Dot This

CSE 114 INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING

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Announcements

Topics:
◦ The dot ('.') operator revisited
◦ The 'this' object reference revisited
◦ A step back: Assertions

Reading: follow the lecture notes closely and use textbook as a reference

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Accessing static vs. dynamic (public) fields/methods
◦ See static_dynamic_fields.txt

More on static vs. dynamic
◦ See static_vs_dynamic.txt

The '.' operator revisited
◦ See dot.txt

The 'this' object reference revisited
◦ See this.txt

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Assertions

Understanding code is essential for programming
◦ We can determine what is true and when by studying code and analyzing what changes occur to variables.
◦ Assertions tell us properties of the code at various locations during an execution

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Assertions: Exercise 1

```
public static int example1(Scanner console) {
    int prev = 0;
    int count = 0;
    int next = console.nextInt();
    // Point A
    while (next != 0) {
        // Point B
        if (next == prev) {
            // Point C
            count++;
        }
        prev = next;
        next = console.nextInt();
        // Point D
    }
    // Point E
}
```

What can be said about the following assertions at each point in the code. Indicate if they are ALWAYS true, SOMETIMES true, or NEVER true.

	next == 0	prev == 0	next == prev
Point A			
Point B			
Point C			
Point D			
Point E			

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Assertions: Exercise 2

```
public static int example2(Scanner console, int x) {
    int y = console.nextInt();
    int count = 0;

    // Point A
    while (y < x) {
        // Point B
        if (y == 0) {
            count++;
            // Point C
        }

        y = console.nextInt();
        // Point D
    }

    // Point E
    return count;
}
```

What can be said about the following assertions at each point in the code. Indicate if they are ALWAYS true, SOMETIMES true, or NEVER true.

	y<x	y==0	count>0
Point A			
Point B			
Point C			
Point D			
Point E			

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