OLQ8

Practice and Review

Part 1

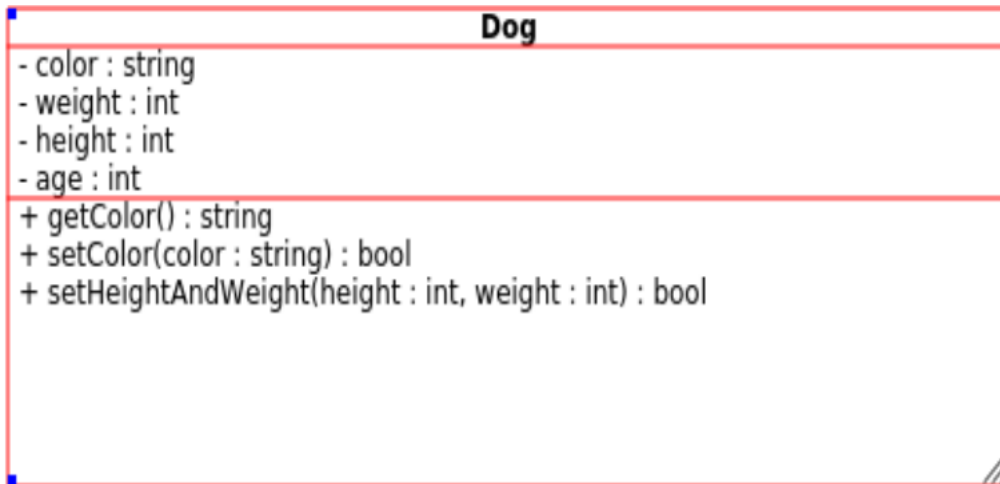| Dog |
|---|
| - color : string
- weight : int
- height : int
- age : int |
| + getColor() : string
+ setColor(color : string) : bool
+ setHeightAndWeight(height : int, weight : int) : bool |

Can you create the class from the class diagram?

Can you write the code for the constructor and the instance methods (if given implementation details) for this class?

Part 2

Can you overload `toString()`?

Do you know how to use `String.format()`?

Do you know how to use a ternary if?

If this class contained a method named `isOld()` that returns true if age > 10 and false if age is not greater than 10, could you write an overload of `toString()` that

1. returns the string "`My dog is x years old which means my dog is yyy`"

    where `x` is filled in by `age` and `yyy` is either "`old`" or "`young`".

2. uses `String.format()`

   The output "`My dog is x years old which means my dog is yyy`" must be formed using `String.format()`

3. only contains 1 line of code

   ```
   return String.format(…………);
   ```

   Only line of code is allowed in the `toString()` overloaded method and that line must return the string formed by `String.format()`.

   In order to get the "`old`" or "`young`", you will need to know how to use a ternary if that uses the return value of `isOld()` to determine whether to print "`old`" or "`young`". This ternary if will be a parameter in `String.format()`.

   ```
   return String.format("My dog is %d … %s", age, ternary if);
   ```

   THIS IS JUST A PARTIAL STATEMENT – YOU NEED TO FIGURE OUT WHAT TO FILL IN FOR THE … AND FOR THE TERNARY IF

Part 3

   As always, make sure you understand mistakes from past OLQs.