

Coding Challenges - PetPals, The Pet Adoption Platform

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

SQL Schema:

Table: Pets

Attributes:

- PetID (Primary Key, int): Unique identifier for each pet.
- Name (string): The name of the pet.
- Age (int): The age of the pet.
- Breed (string): The breed of the pet.
- Type (string): Type of pet (e.g., "Dog","Cat").
- AvailableForAdoption (bit): Indicates whether the pet is available for adoption (0 for not available, 1 for available).

Table: Shelters

Attributes:

- ShelterID (Primary Key, int): Unique identifier for each shelter.
- Name (string): The name of the shelter.
- Location (string): The location or address of the shelter.

Table: Donations

Attributes:

- DonationID (Primary Key, int): Unique identifier for each donation.
- DonorName (string): The name of the donor.
- DonationType (string): Type of donation (e.g., "Cash","Item").
- DonationAmount (decimal): The amount donated (for cash donations).
- DonationItem (string): The type of item donated (for item donations).
- DonationDate (datetime): Date and time of the donation.

Table: AdoptionEvents**Attributes:**

- EventID (Primary Key, int): Unique identifier for each adoption event.
- EventName (string): The name or title of the event.
- EventDate (datetime): Date and time of the event.
- Location (string): The location or venue of the event.

Table: Participants**Attributes:**

- ParticipantID (Primary Key, int): Unique identifier for each participant.
- ParticipantName (string): The name of the participant (shelter or adopter).
- ParticipantType (string): Type of participant (e.g., "Shelter", "Adopter").
- EventID (Foreign Key, int): References the EventID of the associated adoption event (if applicable)

TASKS:

1. Provide a SQL script that initializes the database for the Pet Adoption Platform "PetPals".

Query: //For initialising the database we need to create the database//

Create Database PetPals;

```
mysql> create database PetPals;  
Query OK, 1 row affected (0.03 sec)
```

Show databases;

```
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| carconnect |  
| hexadb |  
| information_schema |  
| mysql |  
| performance_schema |  
| petpals |  
| practice |  
| sakila |  
| sys |  
| techshop |  
| world |  
+-----+  
11 rows in set (0.09 sec)
```

2. Create tables for pets, shelters, donations, adoption events, and participants.

Query:

//Table for pets//

create table Pets (PetID int primary key, Name varchar(30), Age int, Breed varchar(30), Type varchar(30), AvailableForAdoption bool);

```
mysql> create table Pets (PetID int primary key, Name varchar(30), Age int, Breed varchar(30), Type varchar(30), AvailableForAdoption bool);
Query OK, 0 rows affected (0.06 sec)

mysql> desc pets;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| PetID | int | NO | PRI | NULL | |
| Name | varchar(30) | YES | | NULL | |
| Age | int | YES | | NULL | |
| Breed | varchar(30) | YES | | NULL | |
| Type | varchar(30) | YES | | NULL | |
| AvailableForAdoption | tinyint(1) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.03 sec)
```

//Table for Shelters//

create table Shelters(shelterID int primary key, Name varchar(50), Location varchar(50));

```
mysql> create table Shelters(shelterID int primary key, Name varchar(50), Location varchar(50));
Query OK, 0 rows affected (0.04 sec)

mysql> desc shelters;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| shelterID | int | NO | PRI | NULL | |
| Name | varchar(50) | YES | | NULL | |
| Location | varchar(50) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

// Table for Donations//

create table Donations(DonationID int primary key, DonorName varchar(30), DonationType varchar(30), DonationAmount decimal, DonationItem varchar(30), DonationDate date);

```
mysql> create table Donations(DonationID int primary key, DonorName varchar(30), DonationType varchar(30), DonationAmount decimal, DonationItem varchar(30), DonationDate date);
Query OK, 0 rows affected (0.03 sec)

mysql> desc Donations;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| DonationID | int | NO | PRI | NULL | |
| DonorName | varchar(30) | YES | | NULL | |
| DonationType | varchar(30) | YES | | NULL | |
| DonationAmount | decimal(10,0) | YES | | NULL | |
| DonationItem | varchar(30) | YES | | NULL | |
| DonationDate | date | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

//Table for AdoptionEvents//

create table AdoptionEvents(EventID int primary key, EventName varchar(50), EventDate date, Location Varchar(50));

```
mysql> create table AdoptionEvents(EventID int primary key,EventName varchar(50),EventDate date,Location Varchar(50));
Query OK, 0 rows affected (0.03 sec)

mysql> desc AdoptionEvents;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| EventID | int | NO | PRI | NULL | |
| EventName | varchar(50) | YES | | NULL | |
| EventDate | date | YES | | NULL | |
| Location | varchar(50) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

//Table for Participants//

create table participants(ParticipantID int primary key,ParticipantName varchar(50), participantType varchar(50), EventID int);

```
mysql> create table participants(ParticipantID int primary key,ParticipantName varchar(50), participantType varchar(50), EventID int);
Query OK, 0 rows affected (0.03 sec)

mysql> desc participants;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| ParticipantID | int | NO | PRI | NULL | |
| ParticipantName | varchar(50) | YES | | NULL | |
| participantType | varchar(50) | YES | | NULL | |
| EventID | int | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

3. Define appropriate primary keys, foreign keys, and constraints.

Query:

alter table participants

add foreign key(EventID) references AdoptionEvents(EventId);

```
mysql> alter table participants
-> add foreign key(EventID) references AdoptionEvents(EventId);
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

4. Ensure the script handles potential errors, such as if the database or tables already exist.

Query: create table if not exists participants(ParticipantID int primary key,ParticipantName varchar(50), participantType varchar(50), EventID int);

```
mysql> create table if not exists participants(ParticipantID int primary key,ParticipantName varchar(50), participantType varchar(50), EventID int);
Query OK, 0 rows affected, 1 warning (0.01 sec)
```

```
INSERT INTO Pets (PetID, Name, Age, Breed, Type, AvailableForAdoption) VALUES
(1, 'Luna', 2, 'Shih Tzu', 'Dog', 1),
(2, 'Smokey', 5, 'Russian Blue', 'Cat', 1),
(3, 'Bailey', 3, 'Dachshund', 'Dog', 1),
(4, 'Milo', 1, 'Ragdoll', 'Cat', 1),
(5, 'Lucy', 4, 'Boxer', 'Dog', 0),
(6, 'Coco', 2, 'Siberian', 'Cat', 1),
(7, 'Jack', 6, 'Bulldog', 'Dog', 1),
(8, 'Ginger', 3, 'Calico', 'Cat', 1),
(9, 'Bella', 2, 'Chihuahua', 'Dog', 1),
(10, 'Tiger', 4, 'Tabby', 'Cat', 1);
```

```
mysql> INSERT INTO Pets (PetID, Name, Age, Breed, Type, AvailableForAdoption) VALUES
-> (1, 'Luna', 2, 'Shih Tzu', 'Dog', 1),
-> (2, 'Smokey', 5, 'Russian Blue', 'Cat', 1),
-> (3, 'Bailey', 3, 'Dachshund', 'Dog', 1),
-> (4, 'Milo', 1, 'Ragdoll', 'Cat', 1),
-> (5, 'Lucy', 4, 'Boxer', 'Dog', 0),
-> (6, 'Coco', 2, 'Siberian', 'Cat', 1),
-> (7, 'Jack', 6, 'Bulldog', 'Dog', 1),
-> (8, 'Ginger', 3, 'Calico', 'Cat', 1),
-> (9, 'Bella', 2, 'Chihuahua', 'Dog', 1),
-> (10, 'Tiger', 4, 'Tabby', 'Cat', 1);
Query OK, 10 rows affected (0.38 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

```
INSERT INTO Shelters (ShelterID, Name, Location) VALUES
(1, 'Hope Haven Shelter', 'Rajhamundry, Andhra Pradesh'),
(2, 'Safe Haven Shelter', 'Tirupati, Andhra Pradesh'),
(3, 'Open Arms Shelter', 'Tirupati, Andhra Pradesh'),
(4, 'Home Sweet Home Shelter', 'Rajhamundry, Andhra Pradesh'),
(5, 'Rainbow Shelter', 'Kurnool, Andhra Pradesh'),
(6, 'Sunrise Shelter', 'Nellore, Andhra Pradesh'),
(7, 'Harbor Shelter', 'Guntur, Andhra Pradesh'),
(8, 'Starlight Shelter', 'Visakhapatnam, Andhra Pradesh'),
(9, 'New Beginning Shelter', 'Vijayawada, Andhra Pradesh'),
(10, 'Unity Shelter', 'Hyderabad, Telangana');
```

```
mysql> INSERT INTO Shelters (ShelterID, Name, Location) VALUES
-> (1, 'Hope Haven Shelter', 'Rajhamundry, Andhra Pradesh'),
-> (2, 'Safe Haven Shelter', 'Tirupati, Andhra Pradesh'),
-> (3, 'Open Arms Shelter', 'Tirupati, Andhra Pradesh'),
-> (4, 'Home Sweet Home Shelter', 'Rajhamundry, Andhra Pradesh'),
-> (5, 'Rainbow Shelter', 'Kurnool, Andhra Pradesh'),
-> (6, 'Sunrise Shelter', 'Nellore, Andhra Pradesh'),
-> (7, 'Harbor Shelter', 'Guntur, Andhra Pradesh'),
-> (8, 'Starlight Shelter', 'Visakhapatnam, Andhra Pradesh'),
-> (9, 'New Beginning Shelter', 'Vijayawada, Andhra Pradesh'),
-> (10, 'Unity Shelter', 'Hyderabad, Telangana');
Query OK, 10 rows affected (2.02 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

```
INSERT INTO Donations (DonationID, DonorName, DonationType, DonationAmount,
DonationItem, DonationDate) VALUES
(1, 'Mahita', 'Cash', 7000.00, NULL, '2024-04-13'),
(2, 'Sushma', 'Item', NULL, 'Scratching Posts', '2024-04-14'),
```

```
(3, 'Amrutha', 'Cash', 3200.00, NULL, '2023-02-14'),
(4, 'Lekhya', 'Item', NULL, 'Toys', '2024-04-15'),
(5, 'Ganesh', 'Cash', 1250.50, NULL, '2024-01-15'),
(6, 'Ameer', 'Cash', 3000.00, NULL, '2024-02-16'),
(7, 'Sita', 'Item', NULL, 'Dog Food', '2024-04-17'),
(8, 'Vaishnavi', 'Cash', 3750.00, NULL, '2024-04-17'),
(9, 'Sailaja', 'Item', NULL, 'Scratching Posts', '2024-03-13'),
(10, 'Kalyani', 'Cash', 7000.00, NULL, '2024-04-16');
```

```
mysql> INSERT INTO Donations (DonationID, DonorName, DonationType, DonationAmount, DonationItem, DonationDate) VALUES
-> (1, 'Mahita', 'Cash', 7000.00, NULL, '2024-04-13'),
-> (2, 'Sushma', 'Item', NULL, 'Scratching Posts', '2024-04-14'),
-> (3, 'Amrutha', 'Cash', 3200.00, NULL, '2023-02-14'),
-> (4, 'Lekhya', 'Item', NULL, 'Toys', '2024-04-15'),
-> (5, 'Ganesh', 'Cash', 1250.50, NULL, '2024-01-15'),
-> (6, 'Ameer', 'Cash', 3000.00, NULL, '2024-02-16'),
-> (7, 'Sita', 'Item', NULL, 'Dog Food', '2024-04-17'),
-> (8, 'Vaishnavi', 'Cash', 3750.00, NULL, '2024-04-17'),
-> (9, 'Sailaja', 'Item', NULL, 'Scratching Posts', '2024-03-13'),
-> (10, 'Kalyani', 'Cash', 7000.00, NULL, '2024-04-16');
Query OK, 10 rows affected (0.39 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

```
INSERT INTO AdoptionEvents (EventID, EventName, EventDate, Location) VALUES
(1, 'Furry Friends Adoption Fair', '2024-04-29', 'Tirupati, Andhra Pradesh'),
(2, 'Paws For A Cause Adoption Event', '2024-04-28', 'Rajhamundry, Andhra Pradesh'),
(3, 'Home Coming Tails Adoption Day', '2024-04-27', 'Tirupati, Andhra Pradesh'),
(4, 'Adopt-a-Palooza', '2024-04-26', 'Rajhamundry, Andhra Pradesh'),
(5, 'Feline Fiesta', '2024-04-25', 'Kurnool, Andhra Pradesh'),
(6, 'Canine Carnival Adoption Extravaganza', '2024-04-24', 'Nellore, Andhra Pradesh'),
(7, 'Bark in the Park Adoption Event', '2024-04-23', 'Guntur, Andhra Pradesh'),
(8, 'Whisker Wonderland Adoption Fair', '2024-04-22', 'Visakhapatnam, Andhra Pradesh'),
(9, 'Furry Tale End-of-year Adoption Bash', '2024-04-21', 'Vijayawada, Andhra Pradesh'),
(10, 'Rescue Rendezvous', '2024-04-20', 'Hyderabad, Andhra Pradesh');
```

```
mysql> INSERT INTO AdoptionEvents (EventID, EventName, EventDate, Location) VALUES
-> (1, 'Furry Friends Adoption Fair', '2024-04-29', 'Tirupati, Andhra Pradesh'),
-> (2, 'Paws For A Cause Adoption Event', '2024-04-28', 'Rajhamundry, Andhra Pradesh'),
-> (3, 'Home Coming Tails Adoption Day', '2024-04-27', 'Tirupati, Andhra Pradesh'),
-> (4, 'Adopt-a-Palooza', '2024-04-26', 'Rajhamundry, Andhra Pradesh'),
-> (5, 'Feline Fiesta', '2024-04-25', 'Kurnool, Andhra Pradesh'),
-> (6, 'Canine Carnival Adoption Extravaganza', '2024-04-24', 'Nellore, Andhra Pradesh'),
-> (7, 'Bark in the Park Adoption Event', '2024-04-23', 'Guntur, Andhra Pradesh'),
-> (8, 'Whisker Wonderland Adoption Fair', '2024-04-22', 'Visakhapatnam, Andhra Pradesh'),
-> (9, 'Furry Tale End-of-year Adoption Bash', '2024-04-21', 'Vijayawada, Andhra Pradesh'),
-> (10, 'Rescue Rendezvous', '2024-04-20', 'Hyderabad, Andhra Pradesh');
Query OK, 10 rows affected (0.47 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

```
INSERT INTO Participants (ParticipantID, ParticipantName, ParticipantType, EventID)
VALUES
(1, 'Hope Haven Shelter', 'Shelter', 1),
(2, 'Safe Haven Shelter', 'Shelter', 2),
(3, 'Mahita', 'Adopter', 1),
(4, 'Open Arms Shelter', 'Shelter', 3),
(5, 'Amrutha', 'Adopter', 3),
```

```
(6, 'Home Sweet Home Shelter', 'Shelter', 4),
(7, 'Lekhya', 'Adopter', 4),
(8, 'Rainbow Shelter', 'Shelter', 5),
(9, 'Sushma ', 'Adopter', 2),
(10, 'Ganesh', 'Adopter', 5);
```

```
mysql> INSERT INTO Participants (ParticipantID, ParticipantName, ParticipantType, EventID) VALUES
-> (1, 'Hope Haven Shelter', 'Shelter', 1),
-> (2, 'Safe Haven Shelter', 'Shelter', 2),
-> (3, 'Mahita', 'Adopter', 1),
-> (4, 'Open Arms Shelter', 'Shelter', 3),
-> (5, 'Amrutha', 'Adopter', 3),
-> (6, 'Home Sweet Home Shelter', 'Shelter', 4),
-> (7, 'Lekhya', 'Adopter', 4),
-> (8, 'Rainbow Shelter', 'Shelter', 5),
-> (9, 'Sushma ', 'Adopter', 2),
-> (10, 'Ganesh', 'Adopter', 5);
Query OK, 10 rows affected (0.43 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

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.

Query: select * from pets where AvailableForAdoption = 1;

```
mysql> select * from Pets where AvailableForAdoption = 1;
```

PetID	Name	Age	Breed	Type	AvailableForAdoption
1	Luna	2	Shih Tzu	Dog	1
2	Smokey	5	Russian Blue	Cat	1
3	Bailey	3	Dachshund	Dog	1
4	Milo	1	Ragdoll	Cat	1
6	Coco	2	Siberian	Cat	1
7	Jack	6	Bulldog	Dog	1
8	Ginger	3	Calico	Cat	1
9	Bella	2	Chihuahua	Dog	1
10	Tiger	4	Tabby	Cat	1

```
9 rows in set (0.00 sec)
```

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.

Query:

```
select P.participantName, p.ParticipantType from participants as p Inner join
AdoptionEvents as A on P.EventID=A.EventId where A.EventID = 4;
```



```
mysql> select P.participantName, p.ParticipantType from participants as p Inner join AdoptionEvents as A on P.EventID=A.EventID where A.EventID = 4;
```

participantName	ParticipantType
Home Sweet Home Shelter	Shelter
Lekhya	Adopter

```
2 rows in set (0.00 sec)
```

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.

Query: update Shelters

set name='Forever Home Pet Rescue', Location='Bangalore, Andhra Pradesh'
where shelterID=4;

```
mysql> update Shelters
-> set name='Forever Home Pet Rescue', Location='Bangalore, Andhra Pradesh'
-> where shelterID=4;
Query OK, 1 row affected (0.39 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from shelters where shelterID=4;
```

ShelterID	Name	Location
4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh

```
1 row in set (0.00 sec)
```

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.

Query:

Select s.name , sum(d.donationAmount) as Totaldonation from shelters s Inner join Donations d on s.ShelterID=d.donatedto group by s.name;

```
mysql> Select s.name , sum(d.donationAmount) as Totaldonation from shelters s Inner join Donations d on s.ShelterID=d.donatedto group by s.name;
```

name	Totaldonation
Hope Haven Shelter	NULL
Safe Haven Shelter	7000.00
Open Arms Shelter	3200.00
Forever Home Pet Rescue	NULL
Feline Fiesta	NULL
Harbor Shelter	NULL
New Beginning Shelter	1250.50

```
7 rows in set (0.36 sec)
```

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.

Query:

Select * from Pets where AvailableForAdoption =1;

```
mysql> select * from pets where AvailableForAdoption = 1;
```

PetID	Name	Age	Breed	Type	AvailableForAdoption
1	Buddy	3	Labrador Retriever	Dog	1
2	Whiskers	2	Siamese	Cat	1
3	Simba	4	Persian	Cat	1
4	Toddy	2	Golden Retriever	Dog	1
6	Rocky	2	Bulldog	Dog	1
7	Oreo	2	Domestic Shorthair	Cat	1
8	Bella	1	Ragdoll	Cat	1
9	Molly	3	Siamese Mix	Cat	1
10	Cooper	2	Chihuahua	Dog	1

9 rows in set (0.01 sec)

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

Query:

Select YEAR(DonationDate) AS DonationYear, MONTH(DonationDate) AS DonationMonth, SUM(DonationAmount) as TotalDonation FROM Donations GROUP BY YEAR(DonationDate), MONTH(DonationDate) ORDER BY YEAR(DonationDate), MONTH(DonationDate);

```
mysql> Select YEAR(DonationDate) AS DonationYear, MONTH(DonationDate) AS DonationMonth, SUM(DonationAmount) as TotalDonation FROM Donations GROUP BY YEAR(DonationDate), MONTH(DonationDate) ORDER BY YEAR(DonationDate), MONTH(DonationDate);
```

DonationYear	DonationMonth	TotalDonation
2023	2	3200.00
2024	1	1250.50
2024	2	3000.00
2024	3	NULL
2024	4	17750.00

5 rows in set (0.35 sec)

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

Query:

select distinct breed from pets where (age between 1 and 3) or (age >5);

```
mysql> select distinct breed from pets where (age between 1 and 3) or (age >5);
```

breed
Shih Tzu
Dachshund
Ragdoll
Siberian
Bulldog
Calico
Chihuahua

7 rows in set (0.35 sec)

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

Query:

Select p.Name,p.age,p.breed, p.type,s.Name from pets p Inner join shelters s on p.sID= s.ShelterID where Availableforadoption =1;

```
mysql> Select p.Name,p.age,p.breed, p.type,s.Name from pets p Inner join shelters s on p.sID= s.ShelterID where Availableforadoption =1;
```

Name	age	breed	p.type	s.Name
Luna	2	Shih Tzu	Dog	Hope Haven Shelter
Smokey	5	Russian Blue	Cat	Safe Haven Shelter
Bailey	3	Dachshund	Dog	Open Arms Shelter
Milo	1	Ragdoll	Cat	Forever Home Pet Rescue
Coco	2	Siberian	Cat	Sunrise Shelter
Jack	6	Bulldog	Dog	Harbor Shelter
Ginger	3	Calico	Cat	Unity Shelter
Bella	2	Chihuahua	Dog	New Beginning Shelter
Tiger	4	Tabby	Cat	Unity Shelter

```
9 rows in set (0.00 sec)
```

13. Find the total number of participants in events organized by shelters located in specific city.

Example: City=Chennai

Query:

select count(*) from participants pt
join adoptionevents a on pt.eventId=a.eventId
join shelters s on a.shelter_id=s.shelterId
where s.location='Hyderabad,Andhrapradesh';

```
mysql> select count(*) from participants pt
-> join adoptionevents a on pt.eventId=a.eventId
-> join shelters s on a.shelter_id=s.shelterId
-> where s.location=' Hyderabad, Andhra Pradesh';
```

count(*)
0

```
1 row in set (0.00 sec)
```

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

Query: select distinct breed from pets where age between 1 and 5;

```
mysql> select distinct breed from pets where age between 1 and 5;
```

breed
Shih Tzu
Russian Blue
Dachshund
Ragdoll
Boxer
Siberian
Calico
Chihuahua
Tabby

```
9 rows in set (0.00 sec)
```

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

Query: select * from pets
where AvailableforAdoption=1;

```
mysql> SELECT * FROM pets
-> WHERE AvailableforAdoption = 1;
```

PetID	Name	Age	Breed	Type	AvailableForAdoption	SID
1	Luna	2	Shih Tzu	Dog	1	1
2	Smokey	5	Russian Blue	Cat	1	2
3	Bailey	3	Dachshund	Dog	1	3
4	Milo	1	Ragdoll	Cat	1	4
6	Coco	2	Siberian	Cat	1	6
7	Jack	6	Bulldog	Dog	1	7
8	Ginger	3	Calico	Cat	1	10
9	Bella	2	Chihuahua	Dog	1	9
10	Tiger	4	Tabby	Cat	1	10

9 rows in set (0.00 sec)

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

Query:
Select p.Name,pt.ParticipantName from Pets p JOIN Participants pt ON
p.PetID=pet_id where p.AvailableForAdoption=0;

```
mysql> Select p.Name,pt.ParticipantName from Pets p JOIN Participants pt ON p.PetID=pet_id where p.AvailableForAdoption=0;
```

Name	ParticipantName
Lucy	Amrutha

1 row in set (0.33 sec)

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

Query:
select s.shelterID,s.name,count(p.petId)from shelters s inner join pets p on
s.shelterId= p.SID and AvailableforAdoption=1
group by s.shelterID,s.name;

```
mysql> select s.shelterID,s.name,count(p.petId)from shelters s inner join pets p on s.shelterId= p.SID and AvailableforAdoption=1
-> group by s.shelterID,s.name;
```

shelterID	name	count(p.petId)
1	Hope Haven Shelter	1
2	Safe Haven Shelter	1
3	Open Arms Shelter	1
4	Forever Home Pet Rescue	1
6	Sunrise Shelter	1
7	Harbor Shelter	1
10	Unity Shelter	2
9	New Beginning Shelter	1

8 rows in set (0.33 sec)

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

Query:

Select p1.name, p2.name,p1.breed from pets p1 inner join petsp2 on p1.petID=p2.petID and p1.breed=p2.breed;

```
mysql> Select p1.name, p2.name,p1.breed from pets p1 inner join pets p2 on p1.petID=p2.petID and p1.breed=p2.breed;
```

name	name	breed
Luna	Luna	Shih Tzu
Smokey	Smokey	Russian Blue
Bailey	Bailey	Dachshund
Milo	Milo	Ragdoll
Lucy	Lucy	Boxer
Coco	Coco	Siberian
Jack	Jack	Bulldog
Ginger	Ginger	Calico
Bella	Bella	Chihuahua
Tiger	Tiger	Tabby

10 rows in set (0.00 sec)

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

Query:

Select * from shelters cross join adaoptionEvents;

```
mysql> Select * from shelters cross join adaoptionEvents;
```

ShelterID	Name	Location	EventID	EventName	EventDate	Location	s
10	Unity Shelter	Hyderabad, Telangana	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
9	New Beginning Shelter	Vijayawada, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
7	Harbor Shelter	Guntur, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
6	Sunrise Shelter	Nellore, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
5	Feline Fiesta	Kurnool, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
3	Open Arms Shelter	Tirupati, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
2	Safe Haven Shelter	Tirupati, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
1	Hope Haven Shelter	Rajamahendravaram, Andhra Pradesh	1	Furry Friends Adoption Fair	2024-04-29	Tirupati, Andhra Pradesh	
10	Unity Shelter	Hyderabad, Telangana	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
9	New Beginning Shelter	Vijayawada, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
7	Harbor Shelter	Guntur, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
6	Sunrise Shelter	Nellore, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
5	Feline Fiesta	Kurnool, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
3	Open Arms Shelter	Tirupati, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
2	Safe Haven Shelter	Tirupati, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
1	Hope Haven Shelter	Rajamahendravaram, Andhra Pradesh	2	Paws For A Cause Adoption Event	2024-04-28	Rajamahendravaram, Andhra Pradesh	
10	Unity Shelter	Hyderabad, Telangana	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh	
9	New Beginning Shelter	Vijayawada, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh	
8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh	
7	Harbor Shelter	Guntur, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh	

2	6	Sunrise Shelter	Nellore, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh
2	5	Feline Fiesta	Kurnool, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh
2	4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh
2	3	Open Arms Shelter	Tirupati, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh
2	2	Safe Haven Shelter	Tirupati, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh
2	1	Hope Haven Shelter	Rajhamundry, Andhra Pradesh	3	Home Coming Tails Adoption Day	2024-04-27	Tirupati, Andhra Pradesh
5	10	Unity Shelter	Hyderabad, Telangana	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	9	New Beginning Shelter	Vijayawada, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	7	Harbor Shelter	Guntur, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	6	Sunrise Shelter	Nellore, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	5	Feline Fiesta	Kurnool, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	3	Open Arms Shelter	Tirupati, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	2	Safe Haven Shelter	Tirupati, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
5	1	Hope Haven Shelter	Rajhamundry, Andhra Pradesh	4	Adopt-a-Palooza	2024-04-26	Rajhamundry, Andhra Pradesh
6	10	Unity Shelter	Hyderabad, Telangana	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	9	New Beginning Shelter	Vijayawada, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	7	Harbor Shelter	Guntur, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	6	Sunrise Shelter	Nellore, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	5	Feline Fiesta	Kurnool, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	3	Open Arms Shelter	Tirupati, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	2	Safe Haven Shelter	Tirupati, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	1	Hope Haven Shelter	Rajhamundry, Andhra Pradesh	5	Feline Fiesta	2024-04-25	Kurnool, Andhra Pradesh
6	10	Unity Shelter	Hyderabad, Telangana	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
6	9	New Beginning Shelter	Vijayawada, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
6	8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	7	Harbor Shelter	Guntur, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	6	Sunrise Shelter	Nellore, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	5	Feline Fiesta	Kurnool, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	3	Open Arms Shelter	Tirupati, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	2	Safe Haven Shelter	Tirupati, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
1	1	Hope Haven Shelter	Rajhamundry, Andhra Pradesh	6	Canine Carnival Adoption Extravaganza	2024-04-24	Nellore, Andhra Pradesh
9	10	Unity Shelter	Hyderabad, Telangana	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	9	New Beginning Shelter	Vijayawada, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	7	Harbor Shelter	Guntur, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	6	Sunrise Shelter	Nellore, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	5	Feline Fiesta	Kurnool, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	3	Open Arms Shelter	Tirupati, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	2	Safe Haven Shelter	Tirupati, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
9	1	Hope Haven Shelter	Rajhamundry, Andhra Pradesh	7	Bark in the Park Adoption Event	2024-04-23	Guntur, Andhra Pradesh
10	10	Unity Shelter	Hyderabad, Telangana	8	Whisker Wonderland Adoption Fair	2024-04-22	Visakhapatnam, Andhra Pradesh
10	9	New Beginning Shelter	Vijayawada, Andhra Pradesh	8	Whisker Wonderland Adoption Fair	2024-04-22	Visakhapatnam, Andhra Pradesh
10	8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	8	Whisker Wonderland Adoption Fair	2024-04-22	Visakhapatnam, Andhra Pradesh
10	7	Harbor Shelter	Guntur, Andhra Pradesh	8	Whisker Wonderland Adoption Fair	2024-04-22	Visakhapatnam, Andhra Pradesh
10	6	Sunrise Shelter	Nellore, Andhra Pradesh	8	Whisker Wonderland Adoption Fair	2024-04-22	Visakhapatnam, Andhra Pradesh
10	5	Feline Fiesta	Kurnool, Andhra Pradesh	8	Whisker Wonderland Adoption Fair	2024-04-22	Visakhapatnam, Andhra Pradesh

9	New Beginning Shelter	Vijayawada, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
7	Starlight Shelter	Visakhapatnam, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
7	Harbor Shelter	Guntur, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
7	Sunrise Shelter	Nellore, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
6	Feline Fiesta	Kurnool, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
5	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
7	Open Arms Shelter	Tirupati, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
2	Safe Haven Shelter	Tirupati, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
7	Hope Haven Shelter	Rajamahendravaram, Andhra Pradesh	9	Furry Tale End-of-year Adoption Bash	2024-04-21	Vijayawada, Andhra Pradesh
10	Unity Shelter	Hyderabad, Telangana	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	New Beginning Shelter	Vijayawada, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Starlight Shelter	Visakhapatnam, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Harbor Shelter	Guntur, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Sunrise Shelter	Nellore, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Feline Fiesta	Kurnool, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
4	Forever Home Pet Rescue	Bangalore, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Open Arms Shelter	Tirupati, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Safe Haven Shelter	Tirupati, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh
8	Hope Haven Shelter	Rajamahendravaram, Andhra Pradesh	10	Rescue Rendezvous	2024-04-20	Hyderabad, Andhra Pradesh

100 rows in set (0.00 sec)

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

Query:

```
Select s.name, count(p.petID) from shelters s
inner join pets p on s.shelterID=p.SID
Where availableforadoption=0
Group by s.name
Order by count(p.petID)
Desc limit 1;
```

```
mysql> Select s.name, count(p.petID) from shelters s
-> inner join pets p on s.shelterID=p.SID
-> Where availableforadoption=0
-> Group by s.name
-> Order by count(p.petID)
-> Desc limit 1;

+-----+-----+
| name          | count(p.petID) |
+-----+-----+
| Feline Fiesta | 1              |
+-----+-----+
1 row in set (0.00 sec)
```

