RESTFul Services In Java Using Jersey

Architecture

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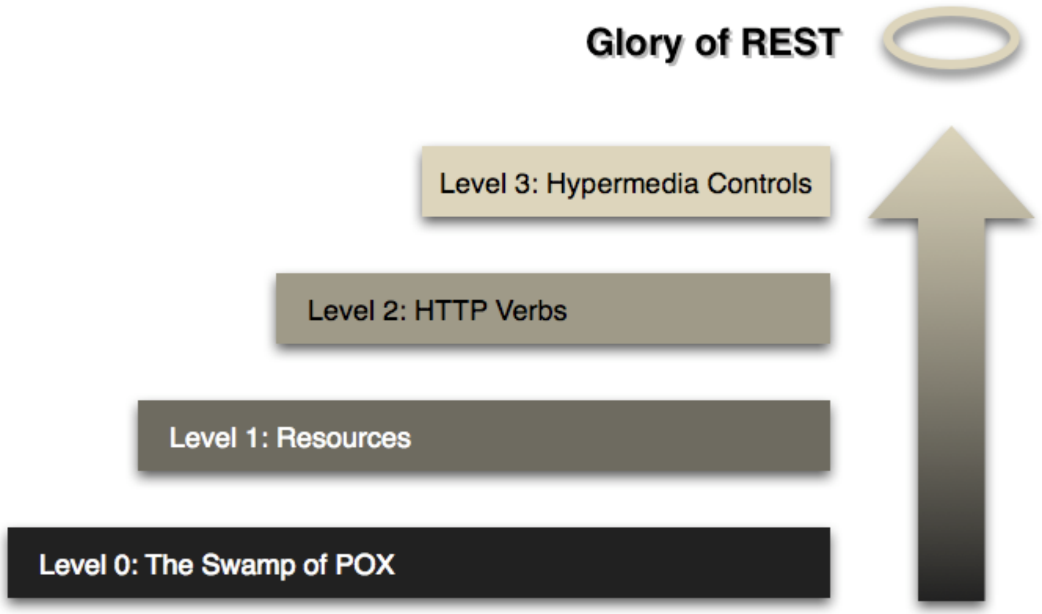
Architecture

Richardson Maturity Model

- **4 Levels of Maturity - we are focusing on level 2:**



Richardson Maturity Model

- **Level 2 focuses on the HTTP Verbs**
- **Create, Read, Update, and Delete**
- **Post, Get, Put, and Delete**
- **The web really doesn’t use Put and Delete**
- **Level 3 includes level 2, but puts a focus on Discoverability**
  - HATEOS - Hypertext As The Engine Of Application State

HATEOAS

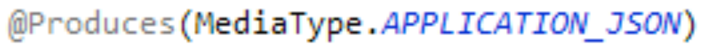
- **Hypermedia as the Engine of Application State**
- **The client interacts with the server through hypermedia**
- **The concept is to decouple client and server allowing them to evolve**
  - Interaction begins with a fixed URL
  - Future interactions are determined by the server
- **The concepts of HATEOAS are to help promote long term design**
  - Can make short term design/productivity more difficult.

CRUD Functions

- **Level 2 of the RMM is about matching services with their HTTP Verbs**
- **The CRUD functions are mapped to their HTTP equivalents**
  - Create = POST
  - Read = GET
  - Update = PUT
  - Delete = DELETE
- **Often times people will use POST for Create and Update**

JSON

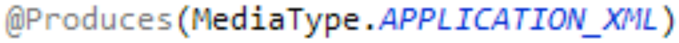
- JavaScript Object Notation
- BTW, it's pronounced "Jason"
- Preferred when working with JavaScript clients
- Looser way to represent data
- Flexible and easy to work with
- Often preferred because it is not XML
- Difficult to validate



```
@Produces(MediaType.APPLICATION_JSON)
```

XML

- Often associated with SOAP
- Still a great solution for REST
- REST doesn't mean unstructured
- Easy to validate, confirm well formed



```
@Produces(MediaType.APPLICATION_XML)
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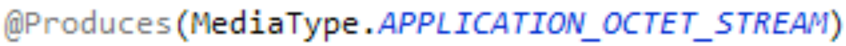
<?xml?>

Binary

- **Not necessarily an alternative to JSON or XML**
- **Used to serve objects**
  - Files
  - Images
  - PDFs



```
@Produces(MediaType.APPLICATION_OCTET_STREAM)
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Summary

- Richardson Maturity Model
- HATEOAS
- CRUD Functions
- JSON
- XML
- Binary