Kernel services

- **Aim:**
- To configure the kernel to ping off and implement the kernel module utilities in linux.
- **Procedure:**
- **Configure the kernel to ping off:**
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    - Configure your system so that it doesn't respond to any ping request

- check the present value of /proc/sys/net/ipv4/icmp_echo_ignore_all.

- Use the following command to display the content of the given file.
- Command
- # cat /proc/sys/net/ipv4/icmp_echo_ignore_all.

- It should be currently set to 0 which means your system will respond normally to ping.

- change the value of /proc/sys/net/ipv4/icmp_echo_ignore_all to 1 using the following command

- # echo 1> /proc/sys/net/ipv4/icmp_echo_ignore_all

- Verify your work using the cat command which is given below

- # cat /proc/sys/net/ipv4/icmp_echo_ignore_all

- Now test pinging server1.example.com and press ctl-c that will stop the ping command and display some statastics for you.

- If someone else try to pinging your station they shoud not receive any responses back from your system.alternatively try to ping your own network address this should not work either.

- The changes made in to the proc file system are temporary and if you want them to persist across reboot you need to put an entry in /etc/sysctl.conf
- Edit the /etc file and put the following line at the bottom
- net.ipv4.icmp_echo_ignore_all=1
- f)To activate the change run the following command

- # sysctl -p

- f)check the value in /proc file.If it is not set to 1 then reboot the system and check the value in /proc again.

- Modify the udev

- a)Modify the udev subsystem in such a way that /dev/myusbdisk gets automatically created at boot time.create the file name /etc/udev/rules.d/99_usb.rules and insert the following statement in it

- KERNEL = =”sdb1”,NAME =”myusbdisk”
- **b)kernel module utilities:**

- modprobe:

- program to add or remove modules from your linux kernel

- modprobe -l
  - This command list all the modules.
- modprobe -c
  - This option dump out the configuration file and exit.
- modinfo –v
  - This command display the information about the version
- lsmod
  - program to show the status of modules in the linux level.