

CSF2600505 Sistem Operasi CSGE602055 Operating Systems Minggu 00

Rahmat M. Samik-Ibrahim

Universitas Indonesia

<http://rahmatm.samik-ibrahim.vlsm.org/>

REV28 07-Feb-2017

Agenda

- 1 Start
- 2 Agenda
- 3 Operating Systems
- 4 TOP 10 OS
- 5 Puss In Boot
- 6 Goal
- 7 ETC
- 8 Resources
- 9 Assessment
- 10 Schedule part 1
- 11 Schedule part 2
- 12 General View
- 13 Arithmetic
- 14 The End

- UI: sejak 1984.
- Pengguna GNU/Linux: sejak 1994.
- VauLSMorg (vlsm.org): sejak 1996.
- Blog: rahmatm.samik-ibrahim.vlsm.org/
 - Blog: 2016/08/panggil-saya-rahmat.html
 - Blog: 2013/10/kumpulan-hal.html
 - Blog: 2011/08/ibu-ke-pasar-membeli-ayam.html
- Twitter: @rms46
- Facebook: facebook.com/RMS46F/
- Kontak SCELE - Operating Systems REG/MTX/EXT/INT/
<https://scele.cs.ui.ac.id/course/view.php?id=124>
- GITHUB: <https://github.com/UI-FASILKOM-OS/os171/tree/master/OS171>
- GITHUB: <https://github.com/UI-FASILKOM-OS/demo>

- 1 Nama saya **Rahmat**. Rahmat nama saya. Kalau bukan Rahmat, bukan nama saya!
- 2 Jangan datang lebih lambat dari pada pengajar!
- 3 Jangan berisik/asyik sendiri dalam kelas!
- 4 Siap-siap untuk kuis.
- 5 Jangan menghubungi Pengajar untuk masalah Administratip!
- 6 Jangan menjadi "*Puss in Boot*"!
- 7 Jangan main "games" dan "chat"!
- 8 Jangan meminjam peralatan selama kuis dan ujian!
- 9 Jangan lupa mengerjakan tugas Lab!
- 10 Jangan curang!

Jangan menjadi Puss In Boot

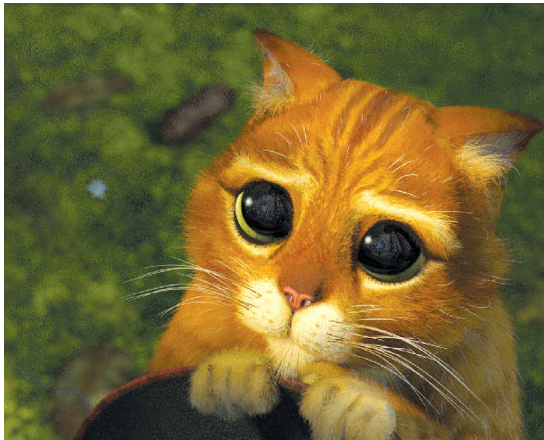


Figure: This is Puss in Boot¹.

¹This is a fair use of a DreamWorks/Paramount Picture character.

Goal

Coverage

This is an introduction to a modern operating systems course. It will cover general overview, computer architecture review, operating system overview, software licenses, GNU/Linux CLI, versioning, scripting, C language overview, protection, security, gnupg, processes and threads, addressing and pointers, memory management, virtual memory, synchronization, mutual exclusion, deadlock, CPU scheduling algorithms, file systems.

Student-Centered

This course is student-centered where responsibility is in the hands of the students. Students are expected to be prepared for the class meeting.

GNU/Linux

Students will have a thorough understanding of how GNU/Linux provides services by using a Command Line Interface.

- SCELE: <https://scele.cs.ui.ac.id/course/view.php?id=124>
 - Enrollment key: "01110001"¹.
 - Pantau "Announcement" secara teratur.
- ARCHIVE:
<https://scele.cs.ui.ac.id/course/view.php?id=126>
 - Enrollment key: "11010001"¹.
 - Arsip bahan pengajaran.
- There will be **No Lab. Assistant**.
- There will be **No Teaching Assistant**.
- There will be **Grader only**.
- Harap menghubungi SEKRE (Gedung B lantai 2) untuk segala masalah administratif, terutama absen, sakit, surat sakit, ujian susulan, dst.
- Harap merampungkan masalah administrasi ujian susulan dalam 6 hari kerja.

¹Sewaktu-waktu akan diganti!

- Segala buku sistem operasi yang terbit dalam 10 tahun terakhir.
- OLD — (ARSIP)(017_BAHAN-AJAR-LAMA) Previous Slides.
- OSC2E — (ARSIP)(050_OSC-Silberschatz) OSC2E
- UCB — (ARSIP)(070_KULIAH-INTERNASIONAL) UC Berkeley
- UDA — (ARSIP)(070_KULIAH-INTERNASIONAL) UDACITY
- ETC — (ARSIP)(075_ETC-Video) ETC
- GITHUB: <https://github.com/UI-FASILKOM-OS/os171/tree/master/OS171>
- GITHUB: <https://github.com/UI-FASILKOM-OS/demo>

| | | | |
|--------------|--------------|--------------|-------------------------------|
| 85 - ... = A | 80 - 85 = A- | 75 - 80 = B+ | 70 - 75 = B |
| 65 - 70 = B- | 60 - 65 = C+ | 55 - 60 = C | 50 - 55 = D or C ¹ |

- UTS: 6 set problem @ 6 point (=36%).
- UAS: 5 set problem @ 6 point (=30%).
- Tugas Lab Pra-UTS: 6 set @ 3 poin (=18%).
- Tugas Lab Pascs-UTS: 5 set @ 3 point (=15%).
- Extra untuk nilai C keatas: 1 poin¹.
- C-2C untuk nilai C-: hingga 5 poin¹.
- KUIS lelang 3 poin substitusi UTS/UAS¹.
- Silakan membawa kertas A4 ke ruang ujian¹.

¹Syarat dan Ketentuan Berlaku

Schedule part 1

- Week00 – Intro (OSCE2e ch1/2)(UCB 01)(UDA P1L1/2) (OLD 00)
- Week01 – IPR & Scripting (ETC 000 001 002)(OLD 02-HKI 02-scripting) (Any Related Tutorial)
- Week02 – Protection & Security (OSCE2e ch13/14) (ETC 050/1 C001-8) (OLD 01) (Any C Language Tutorial)
- Week03 – BIOS, Boot and UpStart (Any Related Tutorial) (ETC 300-323)
- Week04 – Addressing, Pointer & I/O Programing (OLD 08 10)
- Week05 – Memory (OSCE2e ch7/8) (UCB 11 12 13) (UDA P3L2) (OLD 06)
- UTS 00 01 02 03 04 05

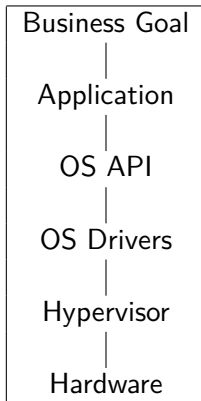
Schedule part 2

- Week06 – Processes & Threads (OSCE2e ch3/4) (UCB 02 03) (UDA P2L1/2/3) (OLD 03)
- Week07 – Synchronization (OSCE2e ch5) (UCB 7/8) (UDA P3L3/4) (OLD 04)
- Week08 – Scheduling & Sockets (OSCE2e ch6) (UCB 9/10) (UDA P3L1) (OLD 05)
- Week09 – File & Storage System (OSCE2e ch9/10/11) (UCB 17A/18/19) (UDA P4L2 P4L2) (OLD 07 08)
- Week10 – Cloud System & Virtualization (UCB 24)
- UAS 06 07 08 09 10

Week 00: Introduction

- Reference: (OSCE2e ch1/2)(UCB 01)(UDA P1L1/2)(OLD 00)
- Operating System
 - Definition
 - Managers
 - Layers
 - Interfaces
- Computer Organization Review
 - Buses, Bridges, Transfer Rate, Clock.
 - Memory: DDR, DDR-2, ...
 - Port & Memory Mapped I/O
 - CPU: privilege and user mode
 - Hardware Limitation
 - Priority: Read vs Write
 - Numbers: base 2, base 8, base 10, base 16.
- Lab
 - Google Account
 - Github Account
 - SSO (LDAP) Account
 - Scele Account

General View



- Account: Google, Github, SSO
- Scele
- Report/Wait
- Home check

- Base 2: 110010101010_2
- Base 8: $01234567_8 = 000\ 001\ 010\ 011\ 100\ 101\ 110\ 111_2$
- Base 10: $012\ 345\ 679$
- Base 16: $9AB\ CDEF_{16} = 1001\ 1010\ 1011\ 1100\ 1101\ 1110\ 1111_2$

The End

- This is the end of the presentation.