CMSC 131

Fall 2018

Announcements

- Many new students…
  - Class webpage
  - Copy someone’s notes
- First project (Hello World) is now due Wednesday 9/12

Announcements

Maryland Center for Women in Computing (MCWIC) “Welcome to Computing” Event

TONIGHT (9/5) from 6:00-7:30pm, CSIC 3117

All women currently enrolled in CMSC 131 and 132 are invited.

Free Tutoring (from MCWIC)

Open to EVERYONE

- 1 on 1 tutoring by appointment:

http://go.umd.edu/TutorRequest

- Guided Study Sessions (CMSC 131)

  Mondays 2:00 – 3:00

  Tuesdays 1:00 – 2:00

Computer Systems Overview (Software)
(This slide was supposed to be earlier!)

- Applications
- Operating system
  - Process management
  - Memory management
  - Primitive I/O
  - Windowing
  - Network control
  - Security

Example: SimpleProgram.java

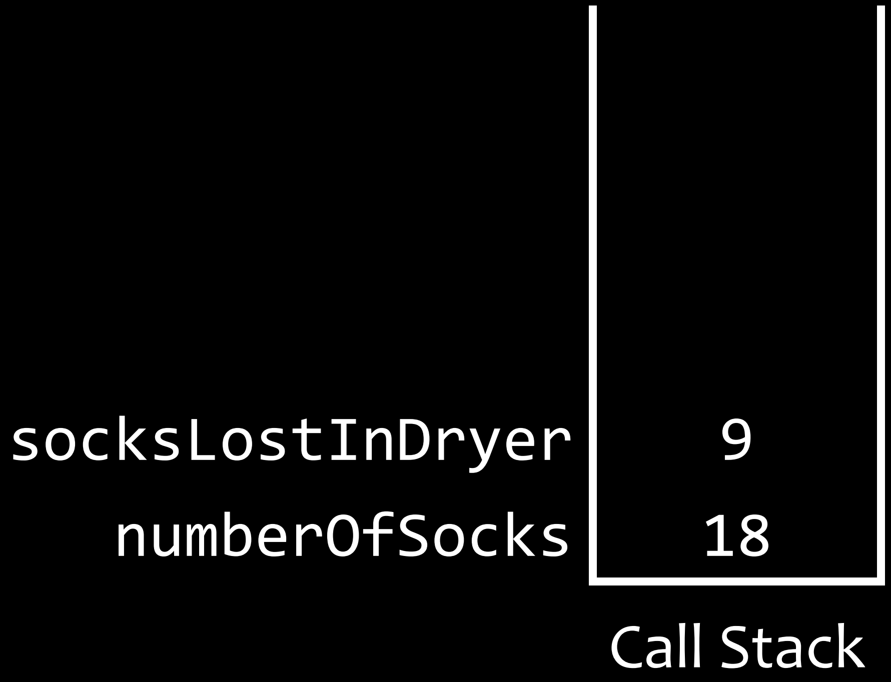
Things to observe:

- We are looking at a class called “SimpleProgram”
- There is just one method, called main
- The main method contains a few statements
- There are two kinds of “comments”
- Most statements end with semi-colons
- System.out.print is a primitive tool for text output
  - Note the difference in print vs. println

Example: VariablesExample.java

Things to observe:

- Two “local” variables are declared (their type is “int”)
- The “assignment operator” stores values inside the variables
- Memory diagram (at the end):



socksLostInDryer 9

numberOfSocks 18

Call Stack

Variable Types

- Primitives (basic “atoms”)
- References to Objects (later)

Primitive Types (Whole Numbers First)

- An `int` variable takes up 4 bytes of memory. What range of values can be stored?

Type	Memory used	Range of values that can be stored
`long`	8 bytes	`-9,223,372,036,854,775,808 to 9,223,372,036,854,775,807`
`int`	4 bytes	`-2,147,483,648 to 2,147,483,647`
`short`	2 bytes	`-32,768 to 32,767`
`byte`	1 byte	`-128 to 127`