

COMP2021

Assignment 2

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Q2

Task 2

This code compiles and executes successfully.

Output: Thor is now a level 2 warrior.

Task 3

This code does not compile because class Hero is an abstract class where instances of abstract classes can't be created directly. The code will result in a compilation error.

Task 4

This code compiles and executes successfully.

Output: Thor attacks Althea. Does 5 damage.

Task 5

This code does not compile because variable warrior is declared as type Warrior, so we can't assign Healer to it.

Task 6

This code compiles and executes successfully.

Output:

Thor attacks Thor. Does 5 damage.

Althea heals Althea by 0 points.

Task 7

~~This code compiles and executes successfully.~~ This code compiles but it has a runtime exception. As it creates a new Warrior object

~~Output:~~ but assigns it as type Hero, the hero object is an

~~Thor attacks Thor. Does 5 damage.~~ instance of Warrior so

it can compile. But when doAction(), it uses doAction() method from hero instead of the method in Warrior which leads to null when trying to access properties.