

## HTML 5

- Introduction to HTML
- Colors, Gradients
- Interstyle sheet
- External style sheet
- Inline style sheet
- Table,Form,Pair styles
- Multi Column Layout
- Media Queries
- Shadow Effects
- Border Properties
- Transformation ( 2D , 3D)
- Transitions
- Animations
- Form Input Tags - Email, Color, Number, Date,URL, Range
- New Form Attributes
- Web Storage
- HTML5 Geo Location
- HTML5 Drag & Drop
- Meta tags

## CSS 3

- Introduction to Style Sheets, Syntax.
- Background Properties
- Text Properties, List Properties
- Hyperlink Tag Properties
- Psuedo Classes, Psuedo Elements
- Text Properties
- Multimedia Tags.
- Linking Tag,
- List Properties
- Font styles
- Forms
- Frames
- Tables
- New Media Tags( Audio, Video)
- New Markup Elements - Address, article, base, figure – details, header, nav, footer - section tags.
- Canvas and SV G Tags

## JAVASCRIPT

- Introduction to JavaScript.
- ses, Syntax, Comments
- Printing Statement
- Variables
- Operators
- Printing statements
- Conditions (if ifelse else if, Switch )
- Loops(while dowhile for)
- Arrays
- Functions ( String , Date, Math )
- User Defined Functions
- Browser Compatibility
- Events, Cookies
- Dialog Boxes
- Page Redirection
- Form Validation
- Error Handling
- Regular Expressions
- Web Page, Website
- URL, Domain, Hosting
- Static Pages Vs Dynamic Pages

## CORE .NET

### INTRODUCTION TO .NET

- Introduction to .Net Platform
- Net Framework – BCL & CLR
- CLR, CTS, MSIL & other tools.
- Multiple Language Interaction
- Security in .NET – CAS
- Features of .Net, Versions
- Language Interoperability

### C#.Net

- Advantages/Disadvantages
- Why C#, Features of C#
- . NET Namespaces

### Programming Using Visual

### C#.Net

- C#.Net Program Design
- Data types, Value types
- Reference types (CTS)

- Variables and Constants o Strings
- Arrays, String formatting
- Statements and flows
- Command-line arguments
- C# 3.0/3.5 features – Implicit types
- Extension Methods and more

### Object Oriented Concepts

- Classes & objects, This & Basekeyword
  - Properties – Read Only Write
  - Accessibility levels, specifiers
  - Constructors, Method overloading
  - Class (static) variables & methods
  - Object destruction
  - ' ref' and 'out' parameters
  - Enumerations, Indexers
  - Inheritance and Polymorphism
  - Creating derived classes
  - Method overriding and hiding
  - Polymorphism o Virtual Methods
  - Casting objects, Object Initializers
  - Abstract & override method
  - Abstract / Sealed / Static classes
  - Collections, Generics
- ### Error Handling
- Unstructured error handling
  - Structured error handling
  - Exception Handling
  - Debugging the application
  - Debug and Trace classes
  - Code Optimization
- ### MultiThreading
- ### Asynchronous Programming
- ### Dependency Injection
- ### Introduction To Windows Forms

- Windows forms library  
WinForms
- Layout Enhancements
- Forms and controls – Hierarchy
- Menus
- Built-in dialog boxes & printing
- Extender Controls

### SQL Server Basics

#### ADO.Net 1.1/2.0/Linq

- History and background
- From DAO to ADO.NET
- ADO.NET LINQ
- ADO.NET design goals
- ADO.NET  
architecture, components
- ADO.NET relation with .NET  
tools DataSet in RealTime  
Scenarios

#### ADO.Net Components

- Connected environment
- Disconnected environment
- ADO.NET object model
- Data sources
- Providers & connections
- Commands and data reader
- Data sets and data adaptors
- Data tables, rows and columns
- Constraints and relations
- Data-centric applications
- New ADO.Net Hierarchy

#### Data Sources, Data Providers

- Connecting to a data source
- SQL Server .NET data provider
- OLE-DB .NET data provider
- Connection pooling
- ADO.NET exceptions

#### Accessing Data

##### Connected Environment

- Creating commands
- Executing commands
- Reading data using data reader
- Parameterised queries  
(input & output parameters)
- Adding, editing and deleting  
data
- Stored procedures

### Disconnected Environment

- Why a disconnected  
environment?
- DataSet features
- DataAdapter features
- Filling data sets
- Read data tables
- Read data from rows, columns
- Batch queries o Data sets
- Dataset Functionality
- Dataset Optimistic Concurrency
- Visual Studio Data Menu tools
- Dataset Navigation

### Sorting, Searching & Filtering

- Searching in data sets
- Find on primary keys
- Searching on any column/row
- Wildcard searches
- Data views - Sort / Filter /  
Search

### Windows Services

- Introduction, C reate windows  
services
- Compile, run & install services
- Event log services

### Application Deployment

- ClickOnce Deployment
- Deployment – other method

### SQL Server Basics

## ASP.Net Core MVC

- Net Framework
- Design Patterns(MVC)
- Why .Net Core

### Programming with C#.Net

#### Difference between ASP.Net MVC

#### ASP.Net Core MVC

#### ASP.Net Core With real-time scenarios

#### Introduction to ASP.Net Core

- Features and Advantages
- ASP.NET Core vs. ASP.NET MVC  
vs. ASP.NET Web Forms
- Understanding ASP.NET Core  
MVC

#### ASP.NET Core First Application

- Project Structure

- Understanding the Life Cycle of  
ASP.Net  
Core Request

### Controllers & Action Methods

- Controllers
- Action Methods and  
ActionResult object
- Understanding Action Selectors
- Action Filter
- Asynchronous Action Methods
- Views – CRUD Operations  
Helpers
- Html Helpers
- URL helpers
- Tag Helpers

### Model Binding

- Benefits of model binding
- Data binding
- Custom model binding

### Validations & Data Annotations

- Client side validations
- Server side validations

### Security

- Forms authentication
- Window authentication
- Password authentication

### MVC and Entity Framework Core

#### State management Techniques

- Client side state management
- Server side state management

### ASP.NET Core

- What is asp.net core
- How to use asp.net core  
Web Caching Routing
- Conventional based Routing
- Attribute routing

### Middlewares

#### How to add middlewares

- Difference between run and  
usemiddlewares
- Use of middlewares

### Module Development

- Difference between  
middlewares  
and httpmodule
- What are http handlers
- Web API and JQuery Ajax
- What is Web API
- How do webAPI wor

## MS SQL Server

### Concepts of DBMS

- Data / Information / Database
- Introduction to DBMS
- Data Models
- HDBMS, NDBMS, RDBMS, ORDBMS
- Entity–Relationship (E-R), Normalization

### Introduction to SQL Server

- Advantages & limitations
- Login & Password
- Server Type & Server Name
- Authentication Modes - SQL Server, Windows
- SQL Server Management Studio & Tools
- Object Explorer, Query Editor

### Introduction To SQL

- Types of SQL Commands, Data Types
- DDL, DML, DQL, DCL, TCL
- Database - Creating / Altering / Deleting
- Create / Alter / Drop Tables

### Table Constraints

- Not Null, Unique, Default & Check
- Primary Key, Referential Integrity or foreign key

### Data Manipulation Language (DML)

- Insert / Update / Delete
- Truncate & Drop
- Create a Table From Another Table
- Insert Rows From One Table To Another

### Data Query Language (DQL)

- Simple Select, Select with row filters
- Where clause with relational operators
- Logical operators & Special operators
- Between ... and, In, Like, Is Null, Isnull()
- Order By Clause, Distinct Keyword,

Column aliases

### Transaction Management

- User & Server schema, Implicit Transactions
- Begin / Commit / Rollback / Save Transaction
- Role of Log File In Transaction Management

### Built In Functions

- Numeric/Character/Date/Conversion/Identity
- Aggregate Functions sum(), avg(), etc.
- Group By & Having Clauses
- Ranking Functions & Top Clause

### Set Operators

- Union, Union all, Intersect & Except

### Joins

- Simple, Equi / Non-Equi, Natural, Self, Inner, Outer, Cross or Cartesian

### Sub Queries

- Single / Multi Row, Any, Some, ALL, Exists & Not Exists, Nested, indexes

- Create, Alter & Drop
- Composite / Clustered
- Performance variation

### DBA Activities

- Authenticated Login - SQL Server/Windows
- Create / Alter / Drop users
- Granting & Revoking Permissions

### Views

- Create / Alter / Drop Views
- Simple, Complex, Indexed & Partition views

## REACT JS

### Module 1: Prerequisites of Reactjs

- Es6
- Let, const keywords and Block Scope
- Template literals
- Rest Parameters and Spread Operators
- Object Literals, Object Constructors and Function
- Classes
- Inheritance
- Static Properties and Methods
- Iterators and Iterables
- Introduction to Babel

### Module 2: Reactjs Basics.

- Introduction to React
- Uses of React
- First react application in online
- Installing Reactjs
- Working With React.render
- Application folder structure

### Module 3: Introduction to J S X and it's working

- Working with React. Create
- Attributes in J S X
- Children in J S X
- J S X in Depth

### Module 4: Working with Elements

- Introduction to elements
- Rendering elements into DOM

### Module 5: Reactjs Components and Props

- Introduction to Components
- Types of components
- Function Component
- Class Component
- Providing default values to props using default props
- Validating props using prop

### Module 6: Understanding State and Component Lifecycle

- Uses of State
- Read state and set state
- Working with Component LifeCycle

### Module 7: Events and Event Handling

- Difference Between Javascript Event Handling and Reactjs Event Handling
- Working with Event Handling
- Passing arguments to event handlers

### Module 8: Working with Conditional Rendering

- Conditionally rendering a part of component
- Preventing Components from

### Rendering Module 9: Rendering

- List and using keys
- Rendering Collection of values
- Working with keys for stable identity
- Using map method in JSX

### Module 10: Working With forms

- HTML Form submission V/s Controlled components
- Uncontrolled components
- Significance to defaultValue Prop

### Module 11: Working with Portals

- Usage of Portals
- Bubbling Through portals boundaries

### Module 12: Understanding error boundaries

- Introduction to error

### Module 13: React Hooks:-

- useState Hook
- useEffect Hook
- useContext Hook
- useReducer Hook
- useState Vs useReducer
- useCallback
- useMemo
- useRef
- Custom Hooks

### Module 14: React Material UI

- Introduction to React Material UI
- Typography • Button, Button Group, Toggle Button
- Text field, Select, radio

button,checkbox

- switch, rating, Autocomplete
- Box, Stack, Grid, Paper
- Card, Accordion, ImageList
- navbar, Menu, Link, Breadcrumbs
- Drawer, Speed Dial
- Bottom Navigation, Avatar
- Badge, List, Chip, ToolTip
- Table, alert, Snackbar
- Dialog, Progress, Skeleton
- Loading Button, Date and time
- Date Range Picker, Tabs
- Timeline, Masonry
- Responsiveness, Customizing

### Module 15: Routing With react router

- Setting up react router
- Understand routing in single page applications
- Working with nested routes

### Module 16: Just Redux

- Introduction to redux
- Uses of redux • Redux principles
- Install and setup redux

### Module 17: Working with Immutable.js

- Immutable.js for immutable datastructures

### Module 18: React Redux

- Introduction to React Redux
- Uses of React Redux
- Install and setup
- Understanding mapStateToProps and mapDispatchToProps usage

### Module 19: Redux Saga (Redux middleware)

- Uses of redux middleware
- What is redux saga
- Install and setup redux saga
- Working with Saga helpers

### Module 20: Server-side rendering

- What is server-side rendering (SSR)?
- Why SSR methods

### Module 21: Testing in react

- Understand the significance of unittesting
- Understand unit testing jargon and tools
- Unit testing react components with enzyme
- Using sinon to mock

### Module 22: Webpack

- What is webpack
- Why webpack
- Install and setup webpack
- Working with webpack configuration
- Working with loaders
- Setting up Hot Module

## Angular

### What is Angular?

- Introduction
- AngularJS vs Angular
- Setup for local dev environment

### Angular Architecture

- Building Blocks of Angular Appln
- Angular Modules
- @NgModule decorator
- Angular Libraries
- Component
- Templates
- Metadata
- DataBinding
- Directives
- Services

### Displaying Data using Templates

- About Directives
- Components Properties
- Interpolation
- Built-In Directive - o ngIf, o ngFor, o ngSwitch
- Create class for data (Model object)

### Template Expressions

- Working with Arrays
- External HTML Template File

### Data Binding

- Binding properties

- Interpolation
- One-way / Property Binding
- Event Binding
- Two-way binding with NgModel
- Attribute Binding
- Style Binding
- Class Binding Styles Binding In Components
- Style & Class Bindings
- Built-In Directives - NgStyle & NgClass
- Using Component

#### Styles Binding In Components

- Style & Class Bindings
- Built-In Directives - NgStyle & NgClass
- Using Component Styles
- Special selectors
- Loading Styles into Components
- Advanced Component Features
- Components Life Cycle Hooks.

#### Template Driven Forms

- Introduction
- Initial form layout
- Bind data properties - ngModel
- Add name attribute
- Add custom CSS
- Show/hide error messages
- Form submission - ngSubmit
- Disable the form's submit
- Resetting the form

#### Reactive Forms

- Reactive Forms Introduction
- Form Control Properties
- setValue & patchValue
- Validating Form Elements
- Submitting & Resetting forms
- Observing & Reacting to Form Changes
- Using FormBuilder Pipes
- Built-in Pipes
- Custom Pipes
- Pipes and Change Detection
- Pure and Impure pipes
- Custom Directives
- Custom Attribute Directive

- HostListener
- HostBinding
- Custom Validator Directiv
- Dependency Injection
- Dependency Injection
- DI in Angular Framework
- Reflective Injector
- Exploring Provider
- Types of Tokens
- Types of Dependencies
- Configuring DI using Providers
- Implementing DI in Angular
- Optional Dependencies

#### Introduction Type script

- Limitation of JavaScript
- What is Typescript.
- Benefits of TypeScript
- Setup the Environment
- First Typescript code

#### Basic Types

- Primitive types (number, string, boolean)
- Arrays and tuples
- Enumerations
- Type inference

#### Datatypes

- Basic Data Types
- String and Templated String
- Arrays • Tuple • Enum
- any and void
- null and undefined
- Type Inference
- Type Casting
- Difference between let and var • Const declaration
- for...of vs for...in statement
- OOPS
- Writing and Using Classes
- Constructor method
- Inheritance of classes
- Type casting
- Type Assertion
- Static Properties
- Abstract class
- Interface having Optional Property

#### Advanced Types

- Union and intersection types
- Type guards

- Type aliases
- Type assertions

#### Interfaces

- Interface Declaration & Initialization
- Interface Implementation by
  - Class extending another class
- Implementing an Interface
- Extending Interfaces

#### Function Types

- Optional and Default Parameters
- Rest Parameters
- Function Overloading
- Function Types

#### Modules

- Understanding modules
- Import and export statements
- Module resolution strategies

#### Generics

- Introduction to generics
- Generic functions
- Generic classes
- Constraints on generics

#### Namespaces

- Introduction
- Syntax with Example
- Compiling multiple TS files into single JS file

## BOOTSTRAP

### Introduction to Bootstrap

#### Bootstrap Package

- Download and Installing
- File structure, Bootstrap template

#### Bootstrap Grid System

- Grid, Bootstrap Grid System
- Mobile FIRST STRATEGY
- Bootstrap Grid System
- Media Queries

#### Grid Options

- Responsive Column resets - Offset /
- Nested columns
- Column ordering
- Creating Layouts

#### Bootstrap CSS

- HTML5 Doctype - Responsive
- Images – Containers

#### Bootstrap Typography

- Headings, Inline sub headings -
- Emphasis, Abbreviations - Addresses,
- Block quotes, Lists

#### Bootstrap Tables

- Basic table, Optional table classes
- Stripped / Bordered / Hover table
- Condensed / Responsive tables

#### Bootstrap Forms

- Form layout, Vertical/Basic form
- Inline / Horizontal form
- Selects, Form Control states
- Form Control Sizing, Help text

#### Bootstrap Buttons

- Button Size / State - DISABLED State
- Buttons tags

#### Bootstrap Images

- img-rounded
- img-circle, img-thumbnail

## JQuery

- Introduction, jQuery Elements
- I D selector, Class selector
- Declaring Button/Fade actions
- Fade actions Properties
- Declaring Slide actions
- Slide actions Properties
- Declaring Load Method actions
- Load Method actions Properties
- Declaring Slideshow images
- Animation Properties
- Declaring Text Effects
- Text Effects Properties
- CSS properties, Creating Web Gallery

## TESTING

- Intro to S/W testing (definition, purpose)
- Types of testing
- SDLC (Models to be followed for testing)
- Software testing life cycle
- (test plan preparation, test scenarios)
- Writing test cases in excel (as per company format) or in Jira
- Test results (Defect report preparation)

Enq No: \_\_\_\_\_

## Enquiry Details



Fee : \_\_\_\_\_ Demo on : \_\_\_\_\_ Faculty : \_\_\_\_\_ Batch Start : \_\_\_\_\_

### OTHER COURSES OFFERED



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