a. petOwner - Pet --> Owner owns pet(s); Pet is owned by owner

    Clinic - petOwner --> Clinic has petOwner; petOwners go to clinic.

    Clinic - staff --> Clinic has staff; Staff belong to Clinic

    Clinic - examination --> Clinic does examination; Examinations belong to clinic

b. Clinic(clinicNO(PK), clinicName, address, telephone(CK), staffNO (FK), ownerNO(FK), examNO(FK)
Staff(staffNO(PK), address, telephone(CK), dob, position, salary)
petOwner(OwnerNO(PK), name, address, telephone(CK), petNO(CK))
Pet(petNO(PK), name, dob, species, breed, color)
Examination(examNO(PK), chiefComplaint, description, dateSeen)

c.

    1. List 200 employees in the "IT" department.

    2. List all pets under ownerNO '754'.

    3. List the telephone number for clinic named "Heritage".

    4. List all examinations on the date "11-04-2016".

    5. List all pets with the species "Husky".

d.

    Primary Key:

    Staff (**staffNO), clinic(clinicNO), petOwner(OwnerNO), examination(examNO), pet(petNO))**

    Foreign Key:

    clinic (**staffNO, OwnerNO, examNO**)

    pet(**petNO**)

Candidate Key:

Staff(**telephoneNO**)

Clinic(**telephoneNO**)

petOwner(t**elephoneNO**)

Required Data:

No primary key can be a null value:

staffNO, clinicNO, OwnerNO, examNO, petNO are examples of required data that cannot be null.

Attribute Domain Constraint:

telephoneNO has to be 10 digits.

staffNO has to be <4 characters

salary has to be an int

General Constraints:

dob cannot be > the current date

dateSeen cannot be > the current date

F.

Staff

staffNO (PK)

address

telephone (CK)

dob

position

salary

Clinic

ClinicNO (PK)

clinicName

address

telephone (CK)

staffNO (FK)

ownerNO (FK)

examNO (FK)

Belong to

1..*   1..1

1..1

Belong to

1..*   1..*

petOwner

ownerNO (PK)

name

address

telephone (CK)

petNO (FK)

Examination

examNO (PK)

chiefComplaint

description

dateSeen

1..1

has

1..*

pet

petNO (PK)

name

dob

species

breed

color