Bronze Animal Clinic Database Management System

Jasmine Luallen

December 11, 2023

Table of Contents

Database Requirements

The Bronze Animal Clinic has many patients that are admitted every day. The admitted patients need all of their information including their diagnosis, medication, treatment, and testing that was completed at the hospital to be organized in an efficient manner which this database system will achieve. Each patient will be accompanied by their owner and every patient must undergo registration with the animal clinic once they arrive. Every patient must be associated with only one owner, but each owner may be associated with multiple patients. Along with this, each patient must have at least one scheduled appointment, but they may have more. Each veterinarian must have at least one appointment with a patient but can have more as well. Each patient will have only one attending veterinarian, but veterinarians can have multiple patients. Every patient will have only one medical record and only one medical record will be associated with each patient. Multiple patients are able to receive multiple tests. However, not every patient will need to receive a test.

Additional Information:

For each patient: PatientID, Patient name, date of birth, gender, animal type, and main complaint

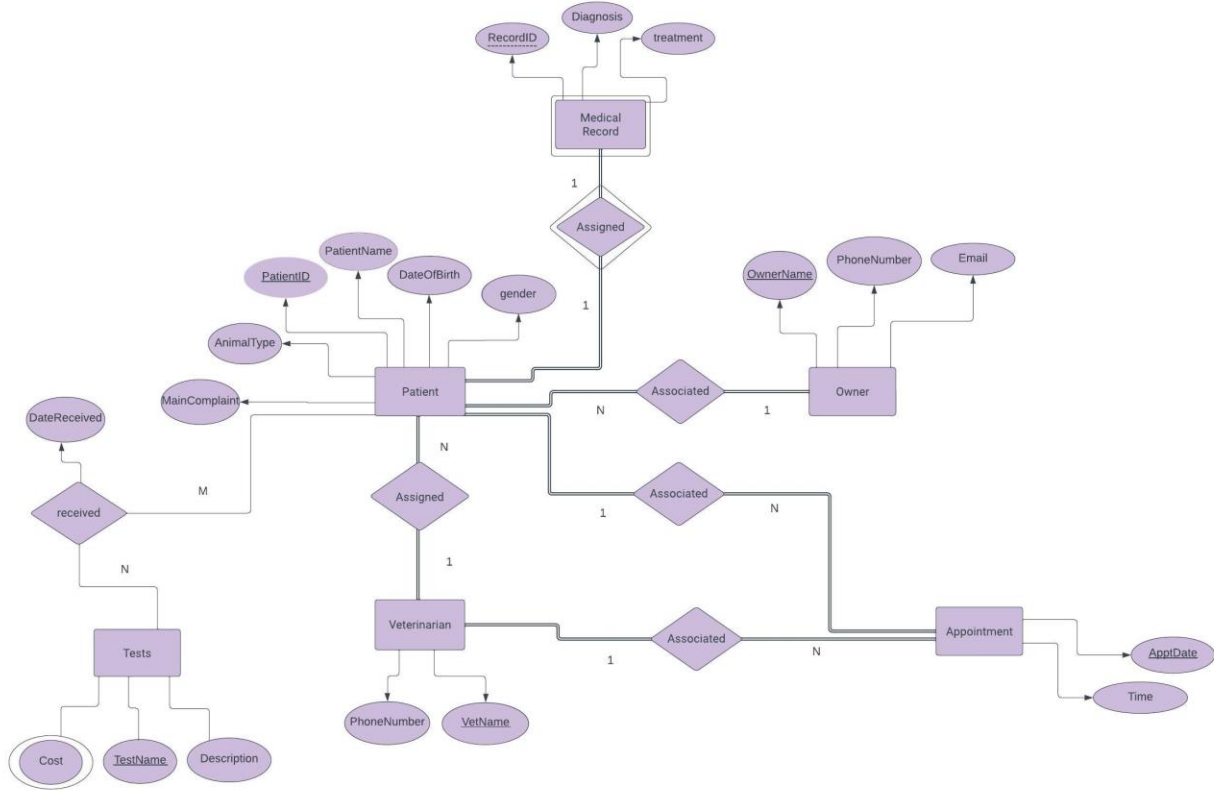For each owner: Owner's name, phone number, email address

For each veterinarian: Vet name, phone number

For each medical record: RecordID, diagnosis, treatment provided

For each appointment: AppointmentID, Date, Time

For each test: Test name, description, cost of each test, and the date they are received

ER Schema Diagram

Diagnosis
RecordID
treatment
Medical Record
1
Assigned
PatientName
PatientID
DateOfBirth
gender
OwnerName
PhoneNumber
Email
AnimalType
1
MainComplaint
Patient
Associated
Owner
N
1
DateReceived
N
M
received
Assigned
Associated
N
1
N
1
Tests
1
Veterinarian
Associated
Appointment
ApptDate
1
N
Cost
TestName
Description
PhoneNumber
VetName
Time

Relational Schema

Patient(<u>PatientID</u>, PatientName, DateOfBirth, gender, AnimalType, MainComplaint,

OwnerName, VetName)

      AK PatientName

      FK OwnerName ⟶ Owner

      FK VetName ⟶ Veterinarian

MedicalRecord(<u>RecordID, PatientID</u>, Diagnosis, Treatment)

      FK PatientID ⟶ Patient

Veterinarian(<u>VetName</u>, PhoneNumber)

Owner(OwnerName, PhoneNumber, Email)

Appointment(ApptDate, Time, PatientID, VetName)

        FK PatientID ⟶ Patient

        FK VetName ⟶ Veterinarian

Tests(TestName, description)

Received(TestName, PatientID, DateReceived)

Costs(Cost, TestName)

Queries

Q1: I want this query to show the diagnosis for each patient.

Q2: I want this query to show only the appointments that are after 11/30/2023.

Q3: I want this query to prompt the user to enter the animal type into the parameter value box.

Q4: I want this query to show how many owners have more than one pet and count the number of pets that they have.

Q5: I want this query to count how many patients scheduled an appointment, where the veterinarian is not Dr. Moore, grouping it by the time, having the count be greater than 1, and ordering it by the time.

Bronze Animal Clinic Database Management System

Jasmine Luallen

November 12, 2023

Table of Contents

Database Requirements

The Bronze Animal Clinic has many patients that are admitted every day. The admitted patients need all of their information including their diagnosis, medication, treatment, and testing that was completed at the hospital to be organized in an efficient manner which this database system will achieve. Each patient will be accompanied by their owner and every patient must undergo registration with the animal clinic once they arrive. Every patient must be associated with only one owner, but each owner may be associated with multiple patients. Along with this, each patient must have at least one scheduled appointment, but they may have more. Each veterinarian must have at least one appointment with a patient but can have more as well. Each patient will have only one attending veterinarian, but veterinarians can have multiple patients. Every patient will have only one medical record and only one medical record will be associated with each patient. Multiple veterinarians are able to order multiple tests for their patients. However, not every veterinarian will need to order a test.

Additional Information:

For each patient: Patient name, date of birth, gender, breed, condition, and owner's name

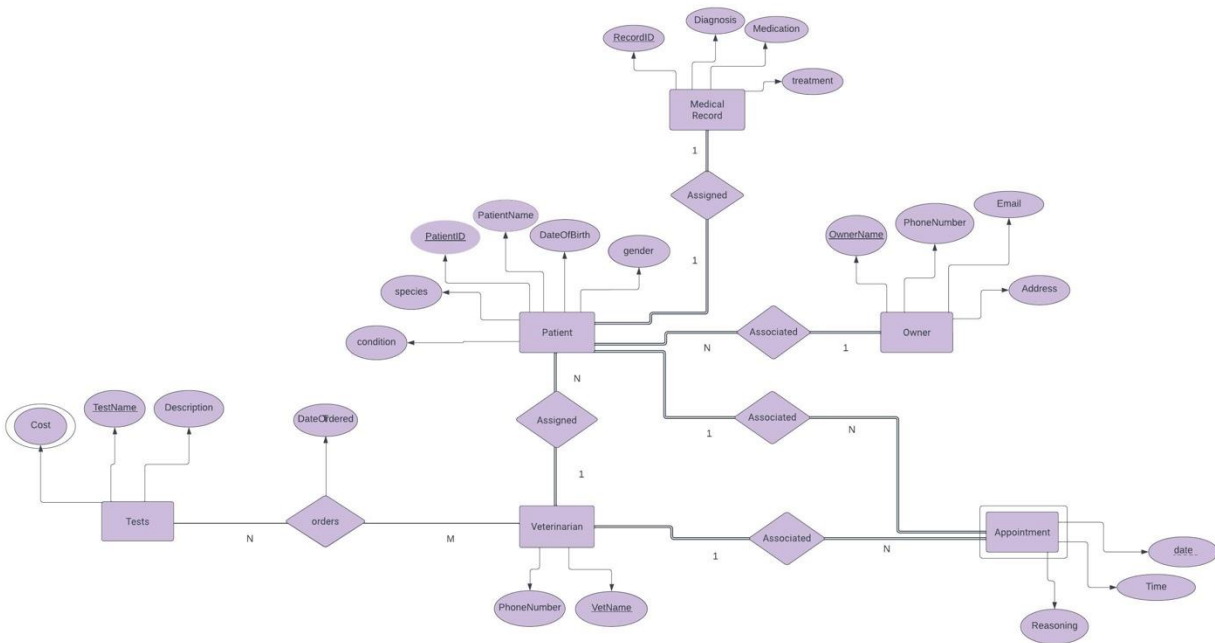For each owner: Owner's name, phone number, email address, address

For each veterinarian: VetID, name, phone number

For each medical record: RecordID, diagnosis, medication prescribed, treatment provided

For each appointment: AppointmentID, Date, Time, Reasoning

For each test: Test name, description, cost of each test, and the date they are ordered

ER Schema Diagram

Relational Schema

Patient(PatientID, PatientName, DateOfBirth, gender, species, condition, OwnerName, VetName)

    AK PatientName

    FK OwnerName ⟶ Owner

    FK VetName ⟶ Veterinarian

MedicalRecord(RecordID, Diagnosis, Medication, Treatment, PatientID)

    FK PatientID ⟶ Patient

Veterinarian(VetName, PhoneNumber)

Owner(OwnerName, PhoneNumber, Email, Address)

Appointment(PatientID, Date, Time, Reasoning, VetName)

       FK VetName   ⟶   Veterinarian

Tests(TestName, Description, VetName)

       FK VetName   ⟶   Veterinarian

Orders(TestName, VetName, DateOrdered)

Costs(Cost, TestName)

Queries

Q1: I want this query to show the diagnosis for each patient.

Q2: I want this query to show only the appointments that are after 11/15/2023.

Q3: I want this query to prompt the user to type the species of the animal into the parameter value box.

Q4: I want this query to count how many tests cost above $250.

Q5: I want this query to count how many vets ordered a specific test, where the test is x-ray, grouping it by the test name, having the count be greater than 1, and ordering by the test name alphabetically.