Exsercise 7: Configuring Hardware - Part 1

I. Prepare the environment

1. Login to the Ubuntu server with user student and install the procinfo package

II. Monitoring hardware status and modules

1. List the devices added to the system inside the /dev directory
2. Review the /proc directory structure, where the processes' information are stored.
3. Show the IRQ address of all the devices existing.
4. Show the I/O port location of all devices existing.
5. Show all the dma channel existing.
6. Display the system cpu, memory information
7. Display the information of all scsi block devices existing.
8. List all the PCI devices with verbose information
9. List all the usb devices existing.
10. List all hardware modules that currently loaded in the system.
11. Install the btusb module
12. Remove the modules installed on step 11

Exsercise Instructions

I.   Prepare the environment

1. Login to the Ubuntu server with user student and install the procinfo package

   Log int to the Ubuntu system with the user name and password provided: **student/lpic1@123**

   # apt-get install procinfo

III. Using RPM package management

1. List the devices added to the system inside the /dev directory
   $ ls /dev/

2. Review the /proc directory structure, where the processes' information are stored.
   $ ls /proc/

   The processes' information are stored in /proc/<PID>/ directory

3. Show the IRQ address of all the devices existing.
   $ cat /proc/interrupts

4. Show the I/O port location of all devices existing.
   $ cat /proc/ioports

5. Show all the dma channel existing.
   $ cat /proc/dma

6. Display the system cpu, memory information
   $ cat /proc/cpuinfo

   $ cat /proc/meminfo

7. Display the information of all scsi block devices existing.
   $ lsblk -S

8. List all the PCI devices with verbose information
   $ lspci -v

9. List all the usb devices existing.
   $ lsusb

10. List all hardware modules that currently loaded in the system and show detail infomation of the first module.
    $ lsmod

$ modinfo <module name>

11. Install the btusb module
    $ modprobe -iv btusb

12. Remove the modules installed on step 11
    $ modprobe -rv btusb