Give it a REST and try GraphQL

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Audience Goals

- Give a brief overview of GraphQL
- Spark some curiosity

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Who am I?

- Director of Engineering at [Lean TECHniques](#)
- Co-organizer of Iowa .NET User Group
- Blog at [scottsauber.com](#)
- Have used GraphQL at places like startups to Fortune 100 companies

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Agenda

- What's wrong with REST?
- What is GraphQL?
- Demo
- Benefits
- How it works

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Problems with REST

- Traditionally noun focused

- Over fetching

- Under fetching

- Every REST API is different

- It's not a spec
  - What HTTP methods do you use
  - How do your responses look
  - What status codes do you use and when

- 2 Phased Commit problem
  - Admittedly this is less a REST problem an more a misunderstanding of REST

What is GraphQL?

- Created by Facebook

- An API Spec that provides...
    - Query language for APIs
    - Discoverability
    - Type system

- Real-time subscriptions

- Each request is either a Query or Mutation
    - CQRS

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Demo

Benefits over REST

- Solves under/over fetching problem

- Single request can get all your data

- Free documentation from Type System

- Documentation is enforced to stay in sync with schema (unlike Swagger) due to Type System

- GraphQL Playground/Banana Cake Pop

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How it works

- Single endpoint
- Everything is a POST
- Define Queries
- Define Mutations
- Resolvers

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Summary

- Problems with REST
- What problems GraphQL solves
- Evaluate GraphQL in the future

Thanks!