#### Milestone-0: Welcome

#### module-0:Welcome Module

- 0. Welcome to Complete Web Development Course
- 1.Module Introduction
- 2. Course outline SCIC and ACC
- 3. How to access course videos and assignments
- 4. How to ask for help
- 5.Install visual studio code
- 6.Install node in your computer and check version
- 7.Install git scm and create github account
- 8. How to take best out of this course
- 9. Module Summary and next steps

## Milestone-1: Personal Portfolio

#### Module-1: Learn and Explore HTML as a Beginner

- 1-1 Getting started with your first ever website
- 1-2 HTML language, markup, tags structure, paragraph tag
- 1-3 Bold, strong, how HTML tag works
- 1-4 Heading tag, different types of headings
- 1-5 HTML tag attribute, anchor, href, navigate
- 1-6 Display image (online image, local image, folder image)
- 1-7 List, container tag, ordered list, unordered list
- 1-8 Button, input, div, span, w3schools, every html tags
- 1-9 HTML structure, head, body, title, meta tag
- 1-10 HTML Module Summary, 4 types of HTML tags

#### Module-2: Learn and Explore CSS as a Beginner

- 2-1 Introduction to CSS Module, getting started with CSS
- 2-2 Style tag, embedded style, named color, hexcode, rgb
- 2-3 Background-color, height, width, font, CSS measuring units
- 2-4 CSS ID, apply styles to a specific HTML element
- 2-5 CSS class, apply styles to multiple elements, ID vs Class
- 2-6 Style a group of elements, style a small portion of text
- 2-7 Border, border radius, margin, different ways to set margin
- 2-8 Padding, different ways to set padding, CSS Box model
- 2-9 Text align, float, display, inline, block, inline-block, external CSS
- 2-10 CSS Module Summary

#### Module-3: Git, source control, GitHub and hosting

- 3-1 github Module Introduction
- 3-2 Install git, create GitHub repository
- 3-3 Git init, git add, git commit, set origin
- 3-4 Git push, git pull

- 3-5 Host simple website in gitHub using gh-pages
- 3-6 [advanced: feel free to skip] git branch and this will confuse you
- 3-7 [advanced] Create git branch, merge branches
- 3-8 [advanced] Merge conflict and how to avoid it
- 3-9 common github related issues faced by new developer
- 3-10 GitHub module overall summary

#### Module 4: Build a beautiful and professional portfolio website

- 4-1 Module Introduction, overview of the site you will build
- 4-2 Setup and resources needed to start your first ever project
- 4-3 Create HTML, link CSS, set title, span tag style
- 4-4 Simple image background remove, set fancy background
- 4-5 Float, create container, put two div side by side, image size
- 4-6 Background image, background-repeat, neutralize default style
- 4-7 Link button, target blank, text-decoration, linear gradient
- 4-8 Dream image, half-width, background remove
- 4-9 Dream area, dream text and download resume link button
- 4-10 Experience area, text highlight, meaningful class name
- 4-11 Box shadow, border image, gradient angle, footer
- 4-12 Website hosting, live portfolio link, portfolio summary

#### Module 4.5: Revision/Practice and Conceptual day-1

4 5-1 revision module and practice task

#### Module 5: Personal website, build a brand new website

- 5-1 Five things you should pay attention about assignments
- 5-2 Personal website assignment to finish Milestone 1

## **Assignment 1**

## Module 5.5: [bonus] CSS Extra hover, position, specificity, homework

- 5 5-1 pseudoclass part hover all elements, hover special
- 5 5-2 pseudoclass focus first child, last child, nth child, visited
- 5\_5-3 pseudo element before after
- 5 5-4 css position static relative absolute fixed
- 5 5-5 CSS specificity style order style priority

## Milestone 2: Responsive Landing Page

#### Module 6: HTML 5 Semantic tags, audio, video, table, form

- 6-1 audio, video, youtube video, Audio video (iframe)
- 6-2 HTML5 Semantic tags section article aside mark
- 6-3 html table tbody thead td th caption and table style

- 6-4 html form input label fieldset legend textarea submit
- 6-5 others (favicon comments attributes option closing tag)
- 6-6 simple navbar and share navbar with different files
- 6-7 add a dropdown option on mouseover
- 6-8 explore svg smile face using svg and where it used
- 6-9 canvas and the list of html tags
- 6-10 Module Summary HTML5

#### Module 7: CSS3 overflow, transition, transform, flexbox, grid layout

- 7-1 CSS3 Module Introduction
- 7-2 CSS Overflow hidden overflow scroll
- 7-3 Optimize images, types of images, svg, png, jpg
- 7-4 css transform and use multiple transform at the same time
- 7-5 transition of css property over time
- 7-6 Create simple cricket match with transition and transform
- 7-7 css animation and bounce effect with balls
- 7-8 flexbox, flex direction justify content align items
- 7-9 CSS Grid layout template columns grid gap
- 7-10 create calendar using css grid and flex box
- 7-11 css media query based on device and using flexbox
- 7-12 CSS3 and intermediate css module summary

#### Module 8: Responsive CSS (CSS bonus)

- 8-1 css position more explanation relative absolute
- 8-2 Apply relative position in a photo album
- 8-3 Apply transition transform in a practical situation
- 8-4 CSS Grid Layout Extra explanation and compare with flexbox
- 8-5 More discussion about display inline block inline-block
- 8-6 inline css when and how to use inline css
- 8-7 Use grid layout and flex layout at the same time
- 8-8 Use Media query to make website responsive on tablet and mobile
- 8-9 Set Responsive blog and shared responsiveness
- 8-10 how to use font awesome to show icons in your project
- 8-11 module summary and responsive website

#### Module 9: Learn and Explore Bootstrap

- 9-1 Getting started with bootstrap
- 9-2 Buttons, text color, background color, color palette
- 9-3 Image, responsive image, width style, image thumbnail
- 9-4 Website card, card design, card image, card group
- 9-5 Nav tag, navigation, nav bar, image slide, carousel
- 9-6 Responsive website, column, 12 column layout
- 9-7 Responsive grid, responsive breakpoints

- 9-8 Flex layout, element align, vertical and horizontal center
- 9-9 Bootstrap Overview, Module Summary

#### Module 10: Simple ecommerce landing page using Bootstrap

- 10-1 Panda commerce overview and project setup
- 10-2 Container, set navbar, top banner carousel, image size
- 10-3 Categories, gutters, flex vertical center and sound space
- 10-4 Shoe shopping card, card-group, card shadow
- 10-5 Backpack category, card footer, align button
- 10-5 Backpack category, card footer, align button
- 10-7 Footer, text center, carousel item Vertical center
- 10-8 Override default bootstrap style using custom CSS
- 10-9 Make Website Responsive, Code Recap

#### Module 10\_5: Revision Day 2 activities

- 10 5-1 Revision Day 2 activities
- 10\_5-2 Run JavaScript in Visual Studio Code to get ready

#### Module 11: Responsive Landing Page Assignment

11-1: Responsive landing page assignment

## **Assignment (2)**

#### Module 11 5: Bonus

- 11 5-1 When to use bootstrap and when to use vanilla css
- 11\_5-2 More bootstrap tooltip modal spinner progress bar
- 11 5-3 more bootstrap table breadcrumb pagination scrollspy
- 11\_5-4 How to select right CSS measuring Unit
- 11\_5-5 Write summary of important HTML CSS and Bootstrap

## Milestone 3: Basic JavaScript

#### Module 12: Getting started with JavaScript

- 12-1 Module overview, Run JavaScript in VSCode
- 12-2 What is variable, declare a variable, see output
- 12-3 Variable type, Numeric, String, Boolean
- 12-4 variable name naming convention and best practice
- 12-5 explore string case change index split
- 12-6 integer float parseInt parseFloat type conversion
- 12-7 Mathematical operations in JavaScript
- 12-8 Math absolute round floor ceil random
- 12-9 Make conditional decision, if-else, comparison
- 12-10 Multiple conditions, fulfill both conditions, else if
- 12-11 JavaScript Date timezone and Module Summary

#### Module 13: JavaScript Fundamental Concepts

- 13-1 Fundamental JavaScript Module Introduction
- 13-2 Array, index, set by index, indexOf
- 13-3 Array advanced, push, pop, array length
- 13-4 array add and remove element from the beginning and slice
- 13-5 While loop, debug JavaScript code, less or equal
- 13-6 For loop, run a loop for each element of an array
- 13-7 Javascript switch case break and default
- 13-8 Function, call function
- 13-9 Function parameter, multiple parameter, function return
- 13-10 Comment, multiple lines comment
- 13-11 Object, key value pair, get object property, set value
- 13-12 Basic JavaScript Overview, Module Summary

#### Module 13\_5: JS Conconcept Recap

- 13\_5-1 What is javascript, key features of javascript
- 13 5-2 How javascript code executes
- 13\_5-3 Revisit string, array, loop
- 13\_5-4 Remove confusion with function and function vs loop
- 13\_5-5 How to revise basic javascript concepts

#### Module 14: Apply JavaScript Concepts

- 14-1 Module Introduction Apply JS
- 14-2 Unit Convert Inch to Feet use variable and function
- 14-3 variable let and const and how to use them
- 14-4 check whether a year is a Leap Year or not
- 14-5 Calculate Factorial of a number using for loop
- 14-6 Calculate Factorial of a number using a while loop
- 14-7 Calculate Factorial in a Recursive function
- 14-8 Create a Fibonacci Series using a for loop
- 14-9 Fibonacci Element in a Recursive Way
- 14-10 Create Fibonacci series in a recursive way
- 14-11 Check whether a number is a Prime Number or not
- 14-12 Apply Basic JavaScript Module Summary

#### Module 15: JavaScript Coding Problems, Simple Interview QU

- 15-1 Module Introduction, Problem Setup
- 15-2 Swap variable, swap without temp, destructing
- 15-3 Random number, random number between 1 to 6
- 15-4 Find max of two values, find max of three values
- 15-5 Find the largest element of an array
- 15-6 Sum of all numbers in an array
- 15-7 Remove duplicate item from an array

- 15-8 Count the number of words in a string
- 15-9 Reverse a string
- 15-10 Module Summary

#### Module 15\_5: Practice Basic JavaScript

- 15 5-1 How recursion works and recursion vs iterative
- 15 5-2 Travelling in a Jungle and counting wild animals
- 15 5-3 practice basic javascript milestone

#### Module 16: Assignment

16-1 Problem Solving assignment

## **Assignment (3)**

#### Module 16\_5: Basic JavaScript Bonus Module

- 16\_5-1 How Problem Solving Important How Should I focus on it
- 16 5-2 Explain fibonacci series once again
- 16\_5-3 When to use loop or condition inside a function
- 16\_5-4 Object vs Array and access object properties

# Milestone 4: Integrate JavaScript (JavaScript in a Relation)

#### Module 17: How JavaScript Works & DOM

- 17-1 JavaScript and DOM Module Introduction
- 17-2 VSCode extension, JavaScript code snippet, ES linter
- 17-3 Create Script tag and connect external Script file
- 17-4 How Javascript Run and why script order is important
- 17-5 What is DOM (Document Object Model)
- 17-6 Capture Elements from HTML File using getElementById
- 17-7 how to use getElementsByClassName and change innerHTML
- 17-8 How to use querySelector and querySelectorAll
- 17-9 node, node type, nodelist, htmlcollection, setAttribute
- 17-10 How to add elements to HTML using Javascript
- 17-11 module summary Javascript and DOM

#### Module 18: Function addEventListener, Event bubble

- 18-1 When to use a function, function inside an array
- 18-2 When to return from a function and from where
- 18-3 Callback function and pass different function
- 18-4 arguments and deal with unknown number of arguments
- 18-5 How to organize code inside a function
- 18-6 What is Event, different types of event in web

- 18-7 add event handler directly on an element
- 18-8 add event listener using javascript
- 18-9 Event bubble with example
- 18-10 Stop propagating event bubble
- 18-11 Event delegate and purpose of Event bubble
- 18-12 Function, Event, Event bubble module summary

#### Module 19: Pioneer Bank, develop a simple bank website

- 19-1 Project overview, Transaction and balance update
- 19-2 Project Setup, GitHub integration, bootstrap text align
- 19-3 Login window, input field, password text field, form control
- 19-4 Get HTML elements by tag, class or id, add event listener
- 19-5 CSS styles in JavaScript, dynamically hide an element
- 19-6 Dynamically display a hidden element using JavaScript
- 19-7 Deposit, withdraw, balance area, add column margin
- 19-8 Submit transaction, placeholder help text for input
- 19-9 Deposit button event handler, capture deposit amount
- 19-10 Get innerText using JavaScript, update text dynamically
- 19-11 Update two fields at the same time, create function
- 19-12 Money withdraw event handler, cleaner code with function
- 19-13 Update withdraw amount, reduce balance for withdraw
- 19-14 Module Summary and Overall Project Overview

#### Module 19\_5: shopping Cart, develop an interactive Cart

- 19\_5-1: Shopping Cart, develop an interactive Cart
- 19\_5-2: How to start a simple Javascript project

#### Module 20: Revisit JavaScript and work on Shopping Cart

- 20-1 Module Introduction
- 20-2 How to learn any Programming Language
- 20-3 How to name parameter to make the name meaningful
- 20-4 How to name variable and where to declare variable
- 20-5 conditional code format and some feedback
- 20-6 function return and code format line gap
- 20-7 shopping cart increase case count
- 20-8 shopping cart handle decrease of count
- 20-9 calculate phone cost using same shared function
- 20-10 calculate all product cost, tax and grand total
- 20-11 when to use return and when not to use return from a function

#### Module 20 5: Practice session

- 20\_5-1 How to practice integrate Javascript milestone
- 20 5-2 Four situation when you should create a function
- 20\_5-3 when and how to use javascript callback function

## **Assignment (4)**

#### Module 21 5: Integrate JavaScript Bonus Content

- 21 5-1 Global vs local variable IIFE function expression vs declaration
- 21 5-2 when and how to use arguments in a function
- 21 5-3 pin matcher, dom manipulation project challenge
- 21\_5-4 Generate pin four digit pin and display it
- 21 5-5 Use event bubble to create calculator
- 21\_5-6 Verify match and use function to reduce duplicate

## Milestone 5: Intermediate JavaScript, API

#### Module 22: Modern JavaScript, ES6, ES2015

- 22-1 Module overview ES6
- 22-2 Let, const, array declared with const, object declared with const
- 22-3 Function default parameter for not provided values
- 22-4 Template string, multiple line string
- 22-5 Arrow function, multiple parameter, function body
- 22-6 Spread operator, concatenate multiple arrays, array max
- 22-7 Class, constructor, create object from class
- 22-8 Inheritance, extends class, super, class method
- 22-9 Destructure, Object, array, destructure complex object
- 22-10 ES6 Module Summary

#### Module 23: Intermediate JavaScript, Interview Question

- 23-1 Module Overview, git integration setup
- 23-1 Module Overview, git integration setup
- 23-3 Null Vs Undefined, different ways you will get undefined
- 23-3 Null Vs Undefined, different ways you will get undefined
- 23-5 map, filter, find, smart way to run for loop
- 23-6 Apply map, filter, find on an array of objects
- 23-7 Scope, block scope, access outer scope variable
- 23-8 Closure, encapsulation, private variable
- 23-9 Array slice, splice, array join elements
- 23-10 break continue in a for loop

#### Module 24: API JSON, Server Data load, dynamic website http

- 24-1 Module Overview, what you will learn from this module
- 24-2 How internet works, DNS server, hosting server, database
- 24-3 What is an API, the purpose of API, GET, POST

- 24-4 JSON, JSON Structure, parse, stringify, JSON properties
- 24-5 Load data, JSON placeholder, GET data, display data on UI
- 24-6 HTTP request, Status code, network tab, bad API
- 24-7 Send data to the server, HTTP POST Method, GET Vs POST
- 24-8 Send data to server, HTTP Post, JSON Stringify
- 24-9 Module Summary, API, Server Overview

#### Module 24\_5: API practice Problem

- 24 5-1 Explore fun tasks with bored api
- 24 5-2 Explore Random User API Who Am I
- 24\_5-3 Practice Problem Temperature Hot openweathermap api

#### Module 25: Object Mastering Interview Question

- 25-1 module introduction Object Mastering
- 25-2 object method property review
- 25-3 object use bind to borrow method from another object
- 25-4 difference between bind, call and apply
- 25-5 window, global variable, global scope
- 25-6 new keyword, class and object difference
- 25-7 how to understand the this keyword
- 25-8 async await how to use it for async call
- 25-9 Asynchronous Javascript setTimeout, setInterval
- 25-10 How Javascript works event loop stack and queue
- 25-11 JavaScript Datetime timezone and others

#### Module 25\_5: Try Create React app Make sure it works

- 25\_5-1 explore rest countries api and try to build something
- 25 5-2 Display countries name and capital
- 25\_5-3 Create a lot of countries with style and for Each
- 25\_5-4 Call dynamic API and show country details

#### Module 26: Assignment query

26-1 Hungry Monster, Cooking Master, API and ES6 related Assignment

## **Assignment (5)**

#### Module 26 5: Explore Hard rock music search API Example

- 26 5-1 Explore Hard rock music search API Example
- 26\_5-2 display song with style and access data from object
- 26 5-3 show audio preview and call lyric function
- 26\_5-4 display lyrics using callback and async await
- 26 5-5 How to handle fetch error and use try catch

#### Module 27: How Browser Works, browser api and methods

- 27-1 Module Overview, ContentEditable, live edit
- 27-2 How Browser works, DOM tree, Render Tree
- 27-3 Website alert, confirmation, prompt to collect data
- 27-4 URL, URL parts, query string, hash, subdomain
- 27-5 document location, access href, hash, assign
- 27-6 history api, back, forward, go, history length
- 27-7 cookies, dev tool application tab, cookies at server
- 27-8 local storage, session storage, edit storage information
- 27-9 Browser clear cache, chrome extension, web store, restart
- 27-10 Browser Overview, Module Summary

#### Module 28: JavaScript debug, web debug, dev tool mastering

- 28-1 Module overview, salary app overview, git clone issues
- 28-2 dev tool element tab, edit HTML, get style, device tab
- 28-3 edit CSS style live, hover class, CSS box model, event handler
- 28-4 sources tab, break point, call stack, console table
- 28-5 console tab, preserve log, error log, console api
- 28-6 network tab, request method, header, response type
- 28-7 Performance tab, memory tab, Audit, application tab
- 28-8 Module Summary, Deb tool debug Overview
- 28-9 Check whether create react app works or not
- 28-10 Command line tools

### Module 29: Getting started with TypeScript

- 29-1 Typescript related Three fun challenges Just for you
- 29-2 Setup typescript for local project and globally
- 29-3 How to create output and connect html file for typescript
- 29-4 Basic typescript type number string boolean
- 29-5 Set function parameter type and function return type
- 29-6 function void return and arrow function type
- 29-7 set type for array and objects and see the structure of type
- 29-8 Typescript Interface and use complex parameter type
- 29-9 Use type in class and explore private readonly protected
- 29-10 How much typescript you should know now

#### Module 29\_5: JavaScript Day [Revision Day]

- 29\_5-1 Debugging dev tool and bug fixing practice
- 29\_5-2 how to start fixing bug on a website
- 29 5-3 fix api related issue using source and network tab
- 29 5-4 Implement a spinner on data load and class toggle
- 29 5-5 Implement Search Box click on keyboard enter

## **Assignment (6)**

#### Module 30 5: JavaScript You need to know for React

- 30\_5-1 Five JavaScript Fundamentals that you need to know
- 30 5-2 Array methods map filter find for Each
- 30 5-3 Array and object Destructuring and three dots
- 30\_5-4 JS shortcut Ternary default parameter and or
- 30\_5-5 Fetch JSON Localstorage object keys values

## Milestone 7: Simple React

#### Module 31: Modern Front-end core concepts

- 31-1 Module overview and modern application core parts
- 31-2 Web component, 4 types of component, identify component
- 31-3 Template, dynamically create HTML elements based on data
- 31-4 Single Page Application (SPA), Performance benefit
- 31-5 Routing, Route parameter, Routing in Angular
- 31-6 Website state, state management, purpose of state
- 31-7 Charting framework, d3js, nvd3, chartjs
- 31-8 Simple Angular Application, angular cli, routing
- 31-9 Module Summary

#### Module 32: React Core Concepts, JSX, props, state

- 32-1 React Core concept module overview
- 32-2 Install React App use create react app
- 32-3 Create react app folder structure and favicon
- 32-4 JSX, Dynamic content, Dynamic Style in React
- 32-5 Component, 4 ways to identify a component
- 32-6 Create Component, return multiple HTML from a component
- 32-7 Pass dynamic data to components, props in react
- 32-8 Pass object to components and access object
- 32-9 Create multiple components from an array of objects
- 32-10 Introduction to Component state
- 32-11 Component state hook and set state method
- 32-12 Load dynamic data, API call useEffect integrate state
- 32-13 Module Summary React Core Concepts

#### Module 33: How React works, Recap React Concept

- 33-1 Module Introduction How React Works
- 33-2 What is React
- 33-3 Library vs Framework
- 33-4 Angular vs react vs vue which one to learn
- 33-5 Install React and React Component Recap
- 33-6 Pass data through Props in React
- 33-7 How to write and destructure usestate
- 33-8 Event handler state update and pass state Recap
- 33-9 How React works virtual dom diff algorithm fiber
- 33-10 Render multiple component from an array recap
- 33-11 Load data from API using useEffect recap
- 33-12 Module Summary Recap and How React Works

#### Module 33\_5: Practice

33-5-1 Practice and React React Core concepts

#### Module 34: React SPA with Multiple Components(**Ema John**)

- 34-1 React Core concept module overview
- 34-2 Install react set favicon and get resources
- 34-3 Editor setup, default project setup clean
- 34-4 Create a component, folder structure, website logo
- 34-5 Setting up logo position, navigation, nav menu
- 34-6 Create Shop Component, load data and set state
- 34-7 Component layout, use flexbox, setup area container
- 34-8 Product Component, send dynamic data by props
- 34-9 Display more information in the Product Component
- 34-10 Install third party library, font awesome, react-fontawesome
- 34-11 Pass eventhandler to child component and handle event
- 34-12 Cart state setup and update cart state on add to cart button click
- 34-13 Total Product price, shipping cost, Tax and total price
- 34-14 Simple React SPA module summary

#### Module 34\_5: Simple React SAP Practice

- 34\_5-1 Ultra Nation load countries data using useEffect
- 34 5-2 display loaded data in a simple way
- 34 5-3 Create child component and pass data
- 34 5-4 pass multiple data to a child component
- 34 5-5 how to add shared eventhandler
- 34 5-6 Create shopping cart and use array reduce
- 34 5-7 build your react app and host your react app in Netlify
- 34 5-8 how to create fake data in Javascript to use in React
- 34\_5-9 React SPA practice to create a user collection

#### Module 35: React SPA Assignment 7

- 35-1 How to create github classroom assignment private repo
- 35-2 Simple React Assignment to create team selection

## **Assignment (7)**

#### Module 35 5: Simple React Bonus

- 35\_5-1 Explain reduce of an array with example
- 35 5-2 Where to declare event handler and make arrow function
- 35 5-3 Build team and how react works

## Milestone 8: Intermediate React

#### Module 36: React Bootstrap, Material UI, Axios, Rechart

- 36-1 Module Introduction React Bootstrap
- 36-2 use Bootstrap in your react application
- 36-3 getting started with react bootstrap
- 36-4 use jumbotron from react bootstrap
- 36-5 use multiple react bootstrap component
- 36-6 React Fragment empty element
- 36-7 getting started with Material UI
- 36-8 load data and display Material UI card
- 36-9 Use recharts to draw any type of chart using React
- 36-10 introduction to axios advance data loading system
- 36-11 Module summary

#### Module 37: React Routing, State management

- 37-1 Module overview Routing Devtool and share state
- 37-2 React Router, Install React Router Dom
- 37-3 Setup Router, Router path, exact path not found path
- 37-4 Dynamic path, set route path parameter
- 37-5 Load data based on route parameter, conditional formatting
- 37-6 Different ways to handle state, Make button navigate to a route
- 37-7 Save state on Localstore, store key and count, virtual DOM
- 37-8 Retrieve data from local storage, set cart from saved state
- 37-9 Review Component, Review Items, CSS in JavaScript style
- 37-10: module summary

#### Module 38: More Router, React Devtool, conditional format

- 38-1: Module Introduction
- 38-2 Remove from cart, pass parameter on click, remove from state
- 38-3 Share components among multiple routes, share data on cart.
- 38-4 React Developer Tool, Chrome extension, Refactor add to Cart.

- 38-5 Sync state in multiple routes, calculate total price in review page.
- 38-6 Please Order, Clear state, show conditional image.
- 38-7 Review of route dynamic parameters and useParams
- 38-8 react router nested routes
- 38-9 Explore more about Conditional Rendering
- 38-10 Module summary

#### Module 38.5: React Router Practice Day

- 38 5-1 project setup and react router installation
- 38 5-2 setup simple react router with root and no match
- 38 5-3 create route parameter and read from route parameter
- 38\_5-4 two ways to navigate dynamic route
- 38\_5-5 Rest Countries React Router Practice Problem

#### Module 39: Context API

- 39-1 Module overview about state management
- 39-2 Share state with sibling component
- 39-3 Share data to grandchildren
- 39-4 Context api set dynamic data
- 39-5 Update context API from any child Component
- 39-6 Filter data based on dynamic context change
- 39-7 Shortcut destructuring of props

#### Module 39 5: React Router Practice

- 39 5-1 How localStorage and sessionStorage works
- 39 5-2 explain props and data flow parent to child
- 39\_5-3 useState useEffect useParams useHistory hook overview
- 39 5-4 Create social buddy simple route
- 39\_5-5 Social buddy route parameter and dynamic data load
- 39\_5-6 Deploy react router app to netlify

#### Module 40: Assignment 8

- 40-1 Social buddy react router material ui assignment
- 40-2 Sports Mania React Router Assignment
- 40-3 Optimum Strategy to work on development project

## **Assignment (8)**

#### Module 40\_5: Bonus Content

- 40 5-1 How to implement Facebook Like button
- 40\_5-2 Handle multiple data loading style and nested data access
- 40 5-3 Why useState useEffect are called Hook
- 40 5-4 Revisit shopping cart calculation and reduce

- 40 5-5 Handle cannot read error using optional chaining
- 40 5-6 Implement search functionality in a react application

#### Milestone 9: React Authentication

#### Module 41: Simple React Firebase Authentication

- 41-1 Module Introduction, authentication vs Authorization
- 41-2 Create firebase project, Google Analytics Overview
- 41-3 sign in method setup and email verification template
- 41-4 Create simple authentication project, firebase config
- 41-5 Install firebase, initialize firebase app
- 41-6 Sign in with google, open google login popup
- 41-7 Set logged in user in state, display logged in user info
- 41-8 Not google user login, signout user
- 41-9 Module Summary

#### Module 42: Login Form and Route Integration

- 42-1 Module Introduction Login form
- 42-2 Create simple login form email and password
- 42-3 form field validation using regular expression
- 42-4 Update State from Form Field
- 42-5 create new user and handle error message
- 42-6 toggle sign in and sign up form
- 42-7 Update user name and other information to firebase
- 42-8 How to handle facebook login
- 42-9 Module Summary

#### Module 42\_5: Firebase Recap and Practice

- 42 5-1 Implement Simple Google authentication system
- 42\_5-2 Implement Facebook authentication
- 42\_5-3 Implement github authentication system
- 42\_5-4 deploy react app to firebase
- 42\_5-4 deploy react app to firebase

#### Module 43: Shared auth and Private Route

- 43-1 Module Introduction Auth Integration
- 43-2 Create login route and set login form
- 43-3 Create user context and set logged in user in context
- 43-4 Create Private Route and set auth Redirect
- 43-5 Redirect to the initial page and use Router Link
- 43-6 [optional] refactor Login manager to modularize code
- 43-7 [optional] more refactoring of sign in method
- 43-8 Implement signout and redirect from private route
- 43-9 Create shipment form using React hook form

#### 43-10 Module Summary

#### Module 43 5: Firebase auth Recap

- 43\_5-1 Module Introduction
- 43 5-2 get simple google login auth set
- 43 5-3 create user context to share it with multiple components
- 43\_5-4 create private route to protect a path
- 43\_5-5 another recap of firebase auth integration

#### Module 44: React Auth Assignment 9

- 44-1 Urban Ride or Metro Tickets React Auth Assignment
- 44-2 How to think manage a simple development project

## **Assignment (9)**

#### Module 44 5: Bonus Content

- 44 5-1 How to display a location on a Google Map
- 44\_5-2 Display Driving Direction and Route on Google Map
- 44 5-3 Dynamically search and display travelling route on Google Map
- 44 5-4 Display a loading spinner on a React Component
- 44 5-5 Update Title based on component

## Milestone 10: Full-Stack (Server, Database)

#### Module 45: Node, Express, Get API, Post API, Postman

- 45-1 Module overview Introduction to Node
- 45-2 Install express, start a server, your first api
- 45-3 how to publish node project in git
- 45-4 install nodemon, api return object, create multiple api
- 45-5 dynamic api, api parameter, access params, access query
- 45-6 use fetch to load data from server, middleware, handle cors
- 45-7 create POST api, install postman, read post data, use body parser
- 45-8 post data from website and read post api response
- 45-9 Node express module summary

# Module 46: Mongodb, cloud database integration, environment variable

- 46-1 Mongodb and mongo atlas module overview
- 46-2 Install mongodb, create mongodb atlas account
- 46-3 Connect to cloud database introduction to CRUD
- 46-4 Send data to database and read data from ui
- 46-5 Save data in database and Read all data
- 46-6 Load data database data and show on the UI
- 46-7 Delete an item from the database from UI

- 46-8 Load single product from database using id
- 46-9 Update or modify a single item and save database
- 46-10 Make CRUD operation working smoothly
- 46-11 Module summary and CRUD overview

#### Module 47: Secure a Node API using JWT token

- 47-1 Module introduction and project setup
- 47-2 Create booking field and front end setup
- 47-3 Create server connect mongodb and verify connection
- 47-4 Send data to database and store in mongodb
- 47-5 Load filtered data from database for a specific user
- 47-6 Introduce JWT token and get jwt token on client side
- 47-7 Verify jwt token in the server end using firebase admin
- 47-8 Send 401 unauthorized status and refresh token concept
- 47-9 Set environment variable and hide sensitive information
- 47-10 Module summary and code review

#### Module 48: E-commerce site Node and Mongodb integration

- 48-1 Module Introduction ema-john server
- 48-2 connect database and create post endpoint
- 48-3 insert bulk data many data to the database
- 48-4 load data from the server
- 48-5 load some products using keys
- 48-6 Handle Inventory and how to store image on server
- 48-7 Save orders in a new data collection in mongodb
- 48-8 A simple overview of node mailer to send email
- 48-9 A simple introduction to mongoose
- 48-10 Module Summary and folder architecture

#### Module 48 5: Deploy to Heroku and Practice Problem

- 48 5-1 Introduction to Heroku setup account and initial deploy
- 48\_5-2 how to publish and update heroku deployed server
- 48 5-3 deploy client side project to firebase with server side url
- 48\_5-4 Volunteer network client and server side setup
- 48 5-5 Connect database server and implement react hook form
- 48\_5-6 Upload images in third party hosting like imgbb
- 48\_5-7 Upload events with image link to database
- 48\_5-8 Display hosted images in the client side and delete event

#### Module 49: Full Stack Milestone Assignment

- 49-1 Fresh Valley Or Book Shop Full Stack Assignment
- 49-2 How To Start Full Stack Project And Handle Error

## **Assignment (10)**

## Milestone 11: Complete Website

#### Module 50: Integrate Stripe Payment gateway (SSLCommerz)

- 50-1 Module Overview and Payment gateway introduction
- 50-2 stripe account install stripe and stripe for react
- 50-3 create payment Process component with simple card form
- 50-4 Use detail credit card from and avoid login after page refresh
- 50-5 Handle payment processing error and success
- 50-6 conditional payment form and store payment data on database
- 50-7 Get a high level overview of Bangladeshi Payment Gateway
- 50-8 How to implement search that loads data from database
- 50-9 A brief introduction to higher order component
- 50-10 Module summary

#### Module 51: Complete Website Project part-1

- 51-1 module introduction
- 51-2 set navbar and header main component
- 51-3 apply partial background of common components
- 51-4 Set multiple business info components
- 51-5 dynamically style business info and infocard
- 51-6 set services and related data with style
- 51-7 complete testimonials blogs and a few more components
- 51-8 Module Summary

#### Module 52: Complete Website Project part-2

- 52-1 Module Introduction and Shared Components
- 52-2 Create Appointment header and react calendar
- 52-3 Set bookings with selected date and style booking card
- 52-4 Display a modal from on appointment click
- 52-5 Style Modal form and Extract data to send to server
- 52-6 Create Server to store appointment in a database
- 52-7 send appointment and save to database
- 52-8 set untidy dashboard with three columns
- 52-9 Display appointments for the selected date
- 52-10 Module summary and your homework

#### Module 52\_5: Manage Image Upload and Admin Panel

- 52 5-1 Create Admin page to upload image to the server
- 52 5-2 Save uploaded image to the server
- 52 5-3 display sensitive information to admin only
- 52 5-4 Set admin panel with limited access based on permission
- 52 5-5 Store image directly on mongodb and display them
- 52 5-6 A small brief about google analytics lighthouse and page performance

- 52\_5-7 Responsive App React Animation Unit Test
- 52\_5-8 Deploy doctors portal client to firebase and server to heroku

#### Module 53: Creative Agency Assignment 11

- 53-1 An overview and interesting angle of this assignment
- 53-2 Get design idea from other sources and craft your own
- 53-3 Core functionality requirements of the assignment
- 53-4 assignment bonus marks things to submit

## **Assignment (11)**

## Milestone 12: Interview and Hiring

Module 54: Simple Introduction to React Native and Next JS

54-1 Getting started with React Native and create your first app