

## UT 10. NETWORK TOOLS

Computer Systems  
CFGS DAW

### Activities

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## Nomenclature

Throughout this unit different symbols will be used to distinguish important elements within the content. These symbols are:

 Important

 Attention

 Interesting

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## ACTIVITIES

You will need CURL, WGET and DIG installed in your machine in order to carry out these exercises. If you don't want those tools installed in your computer, remember that you can use a virtual machine and installed them there (which I suggest it to you).

### 1. CURL

#### 1 Part 1

Specify the CURL command to retrieve the post with the id 5 from jsonplaceholder<sup>1</sup> remembering that the URL for it is <https://jsonplaceholder.typicode.com/posts>

#### 2 Part 2

Specify the CURL commands to create a post in jsonplaceholder and, after it, retrieve it. This is the documentation for it:

<https://jsonplaceholder.typicode.com/guide/>

After it, the answer will specify the id of the newly created post. To retrieve it, you can use the command of Part 1 changing the id to the one answered by the server.

#### 3 Part 3

Delete the post that you previously created in the part 2. Specify the CURL command to do it.

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<sup>1</sup> <https://jsonplaceholder.typicode.com/guide/>

## 2. WGET I

### Part 1

Try to download the posts from jsonplaceholder using wget. Specify which command would you need to do it.

### Part 2

Try to download the post with id 5 from jsonplaceholder using wget. Specify which command would you need to do it.

### Part 3

1. How can you create a post using wget?
2. Which are the differences between wget and curl?

### 3. WGET II

Try to download the whole old spacejam website using WGET. You will try to look at the arguments you can specify to achieve it. The URL of the old website is the next one:

<https://www.spacejam.com/1996/>

## 4. DIG

### Part 1

Specify the command to get ONLY the IP that resolves of the domain name "portal.edu.gva.es" and "aules.edu.gva.es".

Do they have the same or different IPs? What does that mean?

They are not the same, because they are being hosted in different servers.

### Part 2

Specify the command to get the path that the DNS query takes from the local machine to the authoritative DNS server for the domains "portal.edu.gva.es" and "aules.edu.gva.es"

Are they the same? What does that mean?

### Part 3

1. Edit the file at /etc/resolv.conf and set the first nameserver to the address 8.8.8.8
2. Repeat the dig trace
3. Is it different from before? Do you know what's happening?

### Part 4

1. Modify your hosts file so the domain aules.edu.gva.es is mapped to the address 127.0.0.1.
2. Try the dig again to checkout if it works.
3. Try to access aules. What's happening?

## 5. RSYNC

### Part 1

Specify the command to synchronize in your local folder `/home/youruser/backupsamba` a samba that it's mounted in the path `/mnt/remotesamba/`

### Part 2

Specify the command to synchronize in your local folder `"/home/youruser/remotjohn"` a remote folder accessible through ssh in the path `"/home/john/files"` if the IP of the computer is `172.21.17.45`.