

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

```
1 • DROP DATABASE IF EXISTS `man_friends`;  
2 • CREATE DATABASE IF NOT EXISTS `man_friends`;
```

8. Создать таблицы с иерархией из диаграммы в БД

```
3 • USE `man_friends`;  
4  
5 • CREATE TABLE `animals` (  
6     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,  
7     animals_class VARCHAR(30)  
8 );  
9 • CREATE TABLE `dogs` (  
10     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,  
11     `name` VARCHAR(50) NOT NULL,  
12     `skills` VARCHAR(200) NOT NULL,  
13     `birth_date` DATE NOT NULL,  
14     `animal_class_id` INT NOT NULL,  
15     FOREIGN KEY (`animal_class_id`) REFERENCES `animals` (`id`) ON DELETE CASCADE  
16 );  
17  
18 • CREATE TABLE `cats` (  
19     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,  
20     `name` VARCHAR(50) NOT NULL,  
21     `skills` VARCHAR(200) NOT NULL,  
22     `birth_date` DATE NOT NULL,  
23     `animal_class_id` INT NOT NULL,  
24     FOREIGN KEY (`animal_class_id`) REFERENCES `animals` (`id`) ON DELETE CASCADE  
25 );  
26
```

```

27 • ○ CREATE TABLE `hamsters` (
28     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
29     `name` VARCHAR(50) NOT NULL,
30     `skills` VARCHAR(200) NOT NULL,
31     `birth_date` DATE NOT NULL,
32     `animal_class_id` INT NOT NULL,
33     FOREIGN KEY (`animal_class_id`) REFERENCES `animals` (`id`) ON DELETE CASCADE
34 );
35
36 • ○ CREATE TABLE `horses` (
37     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
38     `name` VARCHAR(50) NOT NULL,
39     `skills` VARCHAR(200) NOT NULL,
40     `birth_date` DATE NOT NULL,
41     `animal_class_id` INT NOT NULL,
42     FOREIGN KEY (`animal_class_id`) REFERENCES `animals` (`id`) ON DELETE CASCADE
43 );
44
45 • ○ CREATE TABLE `camels` (
46     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
47     `name` VARCHAR(50) NOT NULL,
48     `skills` VARCHAR(200) NOT NULL,
49     `birth_date` DATE NOT NULL,
50     `animal_class_id` INT NOT NULL,
51     FOREIGN KEY (`animal_class_id`) REFERENCES `animals` (`id`) ON DELETE CASCADE
52 );
53
54 • ○ CREATE TABLE `donkeys` (
55     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
56     `name` VARCHAR(50) NOT NULL,
57     `skills` VARCHAR(200) NOT NULL,
58     `birth_date` DATE NOT NULL,
59     `animal_class_id` INT NOT NULL,
60     FOREIGN KEY (`animal_class_id`) REFERENCES `animals` (`id`) ON DELETE CASCADE
61 );

```

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

```

62 • INSERT INTO `man_friends`.`animals` (`id`, `animals_class`) VALUES ('1', 'pet'),('2', 'pack_animal');
63
64 • INSERT INTO `man_friends`.`dogs` (`name`, `skills`, `birth_date`, `animal_class_id`) VALUES
65     ('Buddy', 'Sit, Stay, Fetch', '2019-02-10', 1),
66     ('Max', 'Roll over, Shake hands', '2018-06-15', 1),
67     ('Bailey', 'Play dead, Jump', '2020-01-05', 1),
68     ('Charlie', 'Speak, Catch', '2017-09-20', 1),
69     ('Luna', 'Bark, Spin', '2016-12-08', 1);
70
71 • INSERT INTO `man_friends`.`cats` (`name`, `skills`, `birth_date`, `animal_class_id`) VALUES
72     ('Oliver', 'Purr, Pounce', '2018-04-25', 1),
73     ('Leo', 'Groom, Sleep', '2019-07-10', 1),
74     ('Milo', 'Climb, Hunt', '2020-03-17', 1),
75     ('Lily', 'Stretch, Chase', '2017-11-30', 1),
76     ('Simba', 'Meow, Play', '2016-09-12', 1);
77
78 • INSERT INTO `man_friends`.`hamsters` (`name`, `skills`, `birth_date`, `animal_class_id`) VALUES
79     ('Coco', 'Run on the wheel', '2021-01-03', 1),
80     ('Peanut', 'Hide food, Burrow', '2022-02-14', 1),
81     ('Oreo', 'Climb tubes', '2020-11-20', 1),
82     ('Biscuit', 'Cheek pouches, Dig', '2019-10-05', 1),
83     ('Hazel', 'Gnaw, Explore', '2023-04-01', 1);
84
85 • INSERT INTO `man_friends`.`horses` (`name`, `skills`, `birth_date`, `animal_class_id`) VALUES
86     ('Spirit', 'Gallop, Jump', '2015-08-20', 2),
87     ('Daisy', 'Trot, Lunge', '2016-06-10', 2),
88     ('Apollo', 'Dressage, Canter', '2017-03-15', 2),
89     ('Willow', 'Trail riding, Vaulting', '2018-11-25', 2),
90     ('Rocky', 'Western riding, Reining', '2019-09-05', 2);
91
92 • INSERT INTO `man_friends`.`camels` (`name`, `skills`, `birth_date`, `animal_class_id`) VALUES
93     ('Sahara', 'Carry loads, Long trek', '2014-12-01', 2),
94     ('Amir', 'Desert navigation, Endurance', '2015-10-18', 2),
95     ('Zara', 'Pack saddle, Camel race', '2016-07-24', 2),
96     ('Raja', 'Camel ride, Milk production', '2017-04-09', 2),
97     ('Jamal', 'Hump storage, Adaptation', '2018-02-15', 2);
98
99 • INSERT INTO `man_friends`.`donkeys` (`name`, `skills`, `birth_date`, `animal_class_id`) VALUES
100     ('Jack', 'Carry load, Braying', '2019-08-12', 2),
101     ('Jenny', 'Grazing, Guarding', '2020-05-05', 2),
102     ('Molly', 'Plowing, Companion', '2021-02-20', 2),
103     ('Oscar', 'Stubbornness, Towing', '2022-09-10', 2),
104     ('Rosie', 'Trick training, Therapy', '2023-06-05', 2);

```

Result Grid			Filter Rows:	
	id	animals_class		
▶	1	pet		
	2	pack_animal		
✱	NULL	NULL		

	id	name	skills	birth_date	animal_class_id
▶	1	Sahara	Carry loads, Long trek	2014-12-01	2
	2	Amir	Desert navigation, Endurance	2015-10-18	2
	3	Zara	Pack saddle, Camel race	2016-07-24	2
	4	Raja	Camel ride, Milk production	2017-04-09	2
	5	Jamal	Hump storage, Adaptation	2018-02-15	2
★	NULL	NULL	NULL	NULL	NULL

	id	name	skills	birth_date	animal_class_id
▶	1	Oliver	Purr, Pounce	2018-04-25	1
	2	Leo	Groom, Sleep	2019-07-10	1
	3	Milo	Climb, Hunt	2020-03-17	1
	4	Lily	Stretch, Chase	2017-11-30	1
	5	Simba	Meow, Play	2016-09-12	1
★	NULL	NULL	NULL	NULL	NULL

	id	name	skills	birth_date	animal_class_id
▶	1	Buddy	Sit, Stay, Fetch	2019-02-10	1
	2	Max	Roll over, Shake hands	2018-06-15	1
	3	Bailey	Play dead, Jump	2020-01-05	1
	4	Charlie	Speak, Catch	2017-09-20	1
	5	Luna	Bark, Spin	2016-12-08	1
★	NULL	NULL	NULL	NULL	NULL

	id	name	skills	birth_date	animal_class_id
▶	1	Jack	Carry load, Braying	2019-08-12	2
	2	Jenny	Grazing, Guarding	2020-05-05	2
	3	Molly	Plowing, Companion	2021-02-20	2
	4	Oscar	Stubbornness, Towing	2022-09-10	2
	5	Rosie	Trick training, Therapy	2023-06-05	2
★	NULL	NULL	NULL	NULL	NULL

	id	name	skills	birth_date	animal_class_id
▶	1	Coco	Run on the wheel	2021-01-03	1
	2	Peanut	Hide food, Burrow	2022-02-14	1
	3	Oreo	Climb tubes	2020-11-20	1
	4	Biscuit	Cheek pouches, Dig	2019-10-05	1
	5	Hazel	Gnaw, Explore	2023-04-01	1
★	NULL	NULL	NULL	NULL	NULL

	id	name	skills	birth_date	animal_class_id
▶	1	Spirit	Gallop, Jump	2015-08-20	2
	2	Daisy	Trot, Lunge	2016-06-10	2
	3	Apollo	Dressage, Canter	2017-03-15	2
	4	Willow	Trail riding, Vaulting	2018-11-25	2
	5	Rocky	Western riding, Reining	2019-09-05	2
★	NULL	NULL	NULL	NULL	NULL

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

```

106 • DROP TABLE `man_friends`.`camels`;
107
108 • CREATE TABLE `horses_and_donkeys` (
109     id INT NOT NULL AUTO_INCREMENT,
110     `name` VARCHAR(50) NOT NULL,
111     `skills` VARCHAR(200) NOT NULL,
112     `birth_date` DATE NOT NULL,
113     `animal_class_id` INT NOT NULL,
114     `species` VARCHAR(10) NOT NULL,
115     PRIMARY KEY (`id`)
116 );
117
118 • INSERT INTO `horses_and_donkeys` (`name`, `skills`, `birth_date`, `animal_class_id`, `species`)
119 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'Horse' AS `species`
120 FROM `horses`;
121
122 • INSERT INTO `horses_and_donkeys` (`name`, `skills`, `birth_date`, `animal_class_id`, `species`)
123 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'Donkey' AS `species`
124 FROM `donkeys`;

```

	id	name	skills	birth_date	animal_class_id	species
▶	1	Spirit	Gallop, Jump	2015-08-20	2	Horse
	2	Daisy	Trot, Lunge	2016-06-10	2	Horse
	3	Apollo	Dressage, Canter	2017-03-15	2	Horse
	4	Willow	Trail riding, Vaulting	2018-11-25	2	Horse
	5	Rocky	Western riding, Reining	2019-09-05	2	Horse
	8	Jack	Carry load, Braying	2019-08-12	2	Donkey
	9	Jenny	Grazing, Guarding	2020-05-05	2	Donkey
	10	Molly	Plowing, Companion	2021-02-20	2	Donkey
	11	Oscar	Stubbornness, Towing	2022-09-10	2	Donkey
	12	Rosie	Trick training, Therapy	2023-06-05	2	Donkey
✱	NULL	NULL	NULL	NULL	NULL	NULL

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

```

126 • CREATE TABLE `young_animals` (
127     id INT NOT NULL AUTO_INCREMENT PRIMARY KEY,
128     `name` VARCHAR(50) NOT NULL,
129     `species` VARCHAR(20) NOT NULL,
130     `age_months` INT NOT NULL
131 );
132 • INSERT INTO `young_animals` (`name`, `species`, `age_months`)
133 SELECT `name`, 'Dog' AS `species`, TIMESTAMPDIFF(MONTH, `birth_date`, CURDATE()) AS `age_months`
134 FROM `dogs`
135 WHERE `birth_date` <= DATE_SUB(CURDATE(), INTERVAL 1 YEAR) AND `birth_date` >= DATE_SUB(CURDATE(), INTERVAL 3 YEAR);
136

```

```

137 • INSERT INTO `young_animals` (`name`, `species`, `age_months`)
138     SELECT `name`, 'Cat' AS `species`, TIMESTAMPDIFF(MONTH, `birth_date`, CURDATE()) AS `age_months`
139     FROM `cats`
140     WHERE `birth_date` <= DATE_SUB(CURDATE(), INTERVAL 1 YEAR) AND `birth_date` >= DATE_SUB(CURDATE(), INTERVAL 3 YEAR);
141
142 • INSERT INTO `young_animals` (`name`, `species`, `age_months`)
143     SELECT `name`, 'Donkey' AS `species`, TIMESTAMPDIFF(MONTH, `birth_date`, CURDATE()) AS `age_months`
144     FROM `donkeys`
145     WHERE `birth_date` <= DATE_SUB(CURDATE(), INTERVAL 1 YEAR) AND `birth_date` >= DATE_SUB(CURDATE(), INTERVAL 3 YEAR);
146
147 • INSERT INTO `young_animals` (`name`, `species`, `age_months`)
148     SELECT `name`, 'Hamster' AS `species`, TIMESTAMPDIFF(MONTH, `birth_date`, CURDATE()) AS `age_months`
149     FROM `hamsters`
150     WHERE `birth_date` <= DATE_SUB(CURDATE(), INTERVAL 1 YEAR) AND `birth_date` >= DATE_SUB(CURDATE(), INTERVAL 3 YEAR);
151
152 • INSERT INTO `young_animals` (`name`, `species`, `age_months`)
153     SELECT `name`, 'Horse' AS `species`, TIMESTAMPDIFF(MONTH, `birth_date`, CURDATE()) AS `age_months`
154     FROM `horses`
155     WHERE `birth_date` <= DATE_SUB(CURDATE(), INTERVAL 1 YEAR) AND `birth_date` >= DATE_SUB(CURDATE(), INTERVAL 3 YEAR);

```

	id	name	species	age_months
▶	1	Molly	Donkey	29
	2	Coco	Hamster	30
	3	Peanut	Hamster	17
	4	Oreo	Hamster	32
✱	NULL	NULL	NULL	NULL

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

```

157 • CREATE TABLE `all_animals` (
158     id INT UNSIGNED NOT NULL AUTO_INCREMENT UNIQUE,
159     `name` VARCHAR(50) NOT NULL,
160     `skills` VARCHAR(100) NOT NULL,
161     `birth_date` DATE NOT NULL,
162     `animal_class_id` INT UNSIGNED NOT NULL,
163     `source_table` VARCHAR(20) NOT NULL,
164     PRIMARY KEY (`id`)
165 );
166
167 • INSERT INTO `all_animals` (`name`, `skills`, `birth_date`, `animal_class_id`, `source_table`)
168 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'dogs' AS `source_table`
169 FROM `dogs`;
170
171 • INSERT INTO `all_animals` (`name`, `skills`, `birth_date`, `animal_class_id`, `source_table`)
172 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'cats' AS `source_table`
173 FROM `cats`;
174
175 • INSERT INTO `all_animals` (`name`, `skills`, `birth_date`, `animal_class_id`, `source_table`)
176 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'donkeys' AS `source_table`
177 FROM `donkeys`;
178
179 • INSERT INTO `all_animals` (`name`, `skills`, `birth_date`, `animal_class_id`, `source_table`)
180 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'hamsters' AS `source_table`
181 FROM `hamsters`;
182
183 • INSERT INTO `all_animals` (`name`, `skills`, `birth_date`, `animal_class_id`, `source_table`)
184 SELECT `name`, `skills`, `birth_date`, `animal_class_id`, 'horses' AS `source_table`
185 FROM `horses`;

```

	id	name	skills	birth_date	animal_class_id	source_table
▶	1	Buddy	Sit, Stay, Fetch	2019-02-10	1	dogs
	2	Max	Roll over, Shake hands	2018-06-15	1	dogs
	3	Bailey	Play dead, Jump	2020-01-05	1	dogs
	4	Charlie	Speak, Catch	2017-09-20	1	dogs
	5	Luna	Bark, Spin	2016-12-08	1	dogs
	8	Oliver	Purr, Pounce	2018-04-25	1	cats
	9	Leo	Groom, Sleep	2019-07-10	1	cats
	10	Milo	Climb, Hunt	2020-03-17	1	cats
	11	Lily	Stretch, Chase	2017-11-30	1	cats
	12	Simba	Meow, Play	2016-09-12	1	cats
	15	Jack	Carry load, Braying	2019-08-12	2	donkeys
	16	Jenny	Grazing, Guarding	2020-05-05	2	donkeys
	17	Molly	Plowing, Companion	2021-02-20	2	donkeys
	18	Oscar	Stubbornness, Towing	2022-09-10	2	donkeys
	19	Rosie	Trick training, Therapy	2023-06-05	2	donkeys
	22	Coco	Run on the wheel	2021-01-03	1	hamsters
	23	Peanut	Hide food, Burrow	2022-02-14	1	hamsters
	24	Oreo	Climb tubes	2020-11-20	1	hamsters
	25	Biscuit	Cheek pouches, Dig	2019-10-05	1	hamsters
	26	Hazel	Gnaw, Explore	2023-04-01	1	hamsters
	29	Spirit	Gallop, Jump	2015-08-20	2	horses
	30	Daisy	Trot, Lunge	2016-06-10	2	horses
	31	Apollo	Dressage, Canter	2017-03-15	2	horses
	32	Willow	Trail riding, Vaulting	2018-11-25	2	horses
	33	Rocky	Western riding, Reining	2019-09-05	2	horses