Create SQL Schema from the pet and user class, use the class attributes for table column names

```
CREATE DATABASE PetPals1;
USE PetPals1;

CREATE TABLE Shelters (
    ShelterID INT PRIMARY KEY AUTO_INCREMENT,
    Name VARCHAR(100),
    Location VARCHAR(200)
);

CREATE TABLE Pets (
    PetID INT PRIMARY KEY AUTO_INCREMENT,
    Name VARCHAR(100),
    Age INT,
    Breed VARCHAR(100),
    Type VARCHAR(50),
    AvailableForAdoption BIT,
    ShelterID INT,

    FOREIGN KEY (ShelterID) REFERENCES Shelters(ShelterID)
);



CREATE TABLE Donations (
    DonationID INT PRIMARY KEY AUTO_INCREMENT,
    DonorName VARCHAR(100),
```

```
    DonationType VARCHAR(50),
    DonationAmount DECIMAL(10,2),
    DonationItem VARCHAR(100),
    DonationDate DATETIME,
    ShelterID INT,
    FOREIGN KEY (ShelterID) REFERENCES Shelters(ShelterID)
);

CREATE TABLE AdoptionEvents (
    EventID INT PRIMARY KEY AUTO_INCREMENT,
    EventName VARCHAR(100),
    EventDate DATETIME,
    Location VARCHAR(200)
);

CREATE TABLE Participants (
    ParticipantID INT PRIMARY KEY AUTO_INCREMENT,
    ParticipantName VARCHAR(100),
    ParticipantType VARCHAR(50),
    EventID INT,
    FOREIGN KEY (EventID) REFERENCES AdoptionEvents(EventID)
);

INSERT INTO Shelters (Name, Location) VALUES
('Happy Tails Shelter', 'Mumbai'),
('Paw Haven', 'Delhi'),
```

('FurEver Homes', 'Chennai');

INSERT INTO Pets (Name, Age, Breed, Type, AvailableForAdoption, ShelterID, OwnerID) VALUES

('Max', 2, 'Labrador', 'Dog', 1, 1, NULL),

('Bella', 5, 'Pomeranian', 'Dog', 0, 1, 1),

('Milo', 3, 'Persian', 'Cat', 1, 2, NULL),

('Coco', 1, 'Siamese', 'Cat', 1, 2, NULL),

('Charlie', 6, 'Beagle', 'Dog', 0, 3, 2),

('Luna', 4, 'Golden Retriever', 'Dog', 1, 3, NULL),

('Simba', 7, 'Labrador', 'Dog', 0, 1, 3);

INSERT INTO Donations (DonorName, DonationType, DonationAmount, DonationItem, DonationDate, ShelterID) VALUES

('Amit Kumar', 'Money', 5000.00, NULL, '2024-02-15 10:30:00', 1),

('Ritika Shah', 'Item', 0.00, 'Dog Food', '2024-03-10 09:15:00', 2),

('John Doe', 'Money', 3000.00, NULL, '2024-03-20 14:00:00', 2),

('Priya Sen', 'Money', 10000.00, NULL, '2024-04-05 11:00:00', 3),

('Rahul Verma', 'Item', 0.00, 'Cat Litter', '2024-04-08 15:30:00', 3);

INSERT INTO AdoptionEvents (EventName, EventDate, Location) VALUES

('Adoptathon Spring', '2024-04-15 10:00:00', 'Mumbai'),

('Pet Connect Delhi', '2024-04-20 11:00:00', 'Delhi'),

('Chennai FurFest', '2024-04-25 09:30:00', 'Chennai');

INSERT INTO Participants (ParticipantName, ParticipantType, EventID) VALUES

('Happy Tails Shelter', 'Shelter', 1),

('Paw Haven', 'Shelter', 2),

('FurEver Homes', 'Shelter', 3),

('Max', 'Pet', 1),

('Bella', 'Pet', 1),

('Milo', 'Pet', 2),

('Luna', 'Pet', 3),

('Priya Sen', 'Volunteer', 3);

5. Write an SQL query that retrieves a list of available pets (those marked as available for adoption)
from the "Pets" table. Include the pet's name, age, breed, and type in the result set. Ensure that the query filters out pets that are not available for adoption.

SELECT Name, Age, Breed, Type

FROM Pets

WHERE AvailableForAdoption = 1;

Name	Age	Breed	Type
Max	2	Labrador	Dog
Milo	3	Persian	Cat
Coco	1	Siamese	Cat
Luna	4	Golden Retriever	Dog

-- 6 Write an SQL query that retrieves the names of participants (shelters and adopters) registered for a specific adoption event. Use a parameter to specify the event ID. Ensure that the query joins the necessary tables to retrieve the participant names and types.

SELECT ParticipantName, ParticipantType

FROM Participants

WHERE EventID = 2;

Result Grid | Filter Rows:

	ParticipantName	ParticipantType
▶	Paw Haven	Shelter
	Milo	Pet

7 . Create a stored procedure in SQL that allows a shelter to update its information (name and location) in the "Shelters" table. Use parameters to pass the shelter ID and the new information. Ensure that the procedure performs the update and handles potential errors, such as an invalid shelter ID.

8 Write an SQL query that calculates and retrieves the total donation amount for each shelter (by shelter name) from the "Donations" table. The result should include the shelter name and the total donation amount. Ensure that the query handles cases where a shelter has received no donations.

```
SELECT s.Name , SUM(d.DonationAmount)

FROM Shelters s

LEFT JOIN Donations d ON s.ShelterID = d.ShelterID

GROUP BY s.ShelterID;
```

	Name	SUM(d.DonationAmount)
▶	Happy Tails Shelter	5000.00
	Paw Haven	3000.00
	FurEver Homes	10000.00

-- 9 Write an SQL query that retrieves the names of pets from the "Pets" table that do not have an owner (i.e., where "OwnerID" is null). Include the pet's name, age, breed, and type in the result set.

```
SELECT Name, Age, Breed, Type

FROM Pets

WHERE Availableforadoption IS NULL;
```

	Name	Age	Breed	Type
▶	Max	2	Labrador	Dog
	Milo	3	Persian	Cat
	Coco	1		Cat
	Luna	4	Golden Retriever	Dog

-- 10 Write an SQL query that retrieves the total donation amount for each month and year (e.g., January 2023) from the "Donations" table. The result should include the month-year and the corresponding total donation amount. Ensure that the query handles cases where no donations were made in a specific month-year.

```
SELECT DATE_FORMAT(DonationDate, '%M %Y'), SUM(DonationAmount)

FROM Donations

GROUP BY YEAR(DonationDate), MONTH(DonationDate);
```

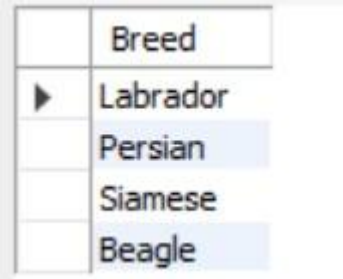
	MonthYear	TotalDonation
▶	February 2024	5000.00
	March 2024	3000.00
	April 2024	10000.00

-- 11 Retrieve a list of distinct breeds for all pets that are either aged between 1 and 3 years or older than 5 years.

```
SELECT DISTINCT Breed

FROM Pets

WHERE (Age BETWEEN 1 AND 3) OR Age > 5;
```



	Breed
▶	Labrador
	Persian
	Siamese
	Beagle

-- 12 Retrieve a list of pets and their respective shelters where the pets are currently available for adoption.

```
SELECT p.Name , s.Name

FROM Pets p

JOIN Shelters s ON p.ShelterID = s.ShelterID

WHERE p.AvailableForAdoption = 1;
```

	Name	Name
▶	Max	Happy Tails Shelter
	Milo	Paw Haven
	Coco	Paw Haven
	Luna	FurEver Homes

-- 13 Find the total number of participants in events organized by shelters located in specific city. Example: City=Chennai

```
SELECT COUNT(*)

FROM Participants p

JOIN Shelters s ON p.ParticipantName = s.Name

WHERE s.Location = 'Chennai';
```

	COUNT(*)
▶	1

-- 14 Retrieve a list of unique breeds for pets with ages between 1 and 5 years.

```
SELECT DISTINCT Breed

FROM Pets

WHERE Age BETWEEN 1 AND 5;
```

	Breed
▶	Labrador
	Pomeranian
	Persian
	Siamese
	Golden Retriever

-- 15
Find the pets that have not been adopted by selecting their information from the 'Pet' table.

Select name

from pets

where availableforadoption =0 ;

	name
▶	Bella
	Charlie
	Simba

-- 16
Retrieve the names of all adopted pets along with the adopter's name from the 'Adoption' and 'User' tables.

SELECT p.Name AS Pet, p1.ParticipantName AS Adopter
FROM Pets p
JOIN Participants p1 ON p.OwnerID = p1.ParticipantID
WHERE p.AvailableForAdoption = 0;

	Pet	Adopter
▶	Bella	Happy Tails Shelter
	Charlie	Paw Haven
	Simba	FurEver Homes

-- 17 Retrieve a list of all shelters along with the count of pets currently available for adoption in each shelter.

SELECT s.Name , COUNT(p.PetID)

FROM Shelters s

LEFT JOIN Pets p ON s.ShelterID = p.ShelterID AND p.AvailableForAdoption = 1

GROUP BY s.ShelterID;

	Name	COUNT(p.PetID)
▶	Happy Tails Shelter	1
	Paw Haven	2
	FurEver Homes	1

-- 18 Find pairs of pets from the same shelter that have the same breed.

```
SELECT
   p1.Name AS Pet1,
   p2.Name AS Pet2,
   p1.Breed,
   s.Name AS ShelterName
FROM
   Pets p1
JOIN
   Pets p2 ON p1.Breed = p2.Breed
         AND p1.ShelterID = p2.ShelterID
         AND p1.PetID < p2.PetID
JOIN
   Shelters s ON p1.ShelterID = s.ShelterID;
```

	Pet1	Pet2	Breed	ShelterName
▶	Max	Simba	Labrador	Happy Tails Shelter

-- 19 List all possible combinations of shelters and adoption events

```
SELEcT s.Name , e.EventName

FROM Shelters s

CROSS JOIN AdoptionEvents e;
```

Name	EventName
FurEver Homes	Adoptathon Spring
Paw Haven	Adoptathon Spring
Happy Tails Shelter	Adoptathon Spring
FurEver Homes	Pet Connect Delhi
Paw Haven	Pet Connect Delhi
Happy Tails Shelter	Pet Connect Delhi
FurEver Homes	Chennai FurFest
Paw Haven	Chennai FurFest
Happy Tails Shelter	Chennai FurFest

```
-- 20  Determine the shelter that has the highest number of adopted pets.

SELECT s.Name AS ShelterName, COUNT(p.PetID) AS AdoptedPetsCount

FROM Shelters s

JOIN Pets p ON s.ShelterID = p.ShelterID

WHERE p.AvailableForAdoption = 0

GROUP BY s.ShelterID

ORDER BY AdoptedPetsCount DESC

LIMIT 1;
```

ShelterName	AdoptedPetsCount
Happy Tails Shelter	2