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

Rahmat M. Samik-Ibrahim

Universitas Indonesia

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

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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	Concurrency: 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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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/
```

Inside the "week01-scripting" folder

```
>>>>> $ 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

Demo Files(2)

- 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)

- This is the end of the presentation.