

## Understanding Network configuration

Use your personal laptop or the DBW course server

- To connect to course server use `ssh mmb.pcb.ub.es -l dbwXX` (your id)
  - Useful commands:
    - `Ifconfig`: network configuration
    - `Netstat -an`: open ports and established connections
    - `Host`: DNS information
    - `Telnet host NN`: terminal access to “host” at port “NN”
1. Find the following network information
    - a. Physical and IP address of the operational interfaces
    - b. Are they public or local addresses
    - c. Is that address automatic (DHCP) or fixed
    - d. Is there an associated host name?
  2. Find IP address of [www.upf.edu](http://www.upf.edu)
  3. Check the following open ports in [www.upf.edu](http://www.upf.edu), `mmb.pcb.ub.es` (SMTP:25, FTP:21, SSH:22, TELNET:23, POP: 110, HTTP:80, HTTPS:443, MySQL: 3306)
  4. Check the open/listening ports, and identify them (`/etc/services`)
  5. Try to connect to other students laptop using `http` (telnet, or web) or `ssh`

## Basic HTTP (Use either localhost or any of the above servers)

Use `telnet host 80`, to access HTTP port in ‘host’

1. Obtain main web Page using GET. Compare the following options
  - a. `GET /`
  - b. `GET / HTTP/1.0`
  - c. `GET / HTTP/1.1`
2. Why option c gives an error? How could be solved?
3. Is HTTP/1.1 connection persistent? How long is the timeout, approx.?
4. Using the URL `http://mmb.pcb.ub.es/formacio/~dbw00/testHTTP.php` try and compare server’s answers
  - a. `GET /~dbw00/testHTTP.php HTTP/1.1`  
Host: `mmb.pcb.ub.es`
  - b. `POST /~dbw00/testHTTP.php HTTP/1.1`  
Host: `mmb.pcb.ub.es`
  - c. `POST /~dbw00/testHTTP.php HTTP/1.1`  
Host: `mmb.pcb.ub.es`  
Content-length: 100  
*Add random text here to fill 100 bytes*