

Task2

Task assignment.

1) Analyze the structure of the **/etc/passwd** and **/etc/group** file, what fields are present in it, what users exist on the system? Specify several pseudo-users, how to define them?

File structure /etc/passwd: username: passwd: uid: gid: uidcomments: directory: shell

File structure /etc/group: group_name:password:group_id:list

Pseudo-users define by uid range 1-999.

2) What are the uid ranges? What is UID? How to define it?

Uid range 0-65535. Uid is a simple numeric designation for an individual user. We can see uid in /etc/passwd

3) What is GID? How to define it?

Gid is a unique identifier of the group within the system to which the user belongs. We can see gid in /etc/group

4) How to determine belonging of user to the specific group?

id [username]

5) What are the commands for adding a user to the system? What are the basic parameters required to create a user?

useradd[-c uidcomment] [-d dir] [-e expire] [-f inactive] [-g gid] [-m [-k skel_dir]] [-s shell] [-u uid[-o]] username

Basic parameter – username.

6) How do I change the name (account name) of an existing user?

usermod [-l new username] username

7) What is skel_dir? What is its structure?

skel_dir-contains files which must be copied to the new user's home directory.

```
[davig@oracle ~]$ ls -la /etc/skel
total 24
drwxr-xr-x. 2 root root 62 Oct 9 2021 .
drwxr-xr-x. 94 root root 8192 Jul 11 10:47 ..
-rw-r--r--. 1 root root 18 Mar 30 23:19 .bash_logout
-rw-r--r--. 1 root root 141 Mar 30 23:19 .bash_profile
-rw-r--r--. 1 root root 376 Mar 30 23:19 .bashrc
[davig@oracle ~]$
```

8) How to remove a user from the system (including his mailbox)?

userdel -r username

9) What commands and keys should be used to lock and unlock a user account?

passwd -l user_name -lock, key -u - unlock

change shell to nologin in /etc/passwd – lock, change shell to bash - unlock

chage -E 1 username -lock, chage -E -1 username -unlock

10) How to remove a user's password and provide him with a password-free login for subsequent password change?

passwd -d username

11) Display the extended format of information about the directory, tell about the information columns displayed on the terminal.

```
[davig@oracle test]$ ls -la
total 28
drwxrwxr-x 2 davig davig 60 Jul 11 16:56 .
drwx----- 13 davig davig 4096 Jul 11 18:09 ..
-rw----- 1 davig davig 20638 Jul 11 16:43 hard_ln_labwork2
lrwxrwxrwx 1 davig davig 8 Jul 11 16:25 'symlnk_labwork2 file' -> 
[davig@oracle test]$
```

12) What access rights exist and for whom (i. e., describe the main roles)? Briefly describe the acronym for access rights.

r (read) – 4, w (write) – 2, x (eXecute) -1

StickyBit: s (setuid) -4, S (setgid) – 2, t (sticky) – 1.

13) What is the sequence of defining the relationship between the file and the user?

Each file owned by a user.

14) What commands are used to change the owner of a file (directory), as well as the mode of access to the file? Give examples, demonstrate on the terminal.

```
[davig@oracle test2]$ ls -l
total 0
-rw-rw-r-- 1 davig davig 0 Jul 12 04:58 1.txt
-rw-rw-r-- 1 davig davig 0 Jul 12 04:58 2.txt
-rw-rw-r-- 1 davig davig 0 Jul 12 04:58 3.txt
[davig@oracle test2]$ sudo chown creator *.txt
[davig@oracle test2]$ ls -l
total 0
-rw-rw-r-- 1 creator davig 0 Jul 12 04:58 1.txt
-rw-rw-r-- 1 creator davig 0 Jul 12 04:58 2.txt
-rw-rw-r-- 1 creator davig 0 Jul 12 04:58 3.txt
[davig@oracle test2]$
```

15) What is an example of octal representation of access rights? Describe the umask command.

Example of octal access rights is 755. Its same as rwxr-xr-x.

Umask need to calculate the permission bits of the new files, subtract the umask value from the default value.

16) Give definitions of sticky bits and mechanism of identifier substitution. Give an example of files and directories with these attributes.

```
[davig@oracle test2]$ chmod 1775 dir
[davig@oracle test2]$ ls -l
total 0
-rw-rw-r-- 1 davig davig 0 Jul 12 04:58 1.txt
-rw-rw-r-- 1 davig davig 0 Jul 12 04:58 2.txt
-rw-rw-r-- 1 davig davig 0 Jul 12 04:58 3.txt
drwxrwxr-t 2 davig davig 6 Jul 12 06:42 dir
[davig@oracle test2]$ chmod +x *
[davig@oracle test2]$ chmod 1775 dir
[davig@oracle test2]$ chmod 2775 1.txt
[davig@oracle test2]$ chmod 4775 2.txt
[davig@oracle test2]$ ls -l
total 0
-rwxrwsr-x 1 davig davig 0 Jul 12 04:58 1.txt
-rwsrwxr-x 1 davig davig 0 Jul 12 04:58 2.txt
-rwxrwxr-x 1 davig davig 0 Jul 12 04:58 3.txt
drwxrwxr-t 2 davig davig 6 Jul 12 06:42 dir
[davig@oracle test2]$
```

17) What file attributes should be present in the command script?

Command script need execute attribute.