# EPPS 6354.001

## Project Proposal

Tyler Merrill

THE UNIVERSITY OF TEXAS AT DALLAS

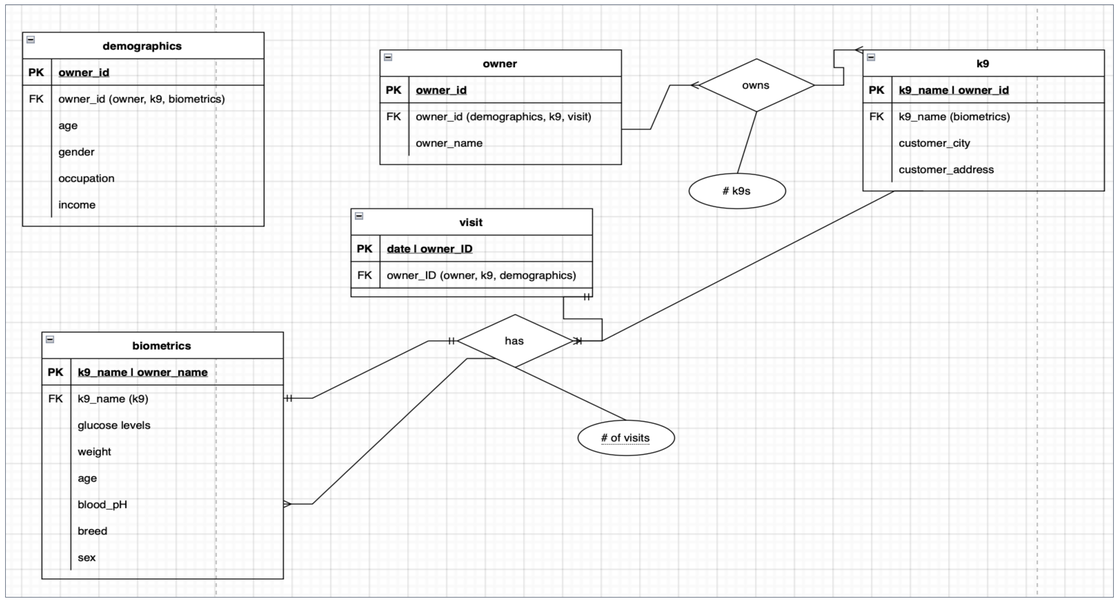
### End-Users

The envisioned end-users of this database are veterinarians, or those working in a clinical capacity in the provision of veterinary services.

### Database Services

The database will store and make easily accessible diagnostic biometrics of diabetic canines when they attend a veterinary clinic, along with key relevant socio-demographic variables of their legal owners. This will assist with the ability to prognose and enhance the treatment of canine aliment *diabetes mellitus* (Sapra and Bhandari 2023) and provide a basis from which to track correlations between social status and a selected avenue of health provision.

### E-R Schema




### Relation Creation

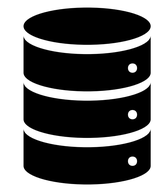
**create table** demographics
(owner_id **character** (9),
gender **varchar** (2),
age **numeric** (2),
occupation **character** (12),
Income **numeric** (8,2),
**primary key** (owner_id),
**foreign key** (owner_id)
**references** owner, k9, biometrics);

**create table** k9
(k9_name **varchar** (20),
owner_id **character** (9),
customer_city **character** (7),
customer_addr. **character** (11)
**primary key**
(owner_id)(k9_name),
**foreign key** (k9_name)
**references** biometrics);

### Interface and Data

The first iteration of this database is expected to be accessible and utilized via the pgAdmin 4 IDE for PostgreSQL.

Individual canine data (weight, glucose levels, etc.) will be pseudo-randomly generated, but bounded by ranges reported in the relevant scientific literature. Demographic data will be pulled from convenience samples of U.S. citizens residing within the contiguous U.S. from data repositories hosted by the U.S. Census Bureau (Bureau 2025). Data tables will be generated/collected and stored on .csv files before importation into PostgreSQL.



### References

Sapra, Amit, and Priyanka Bhandari. 2025. "Diabetes." In *StatPearls*, Treasure Island (FL): StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK551501/ (February 1, 2025).

Bureau, US Census. "Data." *Census.gov*. https://www.census.gov/data (February 1, 2025).