

Strategy HW01: Interfaces

Assignment Goals

This assignment will build off of Strategy HW00 and should be created in the same project or directory as the files from Strategy HW00.

The goal of this assignment is to:

1. Practice creating interfaces
2. practice implementing tagging interfaces
3. practice working with multiple java files

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Deliverables

We will create two interfaces and two classes:

1. Ability.java
 - a. This is a tagging interface
2. Attack.java interface
 - a. This is an interface that is organized under the Ability interface
3. MeleeAttack.java
 - a. This is an implementation of Attack.java
4. RangedAttack.java
 - a. This is an implementation of Attack.java
5. BONUS: Push these files to your github account

Turn in a .zip file with all four classes.

Overall Diagram

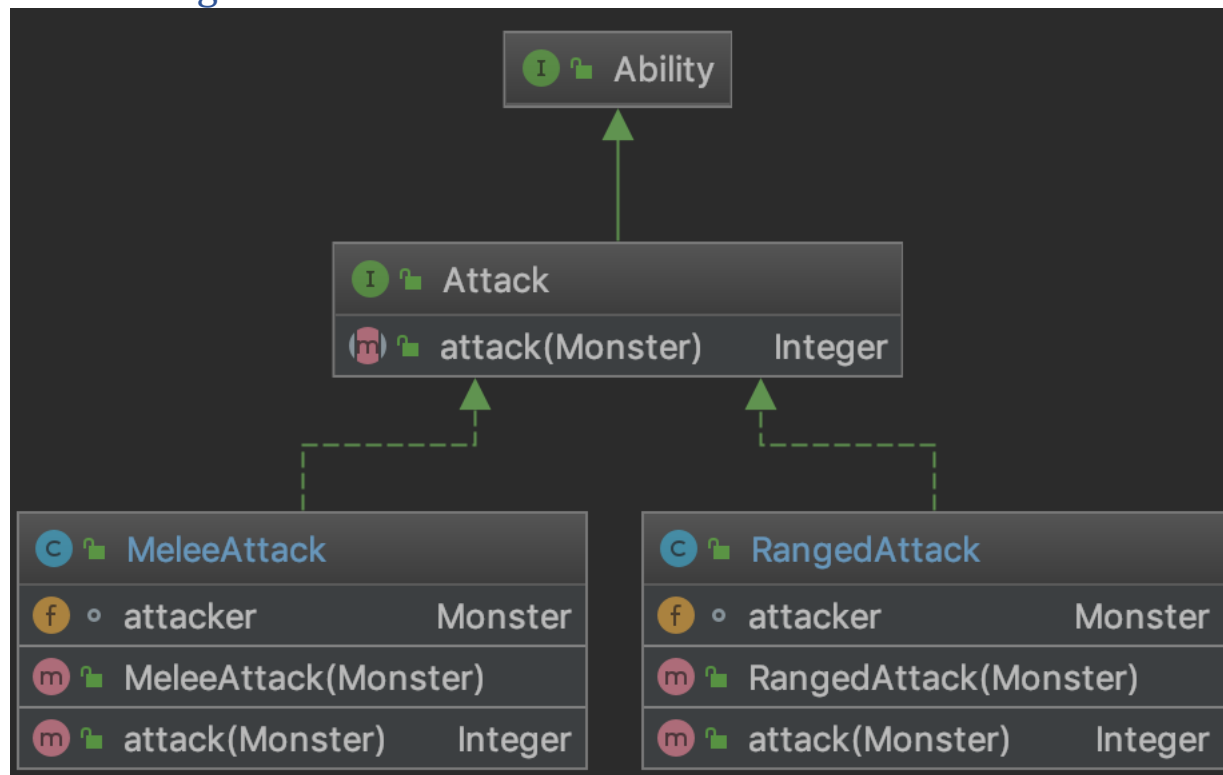


Figure 1: Overall diagram for HW01

The details of the overall assignment are detailed in Figure 1 above. Note that the `Attack.java` interface has one method, `attack`, that takes a `Monster`. The `Monster` will be the target of the attack.

Additional implementation details are discussed below.

Details of MeleeAttack.java

```
public class MeleeAttack implements Attack {  
  
    Monster attacker;  
  
    public MeleeAttack(Monster attacker) {  
        this.attacker = attacker;  
    }  
  
    @Override  
    public Integer attack(Monster target) {  
        String message = attacker + " uses a melee attack on " + target;  
        System.out.println(message);  
        return null;  
    }  
}
```

Figure 2: Details of MeleeAttack.java

MeleeAttack.java and RangedAttack.java differ only in the message that is output. There will be more implementation changes in the next HW assignment.

For now, both implementations may return a null.