Topics

- Debugging Best Practices

- Hands-On Debugging Exercises

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Debugging: Life after NSLog

- Two ways to debug
  - NSLog
    - NSLog(@” Does this work? %@”, shouldWork);
    - Caveman debugging
  - Debugger
    - Best way to fix bugs
    - Set breakpoints, step through code, inspect variables
    - llvm and lldb or gcc and gdb (Apple has moved to llvm and lldb)
Today’s Debugging Exercises

- Download the debugging examples from the course website:
  - http://research.engineering.wustl.edu/~todd/cse436/debugExamples.zip
- Open the Splitter-working project
- Build-and-Go to make sure it works
• Run Warmup-working to see what it does

• Run Splitter-working to see what it does

• For each of the 5 exercises:
  – 1) In the project, select Run
  – 2) Determine what the error is
  – 3) Locate the problematic line
  – 4) Fix the bug
  – 5) Understand why the fix worked

Debugging Hints

• http://research.engineering.wustl.edu/~todd/cse436/debugExamples.zip
• Warmup-exercise1
  – should be quick and easy
• Warmup-exercise2
  – hint 1: check the debugger window
  – hint 2: look at the last line printed out
• Warmup-exercise3
  – hint 1: check the debugger window
  – hint 2: check the API
• Splitter-exercise1
  – hint: the problem is not with the Objective-C code
• Splitter-exercise2
  – hint: check the debugger window