Front end Development Lectureflow

Module 1 - Foundation	3

- How does the Internet Work
- DNS and how it works
- What is HTTP
- Browsers and how they work?
- What is Domain Name?
- What is hosting?
- Git and GITHUB Training

Module 2) Fundamentals of IT	3

- Careers in Web Technologies and Job Roles
- Difference between Web Designer and Web Developer
- What Is the Facebook Pixel
- How the Website Works
- Client and Server Scripting Languages
- Domains and Hosting
- Types of Websites (Static and Dynamic Websites)
- Web Standards and W3C recommendations
- Responsive Web Designing
- Protocol
- Basics of SEO
- SDLC

WD--------------->Module 3) WD - HTML	10

- Student Intro , Career Center Login ,What is Internet, HTTP/HTTPS, WWW, Domain name and Top Domain name
- SEO, What is HTML, What is Text Editor, Web Browser, Downloading Text Editor , HTML Structure, First Program in HTML
- 1) HTML Introduction 2) HTML Getting Started 3) HTML Elements 4) HTML Attributes 5) HTML Basic Tags
- 1) HTML Doctypes 2) HTML Layout 3) HTML Head 4) HTML Meta 5) HTML Scripts
- Practical Examples: 1) Create any simple web page to display your name. 2) Importance of meta tag and Doctypes
- Tags and self Closing Tags, Basic Tag , Attribute and Events, Marquee Tag
- HTML - Meta Tags, HTML - Comments, HTML - Images, HTML - Tables, HTML - Lists, HTML - Text Links, HTML - Image Links
- HTML Headings HTML Paragraphs HTML Links HTML Text Formatting HTML Styles HTML Images

- HTML - Frames, HTML - Iframes, HTML - Blocks, HTML - Backgrounds, HTML - Colors, HTML - Fonts
- Anchor Tag, Img Tag, Image Mapping
- HTML - Fonts, HTML - Forms, HTML - Embed Multimedia ,HTML - Marquees, HTML - Header, HTML - Style Sheet, HTML - Javascript ,HTML - Layouts
- List Tag, Tables, Forms
- HTML - Tags Reference, HTML - Attributes Reference, HTML - Events Reference, HTML - Fonts Reference, HTML - ASCII Codes, ASCII Table, Lookup, HTML - Color Names, HTML - Entities, HTML - Fonts, Ref HTML - Events, Ref MIME Media Types, HTML - URL Encoding Language, ISO Codes HTML - Character Encodings, HTML - Deprecated Tags
- PRactical Examples: 1) Create simple Doc and display your name using different heading tag 2) Create link for open google. 3) Create document using all text formatting tags
- HTML online editor
- HTML Tables HTML Lists HTML Forms HTML Iframes
- Practical Examples: 1) Create simple table 2) Create time table for your school 3) Create table with colspanrowspan example 4) Create invoice using table 5) Create hotel menu. 6) Create index page for your book. 7) Create list with different categories.
- PRactical Examples: Create registration form with all fields and validation

Module 4) WD - CSS and CSS 3	20

- 1) CSS 2) In-line CSS Internal Style External Style Sheet @import Style Sheet 3) CSS Class CSS ID
- What is CSS How to Implement CSS Class and ID Width and Height Css Unit Box Model (Margin,padding,Border) and create basic template design
- Practical example : Create page with difference color text
- CSS Selectors , Pseudo Classes and Elements , Float and Clear and Alignment , Font Styling , Opacity and Visibility , Line Height
- 1) CSS Text 2)CSS Font 3) CSS Background 4) CSS Links 5) CSS Lists 6) CSS Display 7) CSS Visibility
- Creating Header of Website , Outline , Background , Counter increment , Counter reset ,Cursor , Overflow
- PRactical Example : Create layout for your project
- Position , Creating Submenu , Border Radius, Transform , Animation , Font Awesome Icons
- 1) CSS Layout Model 2) CSS Border 3) CSS Margin 4) CSS Padding 5) CSS Outline
- Font Family Through Google Font , import fontface rule ,FlexBox
- 1) CSS Float 2) CSS Align 3) CSS Position 4) CSS Element Size 5) CSS Layer
- Practical Example : Create image gallery
- 1) CSS Pseudo Class Selector 2) CSS Pseudo Element Selector
- CSS Properties 1) Background, 2) border 3) bottom 4) caption-side 5) clear 6) clip 7) color 8) content
- Practical Example: Create Menu with logo at left side and contact info at right side using clear effect
- 1) counter-increment 2) counter-reset 3) cursor 4) direction 5) display 6) empty-cells
- Practical Example: 1) Create submenu list using counter
- 1) float 2) font 3) height 4) left 5) letter-spacing 6) line [height, style, style-7) image, style-position, 8) style-type] 9) margin 10) outline 11) overflow 12) padding

- 1) page-break 2) position 3) quotes 4) right 5) table-layout 6) text 7) top 8) vertical-align 9) visibility 10) white-space 11) width 12) word-spacing 13) z-index
- Practical Example: wireframe layout for your template using div
- Media Query (For Responsive Website) , Creating a Responsive Website
- Validate a Website, Hosting a website with free domain name, Column , Clippath , Gradient Color , Filter, Border Image

Module 5) Website Designing - HTML5	5

- HTML5 Tags, HTML5 Input and Attribute
- Audio and Video, Semantic Element in HTML5
- Canvas, Svg
- Display Grid

Module 6) JavaScript Essentials And Advanced	10

- Basic JavaScript, Js comment, Js variables , Understanding var, let and Const, JS switch, if, else,JS loop , Js global variables, Js data types, Js operators, Js Functions
- Functions - Function Declaration in JS - Arrow Functions - Higher Order Functions - Map, Reduce and Filter
- Javascript Objects, Js object , Js Array , Js string, Js Date, Js Math, Js number, Js Boolean
- Javascript BOM ,Broswer Objects , Window object, History object, navigator object, Screen object
- Javascript DOM, Document object, getElementById, getElementByName, getElementByTagName, JS innerHTML property, JS innerTEXT property
- Javascript OOPS, JS class, JS object, JS prototype, JS constructor method, JS static method, JS encapsulation, JS inheritance, JS polymorphism, JS abstractions
- Javascript Exception Handling, JS exception handling , Javascript try-catch
- Javascript MISC, JS this keyword , JS Debugging , JS Hoisting , JS Strict Mode, JS promises, JS typeof , JS ternary operator, JS reload() method, JS setAttributes () method, JS setInterval() method, JS setTimeout() method.
- Javascript Events, Javascript Events, Javascript AddEventListener,(), jsOnclick event, jsdbclick event, JS onload event, JS onresize event.
- Array in JS, Creating Array, Array methods, The Spread & Rest operators, Destructuring
- JS Async, Callbacks, Promises, Async/Await
- ES6 Basics and Babel, New features in ES 6, Arrow functions, The . Operator, For/of , Map Objects, Set Objects, Promises, Functions Rest parameter, String.includes(),String.starts.With(), String.endWith(), Array.form(), Array.keys(), Array find(), Array findIndex(), javascript Modules
- Small Project using ES6

Module 7) WD - JQuery Basic, Effects & Advanced	8

- jQuery Basic a) jQuery Introduction b) jQuery Getting Started c) jQuery Syntax d) jQuery Selectors e) jQuery Events

- What is JQuery , Downloading JQuery File , First Program in JQuery
- Practical Example: Change CSS
- JQuery Syntax , Query Selector, Hide , Slide , Fade Effect in JQuery
- JQuery Effects 1) jQuery Show/Hide 2) jQuery Fade 3) jQuery Slide 4) jQuery Animation 5) jQuery Stop 6) jQuery Chaining 7) jQuery Callback
- How to Apply CSS Using JQuery, How to Add Class and Remove Class in Jquery , JQuery Animation
- Practical Example: Create slider with animation
- Filter using JQuery , JQuery Slider Plugin , Validation Plugin
- JQuery Advanced 1) jQuery Traversing 2) jQuery Ancestors 3) jQuery Descendants 4) jQuery Siblings 5) jQuery Filtering 6) jQuery Load 7) jQuery No-Conflict
- Zoom Plugin, Now Make Your Existing Website Dynamic with Javascript and JQuery

Module 8) WD - Bootstrap Basic & Advanced	9

- Bootstrap Basic 1) Bootstrap Introduction 2) Bootstrap Getting Started 3) Bootstrap Grid System 4) Bootstrap Fixed Layout 5) Bootstrap Fluid Layout 6) Bootstrap Responsive Layout
- Practical Example: Create Navigation Menu
- 1) Bootstrap Typography 2) Bootstrap Tables 3) Bootstrap Lists 4) Bootstrap List Groups 5) Bootstrap Forms 6) Bootstrap Custom Forms 7) Bootstrap Input Groups 8) Bootstrap Buttons 9) Bootstrap Button Groups
- Practical Example: Create login registration form
- 1) Bootstrap Images 2) Bootstrap Cards 3) Bootstrap Media Objects 4) Bootstrap Icons 5) Bootstrap Navs 6) Bootstrap Navbar 7) Bootstrap Breadcrumbs 8) Bootstrap Pagination 9) Bootstrap Badges 10) Bootstrap Progress Bars 11) Bootstrap Spinners 12) Bootstrap Jumbotron 13) Bootstrap Helper Classes
- Practical Example: 1) Create image gallery 2) Create model for login Product list page with pagination
- Bootstrap Advanced 1) Bootstrap Modals 2) Bootstrap Dropdowns 3) Bootstrap Tabs 4) Bootstrap Tooltips 5) Bootstrap Popovers 6) Bootstrap Alerts 7) Bootstrap Stateful Buttons 8) Bootstrap Accordion 9) Bootstrap Carousel 10) Bootstrap Typeahead 11) Bootstrap ScrollSpy 12) Bootstrap Toasts
- Practical Example: Create your project website using bootstrap

Module-9) React - Components, State, Props	8

- Installation - Add React to a HTML Website - Create New React App - Hello World
- Getting started in React
- JSX
- Components
- Component Composition
- JSX - Why JSX? - Embedding Expressions in JSX - Attributes with JSX - Children with JSX
- Props & Prop Types
- Event Handlers

- State
- React Web App
- Components, State, Props - Function Component - Class Component - Props - State - Class Component Lifecycle

Module 10) Lists and Hooks	6

- Conditional Rendering - Lists and Keys - Forms - Handling Events - Lifting State up
- Hooks - Introduction - Using the State hook - Using the Effect hook - Rules of Hook - Custom Hook
- Rendering Lists inside components
- React Keys
- Using keys wit component
- Uniqueness of keys among siblings
- React refs
- Uses of react Refs
- How to access of Refs
- Refs current properties
- Add Refs to DOM elements
- Add refs to class components
- Callback refs
- Forwarding Ref from one component to another component
- React with useRef
- React conditional rendering
- React if, logical & operator, Ternary operator, switch case operator, Conditional Rendering with Enum, Preventing components from rendering

Module-11) React - Styling & Advance React	5

- Creating the first App
- Understanding the App
- Styling the App
- Inspecting & Debugging styles
- Built-in components
- Working with Images
- ListViews
- TextInput
- Styling React Components - CSS stylesheet - Inline Styling - CSS Modules - CSS in JS Libraries (styled components)
- Creating Views (Scenes)
- Conditional Rendering - Lists and Keys - Forms - Handling Events - Lifting State up
- Hooks - Introduction - Using the State hook - Using the Effect hook - Rules of Hook - Custom Hook
- Advance Concepts - Context, useContext() - Working with Refs and useRefs() - Fragments - Performance optimization with useMemo() - Styling React Components - CSS stylesheet - Inline Styling - CSS Modules - CSS in JS Libraries (styled components)

- Bootstrap with React
- React Router - Browser - Router - Link - Route - Template integration - Http Request in React - Get and Post data

Module 12) React Router	8

- React Router
- Browser - Router - Link - Route
- Need of react router
- Template integration - Http Request in React - Get and Post data
- React router installation
- React router, react-router-native, react-router-Dom
- Component in react router , Browser Router , HashRouter
- What is Route
- What is Link component , Adding navigation using Link component
- Link vs NavLink
- React Router Switch , React Router redirect
- Nested Routing in React
- Template integrations Using Browser Router , Routes , Route , Link and Hash Router
- Advantages of react Router

Module-13) React - Applying Redux	8

- State
- State storage problem
- Redux Basics
- Redux Principles
- Implementing Redux
- React-Redux
- Middleware
- Counter App Demo
- Redux - Complexity of Managing state - Understand the Redux Flow - Setting up Reducer and store - Dispatching Actions - Passing and Retrieving Data with Action - Combining Multiple Reducers - Adding Middleware - Redux Dev tools