Book Proposal to Apress

Brief Book Description (two sentence summary --in simple, non-technical language):

Learn how to leverage the features and capabilities of the ASP.NET Web API to build a RESTful web service from start to finish. This book will first explain the REST architecture, and then build on that knowledge, the Web API, and a few other patterns, tricks, and techniques, to go from a blank slate to a fully functional, secure, and versioned REST service.

Long Description (300-350 words) statement that defines the benefits offered to the reader:

The ASP.NET MVC Framework has always been a good platform on which to implement REST-based services, but the introduction of the ASP.NET Web API Framework raised the bar to a whole new level. Now in release version 2.1, the Web API Framework has evolved into a powerful and refreshingly usable platform. This concise book provides technical background and guidance that will enable you to best use the ASP.NET Web API 2 Framework to build world-class REST services.

As with the Web API 2 Framework itself, *ASP.NET Web API 2: Building a REST Service from Start to Finish* improves upon its predecessor, *ASP.NET MVC4 and the Web API*. New content in this edition includes

- New capabilities in Web API 2 (currently version 2.1).
- Swappable data storage. NHibernate, Entity Framework, and Dapper with Web API are featured.
- Support for partial updates, or PATCH.
- API versioning.
- Support for legacy SOAP-based operations.
- How to handle non-resource APIs using REST
- How to best expose relationships between resources
- JSON Web Tokens, CORS, CSRF, and OAUTH

Also, in response to feedback we received on the first edition, we removed or relegated to an appendix the non Web API content that was deemed to be superfluous or distracting.

So get ready for authors Jamie Kurtz and Brian Wortman to take you from zero to REST service hero in no time at all. No prior experience with ASP.NET Web API is required; all Web API-related concepts are introduced from basic principles and developed to the point where you can use them in a production system. A good working knowledge of C# and the .NET Framework are the only prerequisites to best benefit from this book.

Although some examples include ASP.NET MVC features, the emphasis is on the Web API and not MVC. We recommend *Pro ASP.NET MVC 5* if you need help on topics relating to MVC and/or CSS, HTML, JavaScript, jQuery, the Razor view engine, HTML Helpers, model binding, etc.

Why is this an important topic? How large is the market? Please cite any market statistics or other relevant sources.

RESTful services are growing in importance at an incredible rate right now, mostly in support of the variety of devices out there today. REST style services are being used to provide backends for nearly all mobile applications, as well as, the newer style of web sites being built - i.e. single-page apps.

Target audience: Level and Technical Focus
Beginner to Intermediate; REST, .NET, C#

What The Reader Will Learn (in 5 or fewer bullet points):

- Introduction to the REST architecture
- How to design a REST API
- New capabilities in Web API 2, including: better error handling, attributed routes, CORS, and better OData support
- Understanding Web API controller activation
- Automatic lifetime management for database connections and transactions
- Using NHibernate, Entity Framework, and Dapper with Web API
- Easily secure a REST service, using standards-based authentication and authorization, JSON Web Tokens, or a custom implementation
- Supporting legacy SOAP callers with Web API
- How to expose relationships between resources
- Supporting partial resource updates under REST
- Web API versioning

Detailed Table of Contents:

1. ASP.NET as a Service Framework

2. What is RESTful?

3. Designing Our Sample REST API

4. Building the Environment and Creating the Source Tree

5. Controllers, Dependencies, and Managing the Database Unit of Work

6. Securing the Service

7. Dealing with Relationships, Partial Updates, and Other Complexities

8. Leveraging new Web API Features to Simplify Your Code and Support Legacy Systems

9. Putting It All Together

Time Frame for Completion:
Work on book throughout March and April and May

Estimated Page Count:
Between 150 and 200