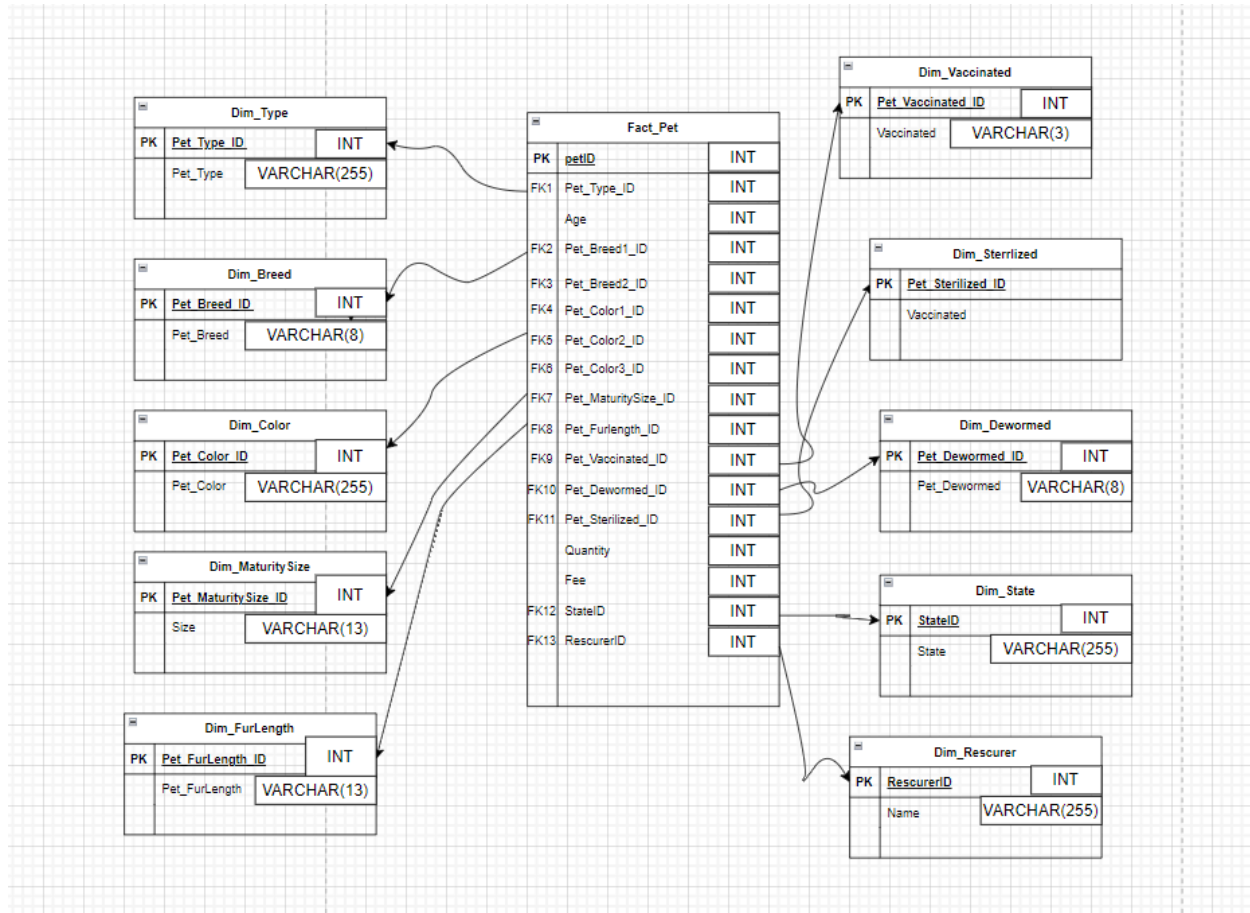# PETFINDER

1) Entity-Relationship Diagram

Star Schema:

Pet_Fact: Primary (Fact) table contains pet information
Dim_Type: Dimension table contains pet's type information
Dim_Breed: Dimension (Fact) table contains pet's breed information
Dim_Color: Dimension (Fact) table contains pet's color information
Dim_MaturitySize: Dimension (Fact) table contains pet's maturity size information
Dim_FurLength: Dimension (Fact) table contains pet's fur length information
Dim_Vaccinated: Dimension (Fact) table contains pet's vaccination condition information
Dim_Dewormed: Dimension (Fact) table contains pet's dewormed condition information
Dim_Sterilized: Dimension (Fact) table contains pet's sterilized condition information
Dim_State: Dimension (Fact) table contains pet's state information
Dim_Rescurer: Dimension (Fact) table contains rescurer's information

2) QUERY TEST

Query:

```sql
-- Number of Vaccinated, Dewormed, Sterilized Pet
SELECT
    COUNT(CASE WHEN V.Pet_Vaccinated = 'Yes' THEN F.PetID ELSE NULL END) AS num_vaccinated_pet,
    COUNT(CASE WHEN D.Pet_Dewormed = 'Yes' THEN F.PetID ELSE NULL END) AS num_dewormed_pet,
    COUNT(CASE WHEN S.Pet_Sterilized = 'Yes' THEN F.PetID ELSE NULL END) AS num_sterilized_pet
FROM Fact_Pet F
LEFT JOIN Dim_Vaccinated V ON F.Pet_Vaccinated_ID = V.Pet_Vaccinated_ID
LEFT JOIN Dim_Dewormed D ON F.Pet_Dewormed_ID = D.Pet_Dewormed_ID
LEFT JOIN Dim_Sterilized S ON F.Pet_Sterilized_ID = S.Pet_Sterlized_ID
```

Result:

	num_vaccinated_pet	num_dewormed_pet	num_sterilized_pet
1	5899	8395	3102

Query:

```sql
-- 2 types of Pet
SELECT
    t.Pet_Type,
    COUNT(f.Pet_Type_ID ) AS Total_Case,
    SUM(f.Quantity) AS Total_Number,
    SUM(f.Fee) AS Total_Price
FROM Fact_Pet f
LEFT JOIN Dim_Type t ON t.Pet_Type_ID = f.Pet_Type_ID
GROUP BY t.Pet_Type;

-- Number of breeds
SELECT COUNT(DISTINCT Pet_Breed_ID) AS num_breeds
FROM Dim_Breed;
```

Result:

	Pet_Type	Total_Case	Total_Number	Total_Price
1	Cat	6861	11213	121140
2	Dog	8132	12414	197419

Query:

```sql
-- Types of FurLength
SELECT
    l.Pet_Furlength,
    COUNT(f.Pet_Type_ID ) AS Total_Case,
    SUM(f.Quantity) AS Total_Number,
    SUM(f.Fee) AS Total_Price
FROM Fact_Pet f
LEFT JOIN Dim_FurLength l ON l.Pet_Furlength_ID = f.Pet_FurLength_ID
GROUP BY l.Pet_Furlength;
```

Result:

	Pet_Furlength	Total_Case	Total_Number	Total_Price
1	Not Specified	1	1	1
2	Long	824	1050	73822
3	Short	8807	14138	130997
4	Medium	5361	8438	113739

ETL Design: