

Ex. No.: 12

Date: 11.5.24

CUSTOMIZATION OF LINUX KERNEL

Aim:

To download the vanilla Linux kernel from repository and customize to our requirements.

Customization Steps:

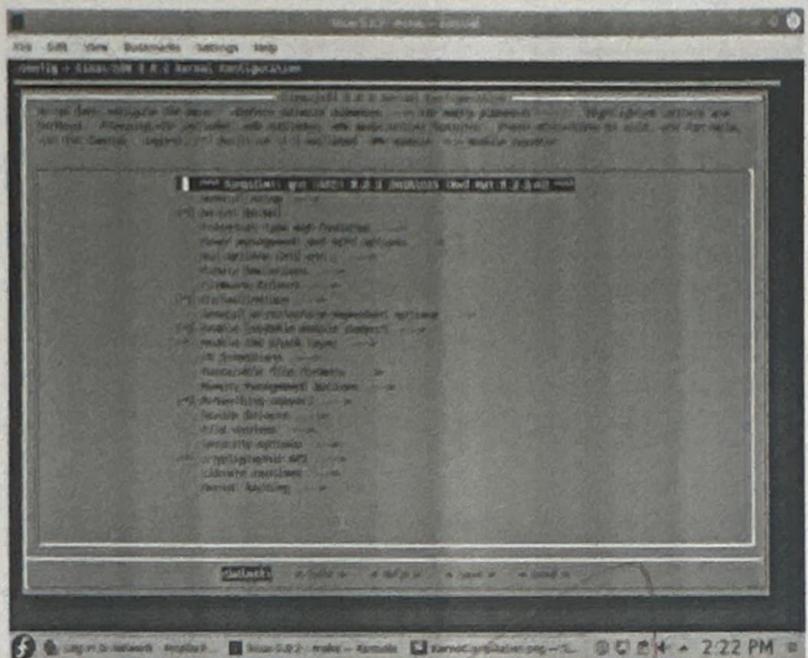
1. Download the vanilla kernel from www.kernel.org
2. Switch to root user using the command
[root@localhost os]#su
3. Use dnf to install kernel-devel package
[root@localhost os]#dnf install kernel-devel
4. Install gcc development tools
[root@localhost os]#dnf group install "Development Tools"
5. Install additional software packages
[root@localhost os]#dnf install ncurses-devel bison flex
elfutils-libelf-devel openssl-devel
6. Copy the downloaded kernel source to /usr/src/kernels
[root@localhost os]#cp linux-5.0.0.tar.xz /usr/src/kernels
7. Go to kernel source directory
[root@localhost os]#cd /usr/src/kernels
8. Extract the downloaded vanilla kernel
[root@localhost os]#unxz linux-5.0.2.tar.xz
[root@localhost os]#tar xvf linux-5.0.2.tar
9. Remove all old configuration files
[root@localhost os]#make mrproper
10. Configure the Kernel
[root@localhost os]#make menuconfig
11. Build the Kernel(For faster build use -j 2 option)
[root@localhost os]#make all
12. Remove all temporary files
[root@localhost os]#make clean

13. Install Kernel and its modules

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[root@localhost os]#make modules_install  
[root@localhost os]#make install
```

14. Reboot the system

Output:



RESULT

The above commands are executed successfully

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