

SYLLABUS – COMPLETE REACTJS

PRE-REQUISITE / TARGET AUDIENCE: Any beginner who wants to build career as Web designer can take this course

SYLLABUS - HTML

MODULE 01: HTML INTRODUCTION

- ❖ Web Development Introduction
- ❖ History of HTML
- ❖ What you need to do to get going and make your first HTML page
- ❖ What are HTML Tags and Attributes?
- ❖ HTML Tag vs. Element
- ❖ HTML Attributes:
- ❖ How to differentiate HTML Document Versions
- ❖ Software Installations for course

MODULE 02: HTML-BASIC FORMATTING TAGS

- ❖ HTML Basic Tags
- ❖ HTML Formatting Tags
- ❖ HTML Colour Coding

MODULE 03: HTML GROUPING AND LISTS

- ❖ Div and Span Tags for Grouping
- ❖ Unordered Lists
- ❖ Ordered Lists

MODULE 04: HTML IMAGES AND LINKS

- ❖ Image and Image Mapping
- ❖ URL - Uniform Resource Locator
- ❖ URL Encoding

MODULE 05: HTML TABLE

- | | |
|-----------|--------|
| ❖ <table> | ❖ <th> |
| ❖ <tbody> | ❖ <tr> |
| ❖ <thead> | ❖ <td> |
| ❖ <col> | |

MODULE 06: HTML FORM

- | | |
|-------------|----------------|
| ❖ input | ❖ checkboxes |
| ❖ textarea | ❖ fieldset |
| ❖ button | ❖ datalist |
| ❖ label | ❖ radio button |
| ❖ drop-down | |

MODULE 05: HTML

- ❖ Video and Audio Support
- ❖ Header and Footer
- ❖ Navigation Links
- ❖ Form: HTML5 most used features

SYLLABUS - CSS

MODULE 01: CSS INTRODUCTION

- ❖ Benefits of CSS
- ❖ CSS version History
- ❖ CSS Syntax
- ❖ External style sheet using <link>
- ❖ Multiple Style sheet
- ❖ Value Length and Percentage

MODULE 02: CSS SELECTORS

- | | |
|---------------------|-----------------------|
| ❖ ID selector | ❖ Universal selectors |
| ❖ Class selector | ❖ Child selectors |
| ❖ Grouping selector | ❖ Attribute selectors |

MODULE 03: COLOUR BACKGROUND CURSOR

- ❖ background-image
- ❖ background-repeat
- ❖ background-position
- ❖ CSS cursor

MODULE 04: TEXT FONTS

- | | |
|--------------------|------------------|
| ❖ color | ❖ letter-spacing |
| ❖ background-color | ❖ word-spacing |
| ❖ text-align | ❖ font-size |
| ❖ text-indent | ❖ font-style |
| ❖ white-space | |

MODULE 05: LISTS AND TABLES

- | | |
|---|--|
| ❖ CSS List <ul style="list-style-type: none">○ list-style-type○ list-style-position○ list-style-image | ❖ CSS Table <ul style="list-style-type: none">○ border○ width and height○ text-align○ padding○ color |
|---|--|

MODULE 06: BOX MODEL

- ❖ Borders and Outline
- ❖ Margin and Padding
- ❖ Height and Width

MODULE 07: DISPLAY POSITIONING

- ❖ CSS Visibility
- ❖ CSS Display
- ❖ CSS Scrollbars
- ❖ CSS Positioning
 - Static positioning
 - Fixed positioning
 - Relative positioning
 - Absolute positioning

MODULE 08: FLEXBOX

- ❖ Flexbox understanding
- ❖ Flexbox architecture
- ❖ Flexbox container and flex item properties

SYLLABUS – JAVASCRIPT**MODULE 01: JS INTRODUCTION**

- ❖ Java script Introduction
- ❖ Why JS
- ❖ Role of JS in web
- ❖ Benefits of JS

MODULE 02: VARIABLES AND OPERATORS

- ❖ Variable Declaration
- ❖ Variable Initialization
- ❖ Operators:
 - Arithmetic,
 - Comparison
 - Logical or Relational
 - Ternary or Conditional Operator
- ❖ Unary Operator vs Binary Operator
- ❖ Instanceof operator

MODULE 03: FUNCTIONS

- ❖ What is Function?
- ❖ Function with no argument
- ❖ Function with Argument
- ❖ Function with return value
- ❖ Optional Parameters in function
- ❖ Function Declaration
- ❖ Function Expression
- ❖ Anonymous Function
- ❖ Function as a value
- ❖ Callback function
- ❖ Built in Functions
- ❖ Standard Date and Time Functions

MODULE 04: DATA TYPES

- ❖ Primitive Types: Number, String, Boolean
- ❖ Weak type vs Strong type
- ❖ NaN
- ❖ Null vs undefined
- ❖ Union types

MODULE 05: VARIABLE'S

- ❖ Global variable
- ❖ Local variable
- ❖ Scope in JS
- ❖ Let vs const vs var

MODULE 06: CONTROL STATEMENTS

- ❖ Conditional Control Statements
 - If-else Statement
 - Switch case statement
 - break and continue
- ❖ Looping Control Statements
 - For loop
 - While loop
 - Do while loop

MODULE 07: FUNCTION ADVANCE STUFF

- ❖ IIFE - Immediately Invoked Function Expression
- ❖ Arrow Function in depth
- ❖ Higher Order Function
- ❖ Function as First class citizen

MODULE 08: CLASS AND OBJECT

- ❖ Object
- ❖ Different ways to create object
- ❖ Constructor function
- ❖ This keyword
- ❖ Prototype
- ❖ Class
- ❖ constructor

MODULE 09: ADVANCE STUFF

- ❖ Closure
- ❖ Map
- ❖ Set
- ❖ Arrays
- ❖ Promises
- ❖ Cloning in Depth
 - Shallow Cloning
 - Deep Cloning

MODULE 10: ES 6 FEATURES

- ❖ String Template
- ❖ Rest Operator
- ❖ Spread Operator
- ❖ Object De-structuring
- ❖ Array De-structuring
- ❖ map(), filter(), reduce(), flat() and few more

MODULE 11: WEB STORAGE

- ❖ Local Storage
- ❖ Session Storage

MODULE 12: JSON

- ❖ JSON Introduction
- ❖ Syntax rules of JSON
- ❖ JSON Stringify

MODULE 13: HTML FORM MANIPULATIONS

- ❖ HTML DOM - Document Object Model
- ❖ Working with HTML form and it's element

SYLLABUS – REACTJS

MODULE 01: WELCOME TO FRONT-END WEB DEVELOPMENT WITH REACT

- ❖ Full-Stack Web Development: The Big Picture
- ❖ Front-end JavaScript Frameworks and Libraries Overview
- ❖ Single Page Application(SPA)
- ❖ What is DOM?
- ❖ Introduction to React
- ❖ What is virtual DOM?
- ❖ React as library.
- ❖ Why babel required?
- ❖ Introduction to JSX.
- ❖ React Components: State and Props
- ❖ Lifecycle Methods intro.

MODULE 02: CONFIGURE YOUR REACT APPLICATION

- ❖ Require for setup.
- ❖ First react application using create-react-app
- ❖ What is npm packages.
- ❖ Get familiar with folder structure.
- ❖ Data binding in React.
- ❖ How to use npm modules.

MODULE 03: RUN YOUR FIRST REACT APPLICATION.

- ❖ Get familiar with package.json
- ❖ Understanding npm commands.
- ❖ Debug your code in browser
- ❖ Create prod build using npm.

MODULE 04: REACT ROUTER AND SINGLE PAGE APPLICATIONS

- ❖ React Component Types
- ❖ Lifecycle Methods in detail
- ❖ React Router and parameters
- ❖ UI Design and Prototyping
- ❖ Create your first React component

MODULE 05: REACT COMPONENTS

- ❖ Passing props to child component.
- ❖ State management in React.
- ❖ Props management in React.
- ❖ Update parent from child component.

MODULE 06: REACT HOOKS

- ❖ Basic hooks
- ❖ Additional hooks
- ❖ How to use hooks
- ❖ Building your own hook.

MODULE 07: REACT FORMS, FLOW ARCHITECTURE AND INTRODUCTION TO REDUX

- ❖ Form component
- ❖ Controlled and uncontrolled form
- ❖ React Redux Form and validations

MODULE 08: IN THE WORLD OF REDUX

- ❖ Stores for state management
- ❖ React Redux Form.
- ❖ Redux and states.
- ❖ Redux and Reducers.

MODULE 09: REDUX STATE MANAGEMENT

- ❖ Redux Actions
- ❖ Difference between Thunk and Saga
- ❖ Redux Thunk/Saga
- ❖ Client-Server Communication

MODULE 10: API INTEGRATION

- ❖ Redux Actions
- ❖ API Methods and params
- ❖ Api integration.
- ❖ Store data in Redux.
- ❖ Fetch Redux state.
- ❖ API to UI/UI to API.

MODULE 11: ASSESSMENT TEST

MODULE 12: PROJECT

- ❖ Go live Project

SYLLABUS – GIT

MODULE 01: INTRODUCTION

- ❖ Source Control Management overview
- ❖ Why SCM tool required
- ❖ GitHub

MODULE 02: CLONING AND CREATING PROJECT

- ❖ Cloning - code base
- ❖ Init – create project
- ❖ States of GIT
 - Working directory
 - Staging area
 - Repository

MODULE 03: BASIC SNAPSHOTTING

- ❖ Staging file
- ❖ Status
- ❖ Commit
- ❖ Diff
- ❖ Reset

MODULE 04: GENERAL CONCEPTS

- ❖ Local repository
- ❖ Remote repository
- ❖ What is upstream and downstream?

MODULE 05: BRANCHING AND MERGING

- ❖ Branch
- ❖ Checkout
- ❖ Merge
- ❖ Log
- ❖ Stashing changes
- ❖ Conflict Resolution
- ❖ Pull request