

Module 1 Week 3 Review In Class Fall Exercise  
HalloweenMonster(s)

1. Create an abstract class called HalloweenMonster (HM)
  - a. An HM will have 6 private member variables
    - i. A human name
    - ii. A monster name
    - iii. An age default value 10
    - iv. A scariness rating from 0 -10 inclusive
    - v. A scary phrase
    - vi. A string describing a trick they perform
  - b. An HM will have a default constructor
    - i. Human name is set to "Some kid"
    - ii. Scariness is set to 0
  - c. An HM will have 1 abstract method
    - i. The method will be called "performHalloweenAct"
      1. No parameters
      2. Returns String
2. Create two interfaces
  - a. Scary
    - i. One method named "scare" that returns a string
  - b. Tricky
    - i. One method named "trick" that returns a string
3. Have Halloween Monster Implement the interfaces
4. Modify HalloweenMonster so that the private member variables are protected
5. Create 3 unique concrete subclasses of specific types of HalloweenMonsters
  - a. Each subclass will be named with their proper monster name
    - i. I.e. Mummy, ghost, ghoul, zombie, etc.
  - b. Monsters will be of your choosing
  - c. Create a default constructor
  - d. Create an overload constructor that accepts parameters to set their private members
  - e. Ensure that they properly extend the HM superclass
  - f. Define implementations of each interface as follows
    - i. Scare
      1. Prints their scary phrase
      2. Returns their phrase
    - ii. Trick
      1. Prints their trick
      2. Returns their trick
  - g. performHalloweenAct will ...
    - i. Return "Meh" if scariness is 0

- ii. Return their trick description if scariness is 1-5
    - 1. DRY is there a method to do this already?
  - iii. Return their scary phrase if scariness is 6-10
    - 1. DRY is there a method to do this already?
- 6. Create an application class named Halloween
  - a. In public static void main...
    - i. Declare and initialize 5 Monsters using a mix of the concrete monsters
    - ii. Create a collection containing each of the 5 monsters
    - iii. Iterate through the monsters using a loop to print out "knock, knock" followed by each monster's scary phrase
    - iv. Iterate through the monsters against using a different type of loop
      - 1. Have the monster knock on your door (System out println)
      - 2. Have the monster say Boo! And perform their halloween act