

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

cat > pet_animals – создаем файл для внесения данных о домашних животных и заполняем его данными

cat pet_animals – проверяем внесенные в созданный файл данные

cat > pack_animals – создаем файл для внесения данных о выючных животных и заполняем его данными

cat pack_animals – проверяем внесенные в созданный файл данные

ll – выводим список файлов и папок текущей директории. Видим два созданных файла

cat pet_animals pack_animals > all_animals – объединяем два созданных файла в один единый

ll – выводим список файлов и папок текущей директории. Видим новый созданный общий файл

cat all_animals – проверяем содержимое созданного файла

mv all_animals human_friends – переименовываем общий файл

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat > pet_animals
dog1
cat1
hamster1
dog2
cat2
hamster2

user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat pet_animals
dog1
cat1
hamster1
dog2
cat2
hamster2

user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat > pack_animals
camel1
horse1
donkey1
camel2
horse2
donkey2

user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat pack_animals
camel1
horse1
donkey1
ccamel2
horse2
donkey2

user1@ubuntu-linux-server:~/gb_block02_finalwork$ ll
total 16
drwxrwxr-x 2 user1 user1 4096 Jun  3 12:20 ./
drwxr-x--- 6 user1 user1 4096 Jun  3 12:14 ../
-rw-rw-r-- 1 user1 user1  47 Jun  3 12:21 pack_animals
-rw-rw-r-- 1 user1 user1  39 Jun  3 12:19 pet_animals
```

```

user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat pet_animals pack_animals > all_animals
user1@ubuntu-linux-server:~/gb_block02_finalwork$ ll
total 20
drwxrwxr-x 2 user1 user1 4096 Jun  3 12:22 ./
drwxr-x--- 6 user1 user1 4096 Jun  3 12:14 ../
-rw-rw-r-- 1 user1 user1   86 Jun  3 12:22 all_animals
-rw-rw-r-- 1 user1 user1   47 Jun  3 12:21 pack_animals
-rw-rw-r-- 1 user1 user1   39 Jun  3 12:19 pet_animals
user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat all_animals
dog1
cat1
hamster1
dog2
cat2
hamster2

camel1
horse1
donkey1
ccamel2
horse2
donkey2

user1@ubuntu-linux-server:~/gb_block02_finalwork$ mv all_animals human_friends
user1@ubuntu-linux-server:~/gb_block02_finalwork$ ll
total 20
drwxrwxr-x 2 user1 user1 4096 Jun  3 12:22 ./
drwxr-x--- 6 user1 user1 4096 Jun  3 12:14 ../
-rw-rw-r-- 1 user1 user1   86 Jun  3 12:22 human_friends
-rw-rw-r-- 1 user1 user1   47 Jun  3 12:21 pack_animals
-rw-rw-r-- 1 user1 user1   39 Jun  3 12:19 pet_animals
user1@ubuntu-linux-server:~/gb_block02_finalwork$ cat human_friends
dog1
cat1
hamster1
dog2
cat2
hamster2

camel1
horse1
donkey1
ccamel2
horse2
donkey2

```

2. Создать директорию, переместить файл туда.

mkdir animals – создаем новую директорию

mv human_friends ./animals/ human_friends – перемещаем файл в созданную директорию

ll – выводим список файлов и папок текущей директории. Видим, что появилась новая папка, а файл из директории исчез

cd animals – переходим в новую папку

ll – выводим список файлов и папок текущей директории. Видим в ней перемещенный файл

cat human_friends – проверяем содержимое файла, чтобы удостовериться, что в нем ничего не изменилось

```

user1@ubuntu-linux-server:~/gb_block02_finalwork$ mkdir animals
user1@ubuntu-linux-server:~/gb_block02_finalwork$ mv human_friends ./animals/human_friends
user1@ubuntu-linux-server:~/gb_block02_finalwork$ ll
total 20
drwxrwxr-x 3 user1 user1 4096 Jun  3 12:33 ./
drwxr-x--- 6 user1 user1 4096 Jun  3 12:14 ../
drwxrwxr-x 2 user1 user1 4096 Jun  3 12:33 animals/
-rw-rw-r-- 1 user1 user1  47 Jun  3 12:21 pack_animals
-rw-rw-r-- 1 user1 user1  39 Jun  3 12:19 pet_animals
user1@ubuntu-linux-server:~/gb_block02_finalwork$ cd animals/
user1@ubuntu-linux-server:~/gb_block02_finalwork/animals$ ll
total 12
drwxrwxr-x 2 user1 user1 4096 Jun  3 12:33 ./
drwxrwxr-x 3 user1 user1 4096 Jun  3 12:33 ../
-rw-rw-r-- 1 user1 user1  86 Jun  3 12:22 human_friends
user1@ubuntu-linux-server:~/gb_block02_finalwork/animals$ cat human_friends
dog1
cat1
hamster1
dog2
cat2
hamster2

camel1
horse1
donkey1
ccamel2
horse2
donkey2

```

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

wget https://dev.mysql.com/get/mysql-apt-config_0.8.25-1_all.deb - скачиваем пакет с дополнительным репозиторием

```

user1@ubuntu-linux-server:~/gb_block02_finalwork$ wget https://dev.mysql.com/get/mysql-apt-config_0.8.25-1_all.deb
--2023-06-03 12:42:06-- https://dev.mysql.com/get/mysql-apt-config_0.8.25-1_all.deb
Resolving dev.mysql.com (dev.mysql.com)... 23.61.243.80, 2a02:2d8:0:7987::2e31, 2a02:2d8:0:799e::2e31
Connecting to dev.mysql.com (dev.mysql.com)|23.61.243.80|:443... connected.
HTTP request sent, awaiting response... 302 Moved Temporarily
Location: https://repo.mysql.com//mysql-apt-config_0.8.25-1_all.deb [following]
--2023-06-03 12:42:07-- https://repo.mysql.com//mysql-apt-config_0.8.25-1_all.deb
Resolving repo.mysql.com (repo.mysql.com)... 184.50.200.228
Connecting to repo.mysql.com (repo.mysql.com)|184.50.200.228|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 18120 (18K) [application/x-debian-package]
Saving to: 'mysql-apt-config_0.8.25-1_all.deb'

mysql-apt-config_0.8.25- 100%[=====>] 17.70K --.-KB/s in 0s

2023-06-03 12:42:08 (51.4 MB/s) - 'mysql-apt-config_0.8.25-1_all.deb' saved [18120/18120]

user1@ubuntu-linux-server:~/gb_block02_finalwork$ |

```

sudo dpkg -i mysql-apt-config_0.8.25-1_all.deb – устанавливаем пакет, который добавит репозиторий в список дополнительных репозиториев в директории /etc/apt/sources.list.d/

```

user1@ubuntu-linux-server:~/gb_block02_finalwork$ sudo dpkg -i mysql-apt-config_0.8.25-1_all.deb
[sudo] password for user1:
Selecting previously unselected package mysql-apt-config.
(Reading database ... 73962 files and directories currently installed.)
Preparing to unpack mysql-apt-config_0.8.25-1_all.deb ...
Unpacking mysql-apt-config (0.8.25-1) ...
Setting up mysql-apt-config (0.8.25-1) ...
user1@ubuntu-linux-server:~/gb_block02_finalwork$ |

```

Configuring mysql-apt-config

MySQL APT Repo features MySQL Server along with a variety of MySQL components. You may select the appropriate product to choose the version that you wish to receive.

Once you are satisfied with the configuration then select last option 'Ok' to save the configuration, then run 'apt-get update' to load package list. Advanced users can always change the configurations later, depending on their own needs.

Which MySQL product do you wish to configure?

```
MySQL Server & Cluster (Currently selected: mysql-8.0)
MySQL Tools & Connectors (Currently selected: Enabled)
MySQL Preview Packages (Currently selected: Disabled)
Ok
```

<Ok>

// `/etc/apt/sources.list.d/` - проверяем, что в папке дополнительных репозиториях создался файл `mysql.list`

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ ll /etc/apt/sources.list.d/
total 12
drwxr-xr-x 2 root root 4096 Jun  3 12:45 ./
drwxr-xr-x 8 root root 4096 Apr 19 21:45 ../
-rw-r--r-- 1 root root  760 Jun  3 12:45 mysql.list
user1@ubuntu-linux-server:~/gb_block02_finalwork$
```

sudo apt update – обновляем список репозиториях. Видим, что добавились репозитории MySQL

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ sudo apt update
Hit:1 http://kz.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://kz.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://kz.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:4 http://kz.archive.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://kz.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [666 kB]
Get:6 http://kz.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [181 kB]
Get:7 http://kz.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [15.0 kB]
Get:8 http://kz.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [345 kB]
Get:9 http://kz.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [52.2 kB]
Get:10 http://kz.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [909 kB]
Get:11 http://kz.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [190 kB]
Get:12 http://kz.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [19.6 kB]
Get:13 http://kz.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [35.3 kB]
Get:14 http://kz.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [8,452 B]
Get:15 http://kz.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [40.9 kB]
Get:16 http://kz.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:17 http://kz.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [23.4 kB]
Get:18 http://kz.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [548 B]
Get:19 http://kz.archive.ubuntu.com/ubuntu jammy-security/main amd64 Packages [449 kB]
Get:20 http://kz.archive.ubuntu.com/ubuntu jammy-security/main Translation-en [121 kB]
Get:21 http://kz.archive.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [10.1 kB]
Get:22 http://kz.archive.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [345 kB]
Get:23 http://kz.archive.ubuntu.com/ubuntu jammy-security/restricted Translation-en [51.8 kB]
Get:24 http://kz.archive.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [730 kB]
Get:25 http://kz.archive.ubuntu.com/ubuntu jammy-security/universe Translation-en [128 kB]
Get:26 http://kz.archive.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [15.3 kB]
Get:27 http://kz.archive.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [30.2 kB]
Get:28 http://kz.archive.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [5,828 B]
Get:29 http://repo.mysql.com/apt/ubuntu jammy InRelease [15.2 kB]
Get:30 http://repo.mysql.com/apt/ubuntu jammy/mysql-8.0 Sources [964 B]
Get:31 http://repo.mysql.com/apt/ubuntu jammy/mysql-apt-config amd64 Packages [565 B]
Get:32 http://repo.mysql.com/apt/ubuntu jammy/mysql-8.0 amd64 Packages [8,615 B]
Get:33 http://repo.mysql.com/apt/ubuntu jammy/mysql-tools amd64 Packages [7,997 B]
Fetched 4,743 kB in 6s (788 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
81 packages can be upgraded. Run 'apt list --upgradable' to see them.
user1@ubuntu-linux-server:~/gb_block02_finalwork$
```

sudo apt install mysql-server – устанавливаем MySQL server. Следуем командам при установке.

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ sudo apt update
Hit:1 http://kz.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://kz.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://kz.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:4 http://kz.archive.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://kz.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [666 kB]
Get:6 http://kz.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [181 kB]
Get:7 http://kz.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [15.0 kB]
Get:8 http://kz.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [345 kB]
Get:9 http://kz.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [52.2 kB]
Get:10 http://kz.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [900 kB]
Get:11 http://kz.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [190 kB]
Get:12 http://kz.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [19.6 kB]
Get:13 http://kz.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [35.3 kB]
Get:14 http://kz.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [8,452 B]
Get:15 http://kz.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [40.9 kB]
Get:16 http://kz.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:17 http://kz.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [23.4 kB]
Get:18 http://kz.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [548 B]
Get:19 http://kz.archive.ubuntu.com/ubuntu jammy-security/main amd64 Packages [449 kB]
Get:20 http://kz.archive.ubuntu.com/ubuntu jammy-security/main Translation-en [121 kB]
Get:21 http://kz.archive.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [10.1 kB]
Get:22 http://kz.archive.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [345 kB]
Get:23 http://kz.archive.ubuntu.com/ubuntu jammy-security/restricted Translation-en [51.8 kB]
Get:24 http://kz.archive.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [730 kB]
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
emitting matrix : 100% |#####|
done!
update-alternatives: using /var/lib/mecab/dic/ipadic to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up mysql-community-client-core (8.0.33-lubuntu22.04) ...
Setting up mecab-ipadic-utf8 (2.7.0-20070801+main-3) ...
Compiling IPA dictionary for Mecab. This takes long time...
reading /usr/share/mecab/dic/ipadic/unk.def ... 40
emitting double-array: 100% |#####|
/usr/share/mecab/dic/ipadic/model.def is not found. skipped.
reading /usr/share/mecab/dic/ipadic/Adnominal.csv ... 135
reading /usr/share/mecab/dic/ipadic/Verb.csv ... 130750
reading /usr/share/mecab/dic/ipadic/Noun.number.csv ... 42
reading /usr/share/mecab/dic/ipadic/Postp.csv ... 146
reading /usr/share/mecab/dic/ipadic/Symbol.csv ... 208
reading /usr/share/mecab/dic/ipadic/Noun.name.csv ... 30202
reading /usr/share/mecab/dic/ipadic/Noun.proper.csv ... 27328
reading /usr/share/mecab/dic/ipadic/Others.csv ... 2
reading /usr/share/mecab/dic/ipadic/Noun.nai.csv ... 42
reading /usr/share/mecab/dic/ipadic/Noun.adjv.csv ... 3328
reading /usr/share/mecab/dic/ipadic/Suffix.csv ... 1393
reading /usr/share/mecab/dic/ipadic/Prefix.csv ... 221
reading /usr/share/mecab/dic/ipadic/Interjection.csv ... 252
reading /usr/share/mecab/dic/ipadic/Noun.csv ... 60477
reading /usr/share/mecab/dic/ipadic/Noun.others.csv ... 151
reading /usr/share/mecab/dic/ipadic/Noun.demonst.csv ... 120
reading /usr/share/mecab/dic/ipadic/Adj.csv ... 27210
reading /usr/share/mecab/dic/ipadic/Noun.verbal.csv ... 12146
reading /usr/share/mecab/dic/ipadic/Filler.csv ... 19
reading /usr/share/mecab/dic/ipadic/Noun.org.csv ... 16668
reading /usr/share/mecab/dic/ipadic/Auxil.csv ... 199
reading /usr/share/mecab/dic/ipadic/Adverb.csv ... 3032
reading /usr/share/mecab/dic/ipadic/Postp-col.csv ... 91
reading /usr/share/mecab/dic/ipadic/Noun.adverbial.csv ... 795
reading /usr/share/mecab/dic/ipadic/Noun.place.csv ... 72999
reading /usr/share/mecab/dic/ipadic/Conjunction.csv ... 171
emitting double-array: 100% |#####|
reading /usr/share/mecab/dic/ipadic/matrix.def ... 1316x1316
emitting matrix : 100% |#####|
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up mysql-community-client (8.0.33-lubuntu22.04) ...
Setting up mysql-client (8.0.33-lubuntu22.04) ...
Setting up mysql-community-server (8.0.33-lubuntu22.04) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto modeCreated symlink /etc/systemd/system/multi-user.target.wants/mysql.servi
ce + /lib/systemd/system/mysql.service.
Setting up mysql-server (8.0.33-lubuntu22.04) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
user1@ubuntu-linux-server:~/gb_block02_finalwork$
```

- ***Дважды вводим новый пароль пользователя root***

Configuring mysql-community-server	
Please provide a strong password that will be set for the root account of your MySQL database. Leave it blank to enable password less login using UNIX socket based authentication.	
Enter root password:	

<input type="button" value="<Ok>"/>	

- **Выбираем плагин для метода аутентификации**

Configuring mysql-community-server

MySQL 8 uses a new authentication based on improved SHA256-based password methods. It is recommended that all new MySQL Server installations use this method going forward. This new authentication plugin requires new versions of connectors and clients, with support for this new authentication method (caching_sha2_password). Currently MySQL 8 Connectors and community drivers built with libmysqlclient21 support this new method. Clients built with older versions of libmysqlclient may not be able to connect to the new server.

To retain compatibility with older client software, the default authentication plugin can be set to the legacy value (mysql_native_password). This should only be done if required third-party software has not been updated to work with the new authentication method. The change will be written to the file /etc/mysql/mysql.conf.d/default-auth-override.cnf

After installation, the default can be changed by setting the default_authentication_plugin server setting.

Select default authentication plugin

Use Strong Password Encryption (RECOMMENDED)

Use Legacy Authentication Method (Retain MySQL 5.x Compatibility)

<Ok>

mysql -u root -p – заходим в MySQL, вводя пароль в следующей строке

SHOW DATABASES; - выводим список существующих баз данных

CREATE DATABASE animals; - создаем новую базу данных

SHOW DATABASES; - выводим список баз данных. Видим, что новая база данных появилась с списке

exit – выходим из СУБД

wget http://archive.ubuntu.com/ubuntu/pool/universe/c/cowsay/cowsay_3.03+dfsg2-8_all.deb –

скачиваем пакет локально

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ wget http://archive.ubuntu.com/ubuntu/pool/universe/c/cowsay/cowsay_3.03+dfsg2-8_all.deb
--2023-06-03 13:10:47-- http://archive.ubuntu.com/ubuntu/pool/universe/c/cowsay/cowsay_3.03+dfsg2-8_all.deb
Resolving archive.ubuntu.com (archive.ubuntu.com)... 91.189.91.38, 185.125.190.36, 185.125.190.39, ...
Connecting to archive.ubuntu.com (archive.ubuntu.com)|91.189.91.38|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 18572 (18K) [application/x-debian-package]
Saving to: 'cowsay_3.03+dfsg2-8_all.deb'

cowsay_3.03+dfsg2-8_all. 100%[=====>] 18.14K 106KB/s in 0.2s

2023-06-03 13:10:48 (106 KB/s) - 'cowsay_3.03+dfsg2-8_all.deb' saved [18572/18572]
```

sudo dpkg -i cowsay_3.03+dfsg2-8_all.deb – устанавливаем пакет

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ sudo dpkg -i cowsay_3.03+dfsg2-8_all.deb
[sudo] password for user1:
Selecting previously unselected package cowsay.
(Reading database ... 74312 files and directories currently installed.)
Preparing to unpack cowsay_3.03+dfsg2-8_all.deb ...
Unpacking cowsay (3.03+dfsg2-8) ...
Setting up cowsay (3.03+dfsg2-8) ...
Processing triggers for man-db (2.10.2-1) ...
```

cowsay Hi, there! – проверяем, что установленный пакет работает

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ cowsay Hi, there!
```

```
-----  
< Hi, there! >  
-----  
      /\      ^--^  
     (oo)\_____  
        (__)\       )\/\  
           ||----w |  
           ||     ||
```

dpkg -r cowsay – удаляем пакет

```
user1@ubuntu-linux-server:~/gb_block02_finalwork$ sudo dpkg -r cowsay  
(Reading database ... 74372 files and directories currently installed.)  
Removing cowsay (3.03+dfsg2-8) ...  
Processing triggers for man-db (2.10.2-1) ...
```