

COP 3330, Spring 2013

Code Examples: Multiple Classes, Constructors,
Access Modifiers, toString Method

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Assignment #2 Overview

- Read the details carefully
- Divided into 2 parts, 2a and 2b.
- Check assignment write-up for details.

Multiple Classes Examples

- We will write programs with multiple classes.

Constructors Examples

- Code Examples

Access Modifiers Examples

- public
- private

Recap – toString Method

- All objects have a `toString` method that returns a `String` representation of the object.

The toString() method

- There is an invisible method called toString inside every object.
- It returns a String representing the object.
- Whenever you try to treat an object as a String, the object calls its `toString()` and the result gets used.
 - This happens if you try to print an object, for instance.

Overriding toString

- The default implementation of `toString()` is pretty useless.
 - Except for Strings, which just return themselves.
- So we *override* the default version by writing our own.

```
public String toString() {  
    ...  
    ...  
}
```

- It must have *exactly* this signature, return type, and access modifier.

What should toString output?

- A String that meaningfully describes the object.
- E.g., suppose we wrote a `myDate` class.
 - It's state will likely contain month, date, year.
 - So maybe return those in String form, like: `"12/12/13"`
 - This is a fairly clear text representation of a `myDate` object.
- The `String.format()` method is useful here.