PETPALS

Tasks: 1. Provide a SQL script that initializes the database for the Pet Adoption Platform ”PetPals”.

```
create database PetPals;
use PetPals;
```

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

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

```
create table Pets(
        PetID int,
        P_Name varchar(100),
        Age int,
        Breed varchar(100),
        Type varchar(100),
        AvailabeForAdoption bit,
        constraint PetID_pk PRIMARY KEY(PetID)
);
Create table Shelters(
                        ShelterID int,
                        S_Name varchar(100),
                        Location varchar(100) NOT NULL,
                        constraint ShelterID_pk PRIMARY KEY (ShelterID)
);
Create table Donations(
        DonationID int,
        DonorName varchar(100) NOT NULL,
        DonationType varchar(100),
        DonationAmount decimal (10,2) NULL,
        DonationItem varchar(100),
        DonationDate Datetime NOT NULL,
        constraint DonationID_pk PRIMARY KEY (DonationID)
);


create table AdoptionsEvents(
                        EventID int,
        EventName varchar(100),
        EventDate datetime NOT NULL,
        Location varchar(100),
        constraint EventID_pk PRIMARY KEY (EventID)
```

```
);

Create table Participants(
        ParticipantID int,
        ParticipantName varchar(100),
        ParticipantType varchar(100),
        EventID int,
        constraint ParticipantID_pk PRIMARY KEY (ParticipantID),
        FOREIGN KEY (EventID) REFERENCES AdoptionsEvents(EventID)
);
insert into Pets values
          (1,'Tom',2,'Beagle', 'dog',1),
          (2,'Jerry',3,'Persian','cat',1),
          (3,'Tiger',4,'Golden Retriever','dog',0),
          (4,'Ruby',1,'labrador','dog',1),
          (5,'Julie',5,'Cyprus','cat',0);

insert into Shelters values
          (11,'Happy shop','Chennai'),
          (12,'Whisker heaven','Bangalore'),
          (13,'Watson Paws','Pondicherry'),
          (14,'Emmily shelter','Delhi'),
          (15,'CSK home','Hyderabad');

insert into Donations values
           (21,'Dhoni','item',NULL,'dog food','2025-03-25 10:30:00'),
           (22,'Kholi','cash',1000.00,NULL,'2025-03-29 14:00:00'),
            (23,'Rahul','cash',3000.00,NULL,'2025-03-31 14:30:00'),
           (24,'Shreyas','item',NULL,'Toys','2025-04-01 11:30:00'),
           (25,'Jadeja','cash',7000.00,NULL,'2025-04-02 09:00:00');

insert into AdoptionsEvents values
            (101,'Adoption Day','2025-05-10 09:00:00' ,'K school'),
            (102,'Rescue Day','2025-06-15 10:00:00' ,'V mall'),
            (103,'Pet Expo','2025-07-22 09:30:00','Auroville center'),
            (104,'Republic Expo','2025-08-11 10:00:00' ,'S clg'),
            (105,'Adopt n go','2025-08-25 09:30:00' ,'Central Park');
```

insert into Participants values

(1, 'Happy shop', 'Shelter', 101),

(2, 'Whisker heaven', 'Shelter', 102),

(3, 'Watson Paws', 'Shelter', 103),

(4, 'Emmily shelter', 'Shelter', 104),

(5, 'CSK home', 'Shelter', 105);

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

Alter table Pets add constraint available_chk CHECK (AvailabeForAdoption IN(0,1));

Alter table Donations ADD Constraint DonationType_chk 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.

SELECT P_name, age, Breed,Type from pets where AvailabeForAdoption=1;

P_name	age	Breed	Type
Tom	2	Beagle	dog
Jerry	3	Persian	cat
Ruby	1	labrador	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 p JOIN AdoptionsEvents a ON p.EventID = a.EventID

where a.EventID=103;

ParticipantName	ParticipantType
Watson Paws	Shelter

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.S_Name AS ShelterName, IFNULL(SUM(d.DonationAmount), 0) AS TotalDonations FROM Shelters s

LEFT JOIN Donations d ON s.ShelterID = d.DonationID GROUP BY s.ShelterID, s.S_Name;

ShelterName	TotalDonations
Happy shop	0.00
Whisker heaven	0.00
Watson Paws	0.00
Emmily shelter	0.00
CSK home	0.00

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

Alter table Pets ADD OwnerID int;

update pets set OwnerID=1 where PetID=1;

update pets set OwnerID=2 where PetID=2;

update pets set OwnerID=NULL where PetID=3;

SELECT P_Name, Age,Breed, Type from Pets where OwnerID IS NULL;

P_Name	Age	Breed	Type
Jerry	3	Persian	cat
Tiger	4	Golden Retriever	dog
Ruby	1	labrador	dog
Julie	5	Cyprus	cat

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,'%Y-%m') AS monthyear, SUM(Donationamount) as TotalDonationAmount

from donations group by Monthyear;

monthyear	TotalDonationAmount
2025-03	4000.00
2025-04	7000.00

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
Beagle
Persian
labrador

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

SELECT p.P_Name AS PetName, p.Breed, p.Type, s.S_Name AS ShelterName FROM Pets p

JOIN Shelters s ON p.ShelterID = s.ShelterID WHERE p.AvailabeForAdoption = 1;

PetName	Breed	Type	ShelterName
Bruno	Bulldog	Dog	Happy shop
Kitty	Siamese	Cat	Whisker heaven

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 p

join adoptionsevents a on p.EventID = a.EventID

where a.Location='S clg';

totalparticipants
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
Beagle
Persian
Golden Retriever
labrador
Cyprus

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

SELECT P_Name, Age, Breed, Type

FROM Pets

WHERE AvailabeForAdoption = 0;

P_Name	Age	Breed	Type
Tiger	4	Golden Retriever	dog
Julie	5	Cyprus	cat

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

SELECT s.S_Name AS ShelterName, COUNT(p.PetID) AS AvailablePetsCount FROM Shelters s

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

GROUP BY s.S_Name;

ShelterName	AvailablePetsCount
Happy shop	1
Whisker heaven	1
Watson Paws	0
Emmily shelter	0
CSK home	0

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

SELECT p1.P_Name AS Pet1, p2.P_Name AS Pet2, p1.Breed, s.S_Name AS ShelterName FROM Pets p1

JOIN Pets p2 ON p1.ShelterID = p2.ShelterID

AND p1.Breed = p2.Breed

AND p1.PetID < p2.PetID

JOIN Shelters s ON p1.ShelterID = s.ShelterID;

	Pet1	Pet2	Breed	ShelterName

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

SELECT s.S_Name AS ShelterName, e.EventName AS AdoptionEvent FROM Shelters s

CROSS JOIN AdoptionsEvents e;

	ShelterName	AdoptionEvent
▶	CSK home	Adoption Day
	Emmily shelter	Adoption Day
	Watson Paws	Adoption Day
	Whisker heaven	Adoption Day
	Happy shop	Adoption Day
	CSK home	Rescue Day
	Emmily shelter	Rescue Day
	Watson Paws	Rescue Day
	Whisker heaven	Rescue Day
	Happy shop	Rescue Day
	CSK home	Pet Expo
	Emmily shelter	Pet Expo
	Watson Paws	Pet Expo
	Whisker heaven	Pet Expo
	Happy shop	Pet Expo

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

SELECT COUNT(*) AS AdoptedPetsCount FROM Pets WHERE AvailabeForAdoption = 0

GROUP BY ShelterID ORDER BY COUNT(*) DESC limit 1;

	AdoptedPetsCount
▶	1