

What is REST?

REST is an architectural style for building web services.

REST = Representational State Transfer

A **RESTful Web Service** is an API implemented using HTTP and REST principals.



Resource Based

In REST we talk about nouns (article, user, setting), and use HTTP verbs to dictate the operation to perform on a given resource.

GET - POST - PUT - DELETE - PATCH



Resource Based

In REST, we talk about nouns (i.e. article, user, setting) and use HTTP verbs (GET, POST, PUT, DELETE, PATCH) to dictate the operation to perform on a given resource.



HTTP: The Language of the Web

REST uses the existing technology and protocols of the web.

GET

Request:

GET : `http://example.com/resource/{ID}`

Accept: `application/json`

Response:

HTTP 200 Ok

Content-type: `application/json`

`{"message": "Hello World!"}`

POST

Request:

POST : `http://example.com/resource`

Accept: `application/json`

Content-type: `application/json`

`{"id":42, "title":"Hello World!"}`

Response:

HTTP 200 Ok

Content-type: `application/json`

6 Principals of REST

- ▶ Uniform interface
- ▶ Stateless
- ▶ Cacheable
- ▶ Client-Server
- ▶ Layered system
- ▶ Code on demand

REST is a style.

Not a strict protocol or specification.

Why REST?

- ▶ It's simple and lightweight compared to things like SOAP.
- ▶ It's HTTP-based, so most everything supports it.
- ▶ It's a suggestion, not a rule.

Learn more: <http://restcookbook.com/>

Roy Fielding's dissertation that describes REST

http://www.ics.uci.edu/~fielding/pubs/dissertation/rest_arch_style.htm

