Welcome to CSE 121!

Use this QR code as one way to ask questions!

sli.do #cse121

TAs: Trey Hannah Mia Vivian Jolie Colton Ziao

Simon Wu
Summer 2024
Reminders for this Week

• July 4th tomorrow
  • No quiz section
  • R0 will be due on Friday @ 11:59 pm instead
• Lecture this Friday will be **recorded**
• Office hours updates
  • IPL will be *closed* on July 4th
  • Simon’s OH will be cancelled this week (email me for apt)
  • Reminder that we have virtual OH’s available!
Course Updates

• We are cutting a Creative Assignment this quarter!
• We will be releasing C1 this Friday
• Course Calendar updated on Website
• Syllabus has changed
  • Final will now be worth 6 ESN grades, but an additional lowest exam grade will be dropped
  • Please see the pinned Ed post for more details
Quiz Reminders

• First quiz will be **next Thursday, 4/11 in section**
  • Email Simon or your TA ASAP if you can’t make it!
  • Must show up *in-person*

• Quiz will be **on paper**, timed for 55 minutes
  • Next Tuesday’s quiz section will be quiz review!
  • Open (unlimited, printed) note

• More info about our quiz on our course website!
Last time: for loops!

For loops are our first *control structure*
A syntactic structure that *controls* the execution of other statements.

```plaintext
for ( initialization ; test ; update ) {
    body (statements to be repeated)
}
```
Fencepost Pattern 1

Some task where one piece is repeated $n$ times, and another piece is repeated $n-1$ times and they alternate

h-u-s-k-i-e-s
Fencepost Pattern 2

Some task where one piece is repeated $n$ times, and another piece is repeated $n-1$ times and they alternate
(PCM) Nested for loops

```java
for (int outerLoop = 1; outerLoop <= 5; outerLoop++) {
    System.out.println("outer loop iteration #" + outerLoop);
    for (int innerLoop = 1; innerLoop <= 3; innerLoop++) {
        System.out.println("inner loop iteration #" + innerLoop);
    }
    System.out.println(outerLoop);
}
```
Poll in with your answer!

What output is produced by the following code?

```java
for (int i = 1; i <= 5; i++) {
    for (int j = 1; j <= i; j++) {
        System.out.print(i);
    }
    System.out.println();
}
```

A. 1 12 123 1234 12345
B. 1 ii iii iiii
C. 1 22 333 4444 55555
Poll in with your answer!

What code produces the following output?

A. ```java
for (int i = 1; i <= 5; i++) {
    for (int j = 1; j <= i; j++) {
        System.out.print(i);
    }
    System.out.println();
}
```

B. ```java
for (int i = 1; i <= 5; i++) {
    for (int j = 1; j <= i; j++) {
        System.out.print(j);
    }
    System.out.println();
}
```

C. ```java
for (int i = 1; i <= 5; i++) {
    for (int j = 1; j <= i; j++) {
        System.out.print(i);
    }
    System.out.println();
}
```

D. ```java
for (int i = 1; i <= 5; i++) {
    for (int j = 1; j <= i; j++) {
        System.out.print(j);
    }
    System.out.println();
}
```
Scope

The part of a program where a variable exists.

- From its declaration to the end of the \{ \} braces
- Ex: a variable declared in a for loop only exists in that loop
- Ex: a variable declared in a method exists only in that method

```java
public static void example() {
    System.out.println("hello");
    int x = 3;
    for (int i = 1; i <= 10; i++) {
        System.out.print(x);
    }
}
```