### 1.0 Focus Area



Web Front End Foundation

# **Optional**

### 2.0 Objective

Understand the semantics and working of HTML, CSS and Bootstrap . Ability to understand different design layouts and convert given layouts into responsive web sites .

# 3.0 Coverage

### HTML

#### HTML



Basic Nesting Practices The Header & Body Common Body Tags (lists, tables, etc.) Building Forms & Declaring Input Values Containers, Elements, Attributes, & Classes HTML Best Practices

### CZZ



CSS

Box Model, CSS Selectors & Declarations Inspecting Element Inline, Block, Float, and Positioning Div Layout & Formatting Styling Text & How Fonts Work Using Properties & Backgrounds Replicating Complete User Interfaces Optimizing & Cleaning Your Code, More Styling Properties How to Build Your Own Shapes\* Constructing Complex Tables\* Intro to Bootstrap\* CSS Preprocessors, LESS, & SASS\* Optional Frameworks, UI Assets, & Tools\*

### 1.0 Focus Area



Functional Programming with JavaScript

# **Optional**

- Promises
- Observable
- Thunks

## 2.0 Objective

Being the core programming language of Fullstack developer program, a strong language foundation and applying the key tenets of functional programming are main objectives of this focus area.

The focus is also to understand oops concept and the way they are implemented in JS

## 3.0 Coverage

Declaring & Referencing Variables Conditionals, Operators, & Nested Loops Using Arrays & Loops in JavaScript Objects, Functions, & Function Scoping Variable Hoisting with Scoping Return Statements in JavaScript Function Hoisting JavaScript Object Oriented Programming (OOP) How to Use Object Constructors Common Constructors: 'This' & 'New' Private Methods & Variables Creating Prototype Objects in JavaScript Best Practices for JavaScript OOP How to Use Callbacks Delegating Functionality & Event Handling, Event Loop Solving callback hell.



### 1.0 Focus Area



NodeJS and express Foundation

# 2.0 Objective

Understand the internal components of node, its design philosophies, and some of its strengths and weaknesses Be able to set up own Node.js development environments Understand the Node.js module system and key core modules Be able to leverage npm and the greater module ecosystem Be able to write and debug code leveraging Node.js, key modules, and I/O libraries

# **Optional**

- JWT
- Oauth

# 3.0 Coverage



Modules, understanding error first callbacks, eventEmitters, sockets error handling, buffers, streams, file system, TCP, HTTP, UDP, child process, cluster, assert, debugging, Node routing



API programming using Express. Understanding Express Middlewares



### 1.0 Focus Area



React Redux and React Native Foundation

# Optional



- Unit testing
- React Native

## 2.0 Objective

Understand what React is and what problem it solves

Gain a deeper knowledge of ES2015 and JSX Implement unit tests for React components Learn React best practices Learn State management using flux and redux Foundation level understanding of react native

# 3.0 Coverage

ES6 good parts

React advantages and react architecture

Understanding JSX

Creating react components

States and props - Native state management

Composing components

How to make reusable components

**React Routing** 

**React Events** 

State management using redux



### 1.0 Focus Area



Product
Development minimum
Team size 2

## 2.0 Objective

Develop a coded solution with clean code Develop a coded solution that meets all the given requirements Work in a changing environment and code for uncertainty Improve technical skills through practical project work and shared learning while working in an enterprise and shared codebase environment Manage priorities and communications for status, risks and issues Demonstration presentation and communication skills of influence and clarity Develop investigation and questioning skills, perseverance and personal resilience

# **Optional**

## 3.0 Coverage





Overview of Agile practices,

Use of JIRA Development using only Git and GitHub
Use of tools - Webpack , Grunt Understating
deployment

Intro to TDD - Jasmine and Mocha

