Smile Canine Boarding: ERD
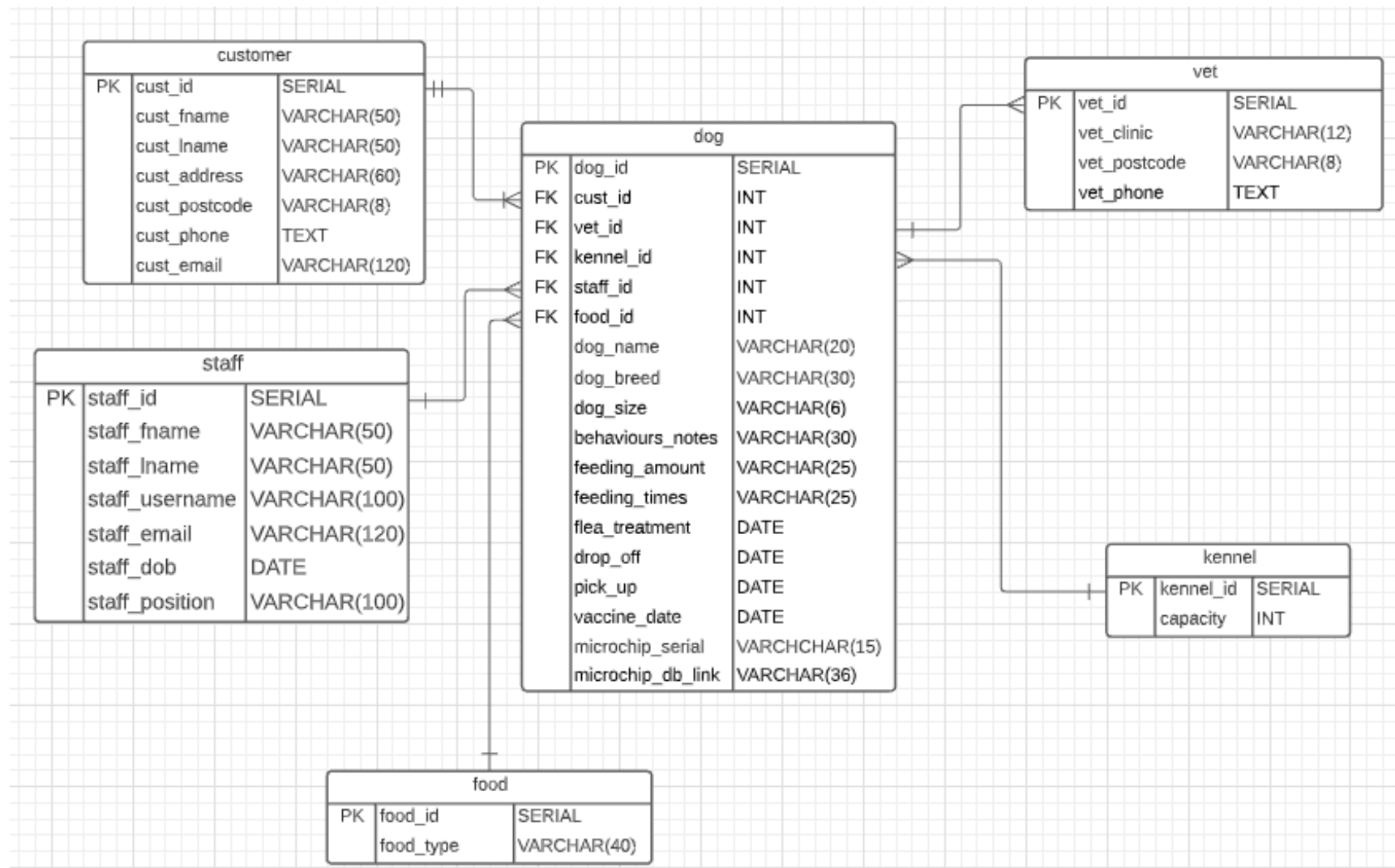

Assumptions:

Dog:

- Microchips are 15-digit numbers according to ISO standards. I assumed purely numeric numbers (https://www.pettravel.com/0001225.cfm - "The **15-digit** ISO pet microchip is the world standard"). This is VARCHAR type as it can be different depending on country e.g., in EU is 9 digits.
- Microchip database links are included as this would be useful for SCB if a dog was to get lost.
- Behaviours (behaviours_notes entity) contain things for the kennel staff to keep in mind, such as medical condition or aggression.

Vet:

- Dogs that have the same owner attend the same vet.

Food:

- There are 6 different food types
  - Small shelf
  - Small organic
  - Medium shelf
  - Medium organic
  - Large shelf
  - Large organic
- Small – large is relevant for nutritional needs of dogs, as there are small/medium/large dogs.
- Shelf is standard food, organic is specialist food for dogs that have owners who request for better quality food to be fed to their dog (at a higher price).

Data dictionary:

staff						
Attribute Name	**Data Type**	**Size**	**Key (Primary or foreign)**	**FK reference**	**Constraints**	**Description (If needed)**
staff_id	SERIAL		Primary		NOT NULL	
staff_fname	VARCHAR	50			NOT NULL	
staff_lname	VARCHAR	50			NOT NULL	
staff_username	VARCHAR	100			NOT NULL	Username of the staff
staff_email	VARCHAR	120			NOT NULL	
staff_dob	DATE				NOT NULL	Staff date of birth
staff_position	VARCHAR	100			NOT NULL	

customer						
Attribute Name	**Data Type**	**Size**	**Key (Primary or foreign)**	**FK reference**	**Constraints**	**Description (If needed)**
cust_id	Serial		Primary		NOT NULL	
cust_fname	VARCHAR	50			NOT NULL	
cust_lname	VARCHAR	50			NOT NULL	
cust_address	VARCHAR	60			NOT NULL	
cust_postcode	VARCHAR	8			NOT NULL	
cust_phone	TEXT				NOT NULL	
cust_email	VARCHAR	120			NULL	

vet						
Attribute Name	**Data Type**	**Size**	**Key (Primary or foreign)**	**FK reference**	**Constraints**	**Description (If needed)**
vet_id	SERIAL		Primary		NOT NULL	
vet_clinic	VARCHAR	12			NOT NULL	Name of vet clinic
vet_postcode	VARCHAR	8			NOT NULL	
vet_phone	TEXT				NOT NULL	

food						
Attribute Name	**Data Type**	**Size**	**Key (Primary or foreign)**	**FK reference**	**Constraints**	**Description (If needed)**
food_id	SERIAL		Primary		NOT NULL	
food_type	INT				NOT NULL	Type of dog food (food for small, medium, large dog. Comes with shelf and organic version)

kennel						
Attribute Name	**Data Type**	**Size**	**Key (Primary or foreign)**	**FK reference**	**Constraints**	**Description (If needed)**
kennel_id	SERIAL		Primary		NOT NULL	
capacity	INT				NOT NULL	Total amount of dogs in kennel at one time, some can house 2 dogs

dog						
Attribute Name	**Data Type**	**Size**	**Key (Primary or foreign)**	**FK reference**	**Constraints**	**Description (If needed)**
dog_id	SERIAL		Primary		NOT NULL	
cust_id	INT		Foreign	customer.cust_id	NOT NULL	
vet_id	INT		Foreign	vet.vet_id	NOT NULL	
kennel_id	INT		Foreign	kennel.kennel_id	NOT NULL	
staff_id	INT		Foreign	staff.staff_id	NOT NULL	
food_id	INT		Foreign	food.food_id	NOT NULL	
dog_name	VARCHAR	20			NOT NULL	
dog_breed	VARCHAR	30			NOT NULL	
dog_size	VARCHAR	6			NOT NULL	Small, medium or large
behaviours_notes	VARCHAR	30			NOT NULL	Noted for temperament/medical issues for dog that affect behaviour
feeding_amount	VARCHAR	25			NOT NULL	Amount of scoops of dry food that dogs are given when fed
feeding_times	VARCHAR	25			NOT NULL	Times of day dog is fed
flea_treatment	DATE				NOT NULL	Date of last flea treatment
drop_off	DATE				NOT NULL	Date the dog was dropped off by customer
pick_up	DATE				NOT NULL	Date the dog will be picked up by customer
vaccine_date	DATE				NOT NULL	Date the dog received vaccinations
microchip_serial	VARCHAR	15			NOT NULL	15-digit serial number for dog's microchip
microchip_db_link	VARCHAR	36			NOT NULL	Links provided against each dog corresponding to their microchip, link leads to correct database to search the microchip serial number

Query screenshots:

JOIN 1

```
smile_canine_boarding=# SELECT vet_clinic, vet_phone, dog_name, behaviours_notes, vaccine_date, cust_phone FROM vet
smile_canine_boarding-# JOIN dog ON vet.vet_id = dog.vet_id
smile_canine_boarding-# JOIN customer ON dog.cust_id = customer.cust_id
smile_canine_boarding-# WHERE behaviours_notes = 'Epileptic, meds provided';
 vet_clinic |   vet_phone   | dog_name |     behaviours_notes     | vaccine_date |   cust_phone
------------+---------------+----------+--------------------------+--------------+-----------------
 Nice Vet   | 0161 496 0735 | Jack     | Epileptic, meds provided | 2021-09-09   | +44 7153 651034
(1 row)

smile_canine_boarding=#
```

JOIN 2

```
smile_canine_boarding=# SELECT kennel.kennel_id, dog_name, dog_breed, dog_size, behaviours_notes, microchip_serial, cust_fname, cust_phone, cust_email FROM kennel
smile_canine_boarding-# JOIN dog ON kennel.kennel_id = dog.kennel_id
smile_canine_boarding-# JOIN customer ON dog.cust_id = customer.cust_id
smile_canine_boarding-# WHERE behaviours_notes = 'Can be aggressive';
 kennel_id | dog_name | dog_breed | dog_size | behaviours_notes  | microchip_serial | cust_fname |   cust_phone    |      cust_email
-----------+----------+-----------+----------+-------------------+------------------+------------+-----------------+----------------------
        12 | Rat      | Chihuahua | Small    | Can be aggressive | 337698119948673  | Paul       | +44 7249 486162 | paulmabbot@icloud.com
(1 row)

smile_canine_boarding=#
```

JOIN 3

```
smile_canine_boarding=# SELECT staff_fname, staff_username, staff_position, dog_name, dog_breed, dog_size, feeding_times, feeding_amount, food_type FROM staff
smile_canine_boarding-# JOIN dog on staff.staff_id = dog.staff_id
smile_canine_boarding-# JOIN food ON dog.food_id = food.food_id
smile_canine_boarding-# WHERE feeding_times = 'Feed at 8am, 1pm and 5pm';
 staff_fname | staff_username | staff_position | dog_name |   dog_breed     | dog_size |      feeding_times       |   feeding_amount     |          food_type
-------------+----------------+----------------+----------+-----------------+----------+--------------------------+----------------------+--------------------------------
 Christine   | cnelson        | general staff  | Sid      | Beagle          | Medium   | Feed at 8am, 1pm and 5pm | Three scoops dry food | Medium dog shelf dry food 50kg bag
 Christine   | cnelson        | general staff  | Lassie   | Irish Wolf Hound | Large    | Feed at 8am, 1pm and 5pm | Four scoops dry food  | Large dog organic dry food 50kg bag
(2 rows)

smile_canine_boarding=#
```

(JOIN 4 ON NEXT PAGE)

JOIN 4

```
smile_canine_boarding=# SELECT dog_name, drop_off, pick_up, cust_fname, cust_lname FROM customer
smile_canine_boarding=# JOIN dog ON customer.cust_id = dog.cust_id
smile_canine_boarding=# WHERE pick_up >= '2022-02-23';
 dog_name |  drop_off  |  pick_up   | cust_fname | cust_lname
----------+------------+------------+------------+------------
 Zeus     | 2022-02-25 | 2022-02-23 | Jack       | Lee
 Jaspa    | 2022-02-24 | 2022-02-23 | Mia        | Adams
 Bailey   | 2022-02-24 | 2022-02-23 | Jackie     | Ryan
 Jack     | 2022-02-24 | 2022-02-23 | Eren       | Yeager
 Charlie  | 2022-02-24 | 2022-02-23 | Thomas     | Shelby
 Bruce    | 2022-02-24 | 2022-02-23 | Jack       | Astner
 Max      | 2022-02-24 | 2022-02-23 | Jack       | Astner
 G        | 2022-02-24 | 2022-02-23 | Harry      | Tudor
 Lassie   | 2022-02-24 | 2022-02-23 | Harry      | Tudor
 Rat      | 2022-02-24 | 2022-02-23 | Paul       | Mabbot
 Smudge   | 2022-02-24 | 2022-02-23 | Paul       | Mabbot
(11 rows)

smile_canine_boarding=#
```