

Title

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Course	Database Concepts and Applications
Session	
Teacher	
Date	2022-10-02

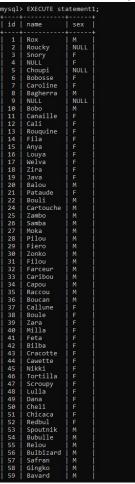
PREPARED STATEMENTS

Create the following prepared statements and execute them in order to test them.Remember the prepared statements are not saved, so please save them in a file for lab correction.

1. Show all the animals (id, name, sex)

PREPARE statement1 FROM 'SELECT id,name,sex FROM animal';

EXECUTE statement1;

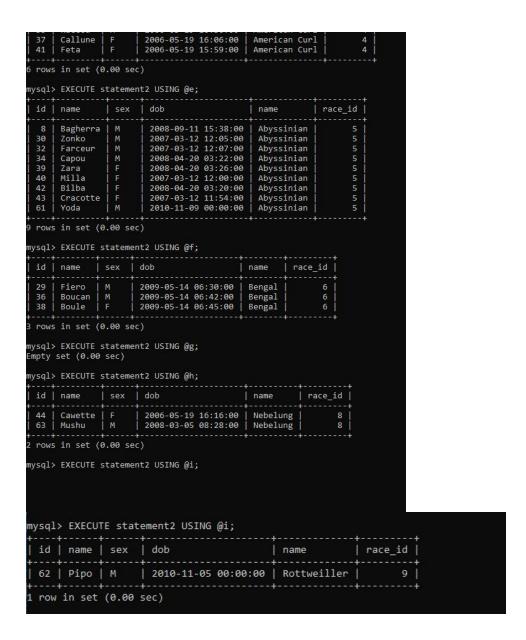


2. Show all the animals by ? race_id (id, name, sex, dob, race_name)

PREPARE statement2 FROM

```
'SELECT animal.id,animal.name,sex,dob,race.name,race_id FROM animal
INNER JOIN race ON race.id=animal.race_id WHERE race_id=?';
SET @a = 1;
SET @b=2;
SET @c=3;
SET @d=4;
SET @e=5;
SET @f=6;
SET @g=7;
SET @h=8;
SET @i=9;
EXECUTE statement2 USING @a;
EXECUTE statement2 USING @b;
EXECUTE statement2 USING @c;
EXECUTE statement2 USING @d;
EXECUTE statement2 USING @e;
EXECUTE statement2 USING @f;
EXECUTE statement2 USING @g;
EXECUTE statement2 USING @h;
EXECUTE statement2 USING @i;
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	tatemen	t2 USING @a;			
id name	sex	dob	name		race_id
1 Rox	l M	2010-04-05 13:43:00	Affenni	nscher	1 1
13 Pouguine	i e	2007-04-24 12:54:00	Affenni	nschen	
8 Zira 0 Balou	F	2007-04-24 12:59:00	Affenpi	nscher	i i
Balou	M	2007-04-24 12:45:00	Affenpi	nscher	1 1
2 Bouli	M	2007-04-24 12:42:00	Affenpi	nscher	j 1
25 Zambo	М	2006-05-14 15:50:00	Affenpi	nscher	j 1
25 Zambo 26 Samba	M	2006-05-14 15:48:00	Affenpi	nscher	j 1
28 Pilou	M	2006-05-14 15:40:00			j 1
55 Den	ļМ	2013-07-23 09:00:00	Affenpi	nscher	j 1
ows in set (0 ql> EXECUTE s					
			++		
id name	sex	dob	name	race_i	d
			 +		
7 Caroline		2008-12-06 05:18:00			2
2 Cali		2009-05-26 08:54:00			2
4 Fila	F	2009-05-26 08:56:00			2
Java	F	2009-05-26 09:02:00	Boxer		2
ws in set (0	tatemen				
d name i	sex	dob	name		race_id
	F	2008-03-10 13:45:00	American	Bully	
1 Pataude	F [2008-03-10 13:43:00	American	Bully	
1 Pataude	F [2008-03-10 13:45:00 2008-03-10 13:40:00 2008-03-10 13:40:00	American	Bully	
1 Pataude 7 Moka +	F M +	2008-03-10 13:43:00 2008-03-10 13:40:00 	American	Bully	
21 Pataude 27 Moka ++ Pows in set (0	F M +	2008-03-10 13:43:00 2008-03-10 13:40:00 	American	Bully	
1 Pataude 7 Moka +	F M +	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d;	American	Bully Bully	
1 Pataude 7 Moka 	F M .00 sec	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob	American American	Bully Bully	race_id
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Pataude Moka 	F M .00 sec	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob	American American	Bully Bully	race_id
Pataude Pata	F M N N N N N N N N N	2008-03-10 13:43:00 2008-03-10 13:40:00)	American American name American American	Bully Bully 	race_id
Pataude Moka Hoka	F M N N N N N N N N N	2008-03-10 13:43:00 2008-03-10 13:40:00)	American American name American American	Bully Bully 	race_id
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21 Pataude 27 Moka 1 1 1 1 1 1 1 1 1	F 00 sec	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob 2010-09-13 15:02:00 2008-02-20 15:45:00 2006-05-19 16:56:00 2006-05-19 16:56:00 2006-05-19 15:59:00) t2 USING @e;	American American name American American American American American	Bully Bully Curl Curl Curl Curl Curl	race_id 4 4 4 4 4
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1 Pataude 7 Moka 17 Moka 17 Moka 18 18 18 19 19 19 19 19	F	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob	name American American American American American American American	Bully Bully Curl Curl Curl Curl Curl Curl Curl	race_id 4 4 4 4 4 5 5 5
21 Pataude 27 Moka 17 Moka 18 18 18 18 18 18 18 1	F	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob	name American American American American American American American	Bully Bully Curl Curl Curl Curl Curl Curl Curl	race_id 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
21 Pataude 27 Moka 17 Moka 17 Moka 18 18 18 18 18 18 18 1	F	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob	name American American American American American American American	Bully Bully Curl Curl Curl Curl Curl Curl Curl	race_id 4 4 4 4 4 5 5 5 5 5 5
1 Pataude 7 Moka .	F	2008-03-10 13:43:00 2008-03-10 13:40:00) t2 USING @d; dob	name American American American American American American American	Bully Bully Curl Curl Curl Curl Curl Curl Curl	race_id 4 4 4 4 4 5 5 5 5 5 5



3. Show all the animals by ? race_id and ? species_id (id, name, sex, race_name, species_name)

PREPARE statement3 FROM

'SELECT

animal.id,animal.name,sex,race.name,animal.race_id,animal.species_id,species.current_name FROM animal

INNER JOIN race ON race.id=animal.race_id

INNER JOIN species ON species.id=animal.species_id

WHERE animal.race_id=? AND animal.species_id=?';

SET @race_id = 2;

SET @species_id = 1;

EXECUTE statement3 USING @race_id, @species_id;

4. Which specie has less than ? males and ? females (id, name, sex, race_name, species_name)

where? is a number of animals

PREPARE statement5 FROM

'SELECT sex,animal.species_id ,COUNT(sex) FROM animal

INNER JOIN species ON species.id=animal.species_id

WHERE animal.sex ='M'

GROUP BY sex,animal.species_id

HAVING COUNT(sex) < ?

UNION

SELECT sex,animal.species_id ,COUNT(sex) FROM animal

INNER JOIN species ON species.id=animal.species_id

WHERE animal.sex ='F'

GROUP BY sex,animal.species_id

HAVING COUNT(sex) <?';

SET @m_s = 8;

SET @f_s= 10;

EXECUTE statement5 USING @m_s, @f_s;

M] 3	4
M	4	3
F	4	1

5. Assuming the inflation rises 20% more every year, show the prices of ? animals for the ? year based on specie's race (id, name, sex, race_name, species_name)

where first argument is the number of animals to show and the second argument is the year number

SET @inflation ='SELECT a.id, a.name, a.sex, r.name, s.current_name, r.price AS 'base price', r.price * ROUND(POWER(1.2, ? - YEAR(a.dob)),2) AS 'Inflation' FROM animal a

INNER JOIN race r ON a.race_id = r.id

INNER JOIN species s ON a.species_id = s.id

ORDER BY a.id

LIMIT ?';

PREPARE ps_inflation

FROM @inflation;

SET @select_num_animals = 5;

SET @select_year = 2013;

EXECUTE ps_inflation USING @select_year, @select_num_animals;

id	name	sex	name	current_name	base price	Inflation
1	Rox	М	Affenpinscher	Dog	485.00	839.05
3	Snory	F	American Curl	Cat	835.00	1444.55
7	Caroline	F	Boxer	Dog	935.00	2328.15
8	Bagherra	M	Abyssinian	Cat	735.00	1830.15
12	Cali	F	Boxer	Dog	935.00	1935.45