CSGE602055 Operating Systems
CSF2600505 Sistem Operasi
Minggu 01: IPR, SED, AWK, REGEX, & Scripting

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`http://rms46.vlsm.org/2/207.html`

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Jadwal OS172

Minggu 00	29 Aug - 05 Sep 2017	Intro & Review
Minggu 01	07 Sep - 12 Sep 2017	IPR, SED, AWK, REGEX, & Scripting
Minggu 02	14 Sep - 19 Sep 2017	Protection, Security, Privacy,
		& C-language
Minggu 03	26 Sep - 30 Sep 2017	BIOS, Loader, Systemd, & I/O
Minggu 04	03 Okt - 07 Okt 2017	Addressing, Shared Lib, Pointer
		& I/O Programming
Minggu 05	10 Okt - 14 Okt 2017	Virtual Memory
Ming. UTS	15 Okt - 24 Okt 2017	
Minggu 06	26 Okt - 31 Okt 2017	Concurency: Processes & Threads
Minggu 07	02 Nov - 07 Nov 2017	Synchronization
Minggu 08	09 Nov - 14 Nov 2017	Scheduling
		& Network Sockets Programming
Minggu 09	16 Nov - 21 Nov 2017	File System & Persistent Storage
Minggu 10	23 Nov - 28 Nov 2017	Special Topic: Blockchain
Cadangan	30 Nov - 09 Des 2017	
Ming. UAS	10 Des - 23 Des 2017	

Agenda

Week 01: IPR, SED, AWK, REGEX, & Scripting

- Reference: (ETC 000 001 002)(OLD 02-HKI 02-scripting) (Any Related Tutorial)
- Hak Kekayaan Intelektual (HKI) — Intelectual Property Right (IPR)
    - http://rms46.vlsm.org/1/70.pdf
    - Konsep Hak Kekayaan Intelektual (HKI)
        - Rahasia Dagang *(Trade Sceret)* — UU no. 30/2000.
        - Desain Industri *(Industrial Design)* — UU no. 31/2000.
        - Desain Tata Letak Sirkuit Terpadu *(Integrated Circuit Layout Design)* — UU no. 32/2000.
        - Paten *(Patent)* — UU no. 14/2001.
        - Merek *(Mark)* — UU no. 15/2001.
        - Hak Cipta *(Copyright)* — UU no. 19/2002.
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- Microsoft Public License (MS-PL)
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Scripting

- Readings (do Google!)
    - Machtelt Garrels: Bash Guide for Beginners.
    - Mendel Cooper: An in-depth exploration of the art of shell scripting — Advanced Bash-Scripting Guide.
    - Jan Goyvaerts: Regular Expressions — The Complete Tutorial.
- The ATM Way (Amati, Tiru, Modifikasi)[1].
    - *Clone* Demo https://github.com/UI-FASILKOM-OS/demo.git
    - **GSGS — ATM**: Google Sana, Google Sini: Amati, Tiru, Modifikasi!
    - Pilih Media: Badak, BYOD, WSL (Windows 10), CYGWIN.
    - Belajar **login** dan **logout** dengan ssh atau putty[2].
    - Belajar editor yang bagus punya buatan (**vi**).
- Belajar beberapa perintah **Command-Line Interface** (CLI).
    - shell (Bash)
    - basic CLI: cat, cd, cp, ls, man, more, mv, rm, touch, wc.
    - vi, sed, awk, git.

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[1]Romi Satria Wahono sudah menggunakan istilah ini sejak tahun 2007 (Google).
[2]Sesuai dengan keyakinan dan kepercayaan masing-maing.

```
demo@badak:~$
demo@badak:~$ PS1=">>>>> $ "
>>>>> $
>>>>> $ git clone https://github.com/UI-FASILKOM-OS/demo.git demo-here
Cloning into 'demo-here'...
remote: Counting objects: 1697, done.
remote: Compressing objects: 100% (64/64), done.
remote: Total 1697 (delta 52), reused 60 (delta 24), pack-reused 1608
Receiving objects: 100% (1697/1697), 11.87 MiB | 3.76 MiB/s, done.
Resolving deltas: 100% (1001/1001), done.

>>>>> $ ls -F demo-here/
demos/              demos-170828-2222.zip  demostar.tgz  README.md
demos-170827-1833.zip  demos-170905-0943.zip  LICENSE       zzzThis
>>>>> $ cd demo-here
>>>>>  $ ls -F
demos/              demos-170828-2222.zip  demostar.tgz  README.md
demos-170827-1833.zip  demos-170905-0943.zip  LICENSE       zzzThis
>>>>>  $ cd demos/
>>>>>  $ ls -F
week00-introduction/ week03-boot/        week06-CnFork/        week09-File-Storage-System/
week01-scripting/ week04-pointer-io/  week07-sync-thread/        week10-video-review/
week02-c-and-security/  week05-memory/      week08-scheduling-sockets/
>>>>>  $ cd week01-scripting/
```

```
>>>>> $ pwd
/home/demo/work/demo-here/demos/week01-scripting
>>>>> $ ls -al
total 60
drwxr-xr-x  2 demo demo 4096 Sep 11 15:28 .
drwxr-xr-x 13 demo demo 4096 Sep  5 09:43 ..
-rw-r--r--  1 demo demo 4817 Sep 11 15:16 a01-sort-script
-rw-r--r--  1 demo demo 2206 Sep 11 15:27 a02-some-command-lines
-rw-r--r--  1 demo demo  557 Sep  8 22:02 a03-does-it-exist
-rw-r--r--  1 demo demo  581 Sep 11 14:07 a04-finding-EXIST
-rw-r--r--  1 demo demo 1152 Sep 11 14:22 a05-append-a-file
-rw-r--r--  1 demo demo  549 Sep 11 14:25 a06-loop
-rw-r--r--  1 demo demo  745 Sep 11 14:45 a07-tester
-rw-r--r--  1 demo demo 1856 Sep 11 15:08 a08-banding
-rw-r--r--  1 demo demo 1779 Sep  8 21:57 a09-fixfs
-rw-r--r--  1 demo demo  614 Sep  8 21:58 a10-add-numbers
-rw-r--r--  1 demo demo 1068 Sep 11 15:20 a11-mysha1
-rw-r--r--  1 demo demo  367 Sep  8 21:59 .head
lrwxrwxrwx  1 demo demo   15 Sep  4 19:16 .shsh -> a01-sort-script
>>>>> $
```

Demo Files(1)

- a01-sort-script: folder sorting; preparing and deleting folder
  ".ZTEST".
- a02-some-command-lines: demo beberapa perintah CLI.
- a03-does-it-exist
- a04-finding-EXIST
- a05-append-a-file
- a06-loop

- a07-tester
- a08-banding
- a09-fixfs
- a10-add-numbers
- a11-mysha1

Some Essential Commands

man   manual. Eg "man man"
ls   list directory contents. Eg. "ls -al"
date print or set the system date and time. Eg. "date +%Y"
tee   read from standard input and write to standard output and files.
      Eg. "ls -al | tee listing.txt"
diff compare files line by line. Eg. "diff file1.txt file2.txt"
wc   print newline, word, and byte counts for each file.
      Eg. "wc file.txt"
sort sort lines of text files. Eg. "sort file1.txt"

sed

- (to do)
- (see OLD 02-scripting)

awk

- (to do)
- (see OLD 02-scripting)

Regex

- (to do)
- (see OLD 02-scripting)

The End

- This is the end of the presentation.