CMSC 131
Object-Oriented Programming I
break and continue
Dept of Computer Science
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Slides based on material provided by Ben Bederson, Bonnie Dorr, Fawzi Emad, David Mount, Nelson Padua-Perez, Jan Plane, Pedram Sadeghian, and various TAs over the years
break Statement

• break can be used to exit immediately from the current loop (while, do-while, for loop),

• E.g., “Read numbers from input until negative number encountered”
  • Example: Break.java

  • Loop only terminates when break executed
  • This only happens with a value < 0
  • break always breaks to first enclosing loop

• How about breaking from nested loops?
  • You can have a flag in both loops that control when to stop
Warning about Break

- Undisciplined use of break can make loops impossible to understand
  - Termination of loops without a break can be understood by looking at the expressions associated with the iteration statement
- Rule of thumb: use break only when the loop condition is always true
  - i.e., break is the only way to terminate the loop
- When you use break, make sure it has a good comment explaining what is happening
continue Statement

- **continue** can also be used to affect loops (while, do-while, for loop)

- **In a while and do-while**
  - Control immediately jumps to the boolean expression

- **In a for loop**
  - Causes control to immediately jump to the update statement (the third component of the **for** loop)

- **Example:** ContinueAndDo.java, ContinueAndWhile.java, ContinueAndFor.java

- **continue** should be avoided
  - Confusing
  - Easy equivalents exist
  - Included in Java mainly for historical reasons

- When you use it, make sure it has a good comment explaining what is happening

- When a **for** loop is not the same as the corresponding while loop?