CSGE602055 Operating Systems
CSF2600505 Sistem Operasi
LeftOver

Rahmat M. Samik-Ibrahim

University of Indonesia

`http://os.vlsm.org/`
Always check for the latest revision!

REV360 07-Nov-2021

Agenda

- XXXX

- The Check List (Operating Systems)
    - ☐ **Starting Point**: http://os.vlsm.org/
    - ☐ **Text Book**: any recent/decent OS book but map it to **OSC10**.
    - ☐ Create **public** project "os182" on your github.com account.
        - ☐ Create file "README.md" and add an extra line every week. For e.g.[1]:

            ZCZC Sistem Operasi 2018 Awal (1)

            ZCZC W01 Have tried demo for week 01.

            ZCZC W02 Week 02 is done.

            ZCZC W03 Week 03 is done.
    - ☐ Encode your **QRC** with image size of approximately 250x250 pixels:
        "OS181 CLASS ID GITHUB-ACCOUNT SSO-ACCOUNT SIAK-Full-Name"
        Special for Week 00: Mail your **embedded** QRC to:
        operatingsystems@vlsm.org with Subject: [W00] CLASS ID
        SIAK-NAME.
    - ☐ Write your Memo (with QRC) **every week**.
    - ☐ Using your **SSO** account, login to badak.cs.ui.ac.id via
        kawung.cs.ui.ac.id.
        - ☐ Check folder badak:///extra/Week00/
        - ☐ Every week, copy the weekly demo files to your own home directory.
            Eg. for Week00:
            cp -r /extra/Week00/W00-demos/ W00-demos/

[1]Week 00 line is optional. The following "ZCZC WXX" weekly tags are mandatory.

Resources

- Text Book: any recent/decent OS book. Eg. (**OSC10**) Abraham Silberschatz, Peter B. Galvin, Greg Gagne: Operating System Concepts, 10th Edition, 2018.
- (GITHUB) `https://github.com/UI-FASILKOM-OS/SistemOperasi/`
    - (DEMO) — `demos/`
    - (SLIDE) — `pdf/`
- (UJIAN) — `http://rms46.vlsm.org/2/195.pdf` - `205.pdf`
- (BADAK) — BADAK:///`extra/`
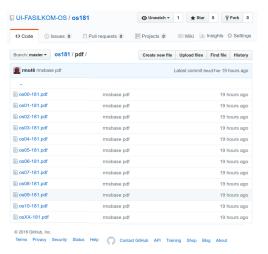
Bahan Presentasi:
http://rms46.vlsm.org/2/207.html

Figure: https://github.com/UI-FASILKOM-OS/os182/tree/master/pdf
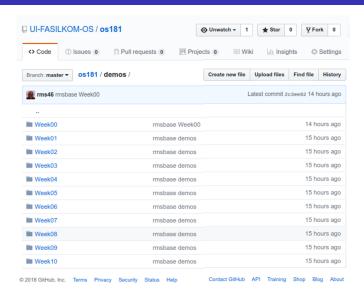
Bahan Demo

Figure: https://github.com/UI-FASILKOM-OS/os182/tree/master/demos

Arsip SCELE

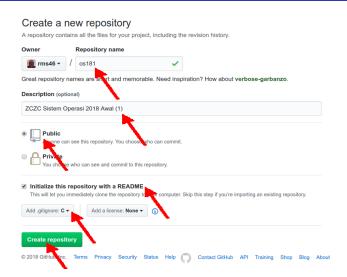Figure: Lihat juga BADAK.cs.ui.ac.id:///extra/

Figure: Start a new project by "rms46".

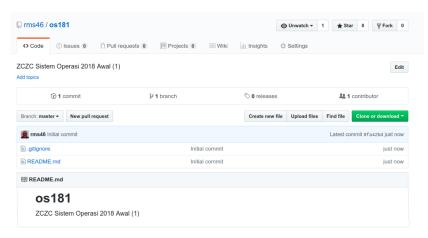Figure: Create public repository "os182" with a README.md file

Figure: Public project "os182" by "rms46" at https://github.com/rms46/os182

WSL: Windows Subsystem for Linux

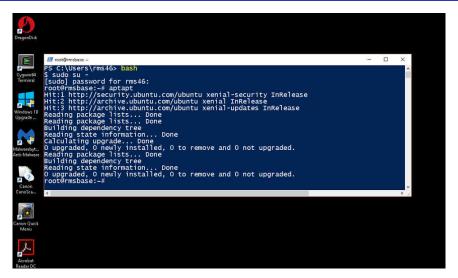Figure: WSL: Windows Subsystem for Linux

Cygwin

Figure: Cygwin

Week 00: Problems

- Tugas Minggu 00 (Week 00) ada dua:
    - membuat QRC dan mengirimkannya via email.
    - membuat Memo Minggu 00 yang ada QRC, serta ditunjukkan pada saat istirahat kuliah hari ke dua.
- "TANDA PETIK" BUKAN merupakan bagian dari QRC!
- Jangan mencantumkan ".git" dan ".sso", jika bukan bagian dari nama akun anda!
- Tanpa header [W00] pada Subject; email anda mungkin akan nyasar entah kemana... Ingat: [W00] (We-Nol-Nol) tidak sama dengan [WOO] (We-O-O)!
- Ukuran QRC cukup sekitar 256 x 256 pixel: jangan terlalu besar atau terlalu kecil.
- QRC ditanam (embedded) dalam email; jangan menggunakan attachment!
- Jangan mengirim MEMO dalam format PDF!

Week 00: Check List

☐ Starting **Week 01**: TABULA RASA is not accepted anymore!

☐ Find/copy this document from http://os.vlsm.org/

☐ Find/read a recent/decent OS Book and map it to **OSC10**.

☐ Using your **SSO** account, login to badak.cs.ui.ac.id via kawung.cs.ui.ac.id.

☐ Check folder badak:///extra/Week00/
  ☐ Try to copy and compile c-program-example.c.

☐ QR Code: (Eg) "OS182 X 1253755125 demo Demo Suremo"

☐ Mailto: operatingsystems@vlsm.org
  (Eg.) Subject: OS182 X 1253755125 demo Demo Suremo

☐ Write "Memo Week00" + your QRC.

☐ **How to improve this document?**

The End

☐ This is the end of the presentation.

☒ This is the end of the presentation.

- This is the end of the presentation.

Week 00: Self Service Assignments

- Create project (**PUBLIC**) "os182" on your new (or existing) github.com account.
- (Week 00) QRCode[1]: "OS182 CLASS ID GITHUB-ACCOUNT SSO-ACCOUNT SIAK-Full-Name"
- (Weekly) Memo.
- Informasi Kuliah, Arsip Ujian, dan Demo
  - badak.cs.ui.ac.id:/extra/
  - https://github.com/UI-FASILKOM-OS/os182
  - https://rms46.vlsm.org/2/195.pdf — [195.pdf - 205.pdf].
- Which BASH Account?
  - Virtual Ubuntu: badak.cs.ui.ac.id (SSO)
  - Ubuntu (BYOD)
  - WSL: Windows 10 Subsystem for Linux
  - Cygwin (Windows)

---

[1]"QR Code" is a registered trademark and wordmark of Denso Wave Inc.

Week 01: Problems

- Tugas Minggu 01 (Week 01) ada dua:
  - Memo Week01: to be checked at break of the first lecture of WEEK 01.
  - Try Demo Week01 and write in "README.md" (os181), something like: "ZCZC W01 Telah mencoba demo Week01".
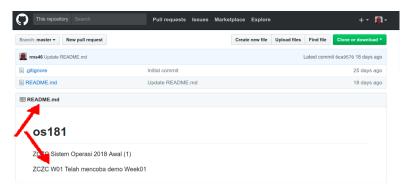

Figure: README.md: ZCZC W01 . . .

Week 02: Problems

- Tugas Minggu 02 (Week 02) ada dua:
  - Memo Week02: to be checked at break of the first lecture of WEEK 01.
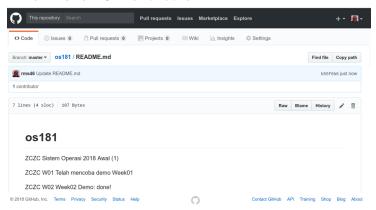 - Try Demo Week02 and write in "README.md" (os181), something like: "ZCZC W02 Demo: done!".

Figure: README.md: ZCZC W02 Demo: done!

07-fork

```
>>>>> $ cat 07-fork.c
/*
 * (c) 2005-2017 Rahmat M. Samik-Ibrahim
 * https://rahmatm.samik-ibrahim.vlsm.org/
 * This is free software.
 * REV05 Mon Oct 30 10:57:02 WIB 2017
 * REV02 Mon Oct 24 10:43:00 WIB 2016
 * REV01 Sun Feb 27 08:31:46 WIB 2011
 * START 2005
 */

#include <sys/types.h>
#include <sys/wait.h>
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#define DISPLAY1 "START * PARENT *** ** PID (%4d) ** *********\n"
#define DISPLAY2 "RANDOM: val1(%4d) -- val2(%4d) -- val3(%4d)\n"
/*************************************************** main ** */
void main(void) {
    pid_t val1, val2, val3;
    printf(DISPLAY1, getpid());
    val1 = fork();
    val2 = fork();
    val3 = fork();
    printf(DISPLAY2, val1, val2, val3);
    wait(NULL);
    wait(NULL);
    wait(NULL);
/* *********** START BLOCK ***
    *********** END * BLOCK *** */
}
```

07-fork (2)

```
>>>>> $ 07-fork
START * PARENT *** ** PID (6160) ** **********
RANDOM: val1(6161) -- val2(6162) -- val3(6163)
RANDOM: val1(6161) -- val2(6162) -- val3(   0)
RANDOM: val1(6161) -- val2(   0) -- val3(6165)
RANDOM: val1(6161) -- val2(   0) -- val3(   0)
RANDOM: val1(   0) -- val2(6164) -- val3(6166)
RANDOM: val1(   0) -- val2(6164) -- val3(   0)
RANDOM: val1(   0) -- val2(   0) -- val3(6167)
RANDOM: val1(   0) -- val2(   0) -- val3(   0)
>>>>> $ 07-fork
START * PARENT *** ** PID (6168) ** **********
RANDOM: val1(6169) -- val2(6170) -- val3(6172)
RANDOM: val1(6169) -- val2(   0) -- val3(6173)
RANDOM: val1(6169) -- val2(6170) -- val3(   0)
RANDOM: val1(   0) -- val2(6171) -- val3(6174)
RANDOM: val1(6169) -- val2(   0) -- val3(   0)
RANDOM: val1(   0) -- val2(   0) -- val3(6175)
RANDOM: val1(   0) -- val2(   0) -- val3(   0)
RANDOM: val1(   0) -- val2(6171) -- val3(   0)
>>>>> $ 07-fork
START * PARENT *** ** PID (6176) ** **********
RANDOM: val1(6177) -- val2(6178) -- val3(6181)
RANDOM: val1(   0) -- val2(6179) -- val3(6180)
RANDOM: val1(   0) -- val2(6179) -- val3(   0)
RANDOM: val1(   0) -- val2(   0) -- val3(6182)
RANDOM: val1(6177) -- val2(   0) -- val3(6183)
RANDOM: val1(6177) -- val2(   0) -- val3(   0)
RANDOM: val1(6177) -- val2(6178) -- val3(   0)
RANDOM: val1(   0) -- val2(   0) -- val3(   0)
>>>>> $
>>>>> $ 07-fork
```

XXX

- **4 SKS** (Units) means 12 hours per week!
  - Ah Beng said: Work hard!
- **No Lab — No Task — No Pop Quiz – No Teaching Assistant**[1].
  - No secret hand-shake!
  - But, it may vary from class to class.
- **Active Preparation / Participation / Q&A Only**.
  - Pre-Midterm (UTS): 6 weeks @ 3 points (=18%).
  - Post-Midterm: 5 weeks @ 3 points (=15%).
  - Points for answering questions, trying demos, and writings memos.
  - Deductions for **NOT** answering questions: individually or collectively.

Assessment part 2

- **How to get points?**
  - Answer questions, especially not in the middle of a lecture!
  - Try Demos.
  - Class attendance.
- **MidTerm:** 6 set problems @ 6 points ($= 36\%$).
- **Final:** 30 points ($= 30\%$)[1].
- **Extra Rounding:** 1 point[2]
- **C-2C:** upto 5 points [3].
  - Only if your grade is between 50.00 and 55.00 and you have a "good" track record.
- Check your points regularly at `https://academic.ui.ac.id/` and **DO NOT COMPLAIN** weeks after! See also, `https://os.vlsm.org/`.

---

[1]THIS TERM ONLY. See SCELE for more details!
[2]NOT AVAILABLE THIS TERM!
[3]Terms and Conditions apply. Void where prohibited by law.

☐ This is the end of the presentation.

☒ This is the end of the presentation.

- This is the end of the presentation.