

Course Schedule

Week 1: Evolution of JavaScript

Learning Objectives:

- Explain the advancements in JavaScript.
- Explain Module pattern.
- Use ES6+ features.

Week 2: Building The UI Of Modern Applications

Learning Objectives:

- Differentiate between front-end frameworks and UI libraries.
- Describe popular UI frameworks/libraries.
- Compare emerging frameworks/libraries.
- Define key concepts of React.
- Create React components.
- Manage state in React.

Week 3: Introduction to Node.js

Learning Objectives:

- Define JavaScript closures and event-driven programming with Node.js.
- Describe Connect web framework and middleware pattern.
- Introduction to CommonJS modules and Node.js module system.

Week 4: Introduction to MEAN

Learning Objectives:

- Describe MEAN and MERN stack architecture.
- Install and run MongoDB.
- Create simple Node.js apps.

Week 5: Building Fast Web Applications using Express and/or emerging alternatives.

Learning Objectives:

- Explain Express and alternatives.
- Create and configure an Express application.
- Implement MVC pattern.

Week 6: Continuation of Week 5 discussion

Week 7: Test 1

Week 8: Study Week

Week 9: Managing User Authentication

Learning Objectives:

- Describe Passport strategies.
- Integrate Passport into MVC architecture.
- Utilize Passport for authentication.
- Implement authentication through OAuth providers.

Week 10: Introduction to MongoDB

Learning Objectives:

- Define NoSQL.
- Examine MongoDB's document model and query language.
- Work with MongoDB shell.
- Connect to MongoDB using Mongoose.

Week 11: Managing User Authentication (Continued)

Learning Objectives:

- Explain Passport strategies.
- Integrate Passport into MVC architecture.
- Use JSON Web Token for authentication.
- Explain OAuth providers.

Week 12: Continuation of Week 10 discussion

Week 13: Learn Angular 2 step by step.

Learning Objectives:

- Understand the architecture and components of Angular 2.
- Set up a development environment for Angular 2 projects.
- Create Angular components, modules, and services.
- Implement data binding and interpolation in Angular 2.
- Utilize Angular directives and pipes effectively.
- Handle user input with event binding and two-way data binding.
- Implement routing and navigation in Angular 2 applications.
- Understand dependency injection and its role in Angular 2.
- Integrate Angular 2 with external libraries and APIs.
- Deploy Angular 2 applications to production environments.

Week 14: Creating a MEAN CRUD Module

Learning Objectives:

- Setting up Mongoose model.
- Creating Express controller and routes.
- Organizing Angular module.
- Implementing Angular forms and http client.

Week 15: Test 2

Course Evaluation

Late assignments: Subject to a penalty of up to 10% per week, generally not accepted beyond two weeks after the due date.