

A detailed illustration of three birds of prey, likely falcons or hawks, perched on a gnarled branch. The bird on the left is a brown and tan falcon, the middle one is a smaller bird, and the one on the right is a dark, sleek falcon. They are all looking towards the left. The background is a soft, hazy landscape with trees and a light sky.

Implementing Hypermedia with NodeJS and HTML5

Mike Amundsen
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Introduction



Mike Amundsen
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Your Guide to API Design & Implementation Best Practices

API Academy delivers free online lessons and in-person consulting services covering essential API techniques and tools for business managers, interface designers and enterprise architects

API Academy Overview



Your Guide to API Design & Implementation Best Practices

0:00 / 1:15



What is an API?

Get an overview of what an API is and what it does, to help you realize the business value of APIs



API Design Basics

Understand the API architecture process and learn basic design and implementation best practices



Web API Architectural Styles

Get a detailed overview of the main architectural styles for Web and mobile API design



Choosing a Solution

Choose between the various solutions that offer the basic components for enterprise API Management

Creating Evolvable Hypermedia Applications



Building

Hypermedia APIs with HTML5 & Node

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Services for a Changing World

RESTful Web APIs



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Mike Amundsen & Sam Ruby*

Creating Evolvable Hypermedia Applications



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Designing APIs for the Web

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VIDEO

Services for a Changing World

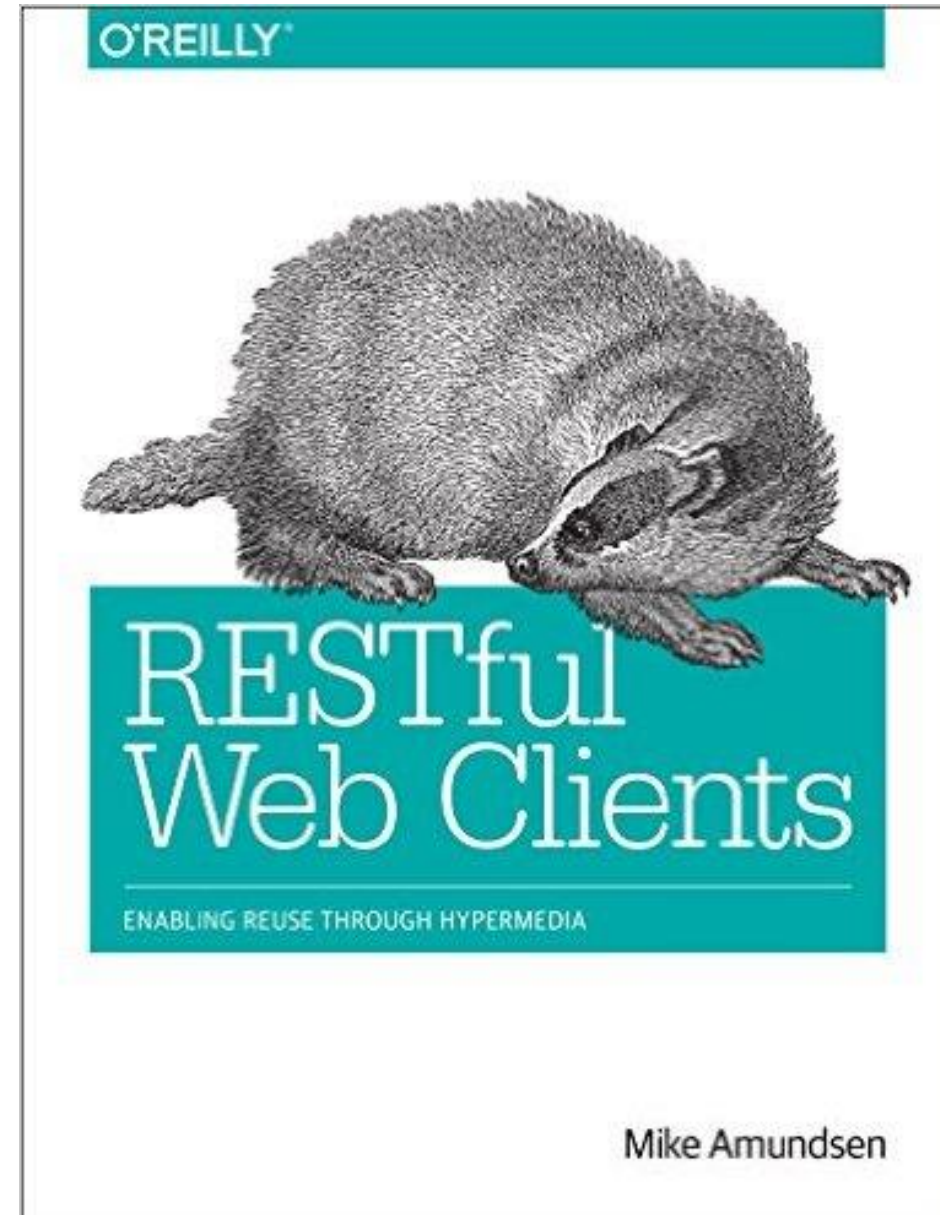
RESTful Web APIs



*Leonard Richardson,
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RESTful Web Clients

- Focus on the client side code
- Covers human-driven SPAs
- Lots of code (12+ projects)!
- Due in spring 2016
- @RWCBook (@LCHBook)



Equipment Check

- NodeJS installed
 - <https://nodejs.org/en/>
- Code editor ready
- Browser ready
- Github account
 - <https://github.com/apiacademy/oreilly-hypermedia-training>
- Slack account (emailed invite)
 - <https://oreillyonlinetraining.slack.com/messages/implement-hypermedia/>
- Dropbox account
 - <http://g.mamund.com/dropbox-hypertut>
- Drinks/snacks/hankies



The Plan for the Day – AM Server-Side

- 15min What are Hypermedia APIs?
- **30min Exercise:** *Map out the Task Service API*
- 15min The DORR Architecture for Hypermedia Services
- **30min Exercise:** *Begin Implementing Your API Service w/ NodeJS*
 - (Data & Objects)
- 15min The Strategy Pattern for Representors
- **45min Exercise:** *Complete Implementing Your API Service*
 - (Resource & Representation)
- 15min Question Time
 - Follow up on any of the material in the first half of the day



The Plan for the Day – PM Client-Side

- 15min What is a Hypermedia Client?
- **30min Exercise:** *Create the SPA Hypermedia Container*
- 15min Principles of Parsing Representations, not Objects
- **30min Exercise:** *Begin Implementing Collection+JSON Client*
 - (Title, Links, Items)
- 15min Supporting FORMS and Workflow in Hypermedia Clients
- **45min Exercise:** *Complete Implementing your Cj Client*
 - (Queries, Templates, Errors)
- 15min Question Time
 - Follow up on anything from today's Sessions
- 15min Wrapping It Up



Resources

- On24 (Here!)
 - Slides
 - Code Reviews
 - Chat Windows
- Github
 - Examples
 - Slides
- DropBox
 - ZIPs (for those w/o Github)
- Slack
 - Convo starts today – will continue, too
- Email
 - mca@mamund.com



Ground Rules

- Lecture + Code
 - I'll introduce basic terms/concepts
 - I'll do a code review
 - We'll work through the exercises together
- Lots of Qs
 - Ask lots of Qs
 - Use chat window (or Slack)
 - I might temporarily “ignore” Qs to get through a topic
- Follow-Ups
 - We'll have “follow-up” time in AM and PM as needed
- Planned “Lunch” Break (30min)
 - You can take a break during the exercise blocks
 - Feel free to step away any time and pick up later



Let's get started...

