Dot This

CSE 114 INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING

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

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

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

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			

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			