

React

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HTML 5

- Introduction to HTML
- Web Page, Website
- URL, Domain, Hosting
- Static Pages Vs Dynamic Pages
- Introduction to HTML Tags
- Text Properties, Multimedia Tags.
- Linking Tag, List Properties
- Tables, Frames & Forms
- New Media Tags(Audio, Video)
- New Markup Elements
 - Address, article, base, figure
 - details, header, nav, footer
 - section tags.
- Canvas and SVG Tags
- Form Input Tags
 - Email, Color, Number, Date,URL
- New Form Attributes, Web Storage
- HTML5 Geo Location
- HTML5 Drag & Drop
- Meta tags

CSS 3

- Introduction of Css
- Types of Style Sheets, Syntax
- Difference Between Internal External & Inline
- Background Properties
- Heading properties,paragraph style's
- Paragraph border style's,table style's
- Text Properties, List Properties
- Difference Between div and span
- Hyperlink Tag Properties
- Psuedo Classes, Psuedo Elements
- Colors, Gradients
- RGB & HSL COLOR'S
- Drop Down Using CSS
- Multi Column Layout
- Media Queries
- Shadow Effects
- Border Properties
- Transformation (2D , 3D)
- Transitions
- Animations

Basic & ADV JAVASCRIPT

- Introduction to Javascript
- Javascript Output Possibilities
- Variables
- Constants
- DataTypes
- Comments
- Operators
- **Type Conversions**
 - Number
 - parseInt
 - parseFloat
- **Control Statements**
- **Conditions**
- **Loops**
- **User Defined functions**
- **Methods**
 - Number
 - String
 - Math
 - Date
- **Array**
- Object
- Array of Objects
- Array Methods
- **Events**
- **Actions**
- **Dialog Boxes**
- **DOM**
 - Change Content of HTML elements
 - Change HTML element attribute

DOM (continued)

- Apply Css Styles
- Create Javascript Animations
- Create HTML Elements
- Remove HTML Elements
- Adding Multiple Event Handlers
- Navigating within the elements

• **Page Redirection**

• **Error Handling**

• **Function Advance Concepts**

- Rest Parameters
- Anonymous Functions
- Function Constructor
- Function Closures
- Lambda Functions

• **OOPs Concepts**

- Classes
- Objects
- Encapsulation
- Abstraction
- Composition
- Inheritance
- Polymorphism

• **Keywords**

- this
- new
- let

• **Cookies**

• **Regular Expressions**

• **Form Validation**

Module 1:Prerequisites of Reactjs

- Es6
- Let, const keywords and Block Scope
- for of, for in
- Template literals
- Rest Parameters and Spread Operators
- Object Literals, Object Constructors and Function Closures
- Classes
- Inheritance
- Static Properties and Methods
- Iterators and Iterables
- Generators
- Modules (export and import)
- Introduction to Bable

Module 2: Reactjs Basics.

- Introduction to React
- Uses of React
- First react application in online
- Installing Reactjs
- Creating and running first application in local system
- Working With React.render
- Application folder structure

Module 3: Introduction to JSX and it's working

- Working with React. Create
- Embedding Expressions in JSX
- Attributes in JSX
- Children in JSX
- JSX in Depth

Module 4: Working with Elements

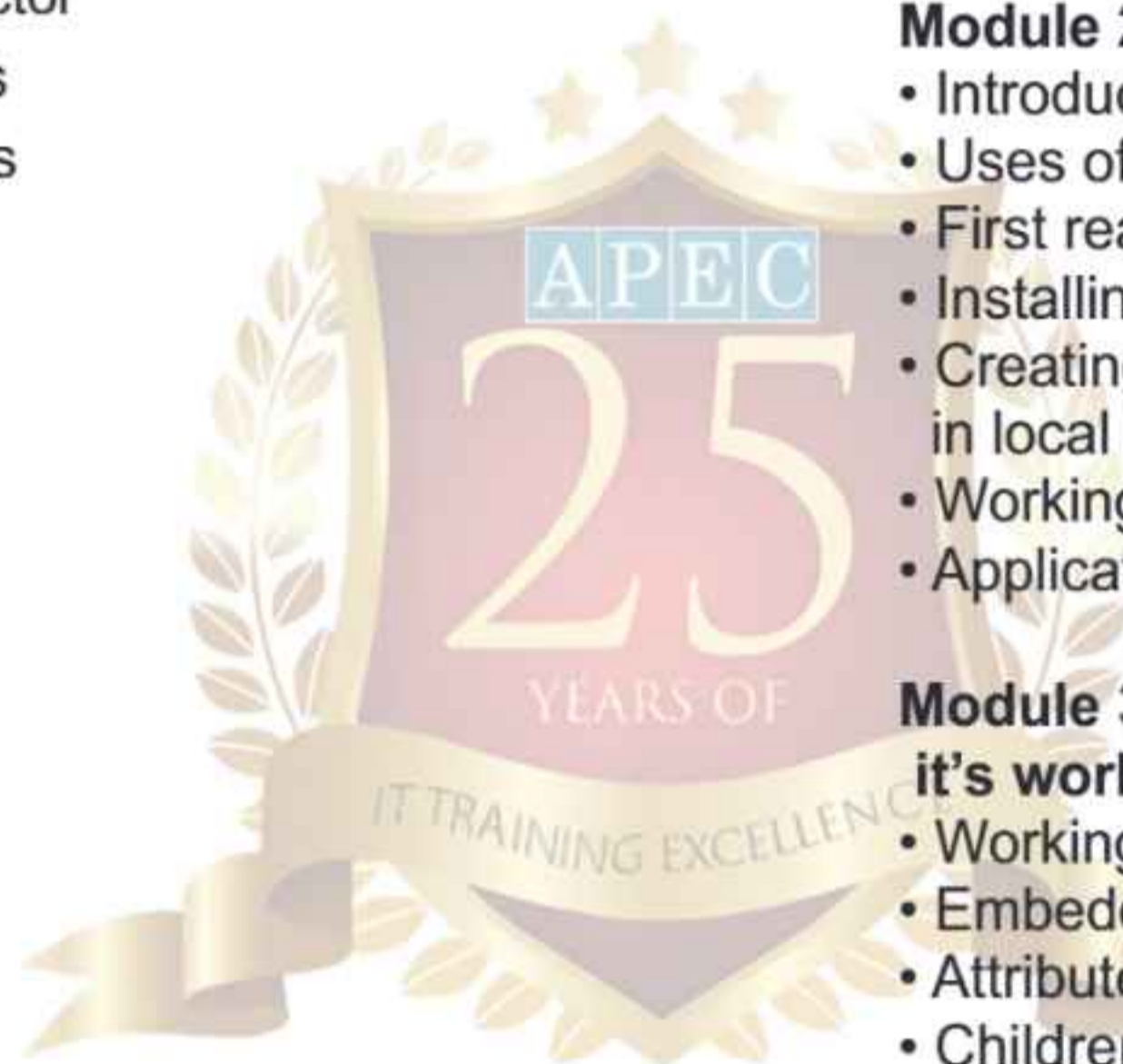
- Introduction to elements
- Rendering elements into DOM
- Updating Rendered Elements

Module 5: Reactjs Components and Props

- Introduction to Components
- Types of components
- Function Component
- Class Component
- Components Composition and Extraction
- Passing Data to Component using props
- Validating props using prop types
- Providing default values to props using default props

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
- Inline if with Logical And and if else with conditional operator
- 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
- Using react ref prop to get access to DOM element
- Access to DOM using 'ref'.

Module 11: Working with Portals

- Usage of Portals
- Bubbling Through portals

Module 12: Understanding error boundaries

- Introduction to error boundaries

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 picker
- Date Range Picker, Tabs
- Timeline, Masonry
- Responsiveness, Customizing Theme

Module 15: Routing With react router

- Setting up react router
- Understand routing in single page applications
- Working with BrowserRouter and HashRouter components
- Configuring route with Route component
- Using Switch component to define routing rules
- Making routes dynamic using route params
- Working with nested routes
- Navigating to pages using Link and NavLink component
- Redirect routes using RedirectComponent
- Using Prompt component to get consent of user for navigation
- Path less Route to handle failed matches

Module 16: Just Redux

- Introduction to redux
- Uses of redux
- Redux principles
- Install and setup redux
- Working with redux by Creating actions, reducer and store

Module 17: Working with

- Immutable.js
- Immutable.js for immutable datastructures

Module 18: React Redux

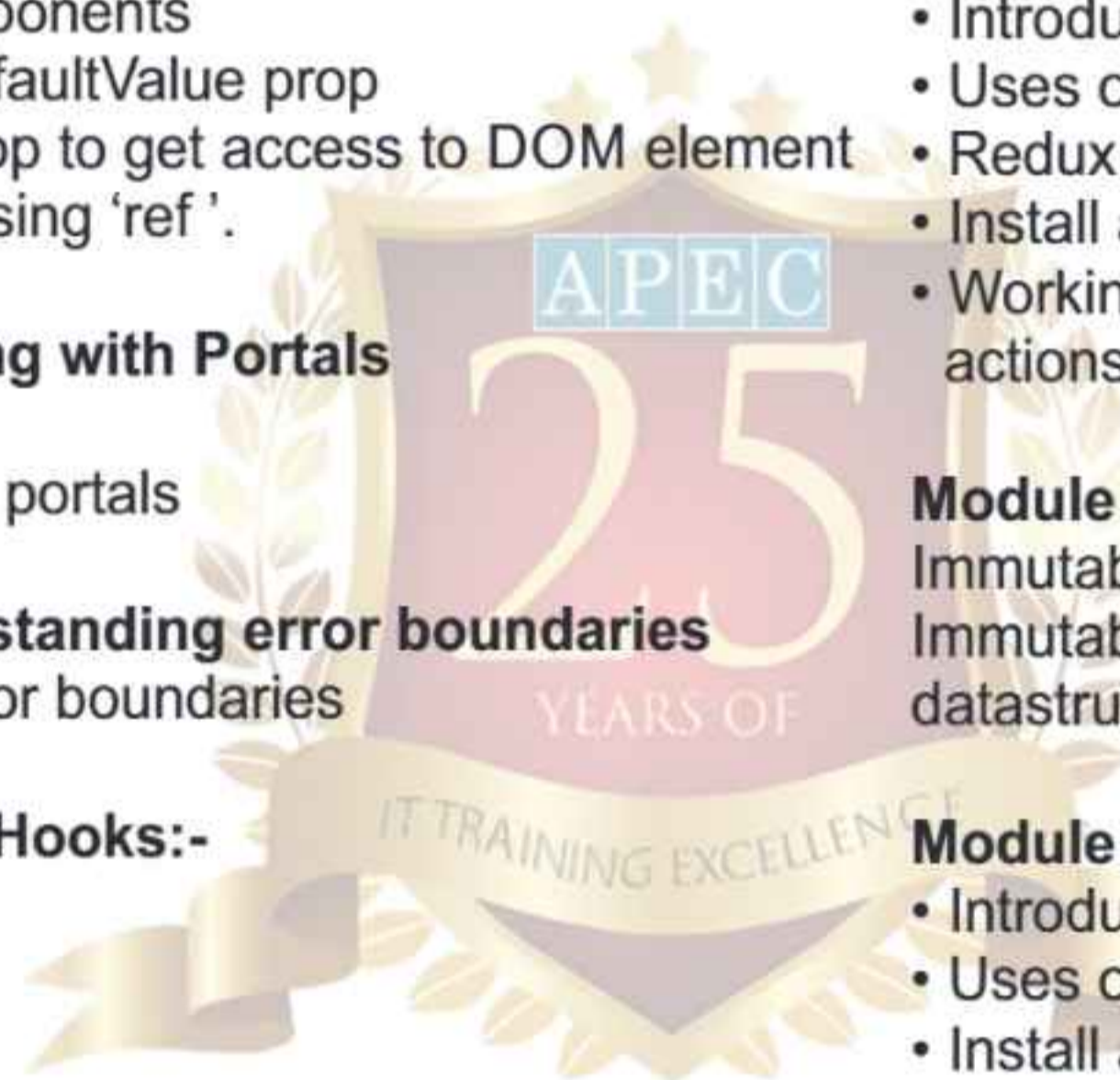
- Introduction to React Redux
- Uses of React Redux
- Install and setup
- Presentational vs Container components
- Understand high order component
- Understanding mapStateToProps and mapDispatchToProps usage

Module 19: Redux Saga (Redux middleware)

- Uses of redux middleware
- Available redux middleware choices
- What is redux saga
- Install and setup redux saga
- Working with Saga helpers
- Sagas vs promises

Module 20: Server-side rendering

- What is server-side rendering (SSR)?
- Why SSR
- Working with renderToString and renderToStaticMarkup methods



Module 21: Testing in react

- Understand the significance of unit testing
- Understand unit testing jargon and tools
- Unit testing react components with Jest
- 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 file
- Working with loaders
- Quick word on code splitting, lazy loading, tree shaking
- Setting up Hot Module

Replacement Concepts of DBMS

- 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
- Databases
- Create / Alter / Drop
- Tables
- Create / Alter / Drop

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 / Save Transaction
- Commit / Rollback
- 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

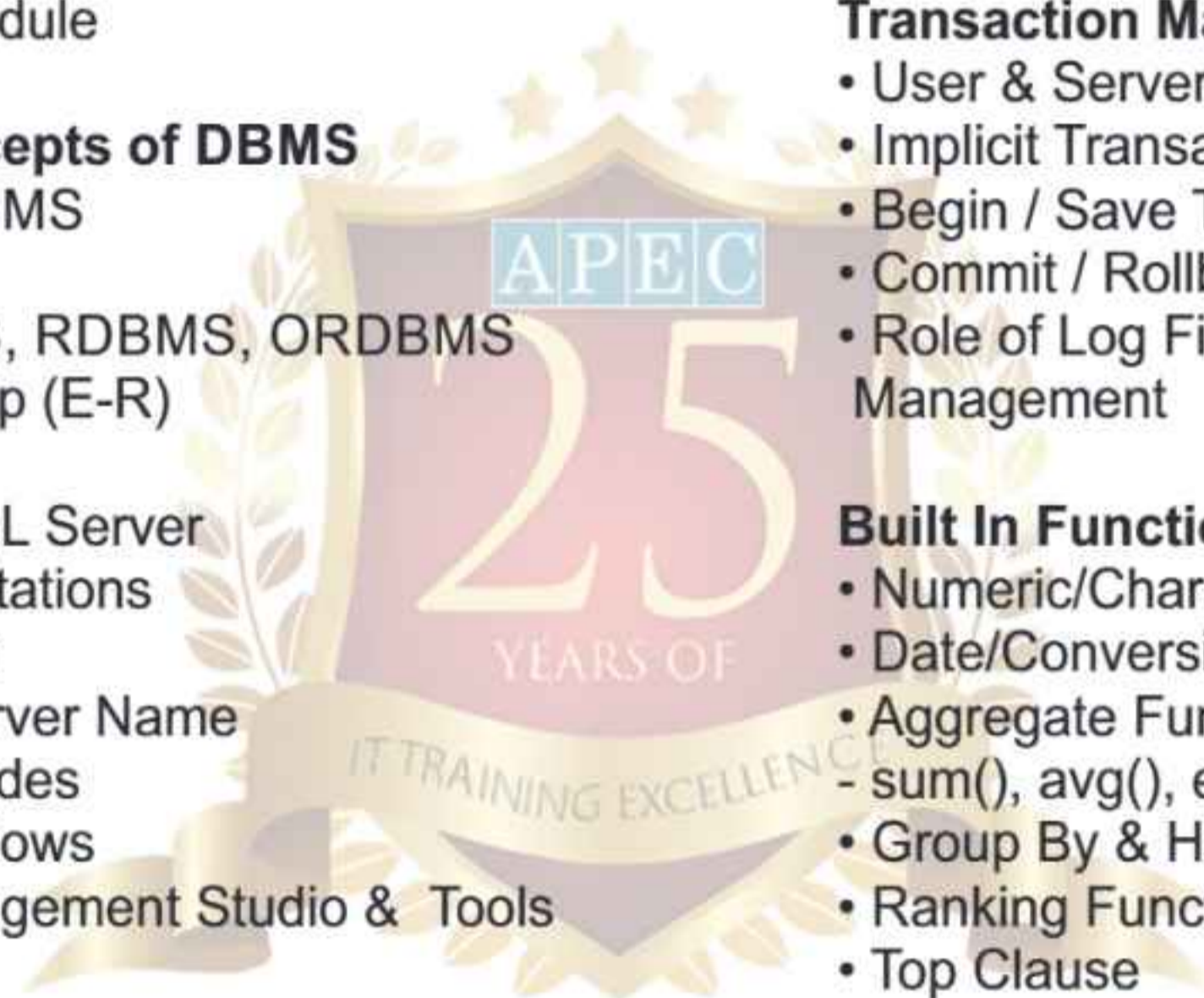
- Union, Union all ,Intersect
- Joins
- Simple
- Equi / Non-Equi
- Natural, Self
- Inner, Outer
- Cross or Cartesian Join

Sub Queries

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

Indexes

- Create, Alter & Drop
- Performance variation



TSQL Programming

- SQL versus TSQL Programming
- Introduction
- Control statements - If,Case
- While & other looping statements

Cursors

- Types of Cursors
- Forward_Only, Scroll
- Static, Dynamic
- Keyset
- Local & Global

Stored Procedures

- Creating/Calling Stored Procedures
- Altering & Dropping
- Optional, Input, Output Parameters
- Permissions on Stored Procedures

Exception Handling

- User Defined Error Messages
 - Add & Remove
- Raising Exceptions Manual

User Defined Functions

- Scalar Functions
- Table Valued Functions
- Permissions on User Defined Functions
- Triggers
- Stored Procedures VS User Defined Functions VS Triggers
- Creating Triggers
- Altering Triggers
- Dropping Triggers
- Magic Tables
- Instead of Triggers



CLR Integration

- What is CLR Integration?
- Implementing CLR
- A Simple Example
 - Working with XML Data Type

Database - Backup, Restore

- Import, Export
- Attach, Detach



JAVA / PYTHON / .NET
FULL STACK



DATA SCIENCE



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