

The background of the slide is a grayscale image of a circuit board. It features a complex network of black lines representing traces and several solid black circles representing vias or components. The circuitry is arranged in a somewhat symmetrical, horizontal pattern. A solid black horizontal band runs across the middle of the image, partially obscuring the circuit board design. Below this band, the text 'CMSC 131' is displayed in a large, white, sans-serif font. Underneath the course number, the text 'Fall 2018' is written in a smaller, green, monospace-style font.

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.

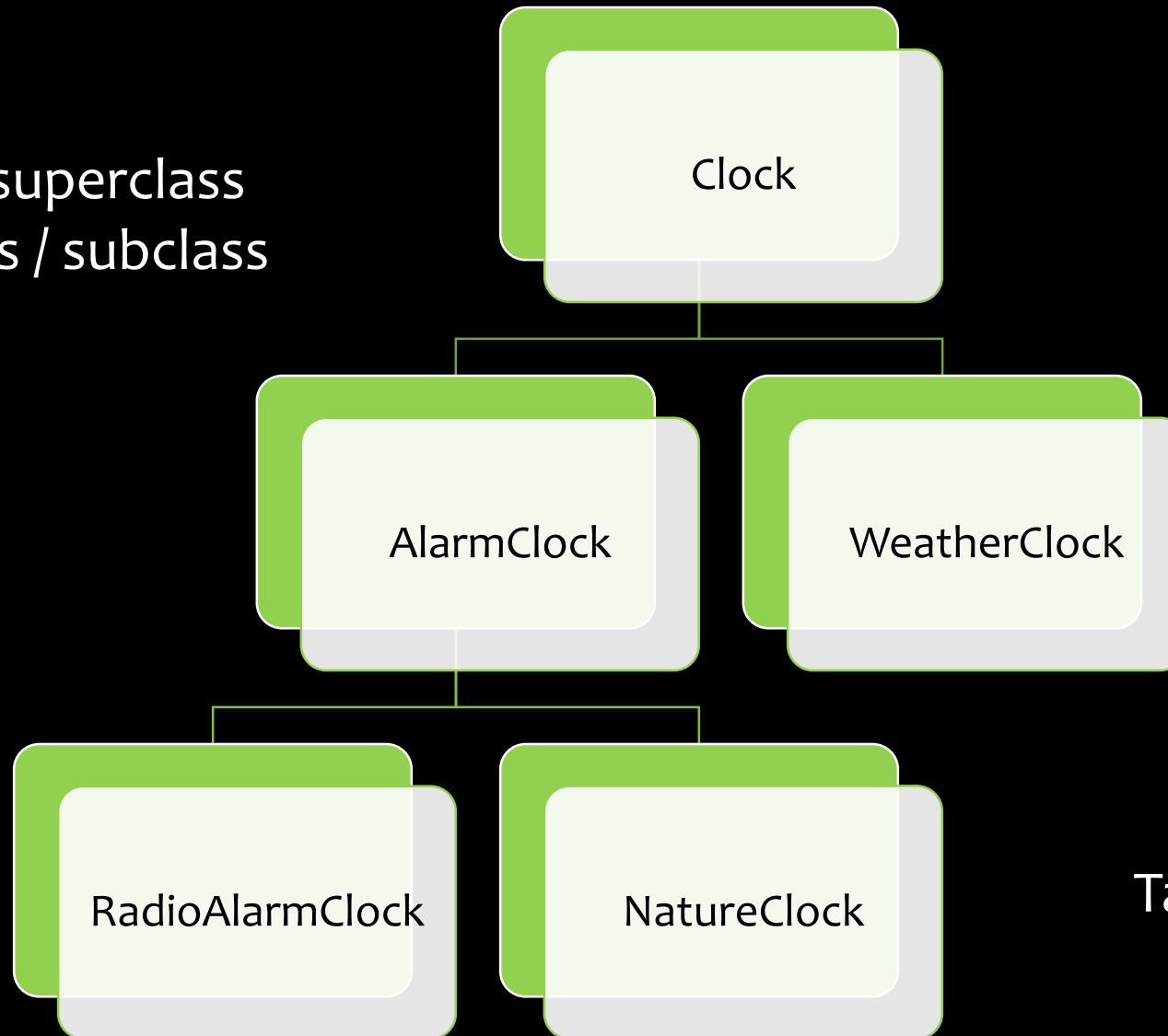
Vocabulary:

- extends, extension
- Inherits, inheritance

Inheritance Diagram and “IS-A” relation

Vocabulary:

- Base class / superclass
- Derived class / subclass



Talk about “Transitivity”