

ΜΟΝΑΔΑ ΑΡΙΣΤΕΙΑΣ
ΑΝΟΙΧΤΟΥ ΛΟΓΙΣΜΙΚΟΥ

ΧΑΡΟΚΟΠΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ



ΜΟΝΑΔΕΣ ΑΡΙΣΤΕΙΑΣ
ΑΝΟΙΧΤΟΥ ΛΟΓΙΣΜΙΚΟΥ

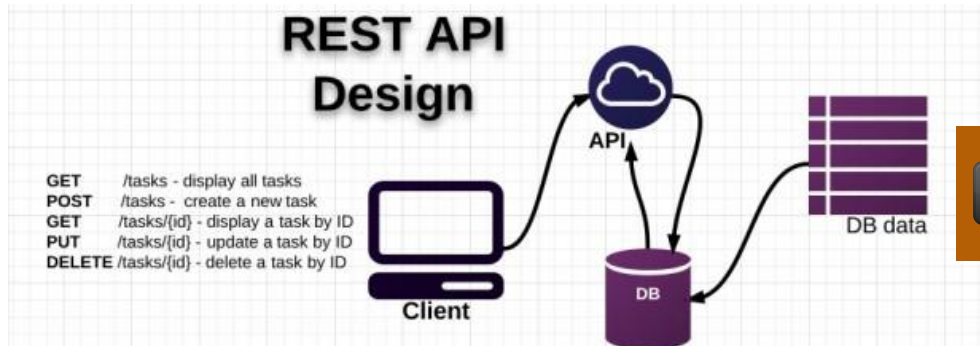
REST API

with PHP



What is REST?

In many ways, the World Wide Web itself, based on HTTP, can be viewed as a **REST-based** architecture.



Watch the Video
<http://youtu.be/llpr5924N7E>



REST as Lightweight Web Services

As a programming approach, REST is a lightweight alternative to Web Services and RPC.

Much like Web Services, a REST service is:

- Platform-independent (you don't care if the server is Unix, the client is a Mac, or anything else),
- Language-independent (C# can talk to Java, etc.),
- Standards-based (runs on top of HTTP), and
- Can easily be used in the presence of firewalls.

How simple is REST?

SOAP request

```
<?xml version="1.0"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2001/12/soap-envelope"
soap:encodingStyle="http://www.w3.org/2001/12/soap-encoding">
  <soap:body pb="http://www.acme.com/phonebook">
    <pb:GetUserDetails>
      <pb:UserID>12345</pb:UserID>
    </pb:GetUserDetails>
  </soap:Body>
</soap:Envelope>
```

REST request

```
http://www.acme.com/phonebook/UserDetails/12345
```

```
http://www.acme.com/phonebook/UserDetails?firstName=John&lastName=Doe
```

Characteristics

- Resource based
- Representations (usually JSON, XML)
- Uniform Interface (HTTP verbs)
- Stateless (state kept at the client)
- Client-Server
- Cacheable (server responses)
- Layered

Rest server with Codeigniter

index.php / **example_api** / **user** / **id** / 1 / **format** / json

Controller Resource Parameter Format

Responses:

- xml - almost any programming language can read XML
- json - useful for JavaScript and increasingly PHP apps.
- csv - open with spreadsheet programs
- html - a simple HTML table
- php - Representation of PHP code that can be evaluated
- serialize - Serialized data that can be unserialized in PHP

Rest server with Codeigniter

```
<?php
require(APPPATH'.libraries/REST_Controller.php');
class Example_api extends REST_Controller {
    function user_get()
    {
        $data = array('returned: '. $this->get('id'));
        $this->response($data);
    }

    function user_post()
    {
        $data = array('returned: '. $this->post('id'));
        $this->response($data);
    }

    function user_put()
    {
        $data = array('returned: '. $this->put('id'));
        $this->response($data);
    }

    function user_delete()
    {
        $data = array('returned: '. $this->delete('id'));
        $this->response($data);
    }
}
```



CONFIG

Files

application/config/rest.php
application/libraries/REST_Controller.php



Code

<https://github.com/chriskacerguis/codeigniter-restserver>



ΜΟΝΑΔΑ ΑΡΙΣΤΕΙΑΣ
ΑΝΟΙΧΤΟΥ ΛΟΓΙΣΜΙΚΟΥ

ΧΑΡΟΚΟΠΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ

Links

- <http://rest.elkstein.org/>
- <http://www.restapitutorial.com/>
- <http://code.tutsplus.com/tutorials/a-beginners-guide-to-http-and-rest-net-16340>
- REST API concepts and examples <https://www.youtube.com/watch?v=7YcW25PHnAA>
-