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

```
190 • CREATE DATABASE IF NOT EXISTS PetPals;
191 • USE PetPals;
```

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

```
194 • ⊖ CREATE TABLE Pets (
          PetID INT PRIMARY KEY AUTO_INCREMENT,
195
          Name VARCHAR(50) NOT NULL,
197
         Age INT NOT NULL,
          Breed VARCHAR(50),
198
          Type VARCHAR(50) NOT NULL,
          AvailableForAdoption TINYINT(1) NOT NULL DEFAULT 0
200
     );
201
202
      -- Shelters table
ShelterID INT PRIMARY KEY AUTO_INCREMENT,
205
          Name VARCHAR(100) NOT NULL,
206
          Location VARCHAR(255) NOT NULL
     );
207
208
      -- Donations table
209 • 

○ CREATE TABLE Donations (
         DonationID INT PRIMARY KEY AUTO INCREMENT,
210
          DonorName VARCHAR(100) NOT NULL,
211
212
          DonationType VARCHAR(50) NOT NULL,
        DonationAmount DECIMAL(10,2) DEFAULT NULL,
213
214
          DonationItem VARCHAR(255) DEFAULT NULL,
215
          DonationDate DATETIME NOT NULL
     );
216
220 • 

○ CREATE TABLE AdoptionEvents (
           EventID INT PRIMARY KEY AUTO_INCREMENT,
222
            EventName VARCHAR(100) NOT NULL,
            EventDate DATETIME NOT NULL,
223
224
            Location VARCHAR(255) NOT NULL
      );
225
226
227
        -- Participants table
228 • ⊝ CREATE TABLE Participants (
            ParticipantID INT PRIMARY KEY AUTO_INCREMENT,
229
230
            ParticipantName VARCHAR(100) NOT NULL,
            ParticipantType VARCHAR(50) NOT NULL,
231
232
            EventID INT,
            FOREIGN KEY (EventID) REFERENCES AdoptionEvents(EventID)
233
234
```

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

```
ALTER TABLE Pets
ADD CONSTRAINT Available_Check CHECK (AvailableForAdoption IN (0,1));

ALTER TABLE Donations

ADD CONSTRAINT DonationType_Check CHECK (
DonationType IN ('Cash', 'Item')

);
```

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.



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
310 •
311
        FROM Participants
312
        JOIN AdoptionEvents ON Participants.EventID = AdoptionEvents.EventID
        WHERE AdoptionEvents.EventID = 2;
313
31/
Export: Wrap Cell Content: IA
   ParticipantName
               ParticipantType
  Furever Home
               Shelter
  David Lee
              Adopter
```

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.

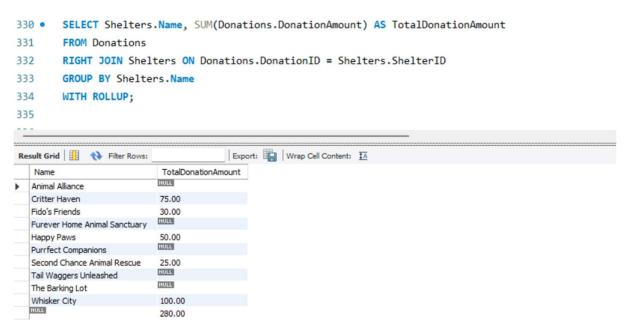
```
CREATE PROCEDURE UpdateShelter(
    IN shelterID INT,
    IN newName VARCHAR(100),
    IN newLocation VARCHAR(255)
)

BEGIN
    UPDATE Shelters
    SET Name = newName, Location = newLocation
    WHERE ShelterID = shelterID;

IF @@ROW_COUNT = 0 THEN
    SIGNAL SQLSTATE '45000' SET MESSAGE_TEXT = 'Invalid Shelter ID';
    END IF;

END;
```

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.



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.

```
336 • SELECT Name, Age, Breed, Type
337 FROM Pets
338 WHERE OwnerID IS NULL;
```

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 spe



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



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

```
SELECT Pets.*, Shelters.Name AS ShelterName
352
        FROM Pets
353
        JOIN Shelters ON Pets.PetID = Shelters.ShelterID
354
        WHERE AvailableForAdoption = 1;
355
Result Grid Filter Rows:
                                      Export: Wrap Cell Content: IA
                                    Type AvailableForAdoption ShelterName
   PetID Name
               Age Breed
               2
                     Golden Retriever
                                    Dog
       Charlie 3 Labrador Retriever Dog 1
  3
                                                          Second Chance Animal Rescue
        Luna
                    Maine Coon
                                    Cat 1
                                                          Tail Waggers Unleashed
        Oliver 5 Siamese
                                    Cat 1
                                                         The Barking Lot
        Daisy 3
                     Poodle
                                    Dog
                                                          Animal Alliance
  10
        Bella 5 British Shorthair
                                   Cat 1
                                                      1 Purrfect Companions
```

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

```
SELECT COUNT(*) AS TotalParticipants

FROM Participants

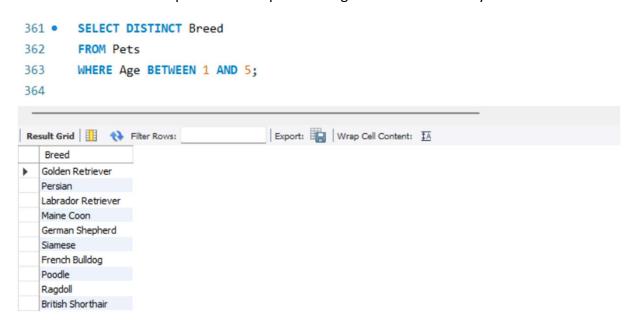
JOIN AdoptionEvents ON Participants.EventID = AdoptionEvents.EventID

WHERE AdoptionEvents.Location = 'Careville';

Result Grid Filter Rows:

| Export: | Wrap Cell Content: | Wrap Cell Content: | O
```

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



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

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

```
375 • SELECT Pets.Name AS PetName, Users.Name AS AdopterName
376 FROM Pets
377 JOIN Adoption ON Pets.PetID = Adoption.PetID
378 JOIN Users ON Adoption.UserID = Users.UserID;
```

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

```
381 • SELECT Shelters.Name AS ShelterName, COUNT(*) AS AvailablePets
382 FROM Shelters
383 JOIN Pets ON Shelters.ShelterID = Pets.ShelterID
384 WHERE AvailableForAdoption = 1
385 GROUP BY Shelters.ShelterID;
```

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

```
387 • SELECT Pet1.Name AS Pet1Name, Pet2.Name AS Pet2Name
388 FROM Pets AS Pet1
389 JOIN Pets AS Pet2 ON Pet1.ShelterID = Pet2.ShelterID
390 WHERE Pet1.Breed = Pet2.Breed AND Pet1.PetID <> Pet2.PetID;
```

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

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```
SELECT Shelters.Name AS ShelterName, AdoptionEvents.EventName
393
         FROM Shelters
394
         CROSS JOIN AdoptionEvents;
Export: Wrap Cell Content: TA
   ShelterName
                    EventName
Purrfect Companions
                           Fall Adoption Festival
  Fido's Friends Fall Adoption Festival
   Animal Alliance
                              Fall Adoption Festival
  Critter Haven
                       Fall Adoption Festival
  The Barking Lot Fall Adoption Festival
Whisker City Fall Adoption Festival
   Tail Waggers Unleashed
                             Fall Adoption Festival
   Second Chance Animal Rescue Fall Adoption Festival
   Furever Home Animal Sanctuary Fall Adoption Festival 
Happy Paws Fall Adoption Festival
   Purrfect Companions
                             Halloween Spooktac...
   Fido's Friends Halloween Spooktac...
                             Halloween Spooktac...
   Animal Alliance
                  Halloween Spooktac...
   Critter Haven
   The Barking Lot
                             Halloween Spooktac...
                  Halloween Spooktac...
   Whisker City
   Tail Waggers Unleashed
                             Halloween Spooktac...
   Second Chance Animal Rescue Halloween Spooktac...
   Furever Home Animal Sanctuary Halloween Spooktac...
                 Halloween Spooktac...
   Happy Paws
   Purrfect Companions
                              Yappy Hour Adoptio...
   Fido's Friends
                           Yappy Hour Adoptio...
   Animal Alliance
                              Yappy Hour Adoptio...
  Critter Haven Yappy Hour Adoptio...
```

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

```
396 • SELECT Shelters.Name AS ShelterName, COUNT(*) AS TotalAdoptedPets
397    FROM Shelters
398    JOIN Pets ON Shelters.ShelterID = Pets.ShelterID
399    JOIN Adoption ON Pets.PetID = Adoption.PetID
400    GROUP BY Shelters.ShelterID
401    ORDER BY TotalAdoptedPets DESC
402    LIMIT 1;
```