Having Fun with the RestTemplate

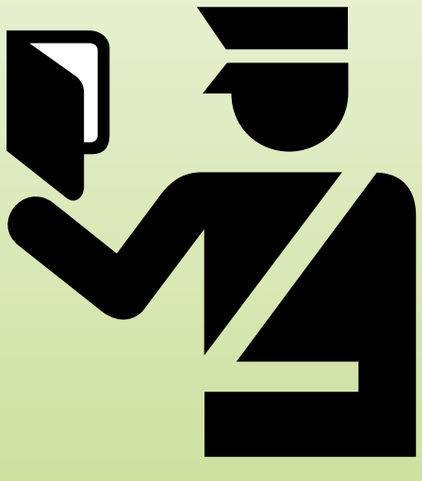
Arjen Poutsma
SpringSource
VMware

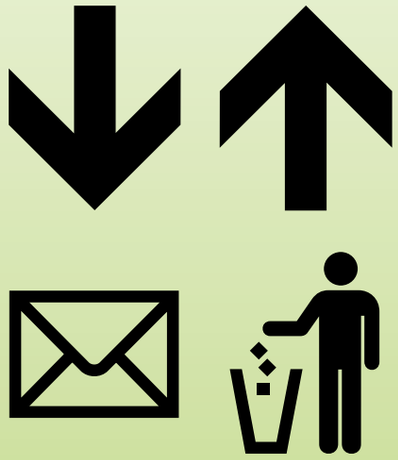
Overview

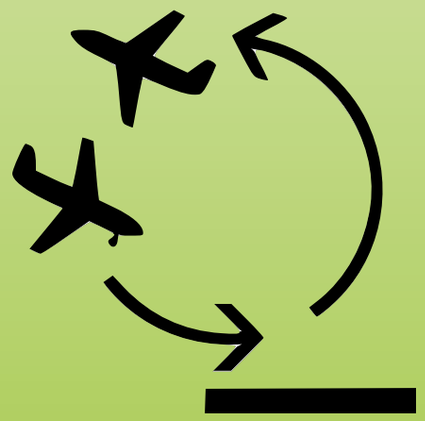
- REST in 10 minutes
- RestTemplate

REST in 10 minutes

REST

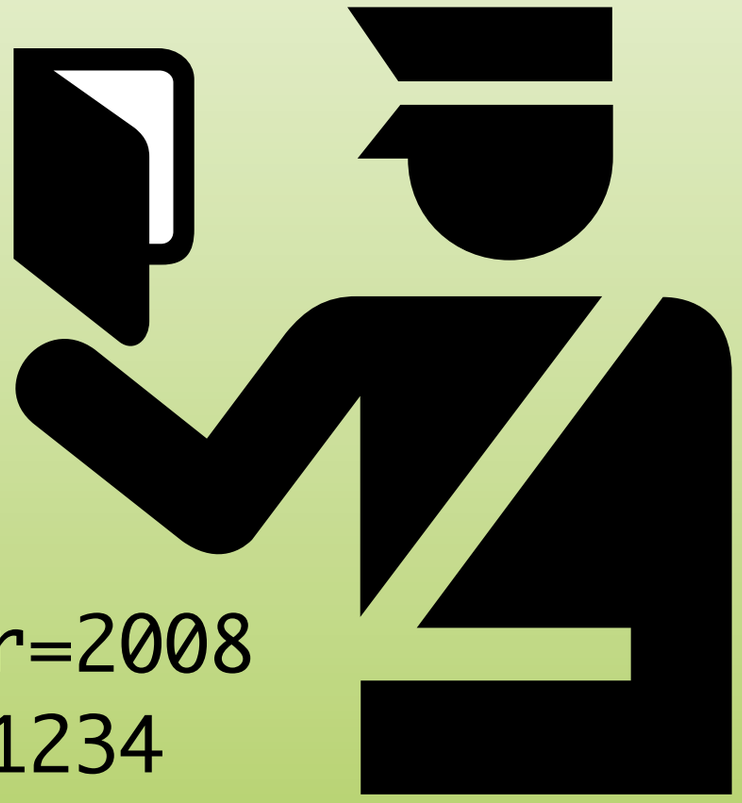




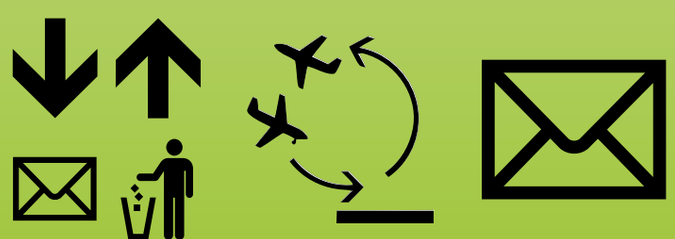


Identification

- Resources
- Typically nouns
- URIs



```
http://example.com/orders?year=2008
http://example.com/customers/1234
http://example.com/orders/2007/10/776654
```



Uniform Interface

Uniform Interface

Uniform Interface

	GET	Read
	PUT	Create or Update
	POST	Create
	DELETE	Delete

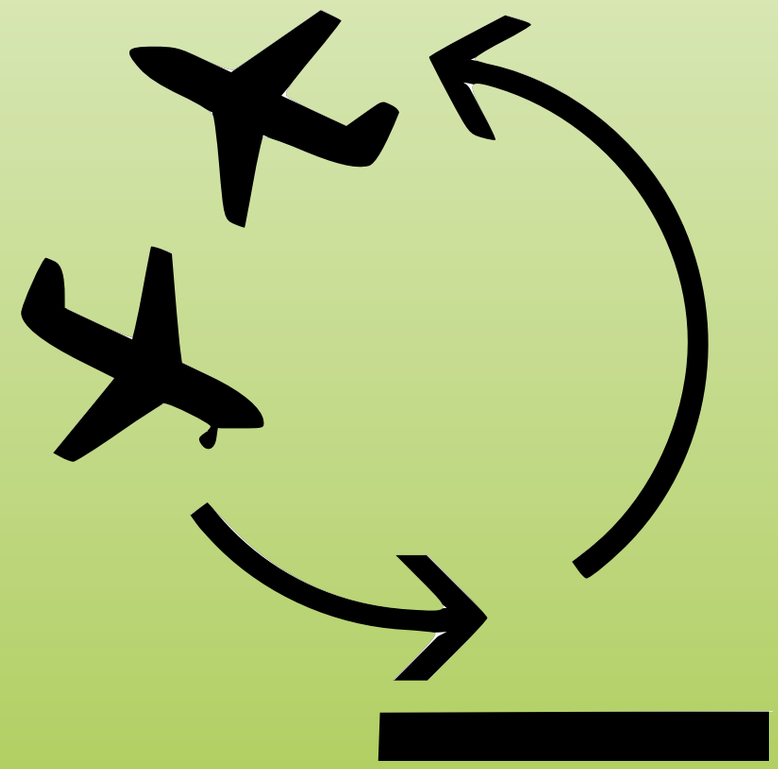


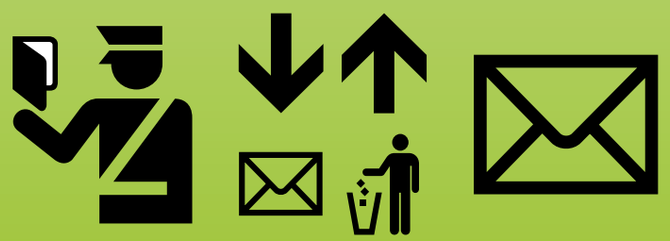
Uniform Interface

Uniform Interface

HATEOAS

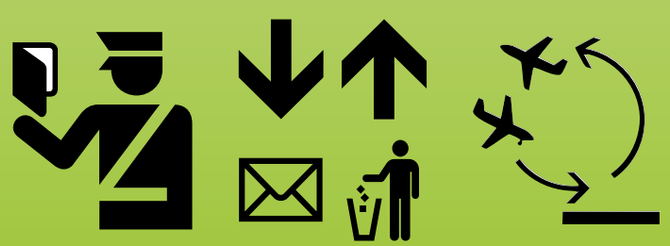
- Hypermedia as the Engine of Application State
- No server-side state
- State transfer through links
- Google



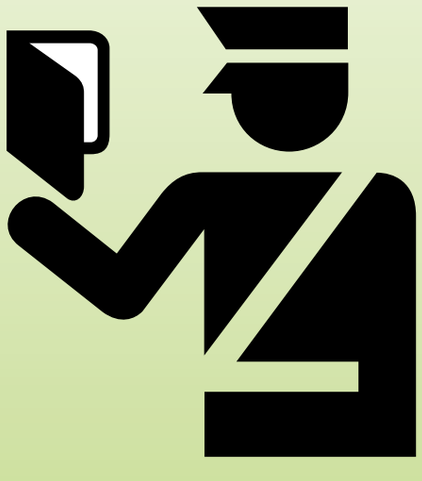


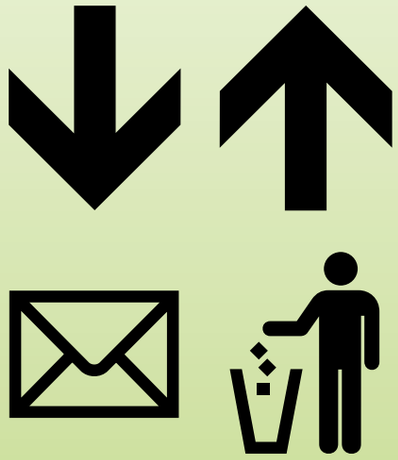
Self-Descriptive Messages

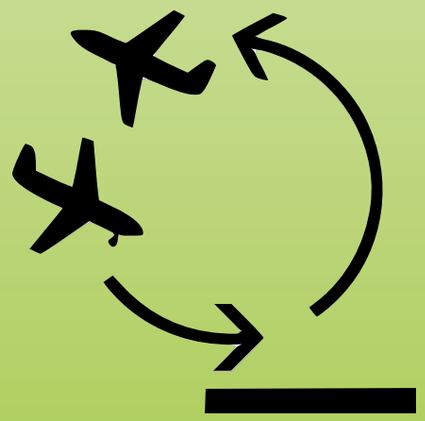
```
GET /service/customers/1234 HTTP 1.1
Host: www.example.com
User-Agent: XYZ 1.1
Accept: text/html,application/xml;q=0.9,*/*;q=0.8
If-Modified-Since:Thu, 18 Dec 2008 16:47:31 GMT
If-None-Match: "600028c-59fb-474f6852c9dab"

HTTP/1.1 304 Not Modified
Date:  Fri, 19 Dec 2008 19:36:25 GMT
Last-Modified: Thu, 18 Dec 2008 16:47:31 GMT
Etag: "600028c-59fb-474f6852c9dab"
Content-Length:   7160
Content-Type:  application/xml

<?xml version='1.0' encoding='utf-8' ?>
```



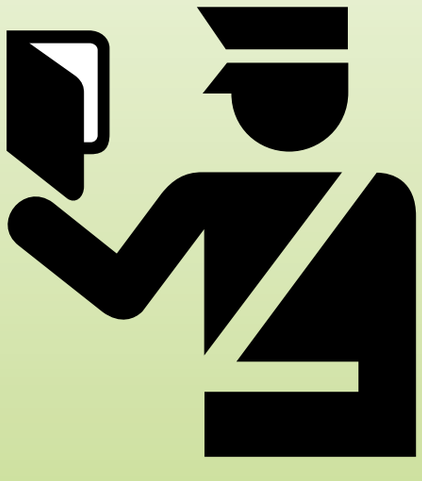
REST

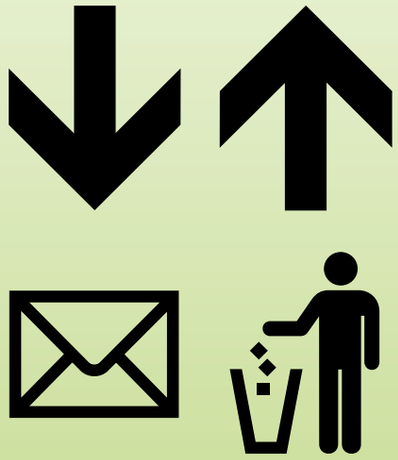


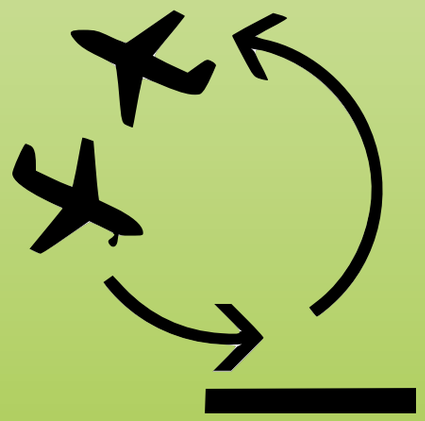




REST







REST

RestTemplate

RestTemplate

- Introduced in Spring 3.0
- RestTemplate as core client-side component
- Similar to other templates in Spring
  - JdbcTemplate
  - JmsTemplate

RestTemplate methods

- getForObject
  - Performs GET and converts
- put
  - Performs PUT
- postForLocation
  - Performs POST, and retrieves Location header
- delete

RestTemplate

```
String uri = "http://example.com/hotels/{id}"
template = new RestTemplate();
HotelList result = template.getForObject(uri,
  HotelList.class, "1");

Booking booking = // create booking object
uri = "http://example.com/hotels/{id}/bookings";
Map<String, String> vars = Collections.singletonMap("id", "1");
URI location = template.postForLocation(uri, booking, vars);

template.delete(location, );

template.execute(uri, HttpMethod.GET,
  myRequestCallback,
  myResponseCallback);

template.execute(uri, HttpMethod.GET,
  myRequestCallback,
  myResponseCallback);
```

Demo's

Q & A