



# T5 - Systems and Networks Seminar

T-NSA-500

## Day 04

Infrastructure





**Slug of the day:** nsapool04



This is the continuation of yesterday's day, so you must use the virtual machine server from the previous day.



Download the autograder on the `vm-server` and use it from there.

## TASK 01 - BACKEND (4PT)

The provided backend must be located in `/var/www/backend` and must be available, through apache2, on the port 8080.

You must install the required php modules in order for it to run.

Api must be available at `http://localhost:8080/`



virtualhost, symfony deployment

## TASK 02 - ADMIN SECURITY (2PT)

In the application admin provided , you have an administrator section.

This `scriptadmin.php` must be available on `http://localhost:8080/admin`

This section is not secured and it is accessible by everyone.

You must secure it with apache features.

It is forbidden to modify the application code.



basic auth

## TASK 03 - SECURITY (3PT)

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Configure the firewall iptables with the following characteristics:

- Rules have to be written in the `/etc/iptables/rulesv4.3`
- Allow service ssh (input and output)
- Allow HTTP protocol (output)
- Other authorizations necessary to run frontend and backend
- The other ports must be blocked and iptables configurations must not be wiped at reboot

You must be able to update package (apt) after application of these rules.

## TASK 04 - LOCAL BACKUP (3PT)

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Your mission is to create a database backup script.

It must backup database and compress it in the `/backup` directory

Your script must be located `/backup/backup.sh`



## **TASK 05 - RECURRING SCRATCHES (3PT)**

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The previous script must be automatically executed every hour with root user

## **TASK 06 - HTTPS ADMIN (3PT)**

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Enable HTTPS protocol for admin panel. (see Task2)



self-signed certificate

## **TASK 07 - END**

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Finally, if everything works, you should see a success message on the front JS application deployed yesterday