

TASK 3

User and Group Management

Task: Create a set of user accounts and groups with specific permissions. Develop a scenario where different users need different access to certain directories. Document the user-group permissions and provide examples of commands used to achieve this

1. Create users:

```
sudo useradd dev1 dev2 marketingPerson1 marketingPerson2
```

2. Create groups developers and Marketing

```
sudo groupadd Developers Marketing
```

3. Assign users to their respective group:

```
sudo usermod -a -G Developers dev1
sudo usermod -a -G Developers dev2
sudo usermod -a -G Marketing marketingPerson1
sudo usermod -a -G Marketing marketingPerson2
```

4. Create some directories:

```
mkdir Marketing DevModules Marketing
```

```
venis@venis-VirtualBox:~/DevOps$ ls -l
total 3656
drwxrwxr-x 2 venis venis 4096 Jan 11 16:04 Assignment5
-rw-rw-r-- 1 venis venis 180109 Jan 11 12:01 business-employment-data-september-2023-quarter.zip
-rw-rw-r-- 1 venis venis 61 Jan 8 15:41 catcommand.txt
-rw-rw-r-- 1 venis venis 586 Jan 11 11:41 copycommand.txt
drwxrwxr-x 2 venis venis 4096 Jan 11 16:21 DevModules
drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct1
drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct2
drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct3
drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct4
drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct5
drwxr-xr-x 2 venis venis 4096 Jan 11 15:29 example_folder
-rw-rw-r-- 1 venis venis 4417 Jan 8 15:57 lesscommand.txt
-rw-rw-r-- 1 venis venis 3461400 Nov 28 16:49 machine-readable-business-employment-data-sep-2023-quarter.csv
drwxrwxr-x 2 venis venis 4096 Jan 11 16:21 Marketing
-rw-rw-r-- 1 venis venis 4417 Jan 8 16:11 morecommand.txt
-rw-rw-r-- 1 venis venis 30 Jan 3 19:24 newfile.txt
-rw-rw-r-- 1 venis venis 23 Jan 11 00:29 output.txt
-rw-rw-r-- 1 venis venis 71 Jan 11 08:12 Task1_Assignment1.sh
-rw-rw-r-- 1 venis venis 393 Jan 11 00:26 task1_assignment4.sh
drwxr-x--- 2 venis venis 4096 Jan 8 16:45 Task2
-rw-rw-r-- 1 venis venis 135 Jan 10 10:28 task2_assignment3.sh
-rw-rw-r-- 1 venis venis 52 Jan 11 00:26 task2_assignment4.sh
-rwxrwxr-x 1 venis venis 278 Jan 10 10:49 task3_assignment.sh
-rwxrwxr-x 1 venis venis 731 Jan 10 11:17 task4_assignment.sh
```

5. Change Permissions

```
chmod 770 /DevModules
```

```
chmod 775 /Marketing
```

```
venis@venis-VirtualBox:~/DevOps$ chmod 770 ./DevModules
venis@venis-VirtualBox:~/DevOps$ chmod 775 ./Marketing
venis@venis-VirtualBox:~/DevOps$ ls -l
total 3656
drwxrwxr-x 2 venis venis 4096 Jan 11 16:04 Assignment5
-rw-rw-r-- 1 venis venis 180109 Jan 11 12:01 business-employment-data-september-2023-quarter.zip
-rw-rw-r-- 1 venis venis 61 Jan 8 15:41 catcommand.txt
-rw-rw-r-- 1 venis venis 586 Jan 11 11:41 copycommand.txt
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drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct4
drwxrwxr-x 2 venis venis 4096 Jan 10 10:51 direct5
drwxr-xr-x 2 venis venis 4096 Jan 11 15:29 example_folder
-rw-rw-r-- 1 venis venis 4417 Jan 8 15:57 lesscommand.txt
-rw-rw-r-- 1 venis venis 3461400 Nov 28 16:49 machine-readable-business-employment-data-sep-2023-quarter.csv
drwxrwxr-x 2 venis venis 4096 Jan 11 16:21 Marketing
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-rw-rw-r-- 1 venis venis 393 Jan 11 00:26 task1_assignment4.sh
drwxr-x--- 2 venis venis 4096 Jan 8 16:45 Task2
-rw-rw-r-- 1 venis venis 135 Jan 10 10:28 task2_assignment3.sh
-rw-rw-r-- 1 venis venis 52 Jan 11 00:26 task2_assignment4.sh
-rwxrwxr-x 1 venis venis 278 Jan 10 10:49 task3_assignment.sh
-rwxrwxr-x 1 venis venis 731 Jan 10 11:17 task4_assignment.sh
venis@venis-VirtualBox:~/DevOps$
```

DevModules only needs to be accessed by Developers, Marketing can be changed by Marketing group users but other users can read and execute the directory.

Checking Permissions:

```
su dev1
```

```
mkdir /Marketing/M
```

```
venis@venis-VirtualBox:~/DevOps$ mkdir /Marketing/M
mkdir: cannot create directory '/Marketing/M': No such file or directory
```