

7. В подключенном MySQL репозитории создать базу данных “Друзья человека”

```
mysql> CREATE DATABASE Human_friends;  
Query OK, 1 row affected (0,01 sec)
```

```
mysql> show databases;
```

```
+-----+  
| Database |  
+-----+  
| Human_friends |  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
5 rows in set (0,00 sec)
```

```
mysql>
```

8. Создать таблицы с иерархией из диаграммы в БД

```
mysql> CREATE TABLE `camel`
-> (
->   `id` Int NOT NULL AUTO_INCREMENT,
->   `camel_name` Varchar(30) NOT NULL,
->   `date_birth` Date NOT NULL,
->   `commands` Varchar(200),
->   `id_pack` Int,
->   PRIMARY KEY (`id`)
-> )
-> ;
Query OK, 0 rows affected (0,02 sec)

mysql> CREATE INDEX `pack_camel` ON `camel` (`id_pack`)
-> ;
Query OK, 0 rows affected (0,01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> CREATE TABLE `horse`
-> (
->   `id` Int NOT NULL AUTO_INCREMENT,
->   `horse_name` Varchar(30) NOT NULL,
->   `date_birth` Date NOT NULL,
->   `commands` Varchar(200),
->   `id_pack` Int,
->   PRIMARY KEY (`id`)
-> )
-> ;
Query OK, 0 rows affected (1,02 sec)

mysql> CREATE INDEX `pack_horse` ON `horse` (`id_pack`)
-> ;
Query OK, 0 rows affected (0,00 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> CREATE TABLE `mule`
-> (
->   `id` Int NOT NULL AUTO_INCREMENT,
->   `mule_name` Varchar(30) NOT NULL,
->   `date_birth` Date NOT NULL,
->   `commands` Varchar(200),
->   `id_pack` Int,
->   PRIMARY KEY (`id`)
-> )
-> ;
Query OK, 0 rows affected (0,11 sec)

mysql> CREATE INDEX `pack_mule` ON `mule` (`id_pack`)
-> ;
Query OK, 0 rows affected (0,01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> show tables;
+-----+
| Tables_in_Human_friends |
+-----+
| animals                  |
| camel                    |
| cat                      |
| dog                      |
| hamster                  |
| horse                    |
| mule                     |
| pack_animals             |
| pets                     |
+-----+
9 rows in set (0,00 sec)

mysql>
```

9. Заполнить низкоуровневые таблицы именами(животных), командами которые они выполняют и датами рождения

```
mysql> select * from horse;
+-----+-----+-----+-----+-----+
| id | horse_name | date_birth | commands | id_pack |
+-----+-----+-----+-----+-----+
| 1 | Sam        | 2020-09-16 | voice    | 1        |
| 2 | Sunny      | 2016-11-05 | voice    | 1        |
| 3 | Lee        | 2019-01-05 | voice    | 1        |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)

mysql> select * from mule;
+-----+-----+-----+-----+-----+
| id | mule_name | date_birth | commands | id_pack |
+-----+-----+-----+-----+-----+
| 1 | Ken       | 2019-01-12 | sit      | 2        |
| 2 | Ben       | 2019-01-10 | voice    | 2        |
| 3 | Sue       | 2018-11-05 | sit      | 2        |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)

mysql> select * from camel;
+-----+-----+-----+-----+-----+
| id | camel_name | date_birth | commands | id_pack |
+-----+-----+-----+-----+-----+
| 1 | Solso     | 2019-04-04 | eat      | 3        |
| 2 | Buqy      | 2023-08-07 | eat      | 3        |
| 3 | Lenny     | 2023-07-05 | eat      | 3        |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)

mysql> select * from cat;
+-----+-----+-----+-----+-----+
| id | cat_name | date_birth | commands | id_home |
+-----+-----+-----+-----+-----+
| 1 | Mursik   | 2022-01-12 | voice    | 1        |
| 2 | Murka    | 2021-11-05 | voice    | 1        |
| 3 | Barsik   | 2019-11-05 | voice    | 1        |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)

mysql> select * from dog;
+-----+-----+-----+-----+-----+
| id | dog_name | date_birth | commands | id_home |
+-----+-----+-----+-----+-----+
| 1 | Rex      | 2019-01-12 | sit      | 2        |
| 2 | Ben      | 2020-03-10 | voice    | 2        |
| 3 | Lucky    | 2018-11-05 | sit      | 2        |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)

mysql> select * from hamster;
+-----+-----+-----+-----+-----+
| id | hamster_name | date_birth | commands | id_home |
+-----+-----+-----+-----+-----+
| 1 | Kit       | 2023-01-12 | eat      | 3        |
| 2 | Luk       | 2023-11-08 | eat      | 3        |
| 3 | Sivs      | 2023-12-05 | eat      | 3        |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)

mysql>
```

10. Удалив из таблицы верблюдов, т.к. верблюдов решили перевезти в другой питомник на зимовку. Объединить таблицы лошади, и ослы в одну таблицу.

```
mysql> DELETE FROM camel;
Query OK, 3 rows affected (0,00 sec)

mysql> SELECT * FROM camel;
Empty set (0,00 sec)

mysql> SELECT horse_name AS name, date_birth, commands, id_pack FROM horses
-> UNION SELECT mule_name AS name, date_birth, commands, id_pack FROM mule;
ERROR 1146 (42S02): Table 'Human_friends.horses' doesn't exist
mysql> SELECT horse_name AS name, date_birth, commands, id_pack FROM horse UNION SELECT mule_name AS name, date_birth, commands, id_pack FROM mule;
+-----+-----+-----+-----+
| name | date_birth | commands | id_pack |
+-----+-----+-----+-----+
| Sam  | 2020-09-16 | voice    | 1       |
| Sunny| 2016-11-05 | voice    | 1       |
| Lee  | 2019-01-05 | voice    | 1       |
| Ken  | 2019-01-12 | sit      | 2       |
| Ben  | 2019-01-10 | voice    | 2       |
| Sue  | 2018-11-05 | sit      | 2       |
+-----+-----+-----+-----+
6 rows in set (0,00 sec)
```

11. Создать новую таблицу “молодые животные” в которую попадут все животные старше 1 года, но младше 3 лет и в отдельном столбце с точностью до месяца подсчитать возраст животных в новой таблице

```
mysql> CREATE TEMPORARY TABLE temp_animals AS
-> SELECT *, 'Лошади' as species FROM horse
-> UNION SELECT *, 'Ослы' AS species FROM mule
-> UNION SELECT *, 'Собаки' AS species FROM dog
-> UNION SELECT *, 'Кошки' AS species FROM cat
-> UNION SELECT *, 'Хомяки' AS species FROM hamster;
Query OK, 15 rows affected (0,00 sec)
Records: 15 Duplicates: 0 Warnings: 0
```

```
mysql> CREATE TABLE young_animals AS
-> SELECT horse_name as name, commands, date_birth, species, TIMESTAMPDIFF(MONTH, date_birth, CURDATE()) AS Age_in_month
-> FROM temp_animals WHERE date_birth BETWEEN ADDDATE(curdate(), INTERVAL -3 YEAR) AND ADDDATE(CURDATE(), INTERVAL -1 YEAR);
Query OK, 3 rows affected (0,02 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> select * from young_animals;
+-----+-----+-----+-----+-----+
| name | commands | date_birth | species | Age_in_month |
+-----+-----+-----+-----+-----+
| Mursik | voice    | 2022-01-12 | Кошки   | 25           |
| Murka  | voice    | 2021-11-05 | Кошки   | 27           |
| Kit    | eat      | 2023-01-12 | Хомяки  | 13           |
+-----+-----+-----+-----+-----+
3 rows in set (0,00 sec)
```

12. Объединить все таблицы в одну, при этом сохраняя поля, указывающие на прошлую принадлежность к старым таблицам.

```
mysql> SELECT h.horse_name, h.date_birth, h.commands, pa.name, ya.Age_in_month
-> FROM horse h
-> LEFT JOIN young_animals ya ON ya.name = h.horse_name
-> LEFT JOIN pack_animals pa ON pa.Id = h.id_pack
-> UNION
-> SELECT m.mule_name, m.date_birth, m.commands, pa.name, ya.Age_in_month
-> FROM mule m
-> LEFT JOIN young_animals ya ON ya.name = m.mule_name
-> LEFT JOIN pack_animals pa ON pa.Id = m.id_pack
-> UNION
-> SELECT c.cat_name, c.date_birth, c.commands, p.name, ya.Age_in_month
-> FROM cat c
-> LEFT JOIN young_animals ya ON ya.name = c.cat_name
-> LEFT JOIN pets p ON p.Id = c.id_home
-> UNION
-> SELECT d.dog_name, d.date_birth, d.commands, p.name, ya.Age_in_month
-> FROM dog d
-> LEFT JOIN young_animals ya ON ya.name = d.dog_name
-> LEFT JOIN pets p ON p.Id = d.id_home
-> UNION
-> SELECT hm.hamster_name, hm.date_birth, hm.commands, p.name, ya.Age_in_month
-> FROM hamster hm
-> LEFT JOIN young_animals ya ON ya.name = hm.hamster_name
-> LEFT JOIN pets p ON p.Id = hm.id_home;
```

horse_name	date_birth	commands	name	Age_in_month
Sam	2020-09-16	voice	horse	NULL
Sunny	2016-11-05	voice	horse	NULL
Lee	2019-01-05	voice	horse	NULL
Ken	2019-01-12	sit	mule	NULL
Ben	2019-01-10	voice	mule	NULL
Sue	2018-11-05	sit	mule	NULL
Mursik	2022-01-12	voice	cat	25
Murka	2021-11-05	voice	cat	27
Barsik	2019-11-05	voice	cat	NULL
Rex	2019-01-12	sit	dog	NULL
Ben	2020-03-10	voice	dog	NULL
Lucky	2018-11-05	sit	dog	NULL
Kit	2023-01-12	eat	hamster	13
Luk	2023-11-08	eat	hamster	NULL
Sivs	2023-12-05	eat	hamster	NULL

15 rows in set (0,00 sec)