Implementing an API in ASP.NET Web API

Module 2: API Basics

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Agenda

API Basics

- What Are We Building?
- Identifiers
- Implementing an Association
- Preparing for Security
- Implementing POST
- Implementing DELETE
- Implementing PUT/PATCH
- Implementing Paging
- Implementing RPC-Style Calls

API Design: Nutrition

- GET /api/nutrition/foods
 - Gets a list of foods
 - Params: includeMeasures=false, page=0
- GET /api/nutrition/foods/1
 - Get all the information on a specific food
- GET /api/nutrition/foods/1/measures
 - Get a list of measures for a specific food
- GET /api/nutrition/foods/1/measures/1
 - Get a specific measure for a food

API Design: User Diary

- GET /api/user/diaries
 - Get a list of diaries for the current user
- POST /api/user/diaries
 - Create a new diary for a specific date
- GET /api/user/diaries/2001-01-01
 - Get a specific daily diary
- DELETE /api/user/diaries/2001-01-01
 - Delete an entire diary
- GET /api/user/diaries/2001-01-01/summary
 - Get a summary of the nutritional content for a single diary

API Design: Diary Entries

- GET /api/user/diaries/2001-01-01/entries
 - Get the entries for a diary
- POST /api/user/diaries/2001-01-01/entries
 - Add a new entry for a diary
- GET /api/user/diaries/2001-01-01/entries/1
 - Gets an individual diary entry
- PATCH /api/user/diaries/2001-01-01/entries/1
 - Update a diary entry
- DELETE /api/user/diaries/2001-01-01/entries/1
 - Delete a diary entry

Implementing an Association

Identifiers

Preparing for Security

Implementing POST

Implementing DELETE

Implementing PUT/PATCH

Implementing Paging

Implementing RPC-Style Calls

Summary

API Basics

- Web API allows you to build a variety of REST-ful scenarios
- Associations are solved with routes for specific related entities
- Implementing IDs and URLs can simplify the usage of your API
- Completing the API using HTTP Verbs on ApiControllers is straightforward
- Dealing with Paging for large data scenarios is as simple as your back-end