

# SCALE FOR PROJECT BORN2BEROOT

You should evaluate 1 student in this team

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## Introduction

Please comply with the following rules:

- Remain polite, courteous, respectful and constructive throughout the evaluation process. The well-being of the community depends on it.
- Identify with the student or group whose work is evaluated the possible dysfunctions in their project. Take the time to discuss and debate the problems that may have been identified.
- You must consider that there might be some differences in how your peers might have understood the project's instructions and the scope of its functionalities. Always keep an open mind and grade them as honestly as possible. Pedagogy is effective only if peer evaluation is conducted seriously.

## Guidelines

- Only grade the work that was turned in the Git repository of the evaluated student or group.
- Double-check that the Git repository belongs to the student(s). Ensure that the project is the one expected. Also, check that "git clone" is used in an empty folder.
- Check carefully that no malicious aliases were used to fool you and make you evaluate something that is not the content of the official repository.
- To avoid any surprises and if applicable, review together any scripts used to facilitate the grading (scripts for testing or automation).
- If you have not completed the assignment you are going to evaluate, you have to read the entire subject prior to starting the evaluation process.
- Use the available flags to report an empty repository, a non-functioning program, a Norm error, cheating, and so forth.  
In these cases, the evaluation process ends and the final grade is 0, or -42 in case of cheating. However, except for cheating, students are strongly encouraged to review together the work that was turned in, in order to identify any mistakes that shouldn't be repeated in the future.

## Attachments

subject.pdf

## Preliminaries

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

### Preliminary tests

- The defense can only occur if the student or group being evaluated 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, if you need assistance verifying a point, the student being evaluated must assist 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 must duplicate the submitted virtual machine image in a different directory, then boot on that copy.
- Verify that no snapshots are being used.
- Do not accept a virtual machine that is already running before the defense.
- 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

### README.md check

- Ensure that a README.md file is present at the root of the repository.
  - The very first line must follow the required format: "This project has been created as part of the 42 curriculum by <login>->" (*italicized*).
  - Check that the README contains at least the required sections: Project description, OS choice (Debian or Rocky with pros/cons), main design choices (partitioning, security policies, user management, services).
  - Check that the README also includes the additional required comparisons:
    - Debian vs Rocky Linux
    - AppArmor vs SELinux
    - UFW vs FirewallD
    - VirtualBox vs UTM
  - If any of these elements are missing, the evaluation ends now.

✔ Yes

✗ No

### Project overview

- The student being evaluated should explain to you simply:
  - How a virtual machine works.
  - Their choice of operating system.
  - The basic differences between Rocky and Debian.
  - The purpose of virtual machines.
  - If the evaluated student chose Rocky: what SELinux and DNF are.
  - If the evaluated student chose Debian: the difference between aptitude and apt, and what AppArmor is.
- During the defense, a script must display information every 10 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 required before attempting to connect to this machine. Finally, connect with a user with the help of the student being 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 student being evaluated.
- Check that the SSH service is started with the help of the student being evaluated.
- Check that the chosen operating system is Debian or Rocky with the help of the student being evaluated. If something does not work as expected or is not clearly explained, the evaluation stops here.

✔ Yes

✗ No

### User step 1

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

The subject requests that a user with the login of the learner being evaluated is present on the virtual machine.

- Check that it has been added and that it belongs to the "sudo" and "user42" groups.

First, create a new user.

- Assign it a password of your choice, respecting the subject rules. The learner being evaluated must now explain to you how they were 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.

✔ Yes

✗ No

### User step 2

Now that you have a new user, ask the learner 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 learner being 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 learner being evaluated should be able to help you.

- Check that the hostname of the machine is correctly formatted as follows: login42 (login of the learner being 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 steps here.
- You can now restore the machine to the original hostname.
- Ask the learner being evaluated how to view the partitions for this virtual machine.
- Compare the output with the example given in the subject. Please note: if the learner evaluated makes the bonuses, it will be necessary to refer to the bonus example.

This part is an opportunity to discuss the scores!

The learner 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 learner being evaluated should be able to help you.

- Check that the "sudo" program is properly installed on the virtual machine.
- The learner being evaluated should show assigning your new user to the "sudo" group.
- The subject imposes strict rules for sudo. You should see a history of the commands used with sudo.
- sudo uses 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 / Firewalld

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

- Check that the "UFW" [or "Firewalld" for rocky] program is properly installed on the virtual machine.
- Check that it is working properly.
- The student being evaluated should provide a basic explanation of what UFW (or Firewalld) is and its value.
- List the active rules in UFW (or Firewalld). 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 being 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 student being evaluated 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 in the virtual machine.
- The student being 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 learner being evaluated should be able to help you.

The learner being evaluated should explain to you simply:

- How their script works by showing you the code.
- What "cron" is.
- How the learner being evaluated set up their script so that it runs every 10 minutes from when the server starts.

Once the correct functioning of the script has been verified, the learner being evaluated should ensure that this script runs every minute.

- You can run whatever you want to make sure the script runs with dynamic values correctly.

Finally, the learner being evaluated should make the script stop running when the server has started up, but without modifying the script itself.

- 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 only* if the mandatory part has been entirely and perfectly completed, and error management handles unexpected or improper 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 student being evaluated, 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 student being evaluated must provide a simple explanation of 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)

## Ratings

Don't forget to check the flag corresponding to the defense

✔ Ok

★ Outstanding project

Empty work

Incomplete work

Cheat

Crash

Concerning situation

Can't support / explain code

## Conclusion

Leave a comment on this evaluation ( 2048 chars max )