

Implementing and Securing an API with ASP.NET Core

Getting Started



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Course Overview



What is this course?

- Build a web API using ASP.NET Core
- Learn by doing
- Feel free to follow along
- You'll see it all

Course Overview



What this course will teach you:

- ASP.NET Core and MVC 6
- Creating API Controllers
- Versioning APIs with MVC 6
- Securing and Authenticating APIs
- Implementing REST Constraints

Course Overview



What is this course built with?

- Visual Studio 2015 w/Update 3
- ASP.NET Core 1.0
- Entity Framework Core 1.0
- <http://get.asp.net>

Do You Know ASP.NET Web API?

- ASP.NET Web API (versions 1 and 2) are similar to ASP.NET Core MVC6
 - Microsoft merged the MVC and Web API stacks
 - You'll see some parts which are very familiar
 - Some parts will be very different
 - There are no plans to implement Web API like it is today

Are you new to ASP.NET Core?

Might want to view my
Introductory Course first:

<http://shawnw.me/learncore>

Questions During the Course?

The screenshot shows the Pluralsight course page for "Building a Web App with ASP.NET Core RC1, MVC 6, EF7 & AngularJS" by Shawn Wildermuth. The page features a dark blue header with a search bar and user profile. The main content area has a teal background with the course title and a "Resume Course" button. A red arrow points to the "Discussion" tab in the bottom navigation bar.

What do you want to learn?

Building a Web App with ASP.NET Core RC1, MVC 6, EF7 & AngularJS

by Shawn Wildermuth

Understanding how to build an app using the full-stack of technologies of web development can be hard. In this course, we'll walk you completely through a complete application to see how everything works together.

[▶ Resume Course](#)

Table of contents | Description | Transcript | Exercise files | **Discussion** | Learning Check | Recommended

Course author

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Shawn Wildermuth is a thirteen-time Microsoft MVP (ASP.NET/IIS) and is involved with Microsoft as an ASP.NET Insider, ClientDev Insider and Windows Phone Insider.

Course info

Level	Beginner
Rating	★★★★★ (2003)
My rating	★★★★★
Duration	9h 21m
Updated	3 Nov 2015

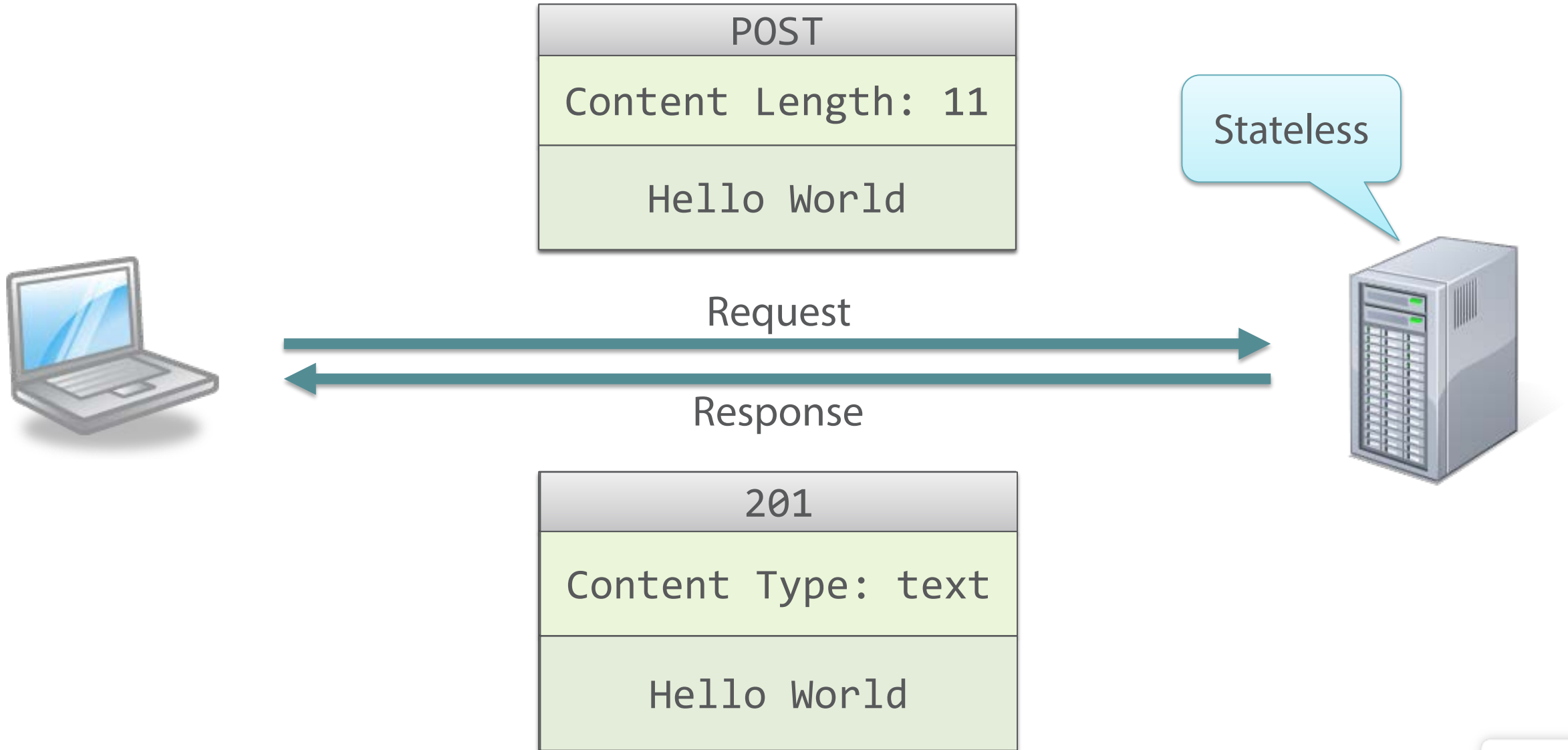
This Module

Getting Started





How Does HTTP Work?



HTTP Verbs

GET	Retrieve a resource
POST	Add a new resource
PUT	Update an existing resource
PATCH	Update an existing resource with set of changes
DELETE	Remove the existing resource

...

Resource Based Architectures

- Resources are Representations of Real World Entities
 - E.g. People, Invoices, Payments, etc.
 - Relationships are typically nested
 - Hierarchies or Webs...not Relational Models
- URIs are Paths to Resources
 - Query Strings for non-data elements
 - E.g. format, sorting, etc.



What is REST?

- REpresentational State Transfer*
 - Concepts include:
 - Separation of Client and Server
 - Server Requests are Stateless
 - Cacheable Requests
 - Uniform Interface

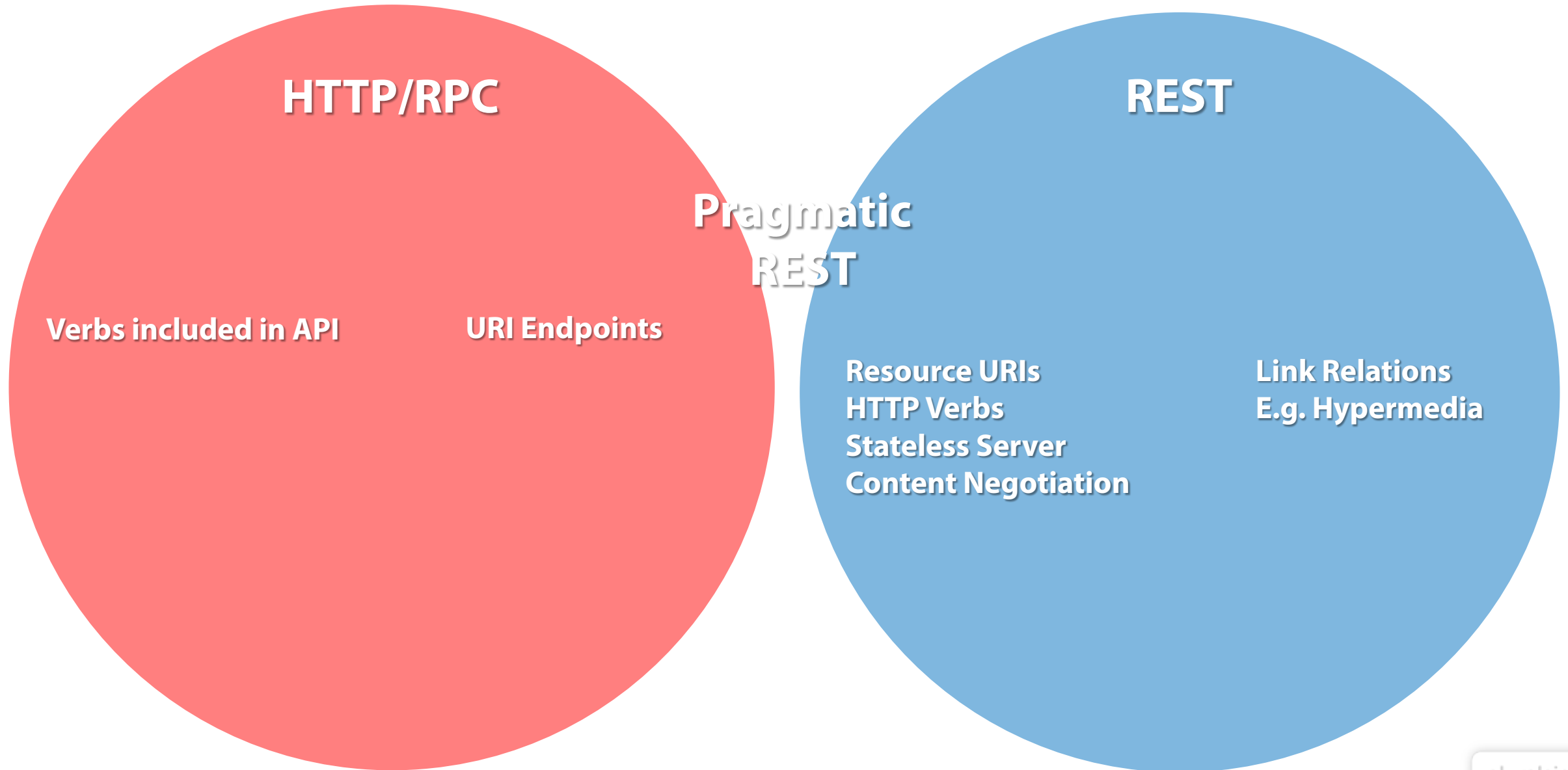
** Introduced by Roy Fielding's doctoral dissertation*

What is REST?

- Problems

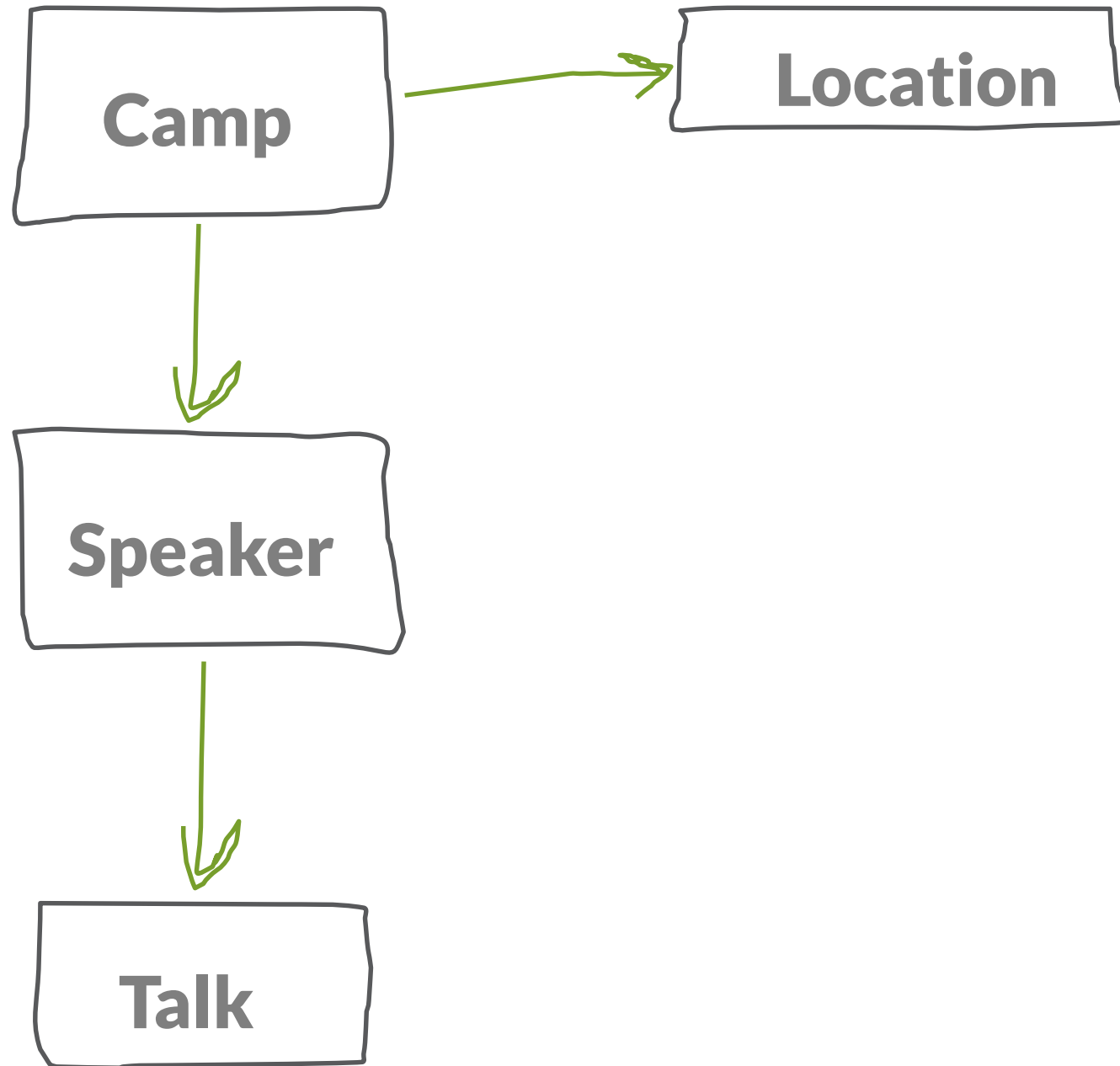
- To become qualified "REST" tends to be difficult
- Community is split about the dogma of REST
- There is a lot to learn from REST-style architecture
 - But pragmatism is important too

APIs on the Web



Where We're Going...

- We're Building a Whole API
 - We're not building the database/data layer in this course
 - We're not building a website to support it
 - We're not building the client side code



Design the API

`http://.../api/camps`

`http://.../api/camps/1`

`http://.../api/camps/1/speakers`

`http://.../api/camps/1/speakers/1`

`http://.../api/camps/1/speakers/1/talks`

`http://.../api/resetcache`

Demo

Starting the Project



Demo

Using Postman



Demo

What's in the Project



Going
Deeper

Building a Website with ASP.NET Core

shawnw.me/learncore

ASP.NET Core 1.0 Fundamentals

www.pluralsight.com/courses/aspdotnet-core-1-0-fundamentals

What We've Learned

Getting Started

Understanding HTTP is crucial to APIs for the Web
Using REST is important, but be pragmatic about it
We're building a simple project to learn the basics