EECS 211:
Advanced System Software
Lecture 18

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Lecture 18: Overview

- Course Administration
  - Final Course Evaluation
- Assignment 5
  - Exception handling and system calls

- Protection and Security
  - Cryptography

Course Administration

- Final Course Evaluation
  - 8th through 10th week
  - February 22, 2011 – March 13, 2011, 11:45pm
  - Online via EEE Evaluation application

- Feedback from students to instructors
  - Voluntary
  - Completely anonymous!
  - Very valuable!

- Please help to improve this class!

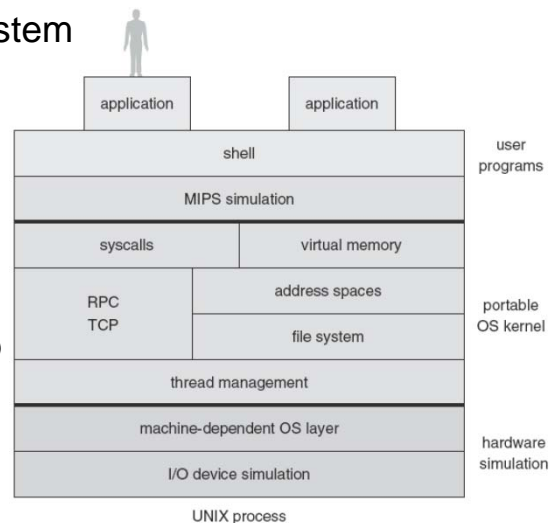EECS211: Advanced System Software, Lecture 18   (c) 2011 R. Doemer   3

Assignments 4 and 5

- The Nachos System
  - User code:
    - Cross-compiled C/C++ code
    - emulated by MIPS simulator
  - Kernel:
    - Compiled C/C++ code
    - normal (debug'able) Unix process
  - I/O System:
    - simulated by Unix process I/O

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Assignment 5

- Exceptions and System Calls in Nachos
  - Implement exception handling and system calls
    - Implement **ExceptionHandler()**; handle 9 exceptions
    - Implement **SystemCall()**; handle 7 (out of 9) system calls
  - Validate kernel using the test programs from Assignment 4
    - "good" programs: **HelloWorld.c**, **Reverse.c**, **ListFile.c**
    - "bad" programs: **MemError.c**, **FileError.c**, **IOError.c**
    - Make your kernel bullet-proof!
- Deliverables
  - brief explanation (in body of email)
  - **exception.cc**
  - Log files of running examples from Assignment 4
  - Email to **doemer@uci.edu**
- Due
  - Wednesday, March 9, 2011, at 2pm (sharp!)

Protection and Security

- Excerpts from chapter 15 of
  "Operating System Concepts", 8th Edition,
  by A. Silberschatz, P. B. Galvin, G. Gagne,
  John Wiley & Sons, 2009.

- Protection and Security
  - Cryptography