BOARD INFINITY

COURSE 3 OF 3 · END-TO-END WEB DEVELOPMENT SPECIALIZATION

API Integration - End to End Web Development

Full course syllabus - every module, video lesson, reading and assignment, from RESTful and GraphQL APIs to live API data in your UI.

Board Infinity
Instructor · Offered on Coursera

3	22	10	1 week
Modules	Video lessons	Assignments	At 10 hours a week

INSIDE THE COURSE

01	Introduction to APIs	5 hours to complete
02	Consuming APIs	4 hours to complete
03	Integrating APIs in Web Applications	2 hours to complete

Enroll on Coursera

https://www.coursera.org/learn/api-integration---end-to-end-web-development

01 ABOUT THE COURSE

From first request to live data in your UI.

API Integration - End to End Web Development teaches you to connect front-end applications to the services behind them, from how APIs work to how a web app calls, secures and displays them.

It focuses on RESTful and GraphQL APIs, consuming them with Fetch and Axios, authentication with OAuth and API keys, and integrating API data into the UI - 22 videos, 7 readings and 10 assignments in all.

WHO IT'S FOR

Front-end developers
Fetching, securing and displaying live data from any API.

Aspiring full-stack developers
Learning the layer that joins the UI and the database.

Back-end developers
Designing and documenting the APIs others consume.

CS students & career switchers
Following a structured path from basics to integration.

WHAT YOU'LL LEARN

01 **Design RESTful APIs** Module 1
Design, implement, document with Swagger, and version RESTful APIs

02 **Build with GraphQL** Module 1
Explain the benefits of GraphQL and build a simple GraphQL API

03 **Consume and secure APIs** Module 2
Make requests with Fetch and Axios, authenticate, and handle errors

04 **Integrate APIs into real UIs** Module 3
Display API data, handle dynamic data and cache responses

02 SYLLABUS

Three modules, concepts to integration.

1 week to complete at 10 hours a week. Flexible schedule - learn at your own pace.

01 Introduction to APIs

Understanding APIs, RESTful API design and development, and GraphQL

5 hours
10 videos

BY THE END OF THIS MODULE YOU CAN

- Explain what an API is and compare the common types
- Design and implement RESTful APIs
- Document APIs with Swagger, and version and deprecate them
- Explain GraphQL's benefits and build a simple GraphQL API

CONTENTS: 10 videos (71 min) · 3 readings (90 min) · 4 assignments (105 min) · 1 plugin (5 min)

TOPICS: Understanding APIs · API Design and Development · Introduction to GraphQL · Quick Course Check-In (plugin)

You'll leave with: a clear model of how APIs work, and hands-on experience designing, documenting and building REST and GraphQL APIs.

02 Consuming APIs

Making API requests, authentication and authorization, and error handling

4 hours
9 videos

BY THE END OF THIS MODULE YOU CAN

- Make requests with the Fetch API and Axios, and handle responses
- Compare authentication methods, including OAuth and API keys
- Secure the API requests your application makes
- Debug common API errors and apply error-handling best practices

CONTENTS: 9 videos (51 min) · 3 readings (90 min) · 4 assignments (105 min)

TOPICS: Making API Requests · Authentication and Authorization · Error Handling and Debugging

You'll leave with: the confidence to call any API securely, and to work out fast why a request failed.

03

Integrating APIs in Web Applications

Fetching API data, displaying it in the UI, dynamic data and caching

2 hours

3 videos

BY THE END OF THIS MODULE YOU CAN

- Fetch data from APIs inside a web application
- Display API data in the user interface
- Handle dynamic data as it changes
- Cache API data to make applications faster

CONTENTS 3 videos (25 min) · 1 reading (30 min) · 2 assignments (45 min)

TOPICS Fetching Data from APIs | Displaying API Data in UI | Caching API Data

You'll leave with: the ability to turn API responses into fast, live interfaces that users can actually work with.

03 TOOLS & SKILLS

The tools that run through the course.

RESTful APIs & Swagger Module 1

Designing, implementing and documenting REST endpoints.
In this course: Plus versioning and deprecating APIs safely.

GraphQL Module 1

Asking for exactly the data you need from one endpoint.
In this course: Building a simple GraphQL API of your own.

Fetch API & Axios Module 2

Making requests from the browser and handling responses.
In this course: Debugging failed requests and handling errors.

OAuth & API keys Module 2

Authenticating and authorizing API requests.
In this course: Securing requests without leaking credentials.

SKILLS YOU LEAVE WITH

API design

- RESTful API design
- GraphQL
- API documentation
- Versioning

Consuming APIs

- Fetch API & Axios
- Authentication
- OAuth & API keys
- Debugging

UI integration

- Displaying API data
- Dynamic data
- Dataflow
- Caching API data

04 CERTIFICATE & CAREER

Finish with a shareable certificate.

Add it to LinkedIn
Add this credential to your LinkedIn profile, resume, or CV.

Share it anywhere
Share it on social media and in your performance review.

Earned, not attended
Awarded on completion of the graded quizzes in all three modules.

Course 3 of 3
The final course of the End-to-End Web Development Specialization.

WHERE THESE SKILLS ARE IN DEMAND

Full-Stack Developer · Front-End Developer · Back-End Developer · API Developer · Integration Engineer · API Test Engineer

Board Infinity

Instructor · Offered on Coursera

Intermediate level · Taught in English · 6 languages available · Flexible schedule

Ready to master API integration?

Enrollment, lessons, grading and the certificate all happen on Coursera.

Enroll on Coursera

Course page: coursera.org/learn/api-integration---end-to-end-web-development

Want a coach alongside the course?

Board Infinity 1:1 coaching is a separate, optional Board Infinity offering - it is not part of the Coursera course. Details: https://www.boardinfinity.com/career-coaching/

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