

EPAM University Programs
DevOps external course
Module 4 Linux Essentials
TASK 4.3

1;2.

```
bobrov@bobrov-VirtualBox:~$ pwd
/home/bobrov
bobrov@bobrov-VirtualBox:~$ ls -l /
total 1237684
drwxr-xr-x  2 root root    4096 Квб  5 01:19 bin
drwxr-xr-x  3 root root    4096 Квб 12 13:47 boot
drwxrwxr-x  2 root root    4096 Квб  5 01:08 cdrom
drwxr-xr-x 18 root root   4220 Квб 12 23:33 dev
drwxr-xr-x 121 root root  12288 Квб 12 20:29 etc
drwxr-xr-x  3 root root    4096 Квб  5 01:09 home
lrwxrwxrwx  1 root root     32 Квб 12 13:46 initrd.img -> boot/initrd.img-5.3.0-46-
generic
lrwxrwxrwx  1 root root     32 Квб 12 13:46 initrd.img.old -> boot/initrd.img-5.3.0
-45-generic
drwxr-xr-x 21 root root    4096 Квб  5 01:10 lib
drwxr-xr-x  2 root root    4096 лют  3 20:22 lib64
drwx----- 2 root root   16384 Квб  5 01:06 lost+found
drwxr-xr-x  3 root root    4096 Квб  5 01:24 media
drwxr-xr-x  2 root root    4096 лют  3 20:22 mnt
drwxr-xr-x  4 root root    4096 Квб 11 23:22 opt
dr-xr-xr-x 173 root root     0 Квб 12 23:32 proc
drwx----- 4 root root    4096 Квб 12 23:33 root
drwxr-xr-x 27 root root     840 Квб 12 23:33 run
drwxr-xr-x  2 root root   12288 Квб 12 23:33 sbin
drwxr-xr-x 11 root root    4096 Квб  5 01:16 snap
drwxr-xr-x  2 root root    4096 лют  3 20:22 srv
-rw-----  1 root root 1267281920 Квб  5 01:06 swapfile
dr-xr-xr-x 13 root root     0 Квб 12 23:32 sys
drwxrwxrwt 12 root root    4096 Квб 12 23:33 tmp
drwxr-xr-x 11 root root    4096 лют  3 20:25 usr
drwxr-xr-x 14 root root    4096 лют  3 20:30 var
lrwxrwxrwx  1 root root     29 Квб 12 13:46 vmlinuz -> boot/vmlinuz-5.3.0-46-generi
c
lrwxrwxrwx  1 root root     29 Квб 12 13:46 vmlinuz.old -> boot/vmlinuz-5.3.0-45-ge
neric
```

Commands show the contents of the folder. you can choose in what form the results are displayed and choose in which particular package to execute the commands.

```

neric
bobrov@bobrov-VirtualBox:~$ ls
Desktop  Documents  Downloads  Music  name  Pictures  Public  Templates  Videos
bobrov@bobrov-VirtualBox:~$ ls ~
Desktop  Documents  Downloads  Music  name  Pictures  Public  Templates  Videos
bobrov@bobrov-VirtualBox:~$ ls -l
total 36
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Desktop
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Documents
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Downloads
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Music
-rw-rw-r-- 1 bobrov bobrov 55 Кб 12 00:48 name
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Pictures
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Public
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Templates
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Videos
bobrov@bobrov-VirtualBox:~$ ls -a
.          .bashrc  Documents  .lessht  name      .sudo_as_admin_successful
..         .cache   Downloads  .local    Pictures   Templates
.bash_history .config  .gnupg     .mozilla .profile   Videos
.bash_logout Desktop  .ICEauthority Music     Public     .Xauthority
bobrov@bobrov-VirtualBox:~$ ls -la
total 92
drwxr-xr-x 15 bobrov bobrov 4096 Кб 12 23:33 .
drwxr-xr-x 3 root root 4096 Кб 5 01:09 ..
-rw----- 1 bobrov bobrov 3309 Кб 12 21:19 .bash_history
-rw-r--r-- 1 bobrov bobrov 220 Кб 5 01:09 .bash_logout
-rw-r--r-- 1 bobrov bobrov 3771 Кб 5 01:09 .bashrc
drwx----- 13 bobrov bobrov 4096 Кб 11 15:24 .cache
drwx----- 14 bobrov bobrov 4096 Кб 11 23:25 .config
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Desktop
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Documents
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Downloads
drwx----- 3 bobrov bobrov 4096 Кб 5 01:12 .gnupg
-rw----- 1 bobrov bobrov 3982 Кб 12 21:07 .ICEauthority

```

```

-rw----- 1 bobrov bobrov 3982 Кб 12 21:07 .ICEauthority
-rw----- 1 bobrov bobrov 28 Кб 12 14:45 .lessht
drwx----- 3 bobrov bobrov 4096 Кб 5 01:12 .local
drwx----- 5 bobrov bobrov 4096 Кб 5 01:17 .mozilla
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Music
-rw-rw-r-- 1 bobrov bobrov 55 Кб 12 00:48 name
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Pictures
-rw-r--r-- 1 bobrov bobrov 807 Кб 5 01:09 .profile
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Public
-rw-r--r-- 1 bobrov bobrov 0 Кб 11 15:22 .sudo_as_admin_successful
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Templates
drwxr-xr-x 2 bobrov bobrov 4096 Кб 5 01:13 Videos
-rw----- 1 bobrov bobrov 126 Кб 12 23:33 .Xauthority
bobrov@bobrov-VirtualBox:~$ ls -lda ~
drwxr-xr-x 15 bobrov bobrov 4096 Кб 12 23:33 /home/bobrov

```

3.

`mkdir test` - command creates a test folder.

`cd test` - command to go to the test folder.

`pwd` - command displays current path.

`touch test.txt` - command creates a new empty file test.txt.

`ls -l test.txt` - command displays full information about the test.txt file.

`mkdir test2` - command creates a folder "test2".

`mv test.txt test2` - command moves the test file to the test2 folder.

`cd test2` - command to go to the folder "test2".

`ls` - command displays folder contents.

`mv test.txt test2.txt` - command renames the file test.txt to the file test2.txt.

`ls` - command displays folder contents.

`cp test2.txt ..` - the command copies the file "test2.txt" to the folder one level higher.

`cd ..` - command to go to the folder one level up.

`ls` - command displays folder contents.

`rm test2.txt` - command deletes the file "test2.txt".

`rmdir test2` - command tries to delete the folder "test2", but it is not deleted because it is not empty.

```
bobrov@bobrov-VirtualBox:~$ mkdir test
bobrov@bobrov-VirtualBox:~$ cd test
bobrov@bobrov-VirtualBox:~/test$ pwd
/home/bobrov/test
bobrov@bobrov-VirtualBox:~/test$ touch test.txt
bobrov@bobrov-VirtualBox:~/test$ ls -l test.txt
-rw-rw-r-- 1 bobrov bobrov 0 Kbi 13 00:05 test.txt
bobrov@bobrov-VirtualBox:~/test$ mkdir test2
bobrov@bobrov-VirtualBox:~/test$ mv test.txt test2
bobrov@bobrov-VirtualBox:~/test$ cd test2
bobrov@bobrov-VirtualBox:~/test/test2$ ls
test.txt
bobrov@bobrov-VirtualBox:~/test/test2$ mv test.txt test2.txt
bobrov@bobrov-VirtualBox:~/test/test2$ ls
test2.txt
bobrov@bobrov-VirtualBox:~/test/test2$ cp test2.txt ..
bobrov@bobrov-VirtualBox:~/test/test2$ cd ..
bobrov@bobrov-VirtualBox:~/test$ ls
test2  test2.txt
bobrov@bobrov-VirtualBox:~/test$ rm test2.txt
bobrov@bobrov-VirtualBox:~/test$ rmdir test2
rmdir: failed to remove 'test2': Directory not empty
```

4.

```
cat /etc/fstab
more /etc/fstab
```

```
bobrov@bobrov-VirtualBox:~$ more /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda1 during installation
UUID=a532a8df-c97a-4cc2-bb53-44d66da3c5d5 / ext4 errors=remount-ro 0 1
/swapfile none swap sw 0 0
bobrov@bobrov-VirtualBox:~$ cat /etc/fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda1 during installation
UUID=a532a8df-c97a-4cc2-bb53-44d66da3c5d5 / ext4 errors=remount-ro 0 1
/swapfile none swap sw 0 0
```

```
less /etc/fstab
```

```
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda1 during installation
UUID=a532a8df-c97a-4cc2-bb53-44d66da3c5d5 / ext4 errors=remount-ro 0 1
/swapfile none swap sw 0 0
```

The commands `more /etc/fstab` and `cat /etc/fstab` display the text of the file contents, and the command `less /etc/fstab` displays the text in the text viewer. The manual describes that the `less` and `more` commands essentially do the same thing, but a command `more` can only flip text down, and a command `less` can flip text up and down. But on my terminal command `more` behaves like `cat` command.

5.

```
tar -cvf test.tar test
tar -cvzf testzipped.tar test
```

```
bobrov@bobrov-VirtualBox:~$ tar -cvf test.tar test
test/
test/test2/
test/test2/test2.txt
bobrov@bobrov-VirtualBox:~$ tar -cvzf testzipped.tar test
test/
test/test2/
test/test2/test2.txt
```

```
gzip testzipped.tar
ls -l
```

```
bobrov@bobrov-VirtualBox:~$ gzip testzipped.tar
bobrov@bobrov-VirtualBox:~$ ls -l
total 60
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Desktop
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Documents
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Downloads
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Music
-rw-rw-r-- 1 bobrov bobrov 55 κbi 12 00:48 name
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Pictures
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Public
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Templates
drwxrwxr-x 3 bobrov bobrov 4096 κbi 13 00:07 test
-rw-rw-r-- 1 bobrov bobrov 167 κbi 13 02:20 testgzipped.tgz
-rw-rw-r-- 1 bobrov bobrov 10240 κbi 13 02:07 test.tar
-rw-rw-r-- 1 bobrov bobrov 201 κbi 13 02:11 testzipped.tar.gz
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Videos
```

```
mkdir testtar
tar -xvf test.tar -C testtar
ls -l
```

```
bobrov@bobrov-VirtualBox:~$ mkdir testtar
bobrov@bobrov-VirtualBox:~$ tar -xvf test.tar testtar
tar: testtar: Not found in archive
tar: Exiting with failure status due to previous errors
bobrov@bobrov-VirtualBox:~$ mkdir testtar
bobrov@bobrov-VirtualBox:~$ tar -xvf test.tar -C testtar
test/
test/test2/
test/test2/test2.txt
bobrov@bobrov-VirtualBox:~$ ls -l
total 64
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Desktop
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Documents
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Downloads
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Music
-rw-rw-r-- 1 bobrov bobrov 55 Kbi 12 00:48 name
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Pictures
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Public
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Templates
drwxrwxr-x 3 bobrov bobrov 4096 Kbi 13 00:07 test
-rw-rw-r-- 1 bobrov bobrov 167 Kbi 13 02:20 testgzipped.tgz
drwxrwxr-x 3 bobrov bobrov 4096 Kbi 13 02:39 testtar
-rw-rw-r-- 1 bobrov bobrov 10240 Kbi 13 02:07 test.tar
-rw-rw-r-- 1 bobrov bobrov 201 Kbi 13 02:11 testzipped.tar.gz
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Videos
```

```
mkdir testzippedtar
tar -xvf testgzipped.tgz -C testzippedtar
```

```
bobrov@bobrov-VirtualBox:~$ tar -xvf testgzipped.tgz -C testzippedtar
test/
test/test2/
test/test2/test2.txt
bobrov@bobrov-VirtualBox:~$ ls -l
total 68
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Desktop
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Documents
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Downloads
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Music
-rw-rw-r-- 1 bobrov bobrov 55 Kbi 12 00:48 name
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Pictures
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Public
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Templates
drwxrwxr-x 3 bobrov bobrov 4096 Kbi 13 00:07 test
-rw-rw-r-- 1 bobrov bobrov 167 Kbi 13 02:20 testgzipped.tgz
drwxrwxr-x 3 bobrov bobrov 4096 Kbi 13 02:39 testtar
-rw-rw-r-- 1 bobrov bobrov 10240 Kbi 13 02:07 test.tar
drwxrwxr-x 3 bobrov bobrov 4096 Kbi 13 02:48 testzippedtar
-rw-rw-r-- 1 bobrov bobrov 201 Kbi 13 02:11 testzipped.tar.gz
drwxr-xr-x 2 bobrov bobrov 4096 Kbi 5 01:13 Videos
```

```
gunzip testzipped.tar.gz  
ls -l
```

```
bobrov@bobrov-VirtualBox:~$ gunzip testzipped.tar.gz  
bobrov@bobrov-VirtualBox:~$ ls -l  
total 68  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Desktop  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Documents  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Downloads  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Music  
-rw-rw-r-- 1 bobrov bobrov 55 κbi 12 00:48 name  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Pictures  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Public  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Templates  
drwxrwxr-x 3 bobrov bobrov 4096 κbi 13 00:07 test  
-rw-rw-r-- 1 bobrov bobrov 167 κbi 13 02:20 testgzipped.tgz  
drwxrwxr-x 3 bobrov bobrov 4096 κbi 13 02:39 testtar  
-rw-rw-r-- 1 bobrov bobrov 10240 κbi 13 02:07 test.tar  
drwxrwxr-x 3 bobrov bobrov 4096 κbi 13 02:48 testzippedtar  
-rw-rw-r-- 1 bobrov bobrov 167 κbi 13 02:11 testzipped.tar  
drwxr-xr-x 2 bobrov bobrov 4096 κbi 5 01:13 Videos
```