National Taiwan Normal University
Department of Computer Science and Information Engineering
CSC0016, Assignment 1

1 Information

1. The assignment is 100 points.

2. Individual work.

3. Due at 12:00 9/22, i.e., Sunday noon.

4. Deliver a report in English or Chinese MS Word or PDF format, whose maximum size is 6 pages without reference and appendix.

2 Content

1. (100 points) Install or replace a Linux kernel on a virtual machine or computer from the source code. Download the source code of a Linux kernel from The Linux Kernel Archives or mirror sites. Do NOT use a compiled image of any packaged distribution, e.g., Debian, Fedora, Ubuntu, and openSUSE, as your installed or replaced kernel. You MUST build a Linux kernel from the source code. The 2.6 kernel series is recommended according to our textbook, but not limited. Note that online supporting materials of newer versions may be fewer. Your report shall contain the following directions at least.

   - Hardware and software environment. Describe specifications of the hardware, specifications of the virtual machine, the storage partition, the version of Linux kernel, the used packages, etc. Issue a command to show your installed version, and clearly save it as a screen-shot in the report.

   - Installation steps. Sequentially record your steps, e.g., commands and parameters. Briefly describe the goal of each step.

   - Comments. At least one most challenging part that you encountered in the assignment, your solution, and your comments, etc.

   - Any reference if you use.

Compiling a full OS kernel may be one of the largest workload that you have executed on a computer. Therefore, I strongly suggest that you use the most powerful computer among all available ones at the begin. Then, make sure the full capability is used or is set for the virtual machine as well.

3   Do:

- Begin from a source code

- Cover all directions in the report

- Record the installation steps correctly and in a correct sequence

- Include a screen-shot that shows the installed version

- Submit the report to the course website in time

4   Do not:

- Use a compiled image of any packaged distribution, e.g., Debian, Fedora, Ubuntu, and openSUSE

- Miss any part of the report

- Miss any necessary installation step

- Put steps in a wrong order

- Miss a screen-shot that shows the installed version

- Delay or miss the submission