

**HTML 5**

- Introduction to H T M L
- 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 JAVA****Introduction**

- Why Java? Java versus C/C++
- Java history, features, applications
- JDK versions, JDK installations Token
- Identifiers, Data types, Keywords
- Variables, Constants, Literals, Comments

**Type casting Command****Line Arguments Java Class**

- Variables, Methods, Constructors
- Instance blocks, Static blocks Operators Conditional Statements

- If, if-else,nested if-else, switch

**Looping Statements**

- While,do-while,for,for each

**Arrays OOPS**

- Class, Object, Inheritance, Polymorphism (overloading, overriding, dynamic method dispatch)

- This, super, final keywords

- Abstraction, Encapsulation

**Garbage Collection Annotations Packages**

- Predefined /User-defined packages
- Importing packages
- Access Modifiers (private,public, protected, abstract, volatile, synchronized)

**Interface**

- Interface declarations, Marker interface
- Adaptor classes, Interface vs inheritance

**String Manipulation**

- StringBuffer, StringBuilder
- StringTokenizer

**Wrapper Class**

- Auto boxing vs Auto unboxing
- toString(), parseXXX(),valueOf(), XXXValue()

**Exception Handling**

- Introduction, Types of Exceptions
- Exception vs Error
- Try-catch blocks usage
- Finally block usage
- Types of Exceptions and error

**Multi Threading**

- Introduction to multitasking
- Process based vs thread based
- Starting the Thread
- Life Cycle stages of a Thread
- Preventing Thread from

Execution (yield(),join(),sleep())

- Thread Synchronization
- Dead Lock, Daemon Thread

### Collection Framework

- Intro to Arrays, Adv of collection
- Collection vs Collections, Cursors
- Key interfaces, Characteristics,
- Interface implementation classes - List, Set, Map
- Comparable vs comparator
- Sorting mechanisms

### Applets

- Introduction to Applets
- Advantages & Disadvantages • Life cycle of Applets • Creating

### Applets

### AWT (Abstract Window Tool Kit)

- Introduction, Frame class, Layouts • Components of AWT • Event Handling, Event delegation

## ADV JAVA

### SWING

- Introduction
- Difference between swing and AWT
- Components hierarchy
- Individual Swings components JLabel, JButton, JTextField,
- Types of Layouts
- Applications of different layouts

### JDBC

- Introduction, JDBC Architecture
- Types of Drivers
- Steps to create JDBC Application
- Life cycle of JDBC, Statement
- ResultSet Types( Read Only, Updatable, Forward Only, Scrollable ResultSet)
- PreparedStatement, Batch Updatons
- Callable Statement, BLOB & CLOB
- Advanced JDBC Features

### NETWORKING

- Introduction, Socket and ServerSocket • URL info

- Client-Server programming

### SERVLETS

- Introduction Web Appln Architecture
- HTTP Protocol & HTTP Methods
- Servlet Interface, GenericServlet
- HTTPServlet, Servlet Life Cycle
- ServletConfig, ServletContext
- Database Connectivity thru Servlets
- Servlet Communication
- Servlet – Browser Communication –
- SendError, SendHeader
- Web – Component Communication
- Session Tracking Mechanisms – Cookies,
- HttpSession - URL – Rewriting - Hidden –
- Form Fields
- Filters, Listeners

### JSP

- Introduction, JSP Life Cycle
- Implicit & Explicit Objects & Scopes
- JSP Directives - Page
- Include, taglib
- JSP Scripting Elements -
- Scriptlet,
- Expression,
- Declarative
- JSP with JDBC,
- Custom tags
- Cookies and Sessions AJAX
- Ajax Architecture
- Ajax program
- Ajax-Database integration

## J2EE FRAMEWORKS

### HIBERNATE

- Advantages of Hibernate compared to JDBC
- Introduction, ORM
- Configuration xml file
- Mapping xml file along with .dtd files
- Hibernate Architecture, Data

### Types

- First Application using Hibernate
  - Hibernate API, CRUD operations
  - Primary key Generators
  - Data collection by using Collection
  - List, Map, Set and related classes
  - Hibernate Query Language(HQL)
  - Connection to Oracle server
  - Loading into Hibernate application
  - Query execution in Oracle
  - Procedure and function invocation
  - Connection with oracle by JDBC
  - Query By criteria(QBC)
  - Inheritance Mapping - Table per Sub class, Table per class - Table per Concrete
  - Association Mapping - one to one, one to many, many to many • Catching
  - Hibernate Annotations
  - Integration with - Servlets, JSP
- ### SPRING
- Introduction to spring framework
  - Spring Inversion of Control (IOC)
  - Dependency Lookup, Dependency Injection
  - Constructor VS Setter Injection
  - Resolving/Mapping Constructor Collection Injection and Merging
  - Bean Inheritance, Bean Auto Wiring
  - PropertyFileReader classes
  - BeanScopes singleton,prototype
  - Annotations @Autowired,
  - @Required and @Qualifier
  - Property PlaceholderConfigurer Spring-AOP
  - Jointpoint,Aspect,Target,Pointcu
  - Advice, Around / Before advice

- Throws advice, After running advice
- NameMatchMethodPointcut
- RegExpMethodPointcut
- Static pointcuts, Dynamic pointcuts
- Annotations(@Aspect,@Pointcut @Before,@AfterReturning).
- Spring-JDBC
- Introduction to Spring with Jdbc
- JDBCTemplate
- PreparedStatement
- RowMapper, ResultSetExtractor
- NamedParameteJDBCTemplate SpringORM
- Integrating Hibernate with Spring
- Introduction, HibernateTempl

## 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 Bable

### 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 andset 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 unit testing
- 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 Directive
- 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 FIR ST S T R AT E G Y
- Bootstrap Grid System
- Media Queries

#### Grid Options

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

#### Bootstrap CSS

- H T M L 5 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

- 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)

## JQuery

- Introduction, jQuery Elements
- I D selector, Class selector
- Declaring Button/Fade actions
- Fade actions Properties
- Declaring Slide actions

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

## Enquiry Details



Fee : \_\_\_\_\_

Demo on : \_\_\_\_\_

Faculty : \_\_\_\_\_

Batch Start : \_\_\_\_\_

### OTHER COURSES OFFERED



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