

# Web & mobile

### **RESTFul Webservices**

### DE HOGESCHOOL MET HET NETWERK

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# **RESTFul Webservice**

#### **RESTFul Webservice:**

- server-sided aangesproken door client
- HTTP-protocol
- STATELESS

wel haal boek 1 op niet haal het volgende boek op

- URI's ~ mappenstructuren:

GET /users/

GET /users/1

GET /writers/1/books/

GET /writers/1/books/2

DELETE /writer/1/book/

- JSON / XML

haalt alle gebruikers op

haalt de gebruiker met id 1 op

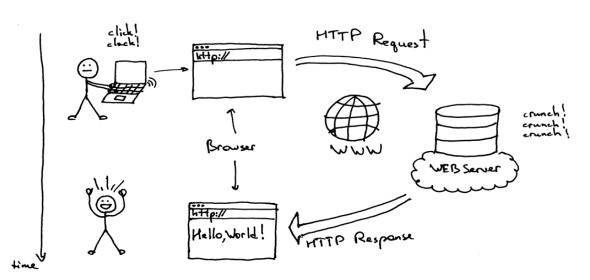
haal van writer 1 alle boeken op

haal van writer 1 boek 2 op

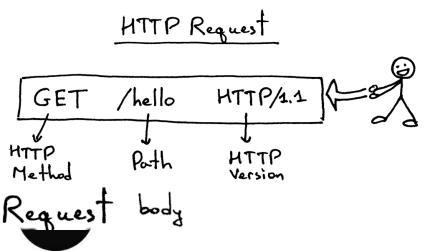
verwijder alle boeken van writer 1

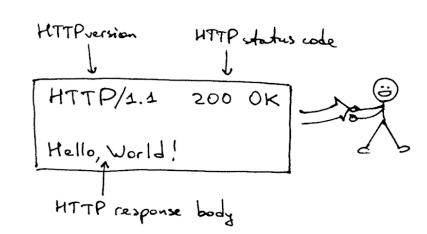


# **HTTP**

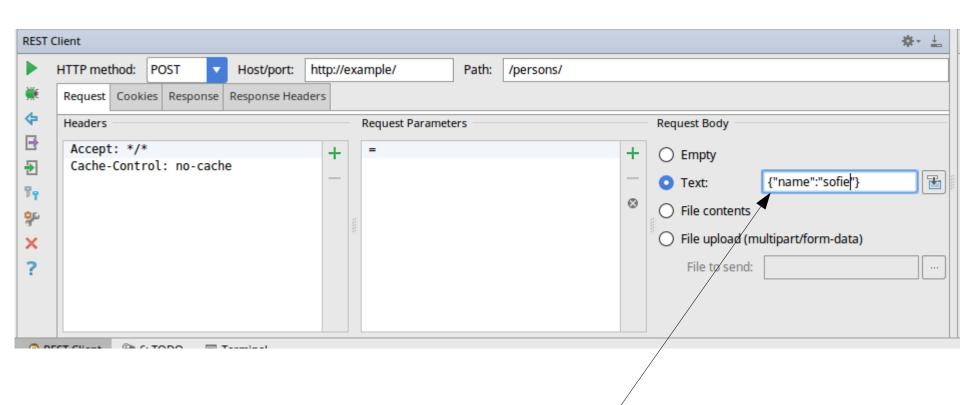


### HTTP Response





```
HTTP method:
               GET
                                                              /api/v2/pokemon/1
                           Host/port:
                                    http://pokeapi.co
                                                        Path:
    Request | Cookies | Response | Response Headers
         {"forms":[{"url":"http:\/\/pokeapi.co\/api\/v2\/pokemon-form\/1\/","name":"bulbasaur"}],"abilities":[{"slot":3, ≥
    4-5
          s"is hidden":true,"ability":{"url":"http:\/\/pokeapi.co\/api\/v2\/ability\/34\/","name":"chlorophyll"}},{"slot":1,∂
₿
         Ð
         \"stats":[{"stat":{"url":"http:\/\/pokeapi.co\/api\/v2\/stat\/6\/","name":"speed"},"effort":0,"base stat":45}, 
         \{"stat":{"url":"http:\/\/pokeapi.co\/api\/v2\/stat\/5\/","name":"special-defense"},"effort":0,"base stat":65},
Pe
         \{"stat":{"url":"http:\/\/pokeapi.co\/api\/v2\/stat\/4\/","name":"special-attack"},"effort":1,"base_stat":65},
         \{\"stat":\{"url":\http:\/\/pokeapi.co\/api\/v2\/stat\/2\/\",\"name":\attack\\},\"effort\\0,\"base_stat\\49\,\\\\
×
         \{"stat":{"url":"http:\/\/pokeapi.co\/api\/v2\/stat\/1\/","name":"hp"},"effort":0,"base stat":45}],"name":"bulbasaur",
         "weight":69, "moves":[{"version group details":[{"move learn method":{"url":"http:\/\/pokeapi
         \.co\/api\/v2\/move-learn-method\/2\/\","name":"eqg"},"level learned at":0,"version group":{"url":"http:\/\/pokeapi
         $.co\/api\/v2\/version-group\/3\/","name":"gold-silver"}},{"move_learn_method":{"url":"http:\/\/pokeapi
         S.co\/api\/v2\/move-learn-method\/2\/","name":"egg"},"level_learned_at":0,"version_group":{"url":"http:\/\/pokeapi
           co\/ani\/v2\/version-group\/4\/" "name":"crystal"}}] "move":{"url":"httn:\/\/nokeani_co\/ani\/v2\/move\/13\/"
    Response code: 200 (OK); Time: 1639ms; Content length: 176125 bytes
```





### HTTP

GET: haal een resource op

POST: maak een nieuwe resource (URI niet gekend)

PUT: maak of wijzig een resource (URI gekend)

PATCH: doe een gedeeltelijke update (URI gekend)

DELETE: verwijder een resource

### **PUT vs POST**

PUT /persons/123 POST /persons/

{'name':'sofie'} {'name':'sofie'}



	URI	request-body	response-code	response-body
GET	/api/persons/		200 (OK)	[{"id":1,"name":"sofie"},{"id":2,"name" :"tim"}]
GET	/api/persons/1		200 (OK)	{"id":1,"name":"sofie"}
GET	/api/persons/7		404 (not found)	
GET	/api/persons/a		400 (bad request)	
PUT	/api/persons/1	{"name":"guy"}	200 (OK)	{"id":1,"name":"guy"}
<b>P</b> UT <sup>™</sup>	/api/persons/3	{"name":"kurt"}	201 (resource created)	{"id":3,"name":"kurt"}
PUT	/api/persons/1	{niet valid	400 (bad request)	

POST	/api/persons/	{"name":"gert"}	201 (resource created)	{"id":4,"name":"gert"}
POST	/api/persons/	{niet valid	400 (bad request)	
DELE TE	/api/persons/1		200 (OK)	
DELE TE	/api/persons/7		404 (not found)	
DELE TE	/api/persons/a		400 (bad request)	



## Router

- route laten overeenkomen met een stuk code

```
/persons/ -> personController->findAllPersons();
```

- Altorouter

```
1RewriteEngine on
2RewriteCond %{REQUEST_FILENAME} !-f
3RewriteRule . app.php [L]
```



## Router

```
30
      try {
           $personController=generatePersonController();
31
32
33
           $router = new AltoRouter();
34
           $router->setBasePath('/');
35
36
           $router->map(
               'GET',
37
38
               'persons/[i:id]',
39
               function ($id) use ($personController) {
                   $personController->handleFindPersonById($id);
40
41
42
           );
43
           $match = $router->match();
44
45
          if ($match && is callable($match['target'])) {
               call user func array($match['target'], $match['params']);
46
           } else {
47
48
               http response code(500);
49
      } catch (Exception $exception) {
50
51
          http response code(500);
      }
```