

Lectures Plan:

Week	Topic
1	Welcome to the Module + What is Full Stack Development + Module Assignment
2	What is an API
3	Introduction to NodeJS & Web Servers
4	Javascript Objects, Functions & Closures
5	Validation, Authentication & Security
6	Web System Architectures + Data Persistent
7	Asynch Code & Promises
8	Advanced Asynch
9	JavaScript Advanced Concept: A look into an Object Life
10	Publishing Modules & Deployment
11	Revision

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Week Number	First Session	Second Session
1	<u>Review HTML5 + CSS + JavaScript</u> (semantic HTML5). Create an About Me (My Resume) Page using pure HTML5+CSS+Javascript Improve your page with Images, Tables, enlarge pictures when clicking or video	<u>Introduction to NodeJS</u> serve About Me Page through NodeJS
2	<u>First hour Review HTML5:</u> Continue improving About Me by adding internal links and smooth scrolling and gallery slideshow, using HTML5+CSS+Javascript + JQuery <u>Second hour Prototyping:</u> For your assignment use the provided templates to define System (Functional Requirements) + Prototype UI Deliver your Paper Mockup Website Description and Usability Considerations	<u>First hour GIT:</u> Get to know GIT + Create your 2 repositories for final assignment, add your tutors as read only. Setup your NodeJS and front-end projects, create README file, make your first commit, and practice creating a branch and merge it with the master. <u>Second hour System Architecture:</u> Define System Architecture (Front End, Back-end, Data Persistent) Compare Technologies (NodeJs/PHP, Json/XML, SQL/noSQL, Bootstrap/UIKit, JQuery/AngularJs/VueJS/React), initial Project idea
3	<u>Bootstrap Basics:</u> For your final project create a Home Page with Bootstrap. Plan your front-end pages, UI and navigation.	<u>First hour NodeJS:</u> Understand Javascript Objects <u>Second hour Data Persistence:</u> For your final project design and create your data persistence (SQL, mongo, ...etc)
4	<u>Bootstrap Forms:</u> For your final project create Login + signup + retrieve account pages using Bpptstrap, then add client validations	<u>Building API:</u> For your final project create API for Login, Signup, retrieve password, change password
5	<u>JQuery & Ajax</u> For your final project add Interactivity to the pages using JQuery events and effects use Ajax to link the front-end pages to corresponding APIs	<u>Building API::</u> Building the rest of your API
6	<u>Advanced JQuery:</u> Using JQuery to change the contents of the page (JQuery HTML & Traversing)	<u>API Security</u>
7	<u>Bootstrap Components</u>	<u>Unit Testing:</u> Unit Testing with Jasmin
8	<u>Bootstrap containers:</u>	<u>First hour:</u> Generating mock data and getting data through third party web APIs

		<u>Second hour:</u> Web Scraping
9	<u>First hour Advance CSS & CSS3:</u> <u>Second hour Bootstrap CSS:</u>	<u>NodeJS:</u> Writing Robust Code
10	<u>Bootstrap Components:</u> Media components and JS components	<u>Documentation:</u> Documenting API in the code and generating Docs
11	<u>Open Lab</u>	<u>Open Lab</u>