

Conceptual Data Model- Pawsome Pets:

Assumptions:

For this model, we are assuming the following:

- If a Staff Member is “new”, they may not have performed any Examinations yet, performed 0 to many Examinations, (0..*)
- If a Pet is “new”, they may be registered to a Clinic but not have had any Examinations yet, received 0 to many Examinations, (0..*)

1. Main entity types

- a. Staff Member
- b. Clinic
- c. Owner
- d. Pet
- e. Examination

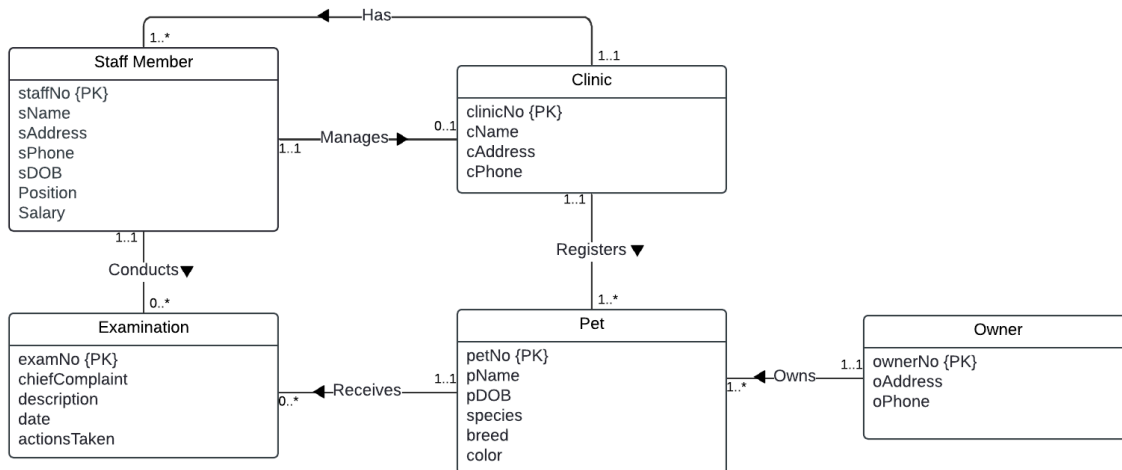
2. Main relationship types between entity types

- a. Clinic **has** Staff Members
- b. Staff Member **manages** Clinic
- c. Clinic **registers** Pets
- d. Owner **owns** Pet(s)
- e. Staff Member **conducts** Examinations
- f. Pet **receives** Examinations

3. Multiplicity constraints on between entity types

Entity Name 1	Multiplicity 1	Relationship	Multiplicity 2	Entity Name 2	Rel. Type
Clinic	1..1	Has	1..*	Staff Member	1:*
Staff Member	1..1	Manages	0..1	Clinic	1:1
Clinic	1..1	Registers	1..*	Pet	1:*
Owner	1..1	Owns	1..*	Pet	1:*
Staff Member	1..1	Conducts	0..*	Examination	1:*
Pet	1..1	Receives	1..*	Examination	1:*

4. Attributes and their associations with entity types and relationship types
 - a. Staff Member- **staffNo**, sName, sAddress, sPhone, sDOB, position, salary
 - b. Clinic- **clinicNo**, cName, cAddress, cPhone
 - c. Owner- **ownerNo**, oName, oAddress, oPhone
 - d. Pet- **petNo**, pName, pDOB, species, breed, color
 - e. Examination- **examNo**, chiefComplaint, description, date, actionsTaken
5. Candidate key and primary key attributes for each strong entity type
 - a. Clinic: Candidate/Primary Key- {ClinicNo}
 - b. Staff: Candidate/Primary Key- {StaffNo}
 - c. Owner: Candidate/Primary Key- {OwnerNo}
 - d. Pet: Candidate/Primary Key- {PetNo}
 - e. Examination: Candidate/Primary Key- {ExamNo}
6. E-R diagram for the conceptual level (No FKs as attributes)



Multiplicities Explained:

Clinic and Staff Member

- a. Each Clinic has many Staff Members (1..*)
- b. Each Staff Member works at 1 Clinic (1..1)

Clinic and Staff Member (manages)

- c. Each Staff Member manages 0 or 1 Clinics (0..1)
- d. Each Clinic is managed by 1 Staff Member (1..1)

Pet and Clinic

- e. Each Pet is registered to 1 Clinic (1..1)
- f. Each Clinic has multiple Pets registered to it (1..*)

Pet and Owner

- g. Each Pet belongs to 1 Owner (1..1)
- h. Each Owner owns 1 or more Pets (1..*)

Examination and Pet

- i. Each Examination is done on 1 Pet (1..1)
- j. Each Pet receives 0 or more Examinations (0..*)

Examination and Staff

- k. Each Examination is conducted by 1 Staff Member (1..1)
- l. Each Staff Member has performed 0 or more Examinations (0..*)