

CSGE602055 Operating Systems

CSF2600505 Sistem Operasi

Minggu 01: IPR, REGEX, & Scripting

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<http://rms46.vlsm.org/2/207.html>

REV64 5-Sep-2017

Minggu 00	29 Aug - 05 Sep 2017	Intro & Review
Minggu 01	07 Sep - 12 Sep 2017	IPR, 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	

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Week 01: IPR, REGEX, & Scripting

- Reference: (ETC 000 001 002)(OLD 02-HKI 02-scripting) (Any Related Tutorial)
- Hak Kekayaan Intelektual (HKI) — Intellectual 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.
 - Konsekuensi HKI
 - HKI Perangkat Lunak
 - Lisensi Perangkat Lunak: GNU GPL, EULA. Public Domain, Apache, Microsoft Public License.

- Free Software Definition (FSF)

- ① The freedom to run the program as you wish, for any purpose (freedom 0).
- ① The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
- ② The freedom to redistribute copies so you can help your neighbor (freedom 2).
- ③ The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

- Free Software vs. Open Source Software.

- Copyleft Software.

Software Licenses

- 3-clause BSD license and 2-clause BSD license (BSD-X-Clause)
- Apache License 2.0 (Apache-2.0)
- Artistic License 2.0 (ArtisticLicense2)
- Common Development and Distribution License (CDDL-1.0)
- Eclipse Public License (EPL-1.0)
- Educational Community License 2.0 (ECL2.0)
- Expat License (Expat) aka. MIT license (MIT)
- GNU Affero General Public License v3 (AGPL-3.0)
- GNU All-Permissive License (GNUAllPermissive)
- GNU General Public License (GPL)
- GNU Lesser General Public License (LGPL)
- Microsoft Public License (MS-PL)
- Mozilla Public License 2.0 (MPL-2.0)
- "Public Domain" (PublicDomain)
- X11 License (X11License)

- 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>
 - ATM: Amati, Tiru, Modifikasi!
 - Pilih Media: Badak, BYOD, WSL (Windows 10), CYGWIN.
 - Belajar **login** dan **logout** dengan ssh atau putty².
 - 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.

¹Romi Satria Wahono sudah menggunakan istilah ini sejak tahun 2007 (Google).

²Sesuai dengan keyakinan dan kepercayaan masing-masing.

Login into BADAk.cs.ui.ac.id

```
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-170827-1833.zip  demos-170905-0943.zip  LICENSE  zzzThis
>>>>> $ cd demo-here
>>>>> $ ls -F
demos/
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 80
drwxr-xr-x  2 demo demo 4096 Sep  5 10:07 .
drwxr-xr-x 13 demo demo 4096 Sep  5 10:07 ..
-rw-r--r--  1 demo demo 2919 Sep  5 10:07 a01-sort-script
-rw-r--r--  1 demo demo  747 Sep  5 10:07 a02-some-command-lines
-rw-r--r--  1 demo demo  114 Sep  5 10:07 a03-date
-rw-r--r--  1 demo demo   83 Sep  5 10:07 a04-does-it-exist
-rw-r--r--  1 demo demo  222 Sep  5 10:07 a05-loop-script
-rw-r--r--  1 demo demo  448 Sep  5 10:07 a06-in-and-out
-rw-r--r--  1 demo demo  172 Sep  5 10:07 a07-sort-tmpfile
-rw-r--r--  1 demo demo   76 Sep  5 10:07 a08-pipe-and-sort
-rw-r--r--  1 demo demo  521 Sep  5 10:07 a09-env
-rw-r--r--  1 demo demo  380 Sep  5 10:07 a10-tester
-rw-r--r--  1 demo demo 2047 Sep  5 10:07 a11-banding
-rw-r--r--  1 demo demo 1959 Sep  5 10:07 a12-fixfs
-rw-r--r--  1 demo demo   34 Sep  5 10:07 a13-top
-rw-r--r--  1 demo demo  241 Sep  5 10:07 a14-add-numbers
-rw-r--r--  1 demo demo   96 Sep  5 10:07 a15-two-seconds
-rw-r--r--  1 demo demo  681 Sep  5 10:07 a16-mysha1
-rw-r--r--  1 demo demo   82 Sep  5 10:07 a17-awk
-rw-r--r--  1 demo demo  418 Sep  5 10:07 .head
lrwxrwxrwx  1 demo demo   15 Sep  5 10:07 .shsh -> a01-sort-script
>>>> $
```

Demo Files(1)

- a01-sort-script:
- a02-some-command-lines:
- a03-date:
- a04-does-it-exist:
- a05-loop-script:
- a06-in-and-out:
- a07-sort-tmpfile:
- a08-pipe-and-sort:
- a09-env:
- a10-tester:

Demo Files(2)

- a11-banding:
- a12-fixfs:
- a13-top:
- a14-add-numbers:
- a15-two-seconds:
- a16-mysha1:
- a17-awk:

- regex

X

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The End

- This is the end of the presentation.