting the Application
- **Building a Real-time Website for an Imaginary University**
  - Creating the Project Setup
  - Linking BootStrap
  - Creating modules and grouping Components
  - Implementing Lazy Loading and adding Routings

- Adding necessary Material Components
- Completing the contents
- Hosting the Website
- **Bonus**
  - Introduction to Angular Material
  - Working with any of three External Plugins

**OR**

## **React Training**

### **Introduction to React & JSX**

- Origins of React
- React.js Syntax
- Overview of JSX and why you should use it
- Getting hold of everything you need to start coding

### **React Components**

- React component Properties
- Setting Properties
- Component Lifecycle
- Updating Components
- Writing your first React.js component
- Mounting Components

### **JSX**

- Expressions & Attributes
- JSX Basics
- Namespaced Components
- Rendering HTML
- Rendering React Components

### **Flux**

- Views & Controller-Views
- Flux is not MVC!
- Data Flow

- Action, Dispatcher, Store & View
- Flux Application Architecture
- Structure

### **Event Handling In React**

- Key Events
- Event Pooling
- React.js Event Handlers
- Synthetic Event

### **Creating A Dynamic UI In React**

- Keeping components stateless
- Event Delegation
- React Stateful Components
- Auto binding

### **Integration with Other Libraries**

- Gulp & Browserify
- React with jQuery
- React & AJAX

### **React Server Integration & Deployment**

- httpster
- npm

### **Python Training**

#### **Module 1: An Introduction to Python**

- What can Python do?
- Why Python?
- Good to know
- Python Syntax compared to other programming languages
- Python Install

#### **Module 2: Beginning Python Basics**

- The print statement
- Comments

- Python Data Structures & Data Types
- String Operations in Python
- Simple Input & Output
- Simple Output Formatting
- Operators in python

### **Module 3: Python Program Flow**

- Indentation
- The If statement and its' related statement
- An example with if and it's related statement
- The while loop
- The for loop
- The range statement
- Break &Continue
- Assert
- Examples for looping

### **Module 4: Functions & Modules**

- Create your own functions
- Functions Parameters
- Variable Arguments
- Scope of a Function
- Function Documentations
- Lambda Functions& map
- n Exercise with functions
- Create a Module
- Standard Modules

### **Module 5: Exceptions Handling**

- Errors
- Exception handling with try
- handling Multiple Exceptions
- Writing your own Exception

### **Module 6: File Handling**

- File handling Modes
- Reading Files
- Writing& Appending to Files
- Handling File Exceptions
- The with statement

### **Module 7: Classes In Python**

- New Style Classes
- Creating Classes
- Instance Methods
- Inheritance
- Polymorphism
- Exception Classes & Custom Exceptions

### **Module 8: Generators and iterators**

- Iterators
- Generators
- The Functions any and all
- With Statement
- Data Compression

### **Module 9: Data Structures**

- List Comprehensions
- Nested List Comprehensions
- Dictionary Comprehensions
- Functions
- Default Parameters
- Variable Arguments
- Specialized Sorts

### **Module 10: Collections**

- namedtuple()
- deque

- ChainMap
- Counter
- OrderedDict
- defaultdict
- UserDict
- UserList
- UserString

### **Module 11: Writing GUIs in Python (Tkinter)**

- Introduction
- Components and Events
- An Example GUI
- The root Component
- Adding a Button
- Entry Widgets
- Text Widgets
- Check buttons

### **Module 12: Python SQL Database Access**

- Introduction
- Installation
- DB Connection
- Creating DB Table
- INSERT, READ, UPDATE, DELETE operations
- COMMIT & ROLLBACK operation
- handling Errors

### **Module 13: Network Programming**

- Introduction
- A Daytime Server
- Clients and Servers
- The Client Program
- The Server Program

### **Module 14: Date and Time**

- sleep
- Program execution time
- more methods on date/time

### **Module 15: Few more topics in-detailed**

- Filter
- Map
- Reduce
- Decorators
- Frozen set
- Collections

### **Module 16: Regular Expression**

- Split
- Working with special characters, date, emails
- Quantifiers
- Match and find all
- character sequence and substitute
- Search method

### **Module 17: Threads Essential**

- Class and threads
- Multi-threading
- Synchronization
- Treads Life cycle
- use cases

### **Module 18: Accessing API Essential**

- Introduction
- Facebook Messenger

### **MySQL Training**

#### **Theory, Terminology and Concepts**

- Client/Server Concepts

- Database and Database Objects

### **Data Definition using SQL**

- Databases
- Data Types
- Tables
- Constraints and Indexes
- Views

### **Basic Data Manipulation using SQL**

- Recurring SQL Constructs
- Adding data
- Modifying data
- Removing data
- Searching data

### **Advanced-Data Manipulation using SQL**

- Expressions
- Grouping and Aggregate Functions
- Joining Tables

### **Transactions**

- Transaction Concepts
- SQL for working with Transaction

### **Import/Export**

- Tools for Import/Export
- SQL for Import/Export