

Question 1:

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Terminal File Edit View Search Terminal Help
amrit@nypc:~/ntechmaster/os/kernal/read$ make
make -C /lib/modules/4.10.0-38-generic/build M=/home/amrit/ntechmaster/os/kernal/read modules
make[1]: Entering directory '/usr/src/linux-headers-4.10.0-38-generic'
Building modules, stage 2.
MODPOST 1 modules
make[1]: Leaving directory '/usr/src/linux-headers-4.10.0-38-generic'
amrit@nypc:~/ntechmaster/os/kernal/read$ sudo insmod proc_write.ko
[sudo] password for amrit:
amrit@nypc:~/ntechmaster/os/kernal/read$ echo "writing into the file " > /proc/myfile_proc
amrit@nypc:~/ntechmaster/os/kernal/read$ cat /proc/myfile_proc
writing into the file
amrit@nypc:~/ntechmaster/os/kernal/read$ sudo rmmod proc_write.ko
amrit@nypc:~/ntechmaster/os/kernal/read$ dmesg|tail
[22658.987938] ISO 9660 Extensions: Microsoft Joliet Level 3
[22658.988832] ISOFS: changing to secondary root
[22896.770858] /proc/myfile_proc created
[22951.955210] procfs write:write 23 bytes
[22960.827705] Fully read
[23006.071153] /proc/myfile_proc removed
[23052.458775] /proc/myfile_proc created
[23064.733517] procfs write:write 23 bytes
[23067.638306] Fully read
[23079.147087] /proc/myfile_proc removed
amrit@nypc:~/ntechmaster/os/kernal/read$ cat /proc/myfile_proc
cat: /proc/myfile_proc: No such file or directory
amrit@nypc:~/ntechmaster/os/kernal/read$ |
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- First we are running a make command , so that the codes in makefile is excuted .
- Once its compiled we insert the ko file into the kernal.
- Now we can see the demesg as proc file created , and a file is created over there.
- When we remove the ko from the kernal, the file is alos removed, and a dmesg is dispalyed.

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Terminal File Edit View Search Terminal Help
[20361.044195] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[20361.045509] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[20361.045636] scsi host4: usb-storage 1-1.4:1.1
[20361.647101] usb 1-1.4: reset high-speed USB device number 4 using ehci-pci
[20362.071937] scsi 4:0:0:0: CD-ROM            GLONEE   MBW5612A        0310 PQ: 0 ANSI: 2
[20362.074012] sr 4:0:0:0: [sr0] scsi-1 drive
[20362.074112] sr 4:0:0:0: Attached scsi CD-ROM sr0
[20362.074163] sr 4:0:0:0: Attached scsi generic sg1 type 5
[20362.247286] ISO 9660 Extensions: Microsoft Joliet Level 3
[20362.247646] ISOFS: changing to secondary root
[20486.580931] /proc/amr created
[21963.195328] /proc/amr removed
[21987.443034] /proc/amr created
[22144.379803] procfs write:write 3 bytes
[22148.132832] Fully read
[22186.449936] procfs write:write 3 bytes
[22189.058782] Fully read
[22209.391425] /proc/amr removed
[22323.904041] 5119590400
[22657.410045] usb 1-1.4: USB disconnect, device number 4
[22657.660683] usb 1-1.4: new high-speed USB device number 5 using ehci-pci
[22657.770384] usb 1-1.4: New USB device found, idVendor=271d, idProduct=2017
[22657.770385] usb 1-1.4: New USB device strings: Mfr=2, Product=3, SerialNumber=4
[22657.770386] usb 1-1.4: Product: P2M
[22657.770387] usb 1-1.4: Manufacturer: GLONEE
[22657.770388] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[22657.772544] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[22657.772798] scsi host4: usb-storage 1-1.4:1.1
[22658.793487] scsi 4:0:0:0: CD-ROM            GLONEE   MBW5612A        0310 PQ: 0 ANSI: 2
[22658.795587] sr 4:0:0:0: [sr0] scsi-1 drive
[22658.795683] sr 4:0:0:0: Attached scsi CD-ROM sr0
[22658.795733] sr 4:0:0:0: Attached scsi generic sg1 type 5
[22658.987938] ISO 9660 Extensions: Microsoft Joliet Level 3
[22658.988832] ISOFS: changing to secondary root
[22896.770858] /proc/myfile_proc created
[22951.955210] procfs write:write 23 bytes
[22960.827705] Fully read
[23006.071153] /proc/myfile_proc removed
[23052.458775] /proc/myfile_proc created
[23064.733517] procfs write:write 23 bytes
[23067.638306] Fully read
[23079.147087] /proc/myfile_proc removed
amrit@nypc:~/ntechmaster/os/kernal/read$ |
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Question 5:

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Terminal File Edit View Search Terminal Help
[32642.689881] usb 1-1.4: new high-speed USB device number 14 using ehci-pci
[32642.803594] usb 1-1.4: New USB device found, idVendor=271d, idProduct=2017
[32642.803595] usb 1-1.4: New USB device strings: Mfr=2, Product=3, SerialNumber=4
[32642.803596] usb 1-1.4: Product: P2M
[32642.803597] usb 1-1.4: Manufacturer: GIONEE
[32642.803597] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[32642.805722] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[32642.806119] scsi host4: usb-storage 1-1.4:1.1
[32643.834678] scsi 4:0:0:0: CD-ROM          GIONEE    WBW5612A          0310 PQ: 0 ANSI: 2
[32643.837276] sr 4:0:0:0: [sr0] scsi-1 drive
[32643.837409] sr 4:0:0:0: Attached scsi CD-ROM sr0
[32643.837479] sr 4:0:0:0: Attached scsi generic sg1 type 5
[32644.036532] ISO 9660 Extensions: Microsoft Joliet Level 3
[32644.036882] ISOFS: changing to secondary root
[33463.928659] usb 1-1.4: USB disconnect, device number 14
[33464.242333] usb 1-1.4: new high-speed USB device number 15 using ehci-pci
[33464.352133] usb 1-1.4: New USB device found, idVendor=271d, idProduct=2017
[33464.352136] usb 1-1.4: New USB device strings: Mfr=2, Product=3, SerialNumber=4
[33464.352138] usb 1-1.4: Product: P2M
[33464.352139] usb 1-1.4: Manufacturer: GIONEE
[33464.352140] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[33464.354698] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[33464.354987] scsi host4: usb-storage 1-1.4:1.1
[33464.952607] usb 1-1.4: USB disconnect, device number 15
[33465.174314] usb 1-1.4: new high-speed USB device number 16 using ehci-pci
[33465.284113] usb 1-1.4: New USB device found, idVendor=271d, idProduct=2017
[33465.284116] usb 1-1.4: New USB device strings: Mfr=2, Product=3, SerialNumber=4
[33465.284118] usb 1-1.4: Product: P2M
[33465.284119] usb 1-1.4: Manufacturer: GIONEE
[33465.284121] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[33465.286569] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[33465.287011] scsi host4: usb-storage 1-1.4:1.1
[33466.311323] scsi 4:0:0:0: CD-ROM          GIONEE    WBW5612A          0310 PQ: 0 ANSI: 2
[33466.313882] sr 4:0:0:0: [sr0] scsi-1 drive
[33466.314147] sr 4:0:0:0: Attached scsi CD-ROM sr0
[33466.314346] sr 4:0:0:0: Attached scsi generic sg1 type 5
[33704.306610] usb 1-1.4: USB disconnect, device number 16
[34024.855455] cr0 = 0x80050033
[34024.855456] cr2 = 0xE39A9A88
[34024.855457] cr3 = 0x76A5C000
[34607.850583] cr3 = 0x6F4AA000
[35257.448861] cr3: 5965914112
amrit@mypc:~/mtechmaster/os/kernel/cr3$ |
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Terminal File Edit View Search Terminal Help
[33464.352140] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[33464.354698] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[33464.354987] scsi host4: usb-storage 1-1.4:1.1
[33464.952607] usb 1-1.4: USB disconnect, device number 15
[33465.174314] usb 1-1.4: new high-speed USB device number 16 using ehci-pci
[33465.284113] usb 1-1.4: New USB device found, idVendor=271d, idProduct=2017
[33465.284116] usb 1-1.4: New USB device strings: Mfr=2, Product=3, SerialNumber=4
[33465.284118] usb 1-1.4: Product: P2M
[33465.284119] usb 1-1.4: Manufacturer: GIONEE
[33465.284121] usb 1-1.4: SerialNumber: 0123456789ABCDEF
[33465.286569] usb-storage 1-1.4:1.1: USB Mass Storage device detected
[33465.287011] scsi host4: usb-storage 1-1.4:1.1
[33466.311323] scsi 4:0:0:0: CD-ROM          GIONEE    WBW5612A          0310 PQ: 0 ANS
I: 2
[33466.313882] sr 4:0:0:0: [sr0] scsi-1 drive
[33466.314147] sr 4:0:0:0: Attached scsi CD-ROM sr0
[33466.314346] sr 4:0:0:0: Attached scsi generic sg1 type 5
[33704.306610] usb 1-1.4: USB disconnect, device number 16
[34024.855455] cr0 = 0x80050033
[34024.855456] cr2 = 0xE39A9A88
[34024.855457] cr3 = 0x76A5C000
[34607.850583] cr3 = 0x6F4AA000
[35257.448861] cr3: 5965914112
amrit@mypc:~/mtechmaster/os/kernel/cr3$ |
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The value of cr3 is printing here.