Accessor & Mutator Methods

Mr. Poole
Java

Accessor & Mutator Methods

Accessor Method: also called **get methods** or **getters**, allow a way to get the value of each instance variable from outside of the class

Mutator Method: also called **setter methods**, are used to control changes to a variable. They are also widely known as setter methods.

These methods help with **scope**! These methods change how to access your classes and what variables should be accessed/changed.

Accessor Method

```java
public class MrPoole{
    String name;

    public String getName(){
        return name;
    }
}
```

As seen before, this is a Accessor Method.

It accesses a private variable using a method and returns it to the outside class.

Mutator Method

```
public class MrPoole{
    String name;

    public void setName(String a){
        name = a;
    }
}
```

This is a mutator method.

It changes name.
Name can be changed by the outside class.

Both Methods

```java
public class MrPoole{
    String name;

    public void setName(String a){
        name = a;
    }
    public String getName(){
        return name;
    }
}
```

In combination,
we can **set** the and **get** the
name of a private variable in
the MrPoole class.

Lab: Part 1

1. Create the Dwarf class.
   a. Global Variable name and age
   b. This should have an empty constructor
      i. Empty constructor sets name to ""
         and age to 0
   c. Accessor and Mutator methods for both
      name and age should be created.

Lab: Part 2

2. In your main

    a. Create 100 dwarves
    b. Set their names randomly to "Grumpy", "Dopey", "Doc", "Happy", "Bashful", "Sneezy", "Sleepy"
    c. Set their ages between 1 and 100 randomly.
    d. Then in a separate loop, print out all names and ages.

Hint: don't forget to construct your dwarves.