CMSC 131

Fall 2018

Announcements

- Project #6 has been posted
- Exam #2 in 10 days (Monday 11/19)

Switch Statements

Two ways to do the same thing:

```
if (x == 3) {

    A

} else if (x == 40) {

    B

} else if (x == -5) {

    C

} else {

    D

}
```

```
switch(x) {
case 3:
    A
    break;
case 40:
    B
    break;
case -5:
    C
    break;
default:
    D
}
```

Switch Statements (Details)

- Default is optional

- Variable at the top must be one of these types:

    int, short, byte, char, String

- Cases must be *literals* ONLY (not variables, not more complex expressions)

    Example: SimpleSwitch

- What happens if we take out "default"?

  (This distinguishes switch statements from if else-if else-if chains)

    Examples: BetterSwitch, AgeCalculator

Intro to Inheritance

We need this to fix our broken equals method

Most details will be postponed until CMSC132

What is inheritance?

Let's develop an example:

Clock.java

AlarmClock.java
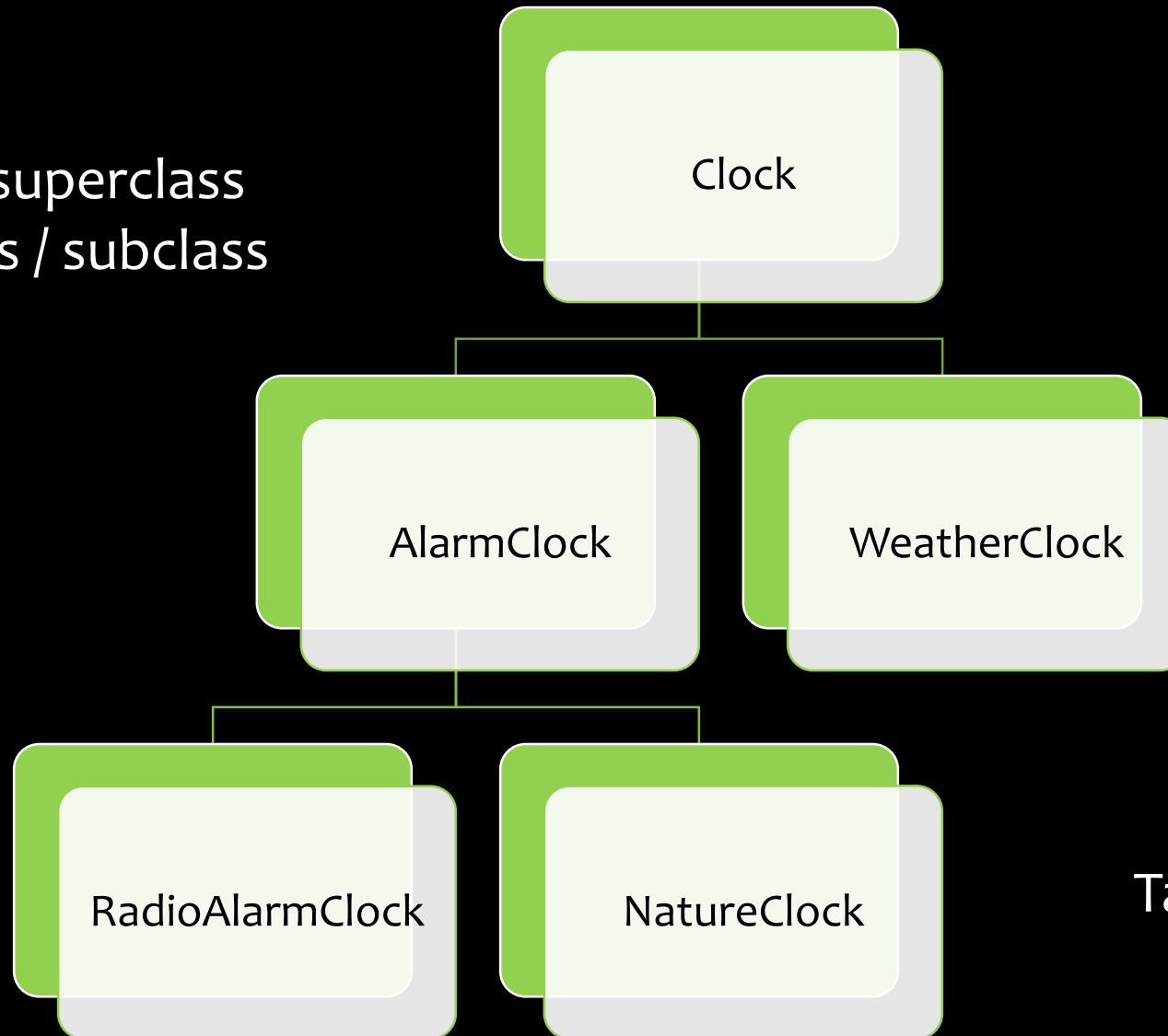
Let's write a driver class to demonstrate inheritance.

Vocabulary:

- extends, extension
- Inherits, inheritance

Inheritance Diagram and "IS-A" relation

Vocabulary:

- Base class / superclass
- Derived class / subclass

Clock

AlarmClock

WeatherClock

RadioAlarmClock

NatureClock

Talk about "Transitivity"