SQL Queries

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Task

Your task is to write SQL queries to answer the following questions.

You will not have access to the actual database to answer these questions. You are given the ERD and are asked to submit queries that would answer the questions.

The database is maintained by a local animal shelter with a few different shelter locations in various cities and states near you. They keep track of all of the animals that are in their care and the people that adopt their animals.

An ERD for this database is given below. Primary keys of the tables are labeled with `PK` and foreign keys are labeled with `FK`.

Write queries to answer the following questions. Submit your code in the Google form provided.

Questions

1. Get the first 10 rows and all columns of the animals table (get all columns but limit the result of the query to 10 items).

> **SELECT** *
>
> **FROM** animals
>
> **LIMIT** 10;

2. Get a list of the unique breeds of animals.

```sql
SELECT DISTINCT breed
FROM animals;
```

3. Get all of the ages and weights of black dogs (`type is dog and color is black`).

```sql
SELECT age, weight
FROM animals
WHERE type = 'dog' AND color = 'black';
```

4. Get all of the types and breeds of animals that weigh more than 55 pounds.

```sql
SELECT type, breed
FROM animals
WHERE weight > 55;
```

5. Get a list of all customers using gmail (customers whose emails end in `@gmail.com`).

```sql
SELECT first_name || ' ' || last_name
FROM customers
WHERE email LIKE '%@gmail.com';
```

6. Get the average weight by breed of breeds that average at least 40 pounds.

```sql
SELECT AVG(weight), breed
FROM animals
GROUP BY 2
```

> **HAVING** AVG(weight) >= 40;

7. Get the last name of all people who have adopted a cat (`type` is `cat`).

> **SELECT** c.last_name
>
> **FROM** customers c
>
> **JOIN** animals a
>
> **ON** c.pet_id = a.id
>
> **WHERE** a.type = 'cat';

8. Grouping by type, get the average age of each type of animal. Name the average age column `avg_age` .

> **SELECT AVG**(age) as avg_age, type
>
> **FROM** animals
>
> **GROUP BY** 2;

9. How many rabbits (`type` is `rabbit`) are located in New York (`state` is `New York`)?

> **SELECT COUNT**(a.type) as rabbit_count
>
> **FROM** animals a
>
> **JOIN** locations loc
>
> **ON** a.location_id = loc.id
>
> **WHERE** a.type **IN** ('rabbit') **AND** loc.state **IN** ('New York');

10. Get the pet ID, breed, customer ID, and city of dogs (`type` is `dog`) who have been adopted (`adopted` is `Yes` or `yes`). Order the results alphabetically by breed.

```sql
SELECT c.pet_id, a.breed, c.customer_id, loc.city

FROM customers c

JOIN animals a

ON c.pet_id = a.id

JOIN locations loc

ON a.location_id = loc.id

WHERE a.type = 'dog' AND a.adopted IN ('yes', 'Yes')

ORDER BY 2 ASC;
```

Learning Targets Assessed

You should be able to:

- Implement SQL commands
- Apply groupbys, joins, and aggregations to SQL tables