

Resume

Path Progress

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○ Reset Progress

Path Description

A full-stack engineer can get a project done from start to finish. This Career Path will start with the front-end, move on to the back-end, then teach you how to connect the two.

Details

Earn a certificate of completion 6 months to complete in total Beginner

1. Welcome to the Full-Stack Engineer Path

Getting Started

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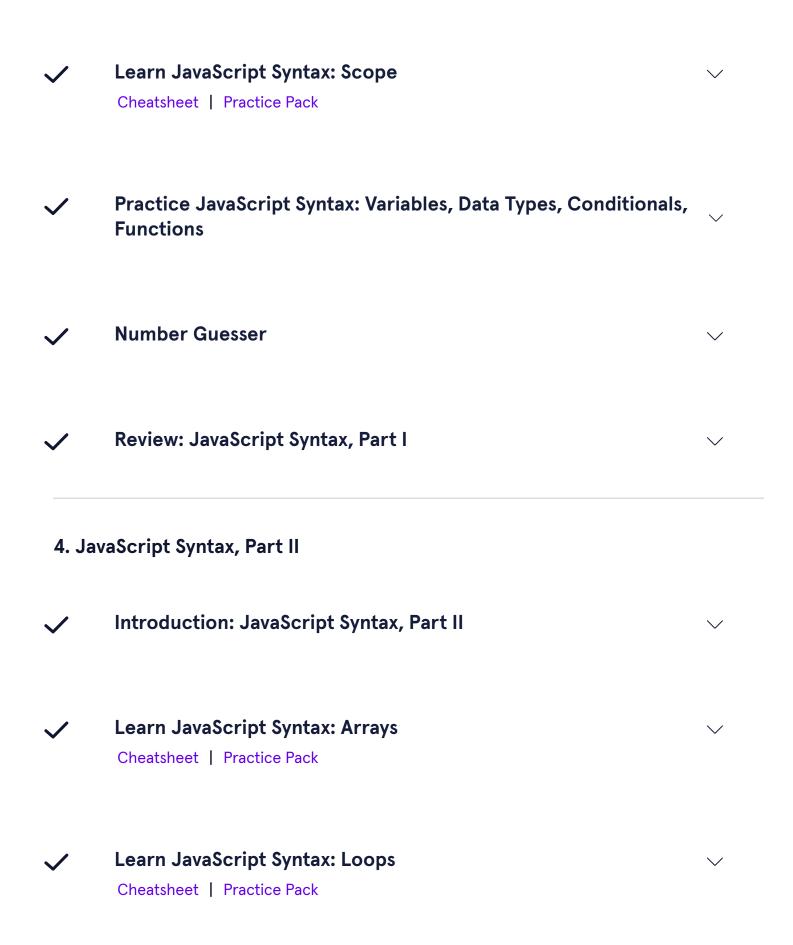
2. Getting Started with Full-Stack Engineering

~	Introduction: Getting Started with Full-Stack Engineering	\checkmark	
\checkmark	Introduction to Software Engineering	\checkmark	
~	Review: Getting Started with Full-Stack Engineering	\checkmark	
3. Jav	3. JavaScript Syntax, Part I		
~	Introduction: JavaScript Syntax, Part I	\checkmark	
\checkmark	Introduction to Programming with JavaScript	\checkmark	
~	Learn JavaScript Syntax: Introduction Cheatsheet Practice Pack	\checkmark	
\checkmark	Learn JavaScript Syntax: Conditionals Cheatsheet Practice Pack	\checkmark	

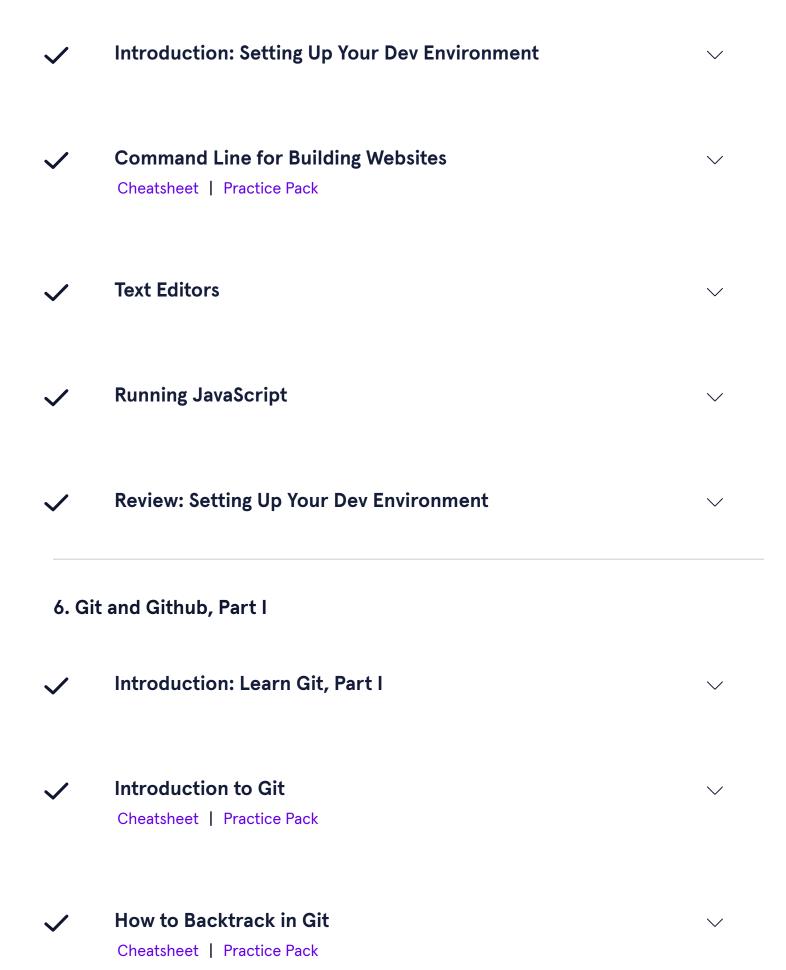
Learn JavaScript Syntax: Functions

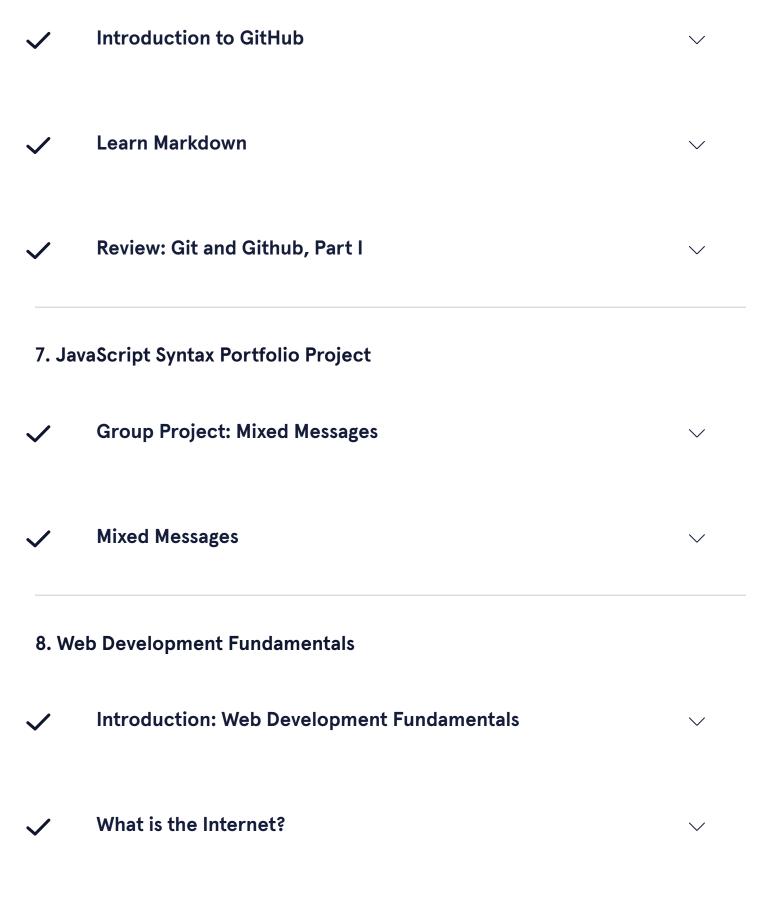
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Cheatsheet | Practice Pack



~	Learn JavaScript Syntax: Objects Cheatsheet Practice Pack	\sim
~	Learn JavaScript Syntax: Iterators Cheatsheet Practice Pack	\sim
~	Learn JavaScript Syntax: Errors and Debugging Cheatsheet Practice Pack	\sim
~	Pair-Programming: JavaScript Syntax Part I and II	\checkmark
~	Practice JavaScript Syntax: Arrays, Loops, Objects, Iterators	\sim
~	Credit Card Checker	\sim
\checkmark	Mysterious Organism	\sim
\checkmark	Review: JavaScript Syntax, Part II	\sim





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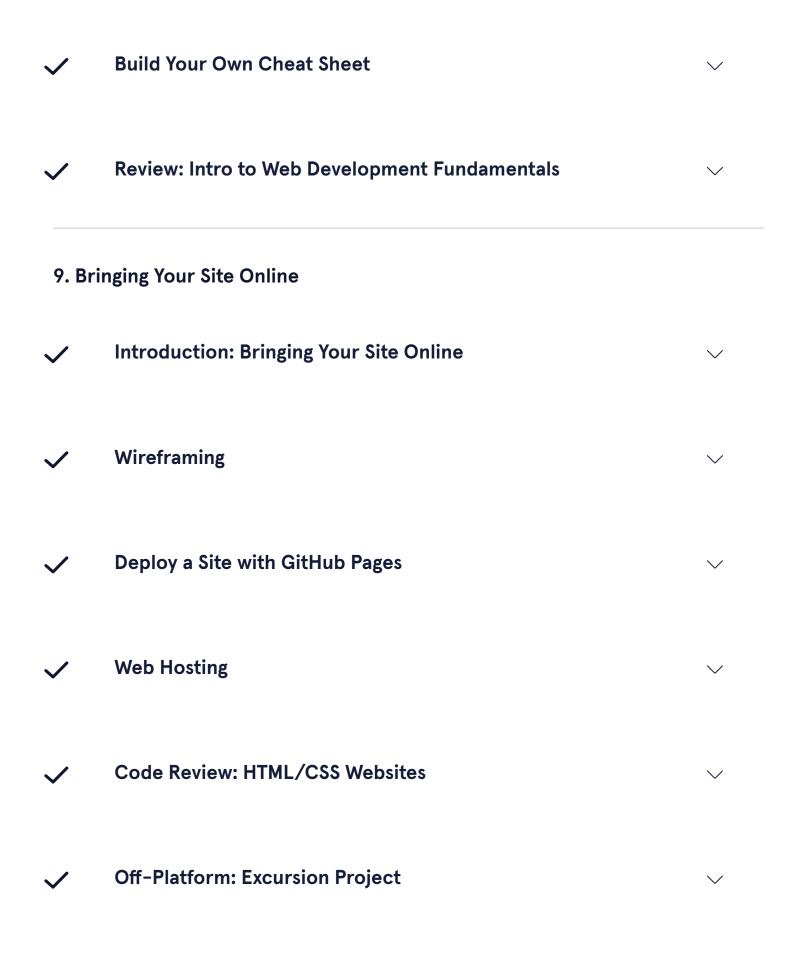
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\checkmark	What is Front-End Development?	\checkmark
~	Learn HTML: Elements Cheatsheet Practice Pack	\checkmark
~	Learn HTML: Structure Cheatsheet Practice Pack	\checkmark
~	Learn HTML: Tables Cheatsheet Practice Pack	\checkmark
~	Semantic HTML Cheatsheet Practice Pack	\checkmark
~	Learn CSS: Selectors and Visual Rules Cheatsheet Practice Pack	\checkmark

Developing with CSS

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Review: Bringing Your Site Online

10. Improved Styling with CSS

Introduction: Improved Styling of CSS	
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Learn CSS: Colors Cheatsheet | Practice Pack

Learn CSS: Typography Cheatsheet | Practice Pack

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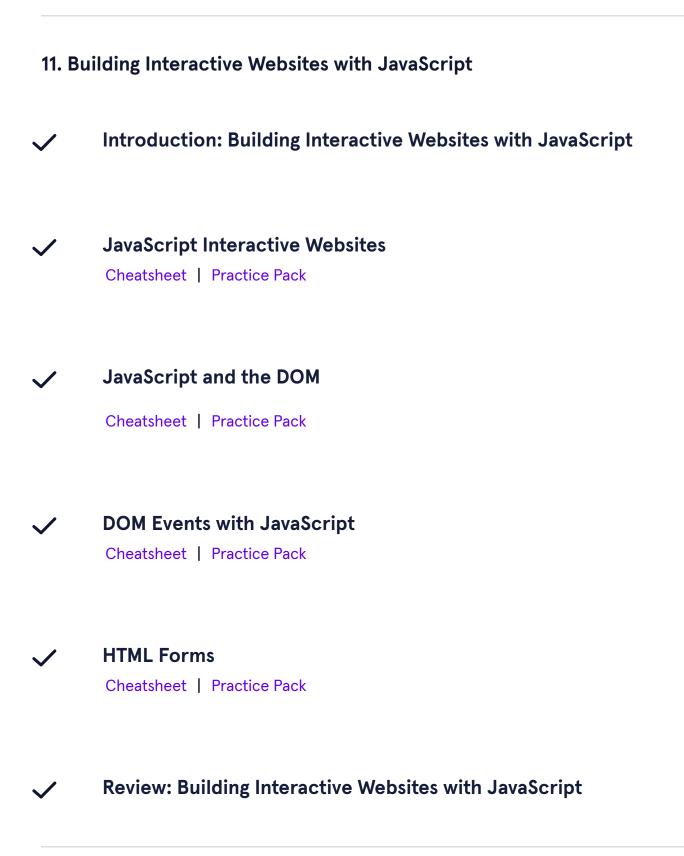
Learn CSS: The Box Model Cheatsheet | Practice Pack

Learn CSS: Display and Positioning Cheatsheet | Practice Pack

Build A Website Design System



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12. Making a Website Responsive

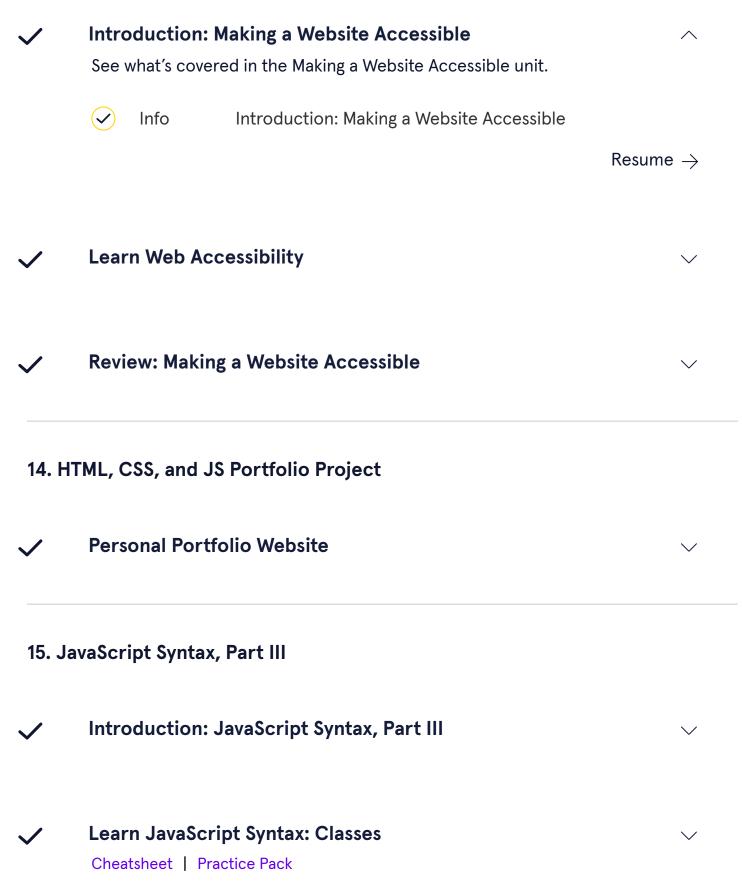
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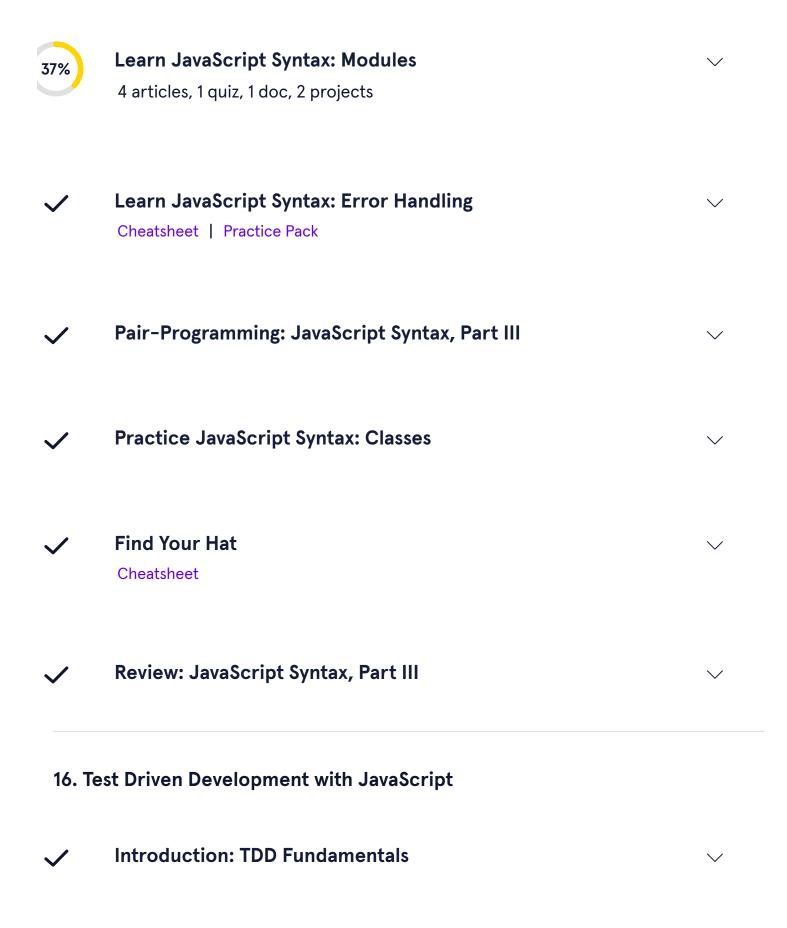
Full-Stack Engineer | Codecademy

\checkmark	Learn Responsive Design Cheatsheet Practice Pack	\checkmark
~	Layout with Flexbox Cheatsheet Practice Pack	\checkmark
\checkmark	Learn CSS: Documentation and Debugging	\sim
~	Learn Responsive Design: Grids and Spacing	\checkmark
~	Learn CSS: Grid Cheatsheet Practice Pack	\checkmark
\checkmark	Company Home Page	\checkmark
~	Responsive Club Website	\checkmark
\checkmark	Review: Making a Website Responsive	\checkmark

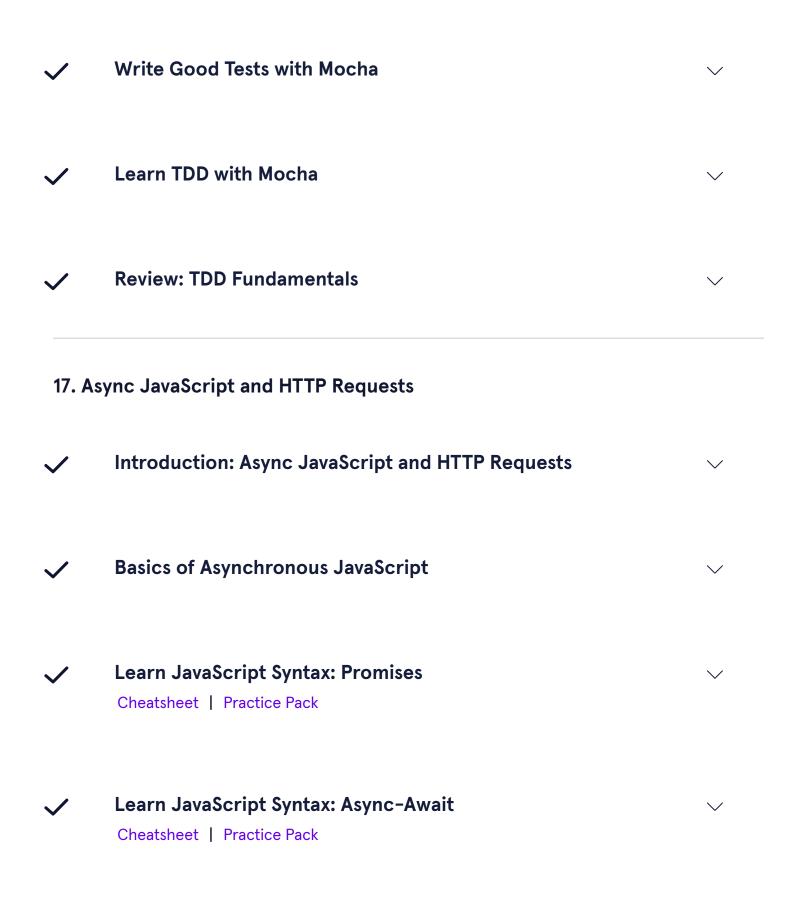
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13. Making a Website Accessible

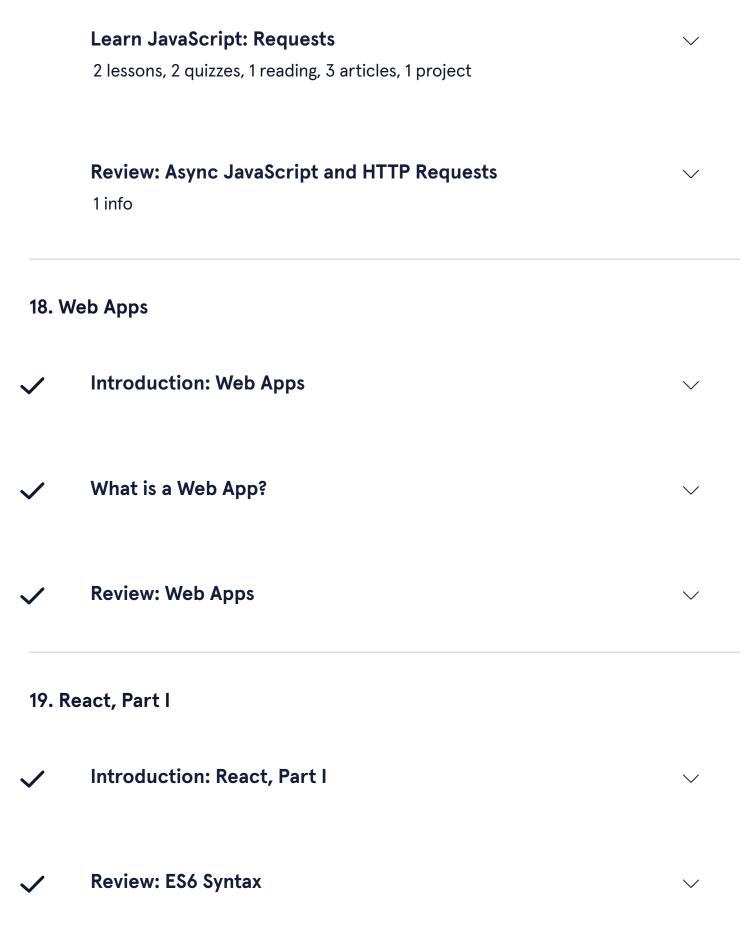


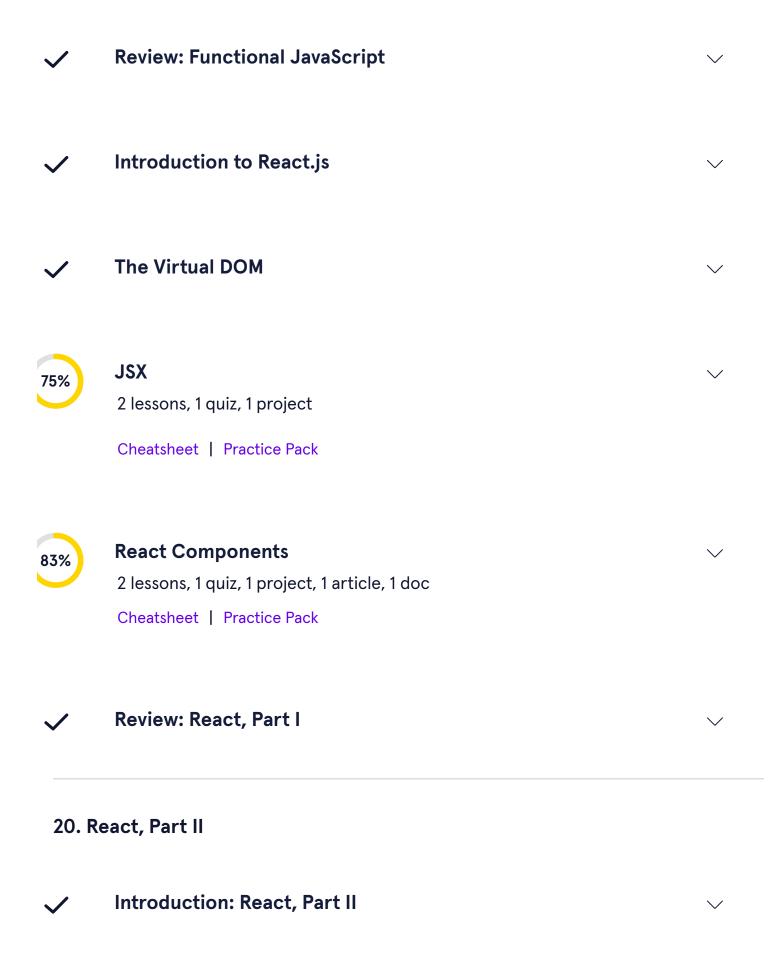


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Components and Props

Cheatsheet | Practice Pack



React State

1 lesson, 1 quiz, 1 project Cheatsheet | Practice Pack



React Development Tools





Lifecycle Methods

1 lesson, 1 project, 1 quiz Cheatsheet | Practice Pack

Jammming

2 projects

Deploy a React Application With Netlify

3 articles, 1 info

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Function (Components	and Hooks
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3 lessons, 1 project, 1 quiz

Code Review: React

1 info

Advanced React

4 lessons, 1 project, 1 quiz

React Router

2 docs, 1 article

Learn React Testing with Jest

3 articles, 2 docs, 1 tutorial

Code Review: React

1 info

Appointment Planner

1 project

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1 info



Introduction: Redux 1 info	\checkmark
Core Concepts in Redux 1 lesson, 1 project, 1 quiz	\checkmark
Core Redux API 2 lessons, 1 quiz, 1 project, 1 article	\checkmark
Connect to React with React Redux 1 lesson, 1 quiz, 1 project	\checkmark
Refactoring with Redux Toolkit 1 lesson, 1 quiz, 1 project, 1 video	\checkmark
Async Actions with Middleware and Thunks	\checkmark

2 lessons, 1 quiz, 1 project

Testing Redux

4 articles, 2 tutorials

1 info

Flashcards

1 project

Review: Redux

1 info

22. Git and GitHub, Part II

Introduction: Git and Github, Part II

1 info

Git Branching

1 lesson, 2 projects, 1 quiz

Git Teamwork

1 lesson, 2 projects, 1 quiz

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Collaborating with GitHub 4 articles, 1 tutorial	\checkmark
Project Management and Workflows on GitHub 1 doc, 3 articles	\checkmark
Review: Git and GitHub, Part II 1 info	\checkmark
23. React and Redux Portfolio Project	
Group Project: React/Redux 1 info	\checkmark
Reddit Client 1 portfolio	\checkmark
24. Basics of Back-End Development	

Introduction: Basics of Back-End Development

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1 info

25.

	What is a Back-End? 1 video, 1 lesson, 1 article	\checkmark
	What is a Server? 1 resource, 3 articles	\sim
	Introduction to RESTful APIs 3 articles	\checkmark
	Review: Basics of Back-End Development 1 info	\checkmark
B	uild a Back-End with Node/Express.js	

Introduction: Build a Back-End with Node/Express.js

Learn Node.js

1 lesson, 1 tutorial, 1 doc, 1 resource, 1 quiz

Introduction to Express

2 articles, 1 tutorial, 1 doc

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Learn Express: Routes 3 lessons, 1 doc, 1 article, 1 tutorial, 1 quiz	\checkmark
Challenge Project: Quote API 1 project	\checkmark
Learn Express: Middleware 2 articles, 3 lessons, 3 docs, 1 quiz	\checkmark
Documenting APIs with Swagger 1 article, 3 tutorials	\checkmark
API Project: Boss Machine 2 infos	\checkmark
Review: Build a Back-End with Node/Express.js 1 info	\checkmark

26. Back-End and Feature Testing

Introduction: Back-End and Feature Testing

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	Outside-in TDD 2 articles	\checkmark
	Learn Feature Testing with TDD 1 article, 1 lesson, 1 project, 1 doc, 1 quiz	\checkmark
	Learn Server Testing with TDD 2 lessons, 2 docs, 1 tutorial, 2 quizzes, 1 project	\checkmark
	Review: Back-End and Feature Testing 1 info	\checkmark
27. 9	SQL for Back-End Development	
~	Introduction: SQL for Back-End Development	\checkmark
~	Introduction to SQL and Relational Databases in Web Development	\checkmark
\checkmark	SQL: Creating, Updating, and Deleting Data	\checkmark

Cheatsheet | Practice Pack



SQL Queries

2 lessons, 1 article, 1 project, 1 quiz Cheatsheet | Practice Pack

Performing SQL Calculations

2 lessons, 1 project, 1 quiz

Working with Multiple SQL Tables

2 lessons, 1 tutorial, 1 project, 1 quiz

Pair-Programming: SQL Syntax

1 info

Practice SQL Syntax

2 resources

Review: SQL for Back-End Development

1 info

28. PostgreSQL Database

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Introduction: PostgreSQL Database

1 info

Introduction to Databases	\checkmark
1 resource, 2 articles	
Introduction to PostgreSQL	\sim
2 articles	
Setting up PostgreSQL	\sim
1 article, 2 resources, 1 info	
PostgreSQL Basics	\checkmark
1 tutorial, 1 doc, 1 resource	

Review: PostgreSQL Database

1 info

29. Designing Relational Databases

Introduction: Designing Relational Databases

1 info

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Introduction to Database Design	
3 articles, 1 resource	
Designing a Database	
3 lessons, 1 article, 1 project, 1 quiz	
Designing A Database Schema Off Platform Project 1 info	
Entity Relationship Diagrams 3 articles, 1 resource	
Database Normalization 1 resource, 1 lesson, 1 article, 1 quiz, 1 project	
Review: Designing Relational Databases 1 info	

30. Advanced PostgreSQL

Introduction: Advanced PostgreSQL

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1 resource, 2 articles	
Postgres Database Performance	
2 lessons, 2 projects, 2 quizzes, 3 articles	
Postgres Database Tuning and Benchmarking	
2 resources, 2 articles, 1 doc	
Database Maintenace and Monitoring Software	
2 articles, 2 resources	
Review: Advanced PostgreSQL	

Group Project: Back-End

1 info

https://www.codecademy.com/learn/paths/full-stack-engineer-career-path

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1 portfolio

32. Connecting Front-End to Back-End

Introduction: Connecting Front-End to Back-End	\sim
1 info	
Client-Side Bondering	
Client-Side Rendering	\checkmark
5 articles	
Server-Side Rendering	\checkmark
3 articles, 1 tutorial	
How to Structure Your Apps	\sim
4 articles, 3 resources	
Server-Side API Calls to External APIs	\checkmark
2 tutorials, 2 articles	
The Server Con De Mares Server Side Has Cosse	
The Server Can Do More: Server-Side Use Cases	\sim

5 tutorials

Review: Connecting Front-End to Back-End

1 info

33. Adding a PostgreSQL Database

Introduction: Adding a PostgreSQL Database 1 info	\checkmark
PostgreSQL with Node and Express 2 tutorials, 1 doc, 1 resource	\checkmark
Deploying a PERN App to Heroku 1 tutorial, 2 docs	\checkmark
Using an ORM with Sequelize 1 article, 1 tutorial, 1 doc	\checkmark
Query Builders and Data Seeding 2 tutorials, 1 doc, 1 resource	\checkmark
Review: Adding a PostgreSQL Database	\checkmark

34. Security, Authentication, and Authorization

Introduction: Security, Authentication, and Authorization 1 info	\checkmark
Introduction to Web Security 1 resource, 2 articles	\checkmark
Introduction to Authentication/Authorization 1 resource, 1 article, 1 doc, 1 tutorial	\checkmark
OAuth 2.0 2 articles, 1 tutorial	\checkmark
Passport.js 1 tutorial, 1 doc, 2 articles	\sim
Authentication/Authorization in Postgres 1 tutorial, 1 doc, 1 article	\sim
Roles in Postgres	\checkmark

1 resource, 1 doc, 2 articles, 1 tutorial

Sessions & Cookies 1 resource, 3 articles, 1 tutorial	\checkmark
JWTs 1 resource, 3 articles, 1 tutorial	\checkmark
Protecting Data in Transit 2 resources, 2 articles	\checkmark
Protecting Data at Rest 2 articles, 1 tutorial	\checkmark
Secure Collaborative Development 2 articles, 2 docs	\checkmark
Browser Security	\sim

1 article, 2 docs, 1 tutorial

Cross-Site Request Forgery (CSRF)

1 resource, 3 articles

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Cross-Site Scripting (XSS)

2 resources, 4 articles

SQL Injection

1 resource, 4 articles

Data Validation & Sanitization

1 resource, 2 articles, 1 tutorial

Review: Security, Authentication, and Authorization

1 info

35. Advanced Concepts in TDD

Introduction: Advanced Concepts in TDD	\sim
1 info	

Advanced Testing: Mocking

3 articles, 1 doc

Advanced Testing: Browser Automation

1 doc, 2 articles

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 \checkmark

Review: Advanced Concepts in TDD

1 info

36. Full-Stack Portfolio Project

Group Project: Full-Stack

1 info

E-Commerce App (Client)

1 portfolio

37. What To Expect in a Technical Interview

Introduction: What to Expect in a Technical Interview

Intro to Tech Interviews

4 articles

Review: What to Expect in a Technical Interview

1 info

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 \checkmark

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38. Linear Data Structures

Introduction: Linear Data Structures 1 info	\sim
Intro to Data Structures 2 articles	\sim
Nodes 1 info, 2 lessons, 2 quizzes	\sim
Singly Linked Lists 4 infos, 2 lessons, 2 quizzes, 1 video, 2 articles	\sim
Doubly Linked Lists 4 infos, 2 lessons, 2 quizzes, 1 video	\sim
Queues 3 infos, 2 lessons, 2 quizzes, 1 video	\checkmark

Stacks

3 infos, 2 lessons, 2 quizzes, 1 project, 1 video

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Review: Linear Data Structures

1 info

39. Complex Data Structures

Introduction: Complex Data Structures 1 info
Hash Maps
3 infos, 2 lessons, 2 quizzes, 1 video
Trees
1 info, 2 lessons, 2 quizzes
Heaps
3 infos, 2 lessons, 2 quizzes, 1 video
Graphs
1 info, 2 lessons, 2 quizzes

Review: Complex Data Structures

1 info

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40. Algorithms

Introduction: Algorithms 1 info **Recursion** \backslash 1 info, 3 lessons, 2 quizzes **Asymptotic Notation** 3 articles, 1 lesson, 2 quizzes **Bubble Sort** \checkmark 1 info, 2 lessons, 2 quizzes **Merge Sort** $^{\prime}$ 2 lessons, 2 quizzes

Quicksort

2 lessons, 2 quizzes

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1 info

41. Search & Graph Search Algorithms

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Introduction: Search & Graph Search Algorithms 1 info	\checkmark
Binary Search and Search Trees 1 info, 3 lessons, 1 quiz	\checkmark
Graph Traversals 1 info, 2 lessons, 2 quizzes	\checkmark
Review: Search & Graph Search Algorithms 1 info	\checkmark
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Introduction: Interview Skills 1 info	\checkmark

Technical Interviews: Whiteboarding

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Code Review: Interview Skills	\checkmark
1 info	
JavaScript Algorithm Practice	\sim
5 articles, 1 info	
Soft Skills	\checkmark
2 articles, 1 reading	
Real World Interview Problems	\checkmark
4 videos	
Review: Interview Skills	\checkmark
1 info	

43. Final Portfolio Project

Group Project: Final Project

1 info

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1 portfolio

44. Next Steps in Your Full-Stack Engineer Journey

Next Steps

2 infos

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