

Megan Walker

Bellevue University

WEB 335 Introduction to NoSQL

Professor Krasso

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Discussion 2.1 – Rest

Basically, REST is a software architectural style used for creating web services. It's all about how web services should communicate with each other over the internet. RESTful services are web services that adhere to the REST architectural style. They are based on HTTP, which is the protocol used for the internet, and they use HTTP methods like GET, POST, PUT, and DELETE to communicate with other web services. One thing I found interesting is that RESTful services are stateless. This means that they don't keep track of the user's session or any data related to the user's request. Instead, the client (like a web browser) sends a request to the server, and the server responds back. The server doesn't keep track of anything between requests, which makes it more scalable and easier to manage.

Another interesting thing about RESTful services is that they are resource-oriented. This means that each web service is identified by a unique URI (Uniform Resource Identifier). These URIs can be used to retrieve, update, or delete resources, which can be anything from a photo to a blog post. In my reading, I also found that RESTful services often use JSON (JavaScript Object Notation) or XML (Extensible Markup Language) to represent data that is sent between the client and server. JSON is particularly popular because it is lightweight, easy to parse, and widely supported in web development frameworks.

Some issues I found with REST and RESTful services are:

- Over-reliance on HTTP (this may limit more complex interactions.)
- Lack of standardization (there is no single “official” standard.)
- Complexity (lots of design and development involved in making a truly RESTful service.)

- Scalability (statelessness is an advantage but makes server-side caching and session management a challenge)
- Security (Vulnerable cross-site scripting (XSS), cross-site request forgery (CSRF), and injection attacks.)

References

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