DBMS - Homework 1

Parampreet Singh, C19377466

Database Details						
Database Name	Username	Password				
Menagerie1	paramps	cpsc46206620				

Pet Table							
name	owner	species	sex	birth	death		
Fluffy	Harold	cat	f	1993-02-04	NULL		
Claws	Gwen	cat	m	1994-03-17	NULL		
Buffy	Harold	dog	f	1989-05-13	NULL		
Fang	Benny	dog	m	1990-08-27	NULL		
Bowser	Diane	dog	m	1979-08-31	1995-07-29		
Chirpy	Gwen	bird	f	1998-09-11	NULL		
Whistler	Gwen	bird	NULL	1997-12-09	NULL		
Slim	Benny	snake	m	1996-04-29	NULL		
Puffball	Diane	hamster	f	1999-03-30	NULL		

Event Table							
name	date	type	remark				
Fluffy	1995-05-15	litter	4 kittens, 3 female, 1 male				
Buffy	1993-06-23	litter	5 puppies, 2 female, 3 male				
Buffy	1994-06-19	litter	3 puppies, 3 female				
Chirpy	1999-03-21	vet	needed beak straightened				
Slim	1997-08-03	vet	broken rib				
Bowser	1991-10-12	kennel	NULL				
Fang	1991-10-12	kennel	NULL				
Fang	1998-08-28	birthday	Gave him a new chew toy				
Claws	1998-03-17	birthday	Gave him a new flea collar				
Whistler	1998-12-09	birthday	First birthday				

Query 1: Display the structure for pet and event tables respectively.

DESCRIBE pet;							
Field	Туре	Null	Key	Default	Extra		
name	varchar(20)	YES		NULL			
owner	varchar(20)	YES		NULL			
species	varchar(20)	YES		NULL			
sex	char(1)	YES		NULL			
birth	date	YES		NULL			
death	date	YES		NULL			

DESCRIBE event;							
Field	Туре	Null	Key	Default	Extra		
name	varchar(20)	YES		NULL			
date	date	YES		NULL			
type	varchar(15)	YES		NULL			
remark	varchar(255)	YES		NULL			

Query 2: Retrieve the information for all female dogs from pet table.

SELECT * FROM pet WHERE sex = 'f' AND species = 'dog';						
name	owner	species	sex	birth	death	
Buffy	Harold	dog	f	1989-05-13	NULL	

Query3: Display owner, name, sex, and species of the youngest pet.

SELECT owner, name, sex, species FROM pet WHERE birth = (SELECT Max(birth) from pet);						
	owner	name	sex	species		
	Diane	Puffball	f	hamster		

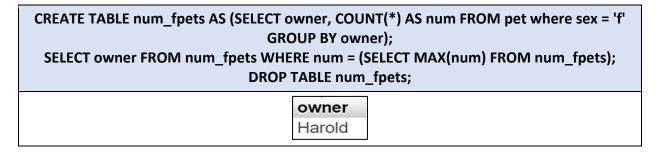
Query 4: Use MySQL pattern matching to retrieve information from table pet for pets whose name starts with 'B' and ends with 'Y'.`

SELECT * FROM pet WHERE name LIKE 'b%y';						
name	ne owner species sex birth death					
Buffy	Harold	dog	f	1989-05-13	NULL	

Query 5: List owner, name, species, event type, and event remark of the pets who had 'litter' event.

SELECT owner, pet.name, species, type, remark FROM pet INNER JOIN event on pet.name = event.name WHERE event.type = 'litter';						
owner	name	species	type	remark		
Harold	Fluffy	cat	litter	4 kittens, 3 female, 1 male		
Harold	Buffy	dog	litter	5 puppies, 2 female, 3 male		
Harold	Buffy	dog	litter	3 puppies, 3 female		

Query 6: List the owner who has the most number of female pets.



Query 7: Use regular expression pattern matching to show name, owner, and birth date of the pets whose names start with 'F' and end with 'y' or 'r' in table pet.

SELECT name, owner, birth FROM pet WHERE name REGEXP '^F' AND name REGEXP '[ry]\$'; DROP TABLE max_female_pets;							
	name	owner	birth				
	Fluffy	Harold	1993-02-04				

Query 8: Query table pet to show sex and the number of pets in different sex categories as num.

SELECT sex, count(*) as num FROM pet GROUP BY sex;						
	sex	num				
	NULL	1				
	f	4				
	m	4				

Query 9: Change the sex of pet named "Whistler" to "m".

UPDATE pet SET sex = 'm' WHERE name = 'Whistler';							
name	owner	species	sex	birth	death		
Fluffy	Harold	cat	f	1993-02-04	NULL		
Claws	Gwen	cat	m	1994-03-17	NULL		
Buffy	Harold	dog	f	1989-05-13	NULL		
Fang	Benny	dog	m	1990-08-27	NULL		
Bowser	Diane	dog	m	1979-08-31	1995-07-29		
Chirpy	Gwen	bird	f	1998-09-11	NULL		
Whistler	Gwen	bird	m	1997-12-09	NULL		
Slim	Benny	snake	m	1996-04-29	NULL		
Puffball	Diane	hamster	f	1999-03-30	NULL		

Query 10: Remove all dogs from table pet.

DELETE FROM pet WHERE species = 'dog';					
name	owner	species	sex	birth	death
Fluffy	Harold	cat	f	1993-02-04	NULL
Claws	Gwen	cat	m	1994-03-17	NULL
Chirpy	Gwen	bird	f	1998-09-11	NULL
Whistler	Gwen	bird	m	1997-12-09	NULL
Slim	Benny	snake	m	1996-04-29	NULL
Puffball	Diane	hamster	f	1999-03-30	NULL