

A) Main entities:

Clinic
Staff
Owner
Pet
Examination

B) relationships:

Clinic employs Staff
Staff manages Clinic
Owner owns Pet
Clinic registers Pet
Staff performs examination
Pet undergoes examination

C) Multiplicity:

employs $1..1 \rightarrow 1..*$
manages $1..1 \rightarrow 0..1$
owns $1..1 \rightarrow 1..*$
registers $1..1 \rightarrow 0..*$
performs $1..1 \rightarrow 0..*$
undergoes $1..1 \rightarrow 0..*$

Assumptions:

All Clinics are managed
All Clinics have at least one staff member
All Pets have an owner (no strays)
Pets are examined by one staff member only
All staff are assigned to a clinic
Pets

D) Clinic (clinicNo, name, address, phone)

Staff (staffNo, staffName, staffAddress, staffPhone, DOB, position, salary)

Owner (ownerNo, ownerName, ownerAddress, ownerPhone)

Pet (petNo, petName, petDOB, species, breed, color)

Examination (examNo, chiefComplaint, description, date, actionsTaken)

E) Clinic - C. keys \rightarrow clinicNo, phone | Primary key \rightarrow clinicNo

Staff - C. keys \rightarrow staffNo | Primary key \rightarrow staffNo
(staff could share home phone)

Owner - C. keys \rightarrow ownerNo | Primary key \rightarrow ownerNo
(shared phone or address possible)

Pet - C. keys \rightarrow petNo | Primary key \rightarrow petNo

Examination - C. keys \rightarrow examNo | Primary key \rightarrow examNo

