Lecture 3 Outline

(1) Clicker practice

(2) Inheritance, polymorphism, and interfaces [see slides with embedded clicker questions]

(3) 5-minute break

(4) Code demo and questions [see Shape.java, Circle.java, ...]

Clicker practice

Devices: use *Channel 41*
ResponseWare: session ID is *Parker2420*

All answers clicked during today's lecture will receive full credit. Starting Wednesday, some of the clicker questions will be scored based on correctness of the selection — and some questions, such as those for giving feedback and the fun facts, will scored based on participation only.

(1) Have you started Assignment 1?

   CLICK: A. yes,   B. no

(2) Have you finished and submitted Assignment 1?

   CLICK: A. yes,   B. no

Questions about code demo

- CLICKER QUESTION: Why isn't Shape a Java interface?

    A. The keyword "interface" is missing. *preferred answer*

    B. Not all of its methods are abstract. *correct*

    C. It has a constructor. *correct*

    D. It has a variable. *incorrect*

- Why are area() and perimeter() abstract in Shape?

- Why is toString final in Shape?

- Does Circle inherit name from Shape?

- How is super used in Circle's constructor?

- What is wrong with using toString() for a Square? How to fix the problem?

- How do you convince yourself that polymorphism is working for this example?

- Imagine sorting a list of Shapes by area. Is it efficient to recompute the area every time area() is called? How can it be avoided?

- What do we need to be able to sort a list of Shapes by area?

8/31 Announcements

- If you aren't reading the Student Discussion Forum regularly, you are missing good Q&A. You can subscribe to get postings via email.

- Acknowledgement of the Academic Misconduct Policy is due Wednesday.

- A new quiz and programming assignment go out on Wednesday. Use the Looking for a Programming Partner Forum, as needed.

Fun Fact

In what year was the word "computer" first used to describe a mechanical calculating device?

CLICK: A. 1897, B. 1912, C. 1926, D. 1942

More announcements

- Check SoC Undergraduate Alerts (http://www.cs.utah.edu/undergraduate/ug-alerts) for announcements about internships, scholarships, student club meetings, and more.

- The Utah Film Society is sponsoring a free showing of "CODE: Debugging the Gender Gap" on Tuesday at the SLC Downtown Library (http://www.utahfilmcenter.org/event/code-debugging-the-gender-gap). Meet up with SoC faculty who are attending at 6:45p inside the library and just outside the entrance to the coffee shop.

Fun fact answer:

1897

According to the Oxford English Dictionary, the word "computer" was first used to describe a mechanical calculating device in 1897. Although the word existed previously, it had been used to describe "a person who computes or performs calculations."