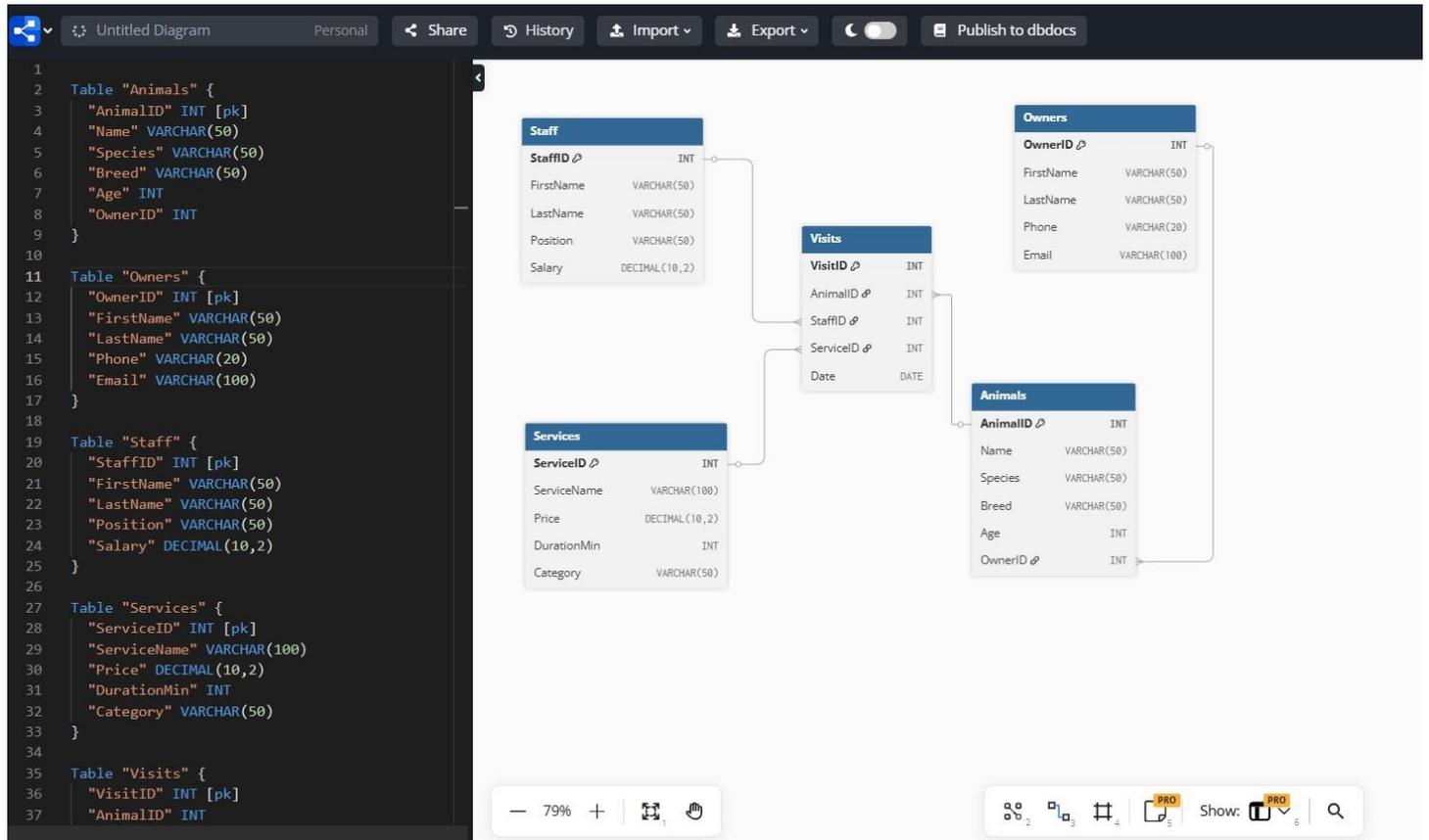# РЕЛАЦИОННА БАЗА ДАННИ, ПОДХОДЯЩА ЗА УПРАВЛЕНИЕ НА ВЕТЕРИНАРНА КЛИНИКА ИЛИ ЗООЛОГИЧЕСКА ГРАДИНА.


```sql
-- Таблица с животни
CREATE TABLE Animals (
    AnimalID INT PRIMARY KEY,
    Name VARCHAR(50),
    Species VARCHAR(50),
    Breed VARCHAR(50),
    Age INT,
    OwnerID INT
);
-- Таблица със собственици
CREATE TABLE Owners (
    OwnerID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Phone VARCHAR(20),
    Email VARCHAR(100)
);
-- Таблица с персонал
CREATE TABLE Staff (
    StaffID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Position VARCHAR(50),
    Salary DECIMAL(10,2)
);
-- Таблица с услуги
CREATE TABLE Services (
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    ServiceID INT PRIMARY KEY,
    ServiceName VARCHAR(100),
    Price DECIMAL(10,2),
    DurationMin INT,
    Category VARCHAR(50)
);
-- Таблица с посещения
CREATE TABLE Visits (
    VisitID INT PRIMARY KEY,
    AnimalID INT,
    StaffID INT,
    ServiceID INT,
    Date DATE
);

INSERT INTO Animals (AnimalID, Name, Species, Breed, Age, OwnerID) VALUES
(1, 'Bella', 'Dog', 'Labrador Retriever', 4, 1),
(2, 'Milo', 'Cat', 'British Shorthair', 2, 2),
(3, 'Rex', 'Dog', 'German Shepherd', 6, 3),
(4, 'Luna', 'Cat', 'Siamese', 1, 4),
(5, 'Charlie', 'Rabbit', 'Mini Rex', 3, 5),
(6, 'Max', 'Dog', 'Beagle', 5, 2),
(7, 'Oreo', 'Guinea Pig', 'Abyssinian', 2, 6),
(8, 'Simba', 'Cat', 'Maine Coon', 4, 7),
(9, 'Rocky', 'Dog', 'Bulldog', 7, 1),
(10, 'Zara', 'Turtle', 'Red-Eared Slider', 12, 8);

INSERT INTO Owners (OwnerID, FirstName, LastName, Phone, Email) VALUES
(1, 'Ivan', 'Petrov', '0888123456', 'ivan.petrov@example.com'),
(2, 'Maria', 'Georgieva', '0899345678', 'm.georgieva@example.com'),
(3, 'Dimitar', 'Iliev', '0877554321', 'd.iliev@example.com'),
(4, 'Elena', 'Nikolova', '0886456789', 'elena.nikolova@example.com'),
(5, 'Rosen', 'Kolev', '0899765432', 'r.kolev@example.com'),
(6, 'Gergana', 'Stoyanova', '0877123987', 'g.stoyanova@example.com'),
(7, 'Stanislav', 'Marinov', '0889674523', 's.marinov@example.com'),
(8, 'Petya', 'Dimitrova', '0898456231', 'petya.dimitrova@example.com'),
(9, 'Hristo', 'Vasilev', '0877985643', 'hristo.vasilev@example.com'),
(10, 'Viktoria', 'Krasteva', '0889345123', 'v.krasteva@example.com');

INSERT INTO Staff (StaffID, FirstName, LastName, Position, Salary) VALUES
(1, 'Dragan', 'Petrov', 'Veterinarian', 2500.00),
(2, 'Silvia', 'Marinova', 'Veterinary Assistant', 1600.00),
(3, 'Nikolay', 'Kolev', 'Veterinarian', 2700.00),
(4, 'Albena', 'Georgieva', 'Receptionist', 1400.00),
(5, 'Kristina', 'Dimitrova', 'Groomer', 1500.00),
(6, 'Todor', 'Hristov', 'Veterinary Technician', 1800.00),
(7, 'Yana', 'Stoyanova', 'Veterinarian', 2600.00),
(8, 'Martin', 'Iliev', 'Assistant Groomer', 1300.00),
(9, 'Svetla', 'Nikolova', 'Clinic Manager', 2200.00),
(10, 'Kaloyan', 'Vasilev', 'Janitor', 1100.00);

INSERT INTO Services (ServiceID, ServiceName, Price, DurationMin, Category) VALUES
(1, 'General Check-up', 40.00, 20, 'Examination'),
(2, 'Vaccination – Rabies', 25.00, 15, 'Vaccination'),
(3, 'Deworming', 18.00, 10, 'Treatment'),
(4, 'Ultrasound Examination', 60.00, 30, 'Diagnostics'),
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(5, 'X-Ray Imaging', 75.00, 25, 'Diagnostics'),
(6, 'Dental Cleaning', 120.00, 45, 'Dental Care'),
(7, 'Nail Trimming', 12.00, 5, 'Grooming'),
(8, 'Minor Surgery Procedure', 200.00, 90, 'Surgery'),
(9, 'Blood Test – Full Panel', 55.00, 20, 'Diagnostics'),
(10, 'Pet Grooming – Full Service', 80.00, 60, 'Grooming');

INSERT INTO Visits (VisitID, AnimalID, StaffID, ServiceID, Date) VALUES
(1, 1, 1, 1, '2025-01-12'),
(2, 2, 3, 2, '2025-01-15'),
(3, 3, 7, 4, '2025-01-20'),
(4, 4, 2, 3, '2025-01-22'),
(5, 5, 5, 7, '2025-01-25'),
(6, 6, 6, 9, '2025-01-28'),
(7, 7, 8, 10, '2025-02-01'),
(8, 8, 1, 5, '2025-02-03'),
(9, 9, 9, 6, '2025-02-05'),
(10, 10, 4, 8, '2025-02-10');


-- Всички животни
SELECT * FROM Animals;

-- Всички услуги под 50 лв
SELECT ServiceName, Price
FROM Services
WHERE Price < 50;

-- Персонал по заплата (низходящо)
SELECT FirstName, LastName, Salary
FROM Staff
ORDER BY Salary DESC;

-- Брой животни по вид
SELECT Species, COUNT(*) AS CountAnimals
FROM Animals
GROUP BY Species;

-- Средна цена на услугите
SELECT AVG(Price) AS AvgPrice
FROM Services;

--Справка за всички посещения CREATE VIEW--
CREATE VIEW View_VisitsInfo AS
SELECT
    A.Name AS AnimalName,
    A.Species,
    S.ServiceName,
    S.Price,
    St.FirstName + ' ' + St.LastName AS StaffName,
    V.Date
FROM Visits V
INNER JOIN Animals A ON V.AnimalID = A.AnimalID
INNER JOIN Services S ON V.ServiceID = S.ServiceID
INNER JOIN Staff St ON V.StaffID = St.StaffID;
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--Добавяне на ново поле към таблицата Services--
ALTER TABLE Services
ADD Description VARCHAR(200);

DROP VIEW View_VisitsInfo;
-- Актуализации, изтривания и справки за приходи, заплати и посещения

UPDATE Staff
SET Salary = 1950.00
WHERE FirstName = 'Silvia'
  AND LastName = 'Marinova';

DELETE FROM Services
WHERE Category = 'Grooming';

SELECT ServiceName, Price
FROM Services
WHERE Price > 50.50;

--Служители, които са или ветеринари, или имат заплата над 2000 лв., подредени по заплата
(низходящо)--
SELECT FirstName, LastName, Position, Salary
FROM Staff
WHERE Position = 'Veterinarian'
  OR Salary > 2000
ORDER BY Salary DESC;

--Общ брой посещения по услуга (GROUP BY + COUNT)--
SELECT ServiceID, COUNT(*) AS TotalVisits
FROM Visits
GROUP BY ServiceID;

--Сума на приходите от всяка услуга (GROUP BY + SUM)--
SELECT S.ServiceName, SUM(S.Price) AS TotalRevenue
FROM Visits V
INNER JOIN Services S ON V.ServiceID = S.ServiceID
GROUP BY S.ServiceName;

--Средна цена на услугите (AVG)--
SELECT AVG(Price) AS AverageServicePrice
FROM Services;

--Най-скъпата и най-евтината услуга (MAX и MIN)--
SELECT
   MAX(Price) AS MostExpensiveService,
   MIN(Price) AS CheapestService
FROM Services;

--Средна заплата по длъжност (GROUP BY + AVG)--
SELECT Position, AVG(Salary) AS AverageSalary
FROM Staff
GROUP BY Position;

--Максимална и минимална възраст на животните по вид (GROUP BY + MAX + MIN)--
SELECT Species,
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    MAX(Age) AS Oldest,
    MIN(Age) AS Youngest
FROM Animals
GROUP BY Species;


--Обща сума на заплатите в клиниката (SUM)--
SELECT SUM(Salary) AS TotalSalaryCost
FROM Staff;


--Колко посещения е имало при всеки служител (GROUP BY + COUNT)--
SELECT StaffID, COUNT(*) AS VisitsHandled
FROM Visits
GROUP BY StaffID;


--Общ приход за всяка услуга--
SELECT Services.ServiceName, SUM(Services.Price)
FROM Visits
INNER JOIN Services ON Visits.ServiceID = Services.ServiceID
GROUP BY Services.ServiceName;
```