

Assignment-6

Linux System and its Applications

Systems and Storage Laboratory

Department of Computer Science and Engineering

Chung-Ang University

Assignment-6: Kernel Module

1. Make a simple kernel module

- Example
 - Adding a simple module
 - The module prints out “simple module”
- You can refer to lecture 4.2 Kernel Module

2. Make a file system module

- Example
 - Making PXT4 and JDB3 instead of EXT4 and JDB2
 - Insert pxt4.ko and jbd3.ko modules
 - Mount your file system module into kernel

Tips

❖ For people who do not have any free disk partition for this assignment:

- If you use VirtualBox :
 - You can refer to *[Practical Class 6-b] Creating a new virtual hard disk for VirtualBox*
 - +) Google 'VirtualBox how to add a new disk partition'
 - ✓ There are a lot of tutorials that can help you
- If you use native Linux:
 - You can use a **USB flash drive**

What to submit

1. Use **dmesg** command to check the message that the Simple kernel module printed out
 - Take a screenshot to show the result
 2. Insert **jbd3 & pxt4** module then use command **“lsmod | grep pxt4”**
 - Take a screenshot to show the result
 3. Format your free partition and mount with pxt4, use **“mount -t pxt4 | grep pxt4”** to see the result
 - Take a screenshot to show the result
- ❖ Your report should contain at least above three screenshots
- ❖ Submit within pdf format
- Make sure to include your name and student id