

**Database Design, CSCI 340, Spring 2016**  
**Conceptual Design Studio #1, Feb. 17**

**Yappers Dog Kennel**

Yappers is a small, family owned dog kennel. The owner wants a database application to keep a portion of Yappers operating information. The application should track the name, owner, size (small, medium and large) and the most recent vaccination date for each dog. The name (first and last), address (street, city, state, zip code), home and work telephone phone numbers for the owner should also be stored in the database. Yappers assumes that the home telephone numbers of their customers are unique and uses these to search the database. Yappers assumes that each dog has exactly one owner and if that owner were deleted from the database, the dog information would also be deleted. When a dog dies, owners are not removed from the database because they often become dog owners again in the future.

Each time that a dog is kenneled at Yappers the date and time that the dog or dogs were brought in, along with the date and time that the dog or dogs were taken out are kept. Since owners with multiple dogs frequently kennel the dogs at the same time, one kennel visit can correspond to one or many dogs. Each kenneling of a dog or set of dogs has a unique identifying number.

Create a data model for this application. Give the minimum and maximum cardinalities for all relations. Indicate key information. Feel free to ask me questions when the requirements for this database are not clear. Alternatively, make reasonable assumptions, and write these down.