Preliminaries

If cheating is suspected, the evaluation stops here. Use the "Cheat" flag to report it. Take this decision calmly, wisely, and please, use this button with caution.

Preliminary tests

- Defense can only happen if the evaluated student or group is present.
This way everybody learns by sharing knowledge with each other.
- If no work has been submitted (or wrong files, wrong directory, or wrong filenames), the grade is 0, and the evaluation process ends.
- For this project, you have to clone their Git repository on their station.

Yes | No

General instructions

General instructions

- During the defense, as soon as you need help to verify a point, the student evaluated must help you.
- Ensure that the "signature.txt" file is present at the root of the cloned repository.
- Check that the signature contained in "signature.txt" is identical to that of the ".vdi" file of the virtual machine to be evaluated. A simple "diff" should allow you to compare the two signatures. If necessary, ask the student being evaluated where their ".vdi" file is located.
- As a precaution, you can duplicate the initial virtual machine in order to keep a copy.
- Start the virtual machine to be evaluated.
- If something doesn't work as expected or the two signatures differ, the evaluation stops here.

Yes | No

Mandatory part

The project consists of creating and configuring a virtual machine following strict rules. The student evaluated will have to help you during the defense. Make sure that all of the following points are observed.

Project overview

- The student evaluated should simply explain to you:
- The basic functioning of its virtual machine.
- His choice of operating system.
- The basic differences between Centos and Debian.
- The interest of virtual machines.
- If the evaluated student chose CentOS, he should explain to you
what SELinux and DNF are.
- If the evaluated student has chosen Debian he will need to
explain the difference between aptitude and apt and what APPArmor is.
During the defense, a script must display information all
every 5 minutes. Its operation will be checked in detail later.
If the explanations are not clear, the evaluation stops here.

Yes | No

Simple setup

Remember: Whenever you need help checking something, the student being evaluated
should be able to help you.
- Ensure that the machine does not have a graphical environment at launch.
A password will be requested before attempting to connect to this machine.
Finally, connect with a user with the help of the student evaluated.
This user must not be root.
Pay attention to the password chosen, it must follow the rules imposed in the subject.
- Check that the UFW service is started with the help of the evaluator.
- Check that the SSH service is started with the help of the evaluator.
- Check that the chosen operating system is Debian or Centos with the help of the reviewer.
If something does not work as expected or is not clearly explained,
the evaluation stops here.

Yes | No

User

Remember: Whenever you need help checking something, the student being evaluated should be able to help you.

The subject requests that a user with the login of the evaluated student is present on the virtual machine. Check that it has been added and that it belongs to the "sudo" and "user42" groups.

Make sure the rules imposed in the subject concerning the password policy have been put in place by following the following steps.

First, create a new user. Assign it a password of your choice, respecting the subject rules. The evaluated student must now explain to you how he was able to set up the rules requested in the subject on their virtual machine.
Normally there should be one or two modified files. If there is any problem, the evaluation stops here.

- Now that you have a new user, ask the student being evaluated to create a group named "evaluating" in front of you and assign it to this user. Finally, check that this user belongs to the "evaluating" group.

- Finally, ask the student evaluated to explain the advantages of this password policy, as well as the advantages and disadvantages of its implementation. Of course, answering that it is because the subject asks for it does not count.

If something does not work as expected or is not clearly explained, the evaluation stops here.

Yes | No

Hostname and partitions

Remember: Whenever you need help checking something, the student being evaluated should be able to help you.

- Check that the hostname of the machine is correctly formatted as follows:
login42 (login of the student evaluated).
- Modify this hostname by replacing the login with yours, then restart the machine.
If on restart, the hostname has not been updated, the evaluation stops here.
- You can now restore the machine to the original hostname.
- Ask the student evaluated how to view the partitions for this virtual machine.
- Compare the output with the example given in the subject. Please note: if the student evaluated makes the bonuses, it will be necessary to refer to the bonus example.

This part is an opportunity to discuss the scores! The student being evaluated should give you a brief explanation of how LVM works and what it is all about.
If something does not work as expected or is not clearly explained, the evaluation stops here.

Yes | No

SUDO

Remember: Whenever you need help checking something, the student being evaluated should be able to help you.

- Check that the "sudo" program is properly installed on the virtual machine.
- The evaluated student should now show assigning your new user to the "sudo" group.
- The subject imposes strict rules for sudo. The evaluated student must first explain the value and operation of sudo using examples of their choice.
In a second step, it must show you the implementation of the rules imposed by the subject.
- Verify that the "/var/log/sudo/" folder exists and has at least one file. Check the contents of the files in this folder, You should see a history of the commands used with sudo.
Finally, try to run a command via sudo. See if the file (s) in the "/var/log/sudo/" folder have been updated.
If something does not work as expected or is not clearly explained, the evaluation stops here.

Yes | No

UFW

Remember: Whenever you need help checking something, the student being evaluated should be able to help you.

- Check that the "UFW" program is properly installed on the virtual machine.
- Check that it is working properly.
- The evaluated student being evaluated should explain to you basically what UFW is and the value of using it.
- List the active rules in UFW. A rule must exist for port 4242.
- Add a new rule to open port 8080. Check that this one has been added by listing the active rules.
- Finally, delete this new rule with the help of the student evaluated.
If something does not work as expected or is not clearly explained, the evaluation stops here.

Yes | No

SSH

Remember: Whenever you need help checking something, the student being evaluated should be able to help you.

- Check that the SSH service is properly installed on the virtual machine.
- Check that it is working properly.
- The evaluated student must be able to explain to you basically what SSH is and the value of using it.
- Verify that the SSH service only uses port 4242.
- The student evaluated should help you use SSH in order to log in with the newly created user.
To do this, you can use a key or a simple password. It will depend on the student being evaluated.
Of course, you have to make sure that you cannot use SSH with the "root" user as stated in the subject.
If something does not work as expected or is not clearly explained, the evaluation stops here.

Yes | No

Script monitoring

Remember: Whenever you need help checking something, the student being evaluated should be able to help you.

The student evaluated should explain to you simply :
- The operation of its script by displaying its code.
- What is "cron".
- How the evaluated student set up her script so that it runs every 10 minutes when the server starts up.

Once the correct functioning of the script has been verified, the student evaluated should ensure that this script runs every 30s. You can run whatever you want to make sure the script runs with dynamic values correctly, and the student evaluated should make the script stop running when the server starts up, but without modifying the script. in himself. To check this point, you will have to restart the server one last time. At startup, it will be necessary to check that the script still exists in the same place, that its rights have remained unchanged, and that it has not been modified.
If something does not work as expected or is not clearly explained, the evaluation stops here.

Yes | No

Bonus

Evaluate the bonus part if, and only if, the mandatory part has been entirely and perfectly done, and the error management handles unexpected or bad usage. In case all the mandatory points were not passed during the defense, bonus points must be totally ignored.

Bonus

Check, with the help of the subject and the evaluated student, the bonus points authorized for this project:
- Setting up partitions is worth 2 points.
- Setting up WordPress, only with the services required by the subject, is worth 2 points.
- The free choice service is worth 1 point.

Verify and test the proper functioning and implementation of each extra service.
For the free choice service, the evaluated student has to give you a simple explanation about how it works and why they think it is useful.
Please note that NGINX and Apache2 are prohibited.

Rate it from 0 (failed) through 5 (excellent)