CSCI 136: Data Structures and Advanced Programming
Lecture 7
Static, private, Vector
Instructor: Dan Barowy Williams

Topics

• static variables
• accessibility modifiers
• Vector
• more about measuring time

Your to-dos

1. Lab 2, due Tuesday 9/27 by 10pm.
2. Quiz 2, opens today, due Sat by noon.
3. Read before Mon: Bailey, Ch 5.2 to end of Ch 5.

Announcements

• CS Colloquium this Friday, Sept 23 @ 2:35pm in Wege Auditorium (TCL 123)

Michael Greenberg (Stevens Institute of Tech)
Formal Support for the POSIX Shell

The POSIX shell is a widely deployed, powerful tool for managing computer systems. The shell is the expert’s control panel, a necessary tool for configuring, compiling, installing, maintaining, and deploying systems. Even though it is powerful, critical infrastructure, the POSIX shell is maligned and misunderstood. Its power and its subtlety make for a dangerous combination.

How can we support the POSIX shell? I’ll describe two recent lines of work—Smoosh, a formal, mechanized, executable small-step semantics for the POSIX shell—and ffs—a tool for helping users manipulate semi-structured data (like JSON and YAML) in the shell.
Study tip #2

Confusion is **not necessarily a bad thing.**

Good courses are **intentionally designed** to put you in this state.

**Expect** to have this feeling.

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**Sometimes Confusion is a Good Thing**

Tania Lombrozo
NPR, December 14, 2015

“Students who were confused … as reflected in inconsistent responses on subsequent questions … **ultimately did better on a final test assessing whether they learned the key points from the lessons.**”

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**Frustration** = confusion + time pressure

Know that you need **time** to be confused and work through that confusion.

**Learning feels inefficient.**
Study tip #2
Confusion tells you something valuable:

It is a signal that you are not confident in your knowledge.
Use this signal to guide your study (e.g.: glossary).

Accessibility modifiers

An accessibility modifier is a mechanism for controlling access to the internal state or methods of an object or class. There are three accessibility keywords: public, private, and protected.

The public keyword means that a user can access the data or method without restriction.

The private keyword means that a user cannot access that data or method.

We will discuss protected when we talk about inheritance.

An implementation can always access its own fields.
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<td><strong>What is a Vector?</strong></td>
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<td><strong>Recap &amp; Next Class</strong></td>
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