

Hateoas



Peter van Rijn

www.little-world.nl

Introduction

What is Hateoas?

Simple Demo

Relations

- **OneToMany**
- **ManyToMany**



HATEOAS

Hypermedia As The Engine Of Application State
is a component of the REST application architecture

Wikipedia

REST with Hyperlinks

```
{  
  "firstName": "Ada",  
  "lastName": "Lovelace",  
  "_links": {  
    "self": {  
      "href": "http://localhost:8080/friends/1"  
    },  
    "friend": {  
      "href": "http://localhost:8080/friends/1"  
    }  
  }  
}
```

Richardson Maturity Model

The Glory of REST



Level 3: Hypermedia Controls

Level 2: HTTP Verbs

Level 1: Resources

Level 0: The Swamp of POX



Richardson Maturity Model

Level	Explanation
0. Swamp of POX	Remote Procedure Call with Plain Old XML
1. Resources	REST using URL's
2. HTTP Verbs	REST using HTTP Methods
3. Hypermedia Controls	REST messages with Hyperlinks

Demo

REST

- Run the Basic CRUD demo
- Check JSON Results in Postman

Hateoas

- Add **spring-rest-data** to **pom.xml**
- Delete the FriendController
- Check JSON Results in Postman

Demo

OneToMany Relation

- Add Address and AddressService
- Add @OneToMany to Friend
- Add @ManyToOne to Address
- Look at Database Structure

Postman

- Add a new Address
- List all the Friends

Demo

ManyToMany Relation

- Add @ManyToMany to Friend
- Add @ManyToMany to Address
- Look at Database Structure

Postman

- Add a new Friend
- Add a new Address
- Link a Friend to an Address
- List all the Friends

Summary

Hateoas

- JSON with Hyperlinks
- Spring-Data-REST

Relations

- Hyperlinks Acts as
Primary and Foreign Keys
- Datamodel is Mirrored in JSON