SCALE FOR PROJECT PISCINE CPP (/PROJECTS/PISCINE-CPP) / DAY 03 (/PROJECTS/42-PISCINE-C-FORMATION-PISCINE-CPP-DAY-03)

Introduction

The subject of this project is rather vague and leaves a lot to the user's choice. This is INTENDED. The questions in this grading scale, however, are very focused and concentrate on what we think is the core of each exercise, what we want you to grasp. So we would like you to do the same : You can and should tolerate moderate deviations in filenames, function names, etc ... as long as the exercise basically works as intended. Of course, in case the student you are grading really strayed too far, you should not grade the exercise in question at all. We leave it to your good judgement to determine what constitutes "straying too far".

The usual obvious rules apply : Only grade what's on the git repository of the student, don't be a dick, and basically be the grader you would like to have grading you.

Do NOT stop grading when an exercise is wrong.

Guidelines

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

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++
- A class is not in Coplien's form

Any of these means that you must flag the project as Cheat:
- Use of a "C" function (*alloc, *printf, free)
- Use of a function not allowed in the subject
- Use of "using namespace" or "friend" (Unless explictly allowed in the subject)
- Use of an external library, or C++11 features (Unless explictly allowed in the subject)

Attachments

Subject (/uploads/document/document/1039/d03.en.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 FragTrap class present.
It has all the required attributes.
Its attributes are initialized to the required values.

☑ Yes ☒ No

Member functions

The following member functions are present and work as specified:
- rangedAttack
- meleeAttack
- takeDamage
- beRepaired

Also, the constraints about the HP limits and the armor reduction must be taken into account.

☑ Yes ☒ No

Special attack

There is a vaulthunter_dot_exe function that works as specified by the subject.

☑ Yes ☒ No

It's called style, look it up.

How elegant do you think the method used to determine the attack in the vaulthunder_dot_exe function is ?

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

I AM FUNNYBOT. AWKWAAAARD ! AWKWAAAAARD !

How funny are the output messages ?

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

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.
It has all the required attributes.
Its attributes are initialized to the required values.

☑ Yes ☒ No

Member functions

The following member functions are present and work as specified:
- rangedAttack
- meleeAttack
- takeDamage
- beRepaired

Also, the constraints about the HP limits and the armor reduction must be taken into account.
The outputs of the constructor, destructor, rangedAttack and meleeAttack must be different from the ones in the previous exercise.

☑ Yes ☒ No

Wow, what a t-t-terrific audience !

How funny are the output messages ?

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

Special features

There is a challengeNewcomer function that works as specified by the subject.

☑ 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.

Parent class

There is a ClapTrap class present, and both ScavTrap and FragTrap inherit publicly from it.
All the functions and attributes that were shared between both ScavTrap and FragTrap are now in ClapTrap, namely:
- Hit points
- Max hit points
- Energy points
- Max energy points
- Level
- Name
- Melee damage
- Ranged damage
- Armor damage reduction
- takeDamage
- beRepaired

rangedAttack and meleeAttack can either be in the ClapTrap class and use an attribute to have a different output depending on the child class, or remain in the child classes. Whatever.
The attributes specific to each class (vaulthunter_dot_exe, challengeNewcomer, and whatever the student created to help with these) must of course remain where they are.

☑ Yes ☒ No

Construction and destruction

There must be a constructor and a destructor for the ClapTrap with
its own specific messages, and it must be so it's 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.\r\nThe tests have to show that."

Yes No

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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.

But once, he break out of his cage, and he "get this" ! Very nice.

The ninjaShoebox function has to do something funny ! Even better
if it's different for each ClapTrap type

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

Special attack

There is a ninjaShoebox function that is present multiple times in
the NinjaTrap, one for each ClapTrap concrete type that can be taken as parameter
(So, ClapTrap, ScavTrap, FragTrap and NinjaTrap).

Yes No

Subclass

There is a NinjaTrap class present.\r\nIt inherits from ClapTrap,
and sets the attributes to their appropriate values.

Yes No

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ex04

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 shoebox

There is a SuperTrap class present.
It inherits from both the FragTrap and the NinjaTrap.
It sets the attributes to the appropriate values.
It uses virtual inheritance to avoid the pitfalls of diamond inheritance.

☑ Yes ☒ No

Choose wisely...

The SuperTrap uses the rangedAttack of the FragTrap and the meleeAttack of the NinjaTrap.
It has the special attacks of both its parents.

☑ Yes ☒ No

Ratings

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

✔ Ok

Empty work | Incomplete work | No author file | Invalid compilation

Norme | Cheat | Crash | Forbidden function

Conclusion

Leave a comment on this evaluation

Preview!!!

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