Project 1
CSC 4320

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#002-34-4677

Part1

The following screenshot is showing when the program runs with make, ls, insmod, rmmod command.
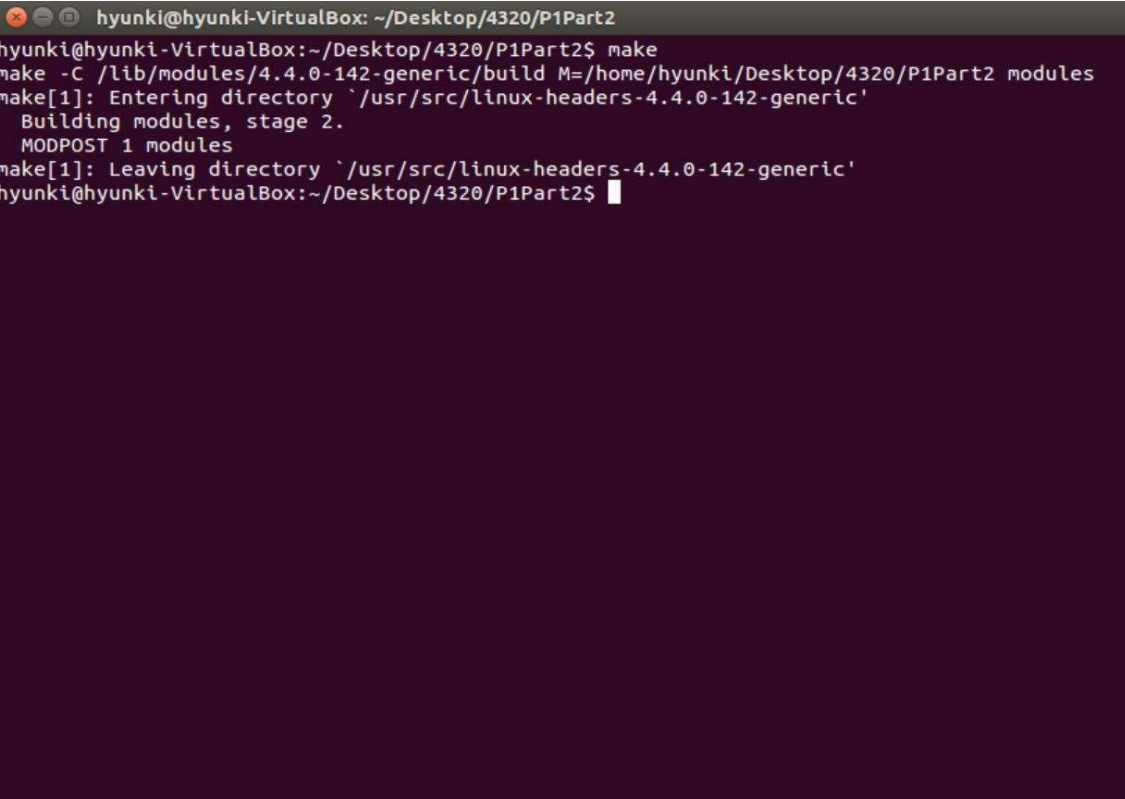
```
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part1$ make
make -C /lib/modules/4.4.0-142-generic/build M=/home/hyunki/Desktop/4320/P1Part1 modules
make[1]: Entering directory `/usr/src/linux-headers-4.4.0-142-generic'
  CC [M]  /home/hyunki/Desktop/4320/P1Part1/simple.o
  Building modules, stage 2.
  MODPOST 1 modules
  CC      /home/hyunki/Desktop/4320/P1Part1/simple.mod.o
  LD [M]  /home/hyunki/Desktop/4320/P1Part1/simple.ko
make[1]: Leaving directory `/usr/src/linux-headers-4.4.0-142-generic'
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part1$ ls
Makefile       Module.symvers  simple.ko      simple.mod.o
modules.order  simple.c        simple.mod.c   simple.o
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part1$ sudo insmod simple.ko
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part1$ sudo rmmod simple.ko
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part1$
```

The following screenshot present to run dmesg command.

```
[10538.397066] systemd-hostnamed[5269]: Warning: nss-myhostname is not installed. Changing th
e local hostname might make it unresolveable. Please install nss-myhostname!
[10987.734519] Loading Module
[10996.351740] Removing Module
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part1$
```

Part2

The following screenshot shows when 'make' command is used.

Then using 'insmod' and 'rmmod' command.

```
hyunki@hyunki-VirtualBox: ~/Desktop/4320/P1Part2
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part2$ make
make -C /lib/modules/4.4.0-142-generic/build M=/home/hyunki/Desktop/4320/P1Part2 modules
make[1]: Entering directory `/usr/src/linux-headers-4.4.0-142-generic'
  Building modules, stage 2.
  MODPOST 1 modules
make[1]: Leaving directory `/usr/src/linux-headers-4.4.0-142-generic'
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part2$ sudo insmod simple-solution.ko
[sudo] password for hyunki:
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part2$ sudo rmmod simple-solution.ko
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part2$
```

Finally, using the 'dmesg' command to see the kernel log buffer.

```
[10104.669213] Loading Module
[10104.669218] Name:Anna Gender:Female Birthday: Month:12 Day:18 Year:1991
[10104.669219] Name:Davie Gender:Male Birthday: Month:5 Day:23 Year:1899
[10104.669220] Name:Kelli Gender:Female Birthday: Month:10 Day:30 Year:1997
[10104.669221] Name:Dennis Gender:Male Birthday: Month:3 Day:14 Year:1999
[10104.669222] Name:Julia Gender:Female Birthday: Month:4 Day:22 Year:2000
[10104.669223] The year of youngest male person was Year:1999
[10104.669224] Deleting the youngest male person
[10104.669224] Remaining people
[10104.669225] Name:Anna Gender:Female Birthday: Month:12 Day:18 Year:1991
[10104.669226] Name:Davie Gender:Male Birthday: Month:5 Day:23 Year:1899
[10104.669227] Name:Kelli Gender:Female Birthday: Month:10 Day:30 Year:1997
[10104.669228] Name:Julia Gender:Female Birthday: Month:4 Day:22 Year:2000
[10109.767927] Removing Module
[10109.767930] Deleting Name:Anna Gender:Female Birthday: Month:12 Day18 Year:1991
[10109.767932] Deleting Name:Davie Gender:Male Birthday: Month:5 Day23 Year:1899
[10109.767933] Deleting Name:Kelli Gender:Female Birthday: Month:10 Day30 Year:1997
[10109.767935] Deleting Name:Julia Gender:Female Birthday: Month:4 Day22 Year:2000
hyunki@hyunki-VirtualBox:~/Desktop/4320/P1Part2$
```