

# Prerequisites

- Network Basics
  - What is Internet?
  - What is a Web Server? What is a Web Browser?
  - How is website hosted? Shared Hosting, Private Server, Cloud Hosting
  - What is an IP address?
  - What is DNS?
  - TCP/IP protocol
  - HTTP/FTP/SMTP
  - HTTP Request methods
  - SSL and TLS
  - Basic understanding of Routing - LAN/WAN, ISP, Ethernet, Modem, Router, Packets
  - Firewall
- Interaction Design Basics.
- Static Vs Dynamic websites
- Basics of web page designing
- Basic understanding of HTML, CSS and JavaScript concepts
- Basic HTML tags, CSS properties and their uses

# Course Curriculum

## **Introduction to web applications / Skimming through prerequisites.**

- Technologies used to develop a basic web page
- Basic HTML markup and structure
- Importing .js and .css files
- Declaring HTML version and browser compatibility
- Basics of Web accessibility
- Basics of SEO
- XML and JSON
- GIT/Node/Npm

## **Advanced HTML**

- HTML5 Events
- HTML5 Media
- HTML5 APIs
  - HTML5 Geolocation
  - HTML5 Local Storage
  - HTML5 WebSQL
  - HTML5 web sockets
- HTML5 Canvas
- HTML5 SVG

## **Advanced CSS**

- Responsive web design
- CSS3 Animation
- CSS3 Transitions, Transformations
- Flex boxes

## **Single Page Applications**

- History and Importance of SPA and challenges to create with pure JavaScript
- Popular SPA frameworks
- Routing Concept

## **Angular 4**

- Introduction to typescript and ES6 JavaScript
  - Brushing up basic concepts
  - ES6 advantages
  - What is typescript? Differences and Advantages over JavaScript
- Introduction to Angular
  - Features
  - Angular architecture
    - Components/Directives
    - Services
    - Pipes
    - Modules
  - Tooling options for angular
    - Webpack
    - Systems.js
    - Angular CLI
  - Installation and project setup using Angular CLI
    - Explain sample project structure
- Angular4 Deep Dive
  - Components and Directives
  - Templates
  - Dependency Injection

- Services
- Pipes
- Routing
- Life Cycle Events
- Forms
- Modules
- Unit testing
- Packaging and Releasing
- Live preview of a hero-list app