**Practical-3**

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|  | Exercise  PART A |
| Aim | Run id command to view the current user and group information. |
| Command | Id |
| Output |  |
| Aim | display the current working directory. |
| Command | Pwd |
| Output |  |
| Aim | print the value of HOME and PATH variable to determine the home directory and user’s  executable’s path respectively. |
| Command | Echo “$PATH” |
| Output |  |
| Aim | Run su and su - command. Observe the output for the same.what is the main difference between them? |
| Command | Su  Sudo su |
| Output |  |
| Aim | Run sudo su at the shell prompt to become the root user. |
| Command | Sudo su |
| Output |  |
| Aim | Attempt to view the last five lines of /var/log/auth.log without using sudo |
| Command | Su tail /var/log/auth.log |
| Output |  |
| Aim | Attempt to view the last five lines of /var/log/auth.log using sudo |
| Command | Sudo tail /var/log/auth.log |
| Output |  |
| Aim | Attempt to make a copy of /etc/rpc as /etc/rpcOLD without using sudo |
| Command | Cp /etc/rpc as /etc/rpcOLD |
| Output |  |
| Aim | Attempt to make a copy of /etc/rpc as /etc/rpcOLD with sudo. |
| Command | Sudo cp /etc/rpc as /etc/rpcOLD |
| Output |  |
| Aim | Attempt to delete /etc/rpcOLD without using sudo |
| Command | Rm /etc/rpcOLD |
| Output |  |
| Aim | Attempt to delete /etc/rpcdOLD with sudo |
| Command | Sudo rm /etc/rpcOLD |
| Output |  |
| Aim | check the UID for root user, administrator and local users. |
| Command | id |
| Output |  |
| Aim | Adduser user01. |
| Command | Sudo adduser user01 –force-badname |
| Output |  |
| Aim | Create the group group01 with the GID of 10000. |
| Command | Groupadd -g 10000 group group01 |
| Output |  |
| Aim | Create the group group02 |
| Command | Groupadd -group02 |
| Output |  |
| Aim | Examine /etc/group to verify the supplemental group memberships. |
| Command | Cat /etc/group |
| Output |  |
| Aim | Use the usermod -aG command to add a user to a supplementary group. Add user01 to  the group created. |
| Command | Usermod -a -G group01 user01 |
| Output |  |
| Aim | Observe /etc/group and /etc/passwd |
| Command | /etc/group |
| Output |  |

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|  | PART B  Aim : Control access to files |
| Aim | Check the permission of files created. |
| Command | Ls -l |
| Output |  |
| Aim | Check the permission of directories created. |
| Command | Ls -ld |
| Output |  |
| Aim | Set read and write permissions for others with numeric mode to file1.txt |
| Command | Chmod 666 file1.txt |
| Output |  |
| Aim | Remove write permission for user, group and others to folder CE. |
| Command | Chmod 555 ce |
| Output |  |
| Aim | Create a directory 5CE under CE. Observe the response. |
| Command | Cd ce  Sudo mkdir CE5  Cd ce5  Ls -l |
| Output |  |
| Aim | Set read, write and execute permissions for user, group and others to 5CE. |
| Command | Sudo chmod 777 CE5 |
| Output |  |
| Aim | Set read and execute permission for group and no permission for other to file2.txt. |
| Command | Chmod 750 file2.txt |
| Aim | Change the ownership of file to user01 |
| Command | Sudo chown user01 file2.txt  Ls -l |
| Aim | Change the group ownership of file to group01 |
| Command | Sudo chown :user01 file2.txt  Ls -l |
| Aim | Change the ownership of both group and user at the same time. |
| Command | Sud chown user01:user01 file4.txt  Ls -l |
| Aim | Set the special permissions on directory.  a. The setuid permission on an executable file means that commands run as the  user owning the file, not as the user that ran the command. One example is the  passwd command:run ls -l /usr/bin/passwd  b. The special permission setgid on a directory means that files created in the  directory inherit their group ownership from the directory, rather than inheriting  it from the creating user. run ls -ld /run/log/journal  c. the sticky bit for a directory sets a special restriction on deletion of files. Only  the owner of the file (and root) can delete files within the directory. run ls -ld /tmp |
| Command | 1. run ls -l /usr/bin/passwd 2. ls -ld /run/log/journal 3. ls -ld /tmp |
| Aim | Set the setusid, setgid and sticky bit for different files and perform the operations accordingly. |
| Aim | Display the current value of shell’s mask. |
| Command | umask |
| Output |  |
| Aim | Set the umask to 542. |
| Command | Umask 542 |
| Output |  |
| Aim | Try to open the file and directory created. |
| Command | Vi file1.txt |
| Output |  |
| Aim | Try to open the file as other user |
| Command | Su user01  Vi file1.txt |
| Output |  |