

Задание

1. Используя команду cat в терминале операционной системы Linux, создать два файла Домашние животные (заполнив файл собаками, кошками, хомяками) и Вьючные животными заполнив файл Лошадьми, верблюдами и осли), а затем объединить их. Просмотреть содержимое созданного файла. Переименовать файл, дав ему новое имя (Друзья человека).

=====

а) Создание и объединение файлов:

```
karina@karina-VirtualBox:~$ pwd
```

```
/home/karina
```

```
karina@karina-VirtualBox:~$ cat > "Домашние животные" << EOF
```

```
> собаки
```

```
> кошки
```

```
> хомяки
```

```
> УЩА
```

```
> EOF
```

```
karina@karina-VirtualBox:~$ cat > "Вьючные животные" << EOF
```

```
> лошади
```

```
> верблюды
```

```
> ослы
```

```
> EOF
```

```
karina@karina-VirtualBox:~$ cat "Домашние животные" "Вьючные животные" > "Друзья человека"
```

```
karina@karina-VirtualBox:~$ cat "Друзья человека"
```

```
собаки
```

```
кошки
```

```
хомяки
```

```
УЩА
```

```
лошади
```

верблюды

ослы

```
karina@karina-VirtualBox:~$ mv "Друзья человека" "Новое имя файла"
```

2. Создать директорию, переместить файл туда.

=====

```
karina@karina-VirtualBox:~$ mkdir Директория_питомика
```

```
karina@karina-VirtualBox:~$ mv "Новое имя файла" Директория_питомика/
```

3. Подключить дополнительный репозиторий MySQL. Установить любой пакет из этого репозитория.

=====

```
karina@karina-VirtualBox:~$ sudo add-apt-repository 'deb http://archive.ubuntu.com/ubuntu bionic main u  
niverse'
```

```
Repository: 'deb http://archive.ubuntu.com/ubuntu bionic universe main'
```

```
Description:
```

```
Archive for codename: bionic components: universe,main
```

```
More info: http://archive.ubuntu.com/ubuntu
```

```
Adding repository.
```

```
Press [ENTER] to continue or Ctrl-c to cancel.
```

```
Adding deb entry to /etc/apt/sources.list.d/archive_uri-http_archive_ubuntu_com_ubuntu-jammy.list
```

```
Adding disabled deb-src entry to /etc/apt/sources.list.d/archive_uri-http_archive_ubuntu_com_ubuntu-jam  
my.list
```

```
Hit:1 http://ge.archive.ubuntu.com/ubuntu jammy InRelease
```

```
Get:2 http://ge.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
```

```
Get:3 http://ge.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
```

```
Get:4 http://archive.ubuntu.com/ubuntu bionic InRelease [242 kB]
```

```
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
```

Get:6 <https://download.docker.com/linux/ubuntu jammy InRelease> [48,9 kB]

Hit:7 <http://nginx.org/packages/ubuntu jammy InRelease>

Get:8 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages> [855 kB]

Get:9 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/main i386 Packages> [456 kB]

Get:10 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en> [209 kB]

Get:11 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11 Metadata> [99,8 kB]

Get:12 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata> [15,4 kB]

Get:13 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages> [668 kB]

Get:14 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en> [106 kB]

Get:15 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe i386 Packages> [646 kB]

Get:16 <https://download.docker.com/linux/ubuntu jammy/stable amd64 Packages> [21,2 kB]

Get:17 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages> [961 kB]

Get:18 <http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages> [634 kB]

Get:19 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en> [207 kB]

Get:20 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP-11 Metadata> [278 kB]

Get:21 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe DEP-11 48x48 Icons> [190 kB]

Get:22 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe DEP-11 64x64 Icons> [291 kB]

Get:23 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata> [21,4 kB]

Get:24 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en> [9.768 B]

Get:25 <http://security.ubuntu.com/ubuntu jammy-security/main i386 Packages> [278 kB]

Get:26 <http://ge.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 DEP-11 Metadata> [940 B]

Get:27 <http://ge.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metadata> [7.972 B]

Get:28 <http://ge.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages> [22,2 kB]

Get:29 <http://security.ubuntu.com/ubuntu jammy-security/main Translation-en> [149 kB]

Get:30 <http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP-11 Metadata> [41,5 kB]

Get:31 <http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata> [11,0 kB]

Get:32 <http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages> [656 kB]

Get:33 <http://ge.archive.ubuntu.com/ubuntu/jammy-backports/universe> i386 Packages [12,8 kB]

Err:4 <http://archive.ubuntu.com/ubuntu/bionic/InRelease>

The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 3B4FE6ACC0B21F32

Get:34 <http://ge.archive.ubuntu.com/ubuntu/jammy-backports/universe/amd64/DEP-11/Metadata> [15,5 kB]

Get:35 <http://ge.archive.ubuntu.com/ubuntu/jammy-backports/universe/DEP-11/64x64/Icons> [22,2 kB]

Get:36 <http://ge.archive.ubuntu.com/ubuntu/jammy-backports/universe/amd64/c-n-f/Metadata> [580 B]

Get:37 <http://security.ubuntu.com/ubuntu/jammy-security/restricted/Translation-en> [104 kB]

Get:38 <http://security.ubuntu.com/ubuntu/jammy-security/universe/i386/Packages> [551 kB]

Get:39 <http://security.ubuntu.com/ubuntu/jammy-security/universe/amd64/Packages> [764 kB]

Get:40 <http://security.ubuntu.com/ubuntu/jammy-security/universe/Translation-en> [137 kB]

Get:41 <http://security.ubuntu.com/ubuntu/jammy-security/universe/amd64/DEP-11/Metadata> [22,0 kB]

Get:42 <http://security.ubuntu.com/ubuntu/jammy-security/universe/amd64/c-n-f/Metadata> [16,3 kB]

Reading package lists... Done

W: <https://download.docker.com/linux/ubuntu/dists/jammy/InRelease>: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.

W: GPG error: <http://archive.ubuntu.com/ubuntu/bionic/InRelease>: The following signatures couldn't be verified because the public key is not available: NO_PUBKEY 3B4FE6ACC0B21F32

E: The repository '<http://archive.ubuntu.com/ubuntu/bionic/InRelease>' is not signed.

N: Updating from such a repository can't be done securely, and is therefore disabled by default.

N: See apt-secure(8) manpage for repository creation and user configuration details.

W: <http://nginx.org/packages/ubuntu/dists/jammy/InRelease>: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.

N: Skipping acquire of configured file 'nginx/binary-i386/Packages' as repository '<http://nginx.org/packages/ubuntu/jammy/InRelease>' doesn't support architecture 'i386'

karina@karina-VirtualBox:~\$ sudo apt update

Hit:1 <http://ge.archive.ubuntu.com/ubuntu/jammy/InRelease>

Hit:2 <http://ge.archive.ubuntu.com/ubuntu/jammy-updates/InRelease>

Hit:3 <http://ge.archive.ubuntu.com/ubuntu/jammy-backports/InRelease>

Hit:4 <http://nginx.org/packages/ubuntu> jammy InRelease

Hit:5 <https://download.docker.com/linux/ubuntu> jammy InRelease

Hit:6 <http://security.ubuntu.com/ubuntu> jammy-security InRelease

Hit:7 <http://archive.ubuntu.com/ubuntu> bionic InRelease

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

237 packages can be upgraded. Run 'apt list --upgradable' to see them.

W: <http://nginx.org/packages/ubuntu/dists/jammy/InRelease>: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.

N: Skipping acquire of configured file 'nginx/binary-i386/Packages' as repository '<http://nginx.org/packages/ubuntu> jammy InRelease' doesn't support architecture 'i386'

W: <https://download.docker.com/linux/ubuntu/dists/jammy/InRelease>: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.

W: <http://archive.ubuntu.com/ubuntu/dists/bionic/InRelease>: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.

karina@karina-VirtualBox:~\$ sudo apt install curl

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

curl is already the newest version (7.81.0-1ubuntu1.13).

The following packages were automatically installed and are no longer required:

libaio1 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7 libevent-pthreads-2.1-7 libfcgi-bin

libfcgi-perl libfcgi0ldbl libhtml-template-perl libmecab2 libprotobuf-lite23 mecab-ipadic

mecab-ipadic-utf8 mecab-utils mysql-server-8.0 mysql-server-core-8.0

Use 'sudo apt autoremove' to remove them.

0 upgraded, 0 newly installed, 0 to remove and 237 not upgraded.

karina@karina-VirtualBox:~\$

4. Установить и удалить deb-пакет с помощью dpkg.
=====

```
karina@karina-VirtualBox:~$ sudo apt install htop
```

```
Reading package lists... Done
```

```
Building dependency tree... Done
```

```
Reading state information... Done
```

```
The following packages were automatically installed and are no longer required:
```

```
libaio1 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7 libevent-pthreads-2.1-7 libfcgi-bin  
libfcgi-perl libfcgi0ldbl libhtml-template-perl libmecab2 libprotobuf-lite23 mecab-ipadic  
mecab-ipadic-utf8 mecab-utils mysql-server-8.0 mysql-server-core-8.0
```

```
Use 'sudo apt autoremove' to remove them.
```

```
Suggested packages:
```

```
lm-sensors
```

```
The following NEW packages will be installed:
```

```
htop
```

```
0 upgraded, 1 newly installed, 0 to remove and 237 not upgraded.
```

```
Need to get 128 kB of archives.
```

```
After this operation, 342 kB of additional disk space will be used.
```

```
Get:1 http://ge.archive.ubuntu.com/ubuntu jammy/main amd64 htop amd64 3.0.5-7build2 [128 kB]
```

```
Fetch: 128 kB in 0s (687 kB/s)
```

```
Selecting previously unselected package htop.
```

```
(Reading database ... 201100 files and directories currently installed.)
```

```
Preparing to unpack .../htop_3.0.5-7build2_amd64.deb ...
```

```
Unpacking htop (3.0.5-7build2) ...
```

```
Setting up htop (3.0.5-7build2) ...
```

```
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
```

```
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
```

Processing triggers for hicolor-icon-theme (0.17-2) ...

Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...

Processing triggers for man-db (2.10.2-1) ...

karina@karina-VirtualBox:~\$ ls

Desktop htop_3.0.5-7build2_amd64.deb mysql_data Public test.txt 'Вьючные животные' Игры
ушки

Documents Music newroot snap Videos Директория_питомика

Downloads mysite Pictures Templates Вьючные 'Домашние животные'

karina@karina-VirtualBox:~\$ sudo dpkg -i htop_3.0.5-7build2_amd64.deb

(Reading database ... 201110 files and directories currently installed.)

Preparing to unpack htop_3.0.5-7build2_amd64.deb ...

Unpacking htop (3.0.5-7build2) over (3.0.5-7build2) ...

Setting up htop (3.0.5-7build2) ...

Processing triggers for mailcap (3.70+nmu1ubuntu1) ...

Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...

Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...

Processing triggers for hicolor-icon-theme (0.17-2) ...

Processing triggers for man-db (2.10.2-1) ...

karina@karina-VirtualBox:~\$ sudo dpkg -r htop

(Reading database ... 201110 files and directories currently installed.)

Removing htop (3.0.5-7build2) ...

Processing triggers for man-db (2.10.2-1) ...

Processing triggers for hicolor-icon-theme (0.17-2) ...

Processing triggers for mailcap (3.70+nmu1ubuntu1) ...

Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...

Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...

karina@karina-VirtualBox:~\$

5. Выложить историю команд в терминале ubuntu

=====

karina@karina-VirtualBox:~\$ history

- 1 sudo sh VBoxLinuxAdditions.run
- 2 restart
- 3 sudo ./VBoxLinuxAdditions.run
- 4 sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys ABF5BD827BD9BF62
- 5 echo "deb http://nginx.org/packages/ubuntu \$(lsb_release -sc) nginx" | sudo tee /etc/apt/sources.list.d/nginx.list
- 6 sudo apt update
- 7 apt list --upgradable
- 8 sudo apt install nginx
- 9 sudo systemctl stop nginx
- 10 sudo dpkg -r nginx
- 11 sudo dpkg --purge nginx
- 12 sudo apt-get autoremove
- 13 sudo apt-get autoclean
- 14 sudo snap refresh
- 15 sudo snap install google-chrome
- 16 sudo snap find <google-chrome>
- 17 sudo snap find
- 18 sudo snap install jami
- 19 nano test.txt
- 20 crontab -e
- 21 pwd
- 22 crontab -e
- 23 sudo apt-get update
- 24 sudo apt-get install iptables
- 25 sudo iptables -A OUTPUT -j ACCEPT


```
26 sudo iptables -A INPUT -p tcp --dport 22 -j ACCEPT
27 sudo iptables -A INPUT -p tcp --dport 80 -j ACCEPT
28 sudo iptables -A INPUT -j DROP
29 sudo sh -c "iptables-save > /etc/iptables.rules"
30 sudo nano /etc/network/interfaces
31 sudo apt-get install iptables-persistent
32 apt-get update
33 sudo apt-get update
34 sudo iptables -t nat -A PREROUTING -p tcp --dport 80 -j REDIRECT --to-port 8080
35 sudo iptables-save > /etc/iptables/rules.v4
36 sudo apt-get update
37 sudo nano /etc/apt/sources.list
38 sudo apt-get update
39 sudo nano /etc/apt/sources.list
40 sudo apt-get update
41 sudo nano /etc/apt/sources.list
42 sudo apt-get update
43 sudo nano /etc/apt/sources.list
44 sudo apt-get update
45 sudo nano /etc/apt/sources.list
46 sudo apt-get update
47 sudo nano /etc/apt/sources.list
48 sudo apt-get update
49 sudo nano /etc/apt/sources.list
50 sudo apt-get update
51 sudo apt-get install iptables-persistent
52 sudo iptables -t nat -A PREROUTING -p tcp --dport 80 -j REDIRECT --to-port 8080
```

```
53 sudo iptables-save > /etc/iptables/rules.v4
54 sudo bash -c "iptables-save > /etc/iptables/rules.v4"
55 sudo nano /etc/rc.local
56 sudo iptables -A INPUT -s 3.4.5.6 -j DROP
57 sudo iptables-save > /etc/iptables/rules.v4
58 sudo "iptables-save > /etc/iptables/rules.v4"
59 ls -ld /etc/iptables
60 sudo su
61 sudo apt update
62 sudo apt install apt-transport-https ca-certificates curl gnupg-agent software-properties-common
63 sudo lsof /var/lib/dpkg/lock-frontent
64 sudo kill <3552>
65 sudo kill 3552
66 sudo apt install apt-transport-https ca-certificates curl gnupg-agent software-properties-common
67 sudo lsof /var/lib/dpkg/lock-frontent
68 sudo kill 3552
69 sudo lsof /var/lib/dpkg/lock-frontent
70 sudo kill 3552
71 sudo lsof /var/lib/dpkg/lock-frontent
72 sudo apt install apt-transport-https ca-certificates curl gnupg-agent software-properties-common
73 curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
74 sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release
-cs) stable"
75 sudo apt update
76 sudo apt install docker-ce
77 sudo systemctl status docker
78 docker run -it ubuntu
79 sudo usermod -aG docker $USER
```

```
80 docker run -it ubuntu
81 sudo apt-get install lxc
82 sudo lxc-create -t download -n my-container -- -d ubuntu -r focal -a amd64
83 apt install openssh-server
84 sudo lxc-start -n my-container
85 sudo nano /var/lib/lxc/my-container/config
86 sudo lxc-stop -n my-container
87 sudo lxc-start -n my-container
88 sudo lxc-info -n my-container
89 touch Dockerfile
90 nano Dockerfile
91 cd Dockerfile
92 docker build -t my-mariadb-image .
93 nano Dockerfile
94 docker build -t my-mariadb-image .
95 docker build -t my-mariadb-image --network host .
96 nano Dockerfile
97 docker build -t my-mariadb-image .
98 nano Dockerfile
99 docker build -t my-mariadb-image .
100 nano Dockerfile
101 docker build -t my-mariadb-image .
102 nano Dockerfile
103 docker build -t my-mariadb-image .
104 nano Dockerfile
105 docker build -t my-mariadb-image .
106 nano Dockerfile
107 docker build -t my-mariadb-image .
```

```
108 nano Dockerfile
109 docker build -t my-mariadb-image .
110 nano Dockerfile
111 docker build -t my-mariadb-image .
112 nano Dockerfile
113 env | grep -i proxy
114 ping google.com
115 nano Dockerfile
116 docker build -t my-mariadb-image .
117 nano Dockerfile
118 docker build -t my-mariadb-image .
119 docker run --network host alpine ping -c 3 google.com
120 docker run
121 cd Documents
122 nano Dockerfile
123 docker build -t my-mariadb-image .
124 nano Dockerfile
125 docker build -t my-mariadb-image .
126 cd Documents
127 nano Dockerfile
128 docker build -t my-mariadb-image .
129 ping archive.ubuntu.com
130 ping archive.mariadb.org
131 nano Dockerfile
132 docker build -t my-mariadb-image .
133 sudo add-apt-repository 'deb http://archive.ubuntu.com/ubuntu bionic main universe'
134 sudo apt update
```

```
135 sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 3B4FE6ACC0B21F32
136 sudo apt update
137 sudo apt install curl
138 sudo dpkg -i example-package.deb
139 sudo dpkg -i /home/karina/Загрузки/example-package.deb
140 ls /home/karina/Загрузки/
141 pwd
142 mv /home/karina/Загрузки/example-package.deb .
143 mv /home/karina/example-package.deb .
144 mv /home/karina/example-package.deb
145 mv '/home/karina/example-package.deb'
146 sudo dpkg -i /home/karina/example-package.deb
147 ls
148 sudo dpkg -i /home/karina/Downloads/example-package.deb
149 sudo apt update
150 sudo apt download htop
151 wget http://archive.ubuntu.com/ubuntu/pool/universe/c/chromium-browser/chromium-browser_92.0.
4515.131-0ubuntu1_amd64.deb
152 dpkg -I
153 sudo apt install htop
154 ls
155 sudo dpkg -i htop_3.0.5-7build2_amd64.deb
156 sudo dpkg -r htop
157 history

karina@karina-VirtualBox:~$
```

6. Нарисовать диаграмму, в которой есть класс родительский класс, домашние животные и вьючные животные, в составы которых в случае домашних животных войдут классы: собаки, кошки, хомяки, а в класс вьючные животные войдут: Лошади, верблюды и ослы).

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task_6.jpg
