

(https://profile.intra.42.fr)

Remember that the quality of the defenses, hence the quality of the of the school on the labor market depends on you. The remote defences during the Covid crisis allows more flexibility so you can progress into your curriculum, but also brings more risks of cheat, injustice, laziness, that will harm everyone's skills development. We do count on your maturity and wisdom during these remote defenses for the benefits of the entire community.

## SCALE FOR PROJECT CPP MODULE 03 (/PROJECTS/CPP-MODULE-03)

You should evaluate 1 student in this team



Git repository

`git@vogosphere.kzn.21-school.ru:vogosphere/intra-uuid-db57579`



### Introduction

- Only grade the work that is in the student or group's GiT repository.
- Double-check that the GiT repository belongs to the student or the group. Ensure that the work is for the relevant project and 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 other than the content of the official repository.
- To avoid any surprises, carefully check that both the evaluating and the evaluated students have reviewed the possible scripts used to facilitate the grading.
- If the evaluating student has not completed that particular project yet, it is mandatory for this student to read the entire subject before starting the defence.
- Use the flags available on this scale to signal an empty repository, non-functioning program, a norm error, cheating etc. In these cases, the grading is over and the final grade is 0 (or -42 in case of cheating). However, except for cheating, you are

encouraged to continue to discuss your work (even if you have not finished it) to identify any issues that may have caused this failure and avoid repeating the same mistake in the future.

- Remember that for the duration of the defense, no segfault, no other unexpected, premature, uncontrolled or unexpected termination of the program, else the final grade is 0. Use the appropriate flag.

You should never have to edit any file except the configuration file if it exists.

If you want to edit a file, take the time to explicit the reasons with the evaluated student and make sure both of you are okay with this.

- You must also verify the absence of memory leaks. Any memory allocated on the heap must be properly freed before the end of execution.

You are allowed to use any of the different tools available on the computer, such as leaks, valgrind, or e\_fence. In case of memory leaks, tick the appropriate flag.

## Disclaimer

Please respect 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 person (or the group) evaluated the eventual dysfunctions of the work. Take the time to discuss and debate the problems you have identified.

- You must consider that there might be some difference in how your peers might have understood the project's instructions and the scope of its functionalities. Always keep an open mind and grade him/her as honestly as possible. The pedagogy is valid only and only if peer-evaluation is conducted seriously.

## Guidelines

You must compile with clang++, with -Wall -Wextra -Werror

As a reminder, this project is in C++98

C++11 and later members functions or containers are NOT expected.

Any of these means you must not grade the exercise in question:


- A function is implemented in a header (except in a template)
- A Makefile compiles without flags and/or with something other than clang++

Any of these means that you must flag the project as Forbidden Function:

- Use of a "C" function (\*alloc, \*printf, free)
- Use of a function not allowed in the subject

- Use of "using namespace" or "friend"
- Use of an external library, or C++20 features
- Use of an already existing container, or any existing function, to implement another container

## Attachments

 subject.pdf (<https://cdn.intra.42.fr/pdf/pdf/26201/en.subject.pdf>)

## ex00

*As usual, there has to be a main function that contains enough tests to prove the program works as required. If there isn't, do not grade this exercise.*

### Class and attributes

There is a ClapTrap class present.

It has all the following private attributes ():

hitpoints

energy

name

Attack damage

Its attributes are initialized to the required values.

☒ Yes

☐ No

### Member functions

The following member functions are present and work as specified:

- attack

- takeDamage

- beRepaired

☒ Yes

☐ No

## ex01

*As usual, there has to be a main function that contains enough tests to prove the program works as required. If there isn't, do not grade this exercise.*

### Class and attributes

There is a ScavTrap class present.

The ScavTrap inherits publicly from the ClapTrap class.

It does not redeclare attributes.

The ClapTrap attributes are now protected instead of private.  
Its attributes are initialized to the required values.

☒ Yes☐ No

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### Member functions

The following member functions are present and work as specified:

- attack
- takeDamage
- beRepaired

The outputs of the constructor, destructor, and attack must be different from the ones in the ClapTrap.

☒ Yes☐ No

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### Special features

There is a guardGate function that displays a small message on the standard output.

☒ Yes☐ No

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## ex02

*As usual, there has to be a main function that contains enough tests to prove the program works as required. If there isn't, do not grade this exercise.*

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### Parent class

There is a FragTrap class that  
inherit publicly from ClapTrap.  
Attributes must not be redeclared without reasons.

☒ Yes☐ No

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### Construction and destruction

There must be a constructor and a destructor for the FragTrap with its specific messages, and it must be implemented so that it is called in the correct order when used, namely, if you create a FragTrap it must first display the ClapTrap's message then the FragTrap's, and if you delete it, it must display the FragTrap's message first, then the ClapTrap's

☒ Yes☐ No

## ex03

As usual, there has to be a main function that contains enough tests to prove the program works as required. If there isn't, do not grade this exercise.

### Ultimate C++ weird feature

There is a DiamondTrap class present.

It inherits from both the

FragTrap and the ScavTrap.

It sets the attributes to the appropriate values.

It uses virtual inheritance to avoid the pitfalls of diamond inheritance.

☒ Yes

☐ No

### Choose wisely...

The DiamondTrap uses the attack method of the Scavtrap.

It has the special functions of both its parents.

The diamond trap has a private std::string name member.

The function whoAml access to both name and clapTrap::name.

☒ Yes

☐ No

## Ratings

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

☒ Ok

☐ ★ Outstanding project

☐ 📁 Empty work

☐ 💬 No author file

☐ 🐞 Invalid compilation

☐ 📖 Norme

☐ 📄 Cheat

☐ 💥 Crash

☐ 💧 Leaks

☐ 🚫 Forbidden function

## Conclusion

Leave a comment on this evaluation

Finish evaluation

