CODING CHALLENGE

1. *CREATING A DATABASE:*

```
CREATE SCHEMA `petpals` ;
```

2. *CREATING TABLES:*

Pets Table:

```
        CREATE TABLE `pets` (
          `PetId` INT NOT NULL,
          `Name` VARCHAR(255) NOT NULL,
          `Age` INT NOT NULL,
          `Breed` VARCHAR(255) NOT NULL,
          `Type` VARCHAR(50) NOT NULL,
          `AvailableForAdoption` BIT(1) NOT NULL,
  PRIMARY KEY (`PetId`));
```

Shelter Table:

```
        CREATE TABLE `shelters` (
          `ShelterId` INT NOT NULL AUTO_INCREMENT,
          `Name` VARCHAR(255) NOT NULL,
          `Location` VARCHAR(255) NOT NULL,
  PRIMARY KEY (`ShelterId`));
```

Donations Table:

```
        CREATE TABLE `donations` (
          `DonationId` INT NOT NULL AUTO_INCREMENT,
          `DonorName` VARCHAR(255) NOT NULL,
          `DonationType` VARCHAR(50) NOT NULL,
          `DonationAmount` DECIMAL(10,2) NULL,
          `DonationItem` VARCHAR(255) NULL,
          `DonationDate` DATETIME NULL,
  PRIMARY KEY (`DonationId`));
```

AdoptionEvents Table:

```
        CREATE TABLE `adoptionevents` (
          `EventId` INT NOT NULL AUTO_INCREMENT,
          `EventName` VARCHAR(255) NOT NULL,
          `EventDate` DATETIME NOT NULL,
    `Location` VARCHAR(255) NOT NULL,
PRIMARY KEY (`EventId`));
```

Participants Table:

```
CREATE TABLE `participants` (
  `ParticipantId` INT NOT NULL AUTO_INCREMENT,
  `ParticipantName` VARCHAR(255) NOT NULL,
  `ParticipantType` VARCHAR(50) NOT NULL,
  `EventId` INT NULL,
  PRIMARY KEY (`ParticipantId`),
  INDEX `EventId_idx` (`EventId` ASC) VISIBLE,
  CONSTRAINT `EventId`
    FOREIGN KEY (`EventId`)
    REFERENCES `petpals`.`adoptionevents` (`EventId`)
    ON DELETE SET NULL
ON UPDATE NO ACTION);
```

INSERTING VALUES:

```
INSERT INTO Pets (PetID, Name, Age, Breed, Type, AvailableForAdoption)
VALUES
    (1, 'Kutty', 2, 'Pomeranian', 'Toy Dog', b'1'),
    (2, 'Muthu', 3, 'Shih Tzu', 'Companion Dog', b'1'),
    (3, 'Babu', 1, 'Beagle', 'Hound Dog', b'0'),
    (4, 'Sugu', 2, 'Cavalier King Charles Spaniel', 'Lap Dog', b'1'),
(5, 'Chotu', 3, 'Pug', 'Companion Dog', b'1');
```

```
INSERT INTO Shelters (ShelterID, Name, Location)
VALUES
    (1, 'Paws Shelter', 'Chennai'),
    (2, 'Furry Friends', 'Coimbatore'),
    (3, 'Paw Haven', 'Madurai'),
    (4, 'Tail Waggers Home', 'Trichy'),
(5, 'Hope for Paws', 'Salem');
```

```
INSERT INTO Donations (DonationID, DonorName, DonationType, DonationAmount,
DonationItem, DonationDate)
VALUES
    (1, 'Arun', 'Cash', 5000.00, NULL, '2025-01-10 10:30:00'),
    (2, 'Meena', 'Item', NULL, 'Dog Food', '2025-02-15 12:15:00'),
    (3, 'Vijay', 'Cash', 3000.00, NULL, '2025-03-20 15:45:00'),
            (4, 'Sneha', 'Item', NULL, 'Pet Toys', '2025-04-05 09:00:00'),
    (5, 'Ravi', 'Cash', 7000.00, NULL, '2025-05-18 14:00:00');
```

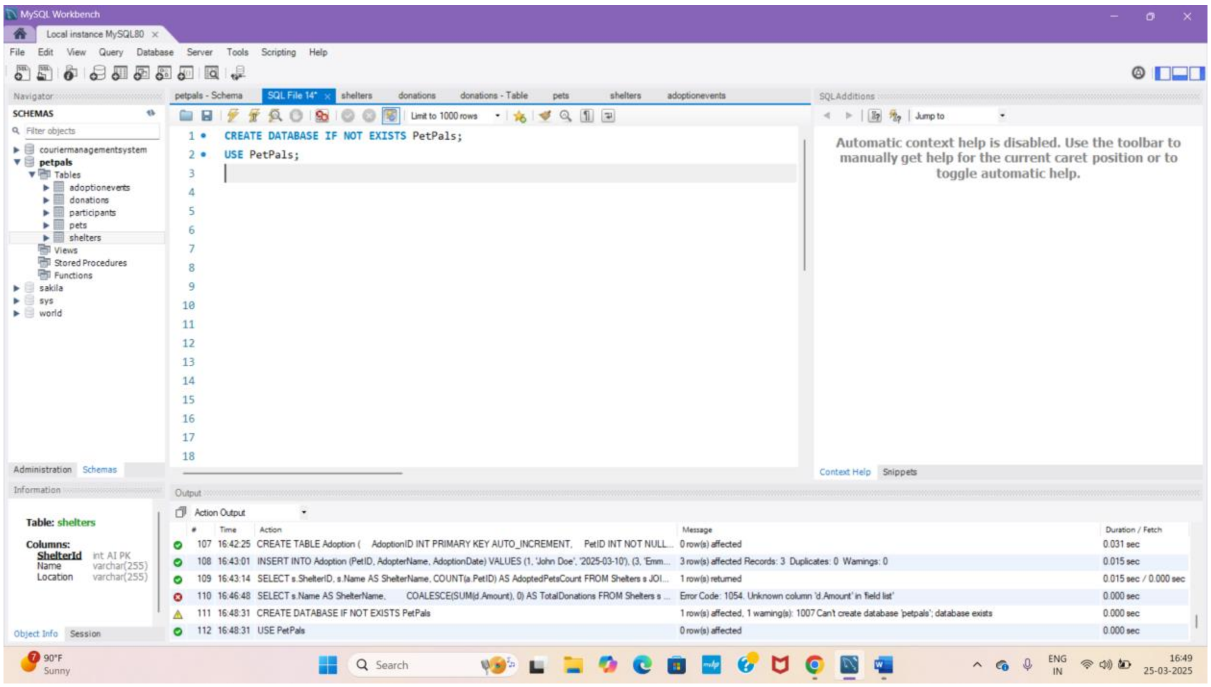
```
        INSERT INTO AdoptionEvents (EventID, EventName, EventDate, Location)
        VALUES
            (1, 'New Year Adoption Drive', '2025-01-15 10:00:00', 'Chennai'),
            (2, 'Furry Friends Fest', '2025-02-20 11:30:00', 'Coimbatore'),
            (3, 'Paws for Love', '2025-03-25 09:00:00', 'Madurai'),
            (4, 'Home for Paws', '2025-04-10 14:00:00', 'Trichy'),
    (5, 'Adopt-a-Pet Carnival', '2025-05-05 12:00:00', 'Salem');
```

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

To maintain data integrity and ensure proper relationships, we define Primary Keys (PK), Foreign Keys (FK), and Constraints in the database schema.

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

```
        CREATE DATABASE IF NOT EXISTS PetPals;
USE PetPals;
```



```
CREATE DATABASE IF NOT EXISTS PetPals;
USE PetPals;
```

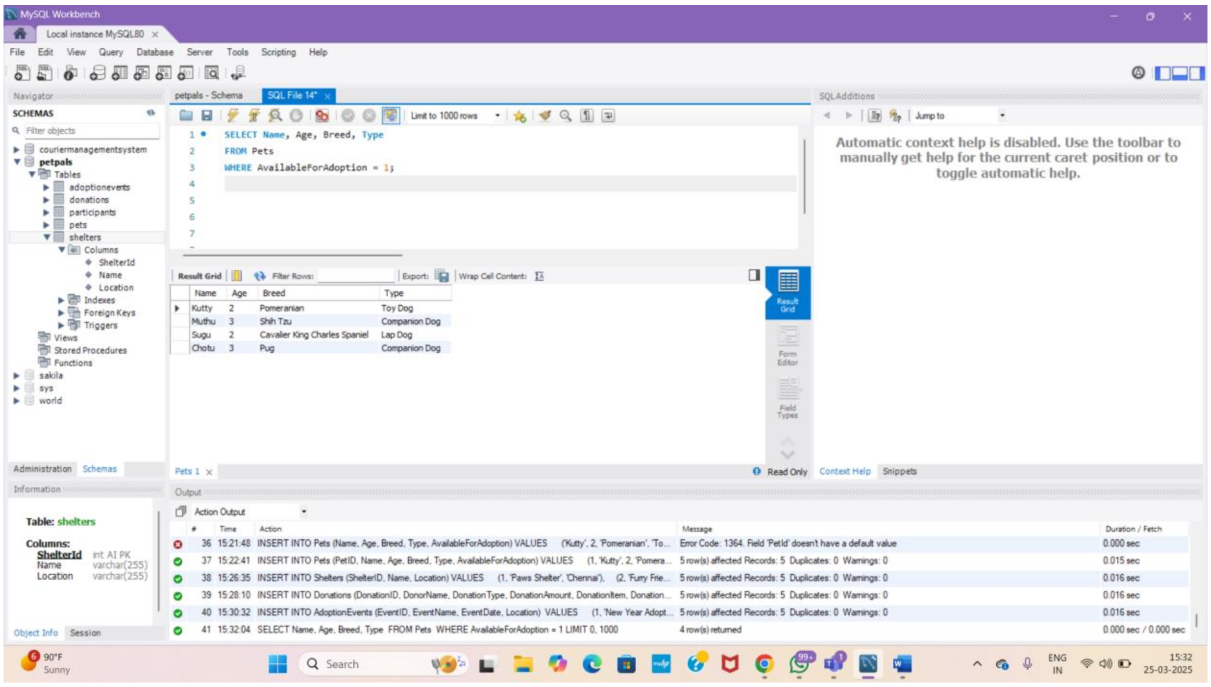
Table: shelters

Columns:
ShelterId   int AI PK
Name   varchar(255)
Location   varchar(255)

```
Output
Action Output
  #    Time      Action                                                                                Message                                                                                   Duration / Fetch
  107  16:42:25  CREATE TABLE Adoption (    AdoptionID INT PRIMARY KEY AUTO_INCREMENT,    PetID INT NOT NULL...   0 row(s) affected                                                                         0.031 sec
  108  16:43:01  INSERT INTO Adoption (PetID, AdopterName, AdoptionDate) VALUES (1, 'John Doe', '2025-03-10'), (3, 'Emm...   3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0                        0.015 sec
  109  16:43:14  SELECT s.ShelterID, s.Name AS ShelterName, COUNT(a.PetID) AS AdoptedPetsCount FROM Shelters s JOI...   1 row(s) returned                                                                         0.015 sec / 0.000 sec
  110  16:46:48  SELECT s.Name AS ShelterName,     COALESCE(SUM(d.Amount), 0) AS TotalDonations FROM Shelters s ...   Error Code: 1054. Unknown column 'd.Amount' in 'field list'                          0.000 sec
  111  16:48:31  CREATE DATABASE IF NOT EXISTS PetPals                                                    1 row(s) affected, 1 warning(s): 1007 Can't create database 'petpals'; database exists   0.000 sec
  112  16:48:31  USE PetPals                                                                              0 row(s) affected                                                                         0.000 sec
```

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;
```



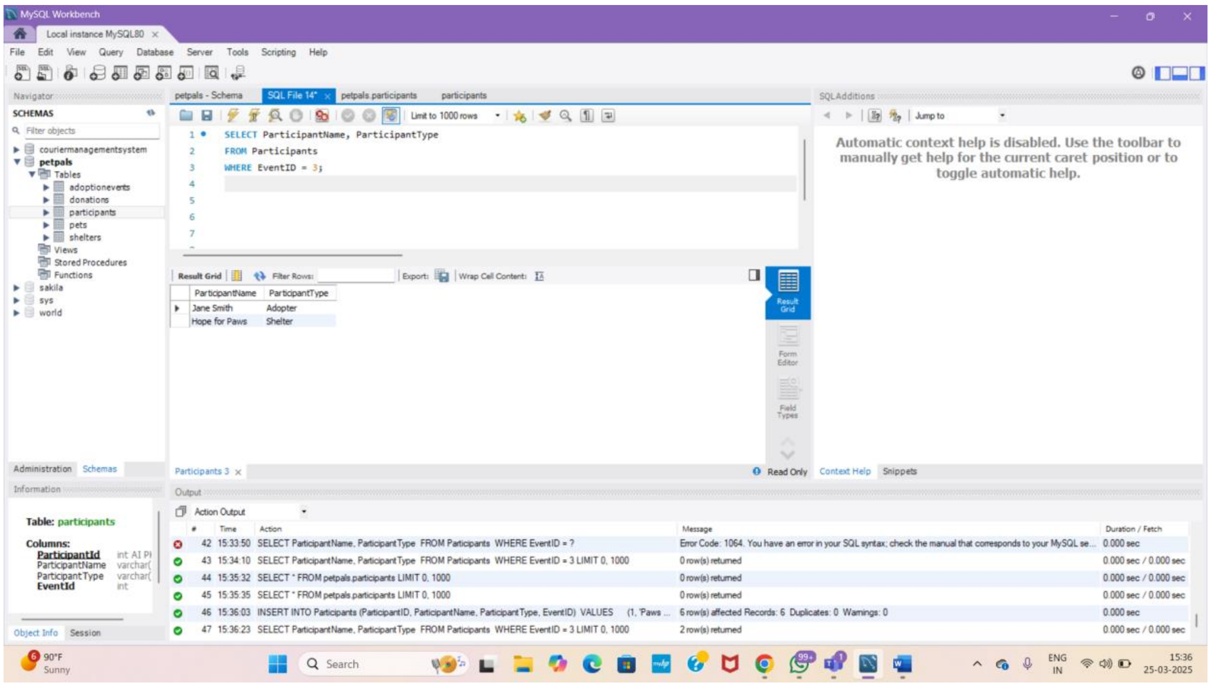
```
SELECT Name, Age, Breed, Type
FROM Pets
WHERE AvailableForAdoption = 1;
```

Name	Age	Breed	Type
Kutty	2	Pomeranian	Toy Dog
Muthu	3	Shih Tzu	Companion Dog
Sugu	2	Cavalier King Charles Spaniel	Lap Dog
Chotu	3	Pug	Companion Dog

```
#   Time      Action                                                                                      Message                                                           Duration / Fetch
36  15:21:48  INSERT INTO Pets (Name, Age, Breed, Type, AvailableForAdoption) VALUES   ('Kutty', 2, 'Pomeranian', 'To...   Error Code: 1364. Field 'PetId' doesn't have a default value   0.000 sec
37  15:22:41  INSERT INTO Pets (PetID, Name, Age, Breed, Type, AvailableForAdoption) VALUES   (1, 'Kutty', 2, 'Pomera...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.015 sec
38  15:26:35  INSERT INTO Shelters (ShelterID, Name, Location) VALUES   (1, 'Paws Shelter', 'Chennai'),   (2, 'Furry Frie...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.016 sec
39  15:28:10  INSERT INTO Donations (DonationID, DonorName, DonationType, DonationAmount, DonationItem, Donation...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.016 sec
40  15:30:32  INSERT INTO AdoptionEvents (EventID, EventName, EventDate, Location)  VALUES   (1, 'New Year Adopt...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.016 sec
41  15:32:04  SELECT Name, Age, Breed, Type  FROM Pets  WHERE AvailableForAdoption = 1 LIMIT 0, 1000   4 row(s) returned   0.000 sec / 0.000 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.

SELECT ParticipantName, ParticipantType
FROM Participants
WHERE EventID = 3;



```
SELECT ParticipantName, ParticipantType
FROM Participants
WHERE EventID = 3;
```

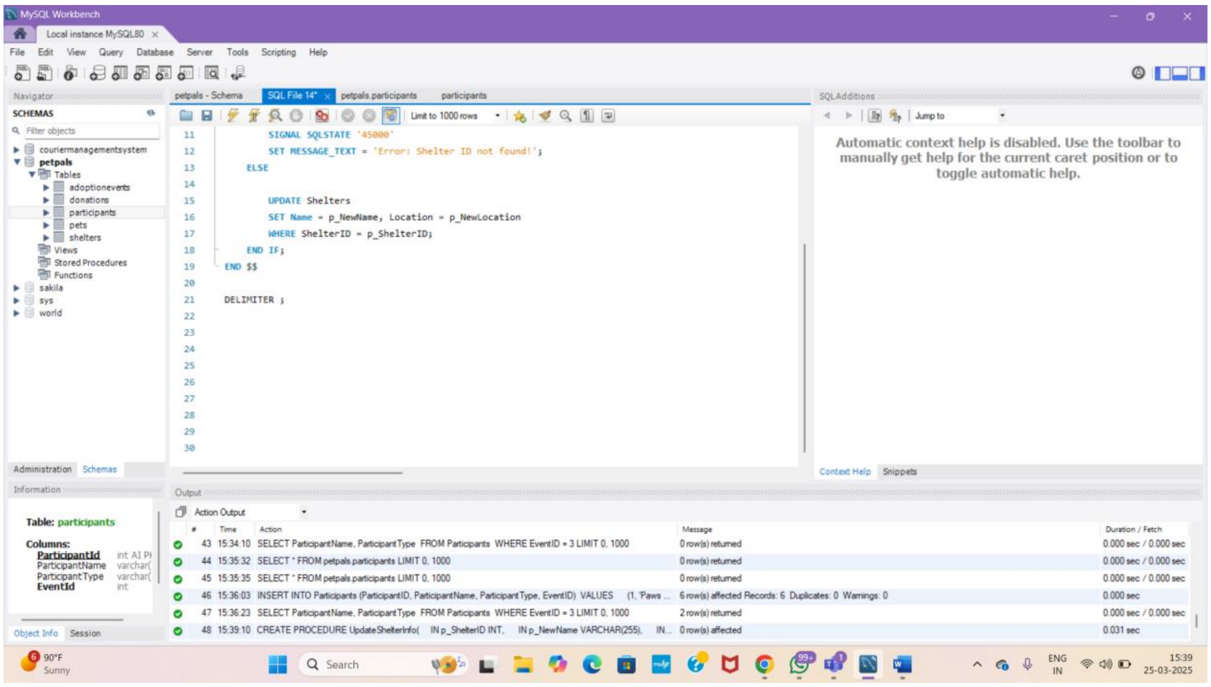
ParticipantName	ParticipantType
Jane Smith	Adopter
Hope for Paws	Shelter

```
#   Time      Action                                                                                      Message                                                           Duration / Fetch
42  15:33:50  SELECT ParticipantName, ParticipantType  FROM Participants  WHERE EventID = ?   Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...   0.000 sec
43  15:34:10  SELECT ParticipantName, ParticipantType  FROM Participants  WHERE EventID = 3 LIMIT 0, 1000   0 row(s) returned   0.000 sec / 0.000 sec
44  15:35:32  SELECT * FROM petpals.participants LIMIT 0, 1000   0 row(s) returned   0.000 sec / 0.000 sec
45  15:35:35  SELECT * FROM petpals.participants LIMIT 0, 1000   0 row(s) returned   0.000 sec / 0.000 sec
46  15:36:03  INSERT INTO Participants (ParticipantID, ParticipantName, ParticipantType, EventID)  VALUES   (1, 'Paws ...   6 row(s) affected Records: 6  Duplicates: 0  Warnings: 0   0.000 sec
47  15:36:23  SELECT ParticipantName, ParticipantType  FROM Participants  WHERE EventID = 3 LIMIT 0, 1000   2 row(s) returned   0.000 sec / 0.000 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

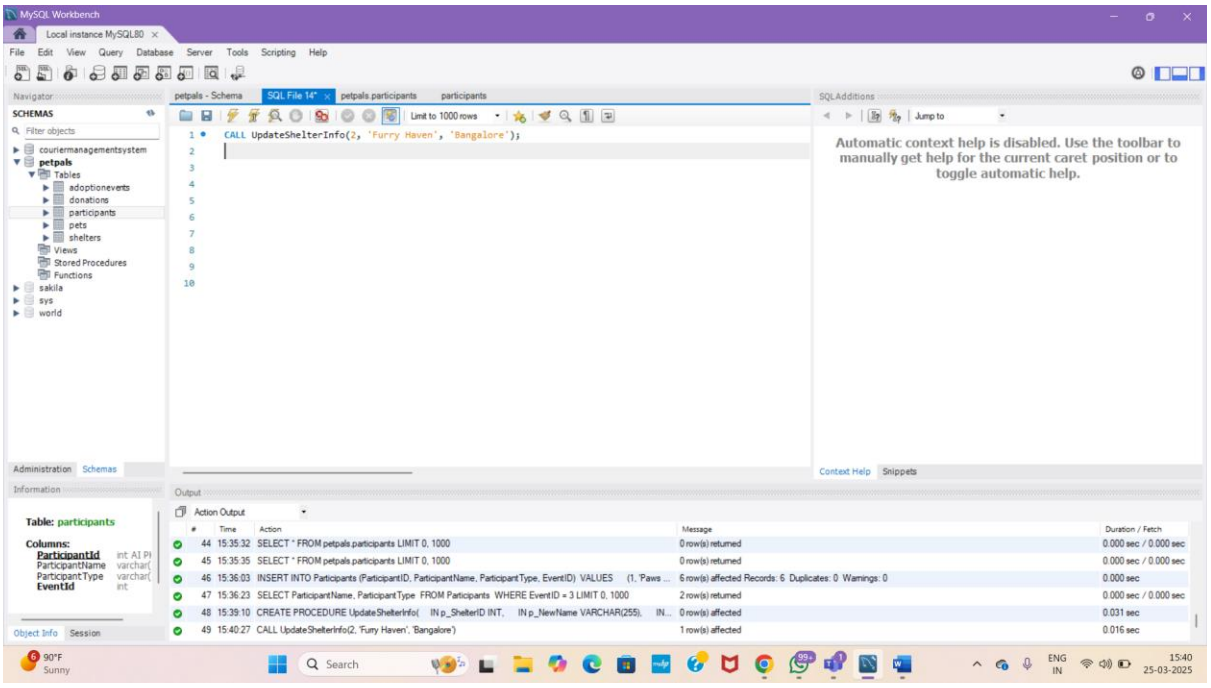
information. Ensure that the procedure performs the update and handles potential errors, such as an invalid shelter ID.

CALL UpdateShelterInfo(2, 'Furry Haven', 'Bangalore');
SELECT * FROM Shelters WHERE ShelterID = 2;



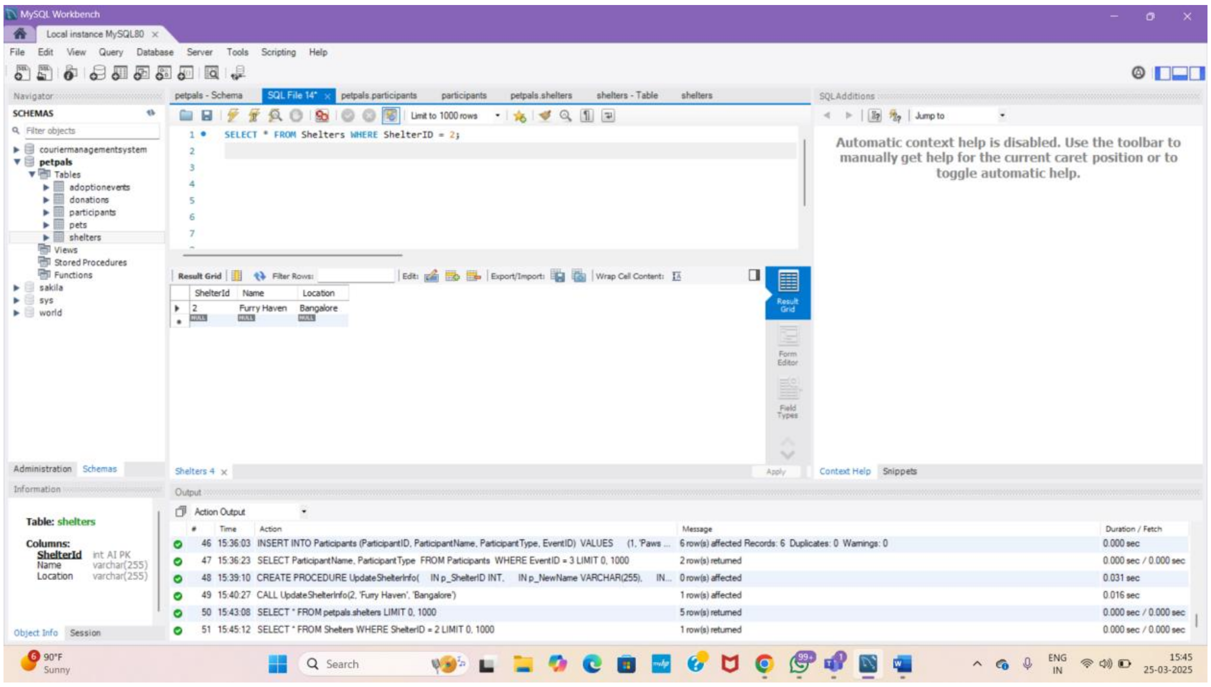
```sql
            SIGNAL SQLSTATE '45000'
            SET MESSAGE_TEXT = 'Error: Shelter ID not found!';
        ELSE

            UPDATE Shelters
            SET Name = p_NewName, Location = p_NewLocation
            WHERE ShelterID = p_ShelterID;
        END IF;
    END $$

    DELIMITER ;
```

```
#   Time      Action                                                                                          Message                                              Duration / Fetch
43  15:34:10  SELECT ParticipantName, ParticipantType  FROM Participants  WHERE EventID = 3 LIMIT 0, 1000        0 row(s) returned                                    0.000 sec / 0.000 sec
44  15:35:32  SELECT * FROM petpals.participants LIMIT 0, 1000                                                 0 row(s) returned                                    0.000 sec / 0.000 sec
45  15:35:35  SELECT * FROM petpals.participants LIMIT 0, 1000                                                 0 row(s) returned                                    0.000 sec / 0.000 sec
46  15:36:03  INSERT INTO Participants (ParticipantID, ParticipantName, ParticipantType, EventID)  VALUES   (1, 'Paws ...   6 row(s) affected Records: 6  Duplicates: 0  Warnings: 0   0.000 sec
47  15:36:23  SELECT ParticipantName, ParticipantType  FROM Participants  WHERE EventID = 3 LIMIT 0, 1000        2 row(s) returned                                    0.000 sec / 0.000 sec
48  15:39:10  CREATE PROCEDURE UpdateShelterInfo(   IN p_ShelterID INT,   IN p_NewName VARCHAR(255),   IN...   0 row(s) affected                                    0.031 sec
```



```sql
CALL UpdateShelterInfo(2, 'Furry Haven', 'Bangalore');
```

```
#   Time      Action                                                                                          Message                                              Duration / Fetch
44  15:35:32  SELECT * FROM petpals.participants LIMIT 0, 1000                                                 0 row(s) returned                                    0.000 sec / 0.000 sec
45  15:35:35  SELECT * FROM petpals.participants LIMIT 0, 1000                                                 0 row(s) returned                                    0.000 sec / 0.000 sec
46  15:36:03  INSERT INTO Participants (ParticipantID, ParticipantName, ParticipantType, EventID)  VALUES   (1, 'Paws ...   6 row(s) affected Records: 6  Duplicates: 0  Warnings: 0   0.000 sec
47  15:36:23  SELECT ParticipantName, ParticipantType  FROM Participants  WHERE EventID = 3 LIMIT 0, 1000        2 row(s) returned                                    0.000 sec / 0.000 sec
48  15:39:10  CREATE PROCEDURE UpdateShelterInfo(   IN p_ShelterID INT,   IN p_NewName VARCHAR(255),   IN...   0 row(s) affected                                    0.031 sec
49  15:40:27  CALL UpdateShelterInfo(2, 'Furry Haven', 'Bangalore')                                            1 row(s) affected                                    0.016 sec
```



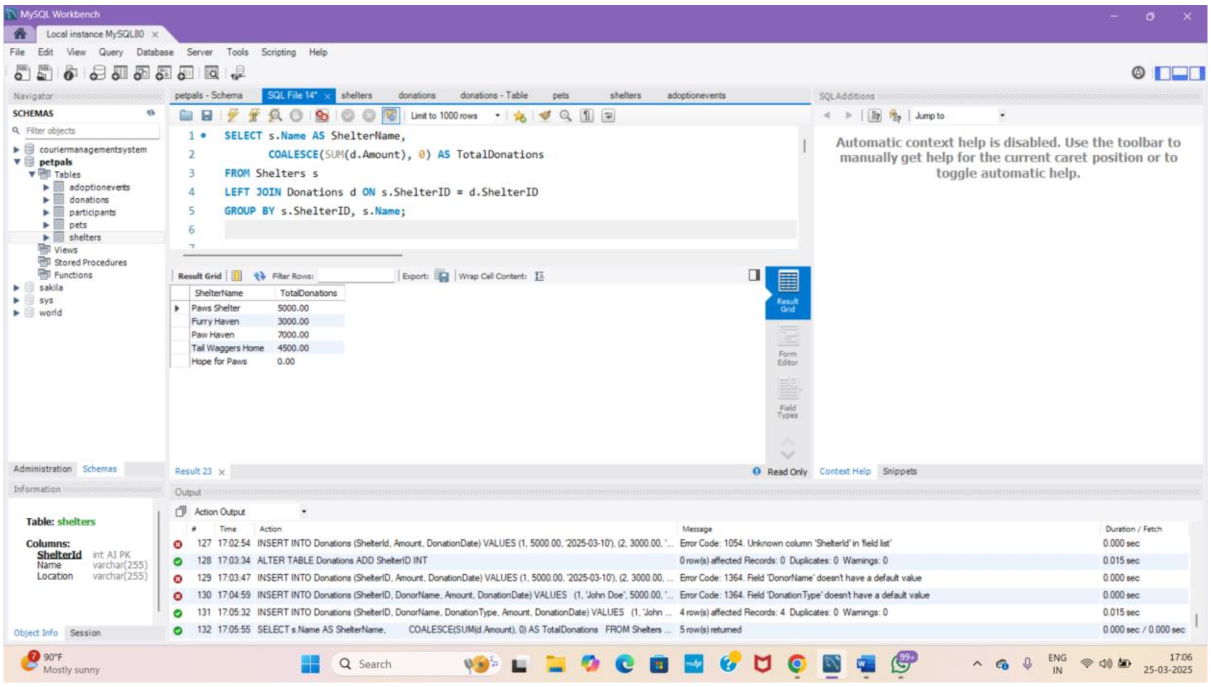
```
SELECT * FROM Shelters WHERE ShelterID = 2;
```

	ShelterId	Name	Location
▶	2	Furry Haven	Bangalore
●	NULL	NULL	NULL

```
#   Time     Action                                                                                   Message                                                    Duration / Fetch
46  15:36:03 INSERT INTO Participants (ParticipantID, ParticipantName, ParticipantType, EventID) VALUES  (1, 'Paws ...  6 row(s) affected Records: 6  Duplicates: 0  Warnings: 0  0.000 sec
47  15:36:23 SELECT ParticipantName, ParticipantType FROM Participants WHERE EventID = 3 LIMIT 0, 1000   2 row(s) returned                                          0.000 sec / 0.000 sec
48  15:39:10 CREATE PROCEDURE UpdateShelterInfo(  IN p_ShelterID INT,  IN p_NewName VARCHAR(255),  IN...  0 row(s) affected                                          0.031 sec
49  15:40:27 CALL UpdateShelterInfo(2, 'Furry Haven', 'Bangalore')                                       1 row(s) affected                                          0.016 sec
50  15:43:08 SELECT * FROM petpals.shelters LIMIT 0, 1000                                                5 row(s) returned                                          0.000 sec / 0.000 sec
51  15:45:12 SELECT * FROM Shelters WHERE ShelterID = 2 LIMIT 0, 1000                                    1 row(s) returned                                          0.000 sec / 0.000 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.

```
SELECT s.Name AS ShelterName,

       COALESCE(SUM(d.Amount), 0) AS TotalDonations

FROM Shelters s

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

GROUP BY s.ShelterID, s.Name;
```



```
SELECT s.Name AS ShelterName,
       COALESCE(SUM(d.Amount), 0) AS TotalDonations
FROM Shelters s
LEFT JOIN Donations d ON s.ShelterID = d.ShelterID
GROUP BY s.ShelterID, s.Name;
```

ShelterName	TotalDonations
Paws Shelter	5000.00
Furry Haven	3000.00
Paw Haven	7000.00
Tail Waggers Home	4500.00
Hope for Paws	0.00

Table: shelters

Columns:
ShelterId int AI PK
Name varchar(255)
Location varchar(255)

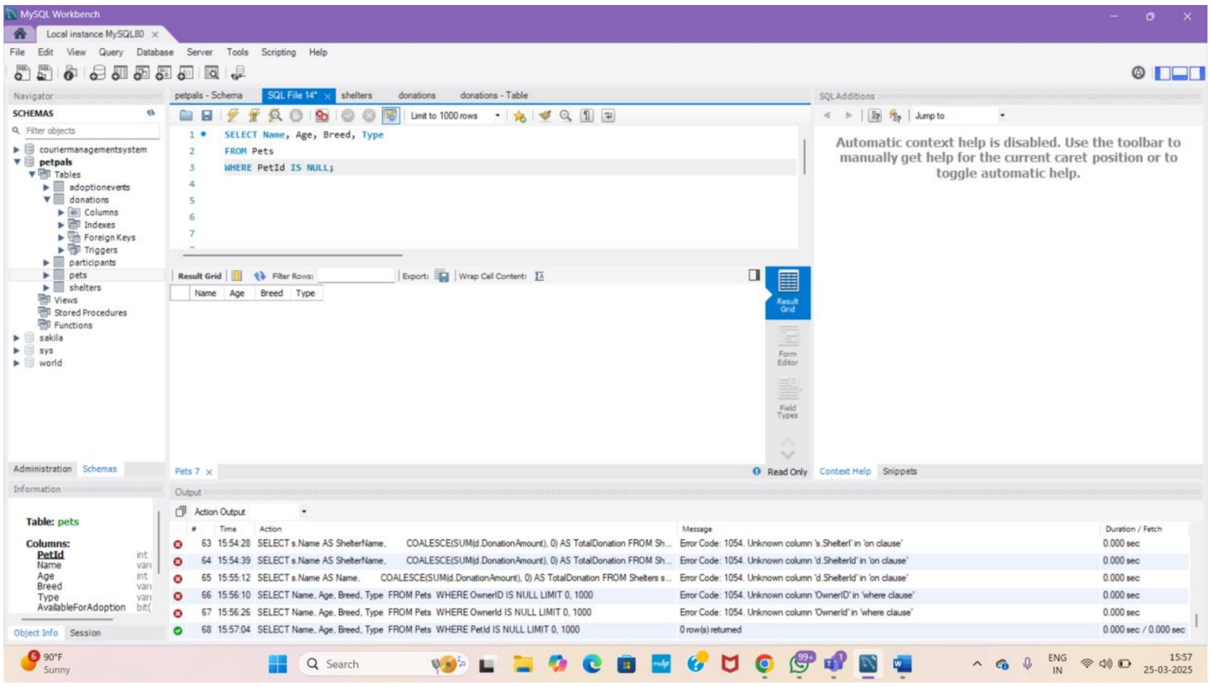
```
#    Time      Action                                                                                                   Message                                                          Duration / Fetch
127  17:02:54  INSERT INTO Donations (ShelterId, Amount, DonationDate) VALUES (1, 5000.00, '2025-03-10'), (2, 3000.00, '...   Error Code: 1054. Unknown column 'ShelterId' in 'field list'     0.000 sec
128  17:03:34  ALTER TABLE Donations ADD ShelterID INT                                                                     0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0         0.015 sec
129  17:03:47  INSERT INTO Donations (ShelterID, Amount, DonationDate) VALUES (1, 5000.00, '2025-03-10'), (2, 3000.00, ...    Error Code: 1364. Field 'DonorName' doesn't have a default value 0.000 sec
130  17:04:59  INSERT INTO Donations (ShelterID, DonorName, Amount, DonationDate) VALUES  (1, 'John Doe', 5000.00, '...      Error Code: 1364. Field 'DonationType' doesn't have a default value 0.000 sec
131  17:05:32  INSERT INTO Donations (ShelterID, DonorName, DonationType, Amount, DonationDate) VALUES  (1, 'John ...        4 row(s) affected Records: 4  Duplicates: 0  Warnings: 0         0.015 sec
132  17:05:55  SELECT s.Name AS ShelterName,      COALESCE(SUM(d.Amount), 0) AS TotalDonations  FROM Shelters ...          5 row(s) returned                                                0.000 sec / 0.000 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.

SELECT Name, Age, Breed, Type

FROM Pets

WHERE PetId IS NULL;



```
SELECT Name, Age, Breed, Type
FROM Pets
WHERE PetId IS NULL;
```

Name	Age	Breed	Type

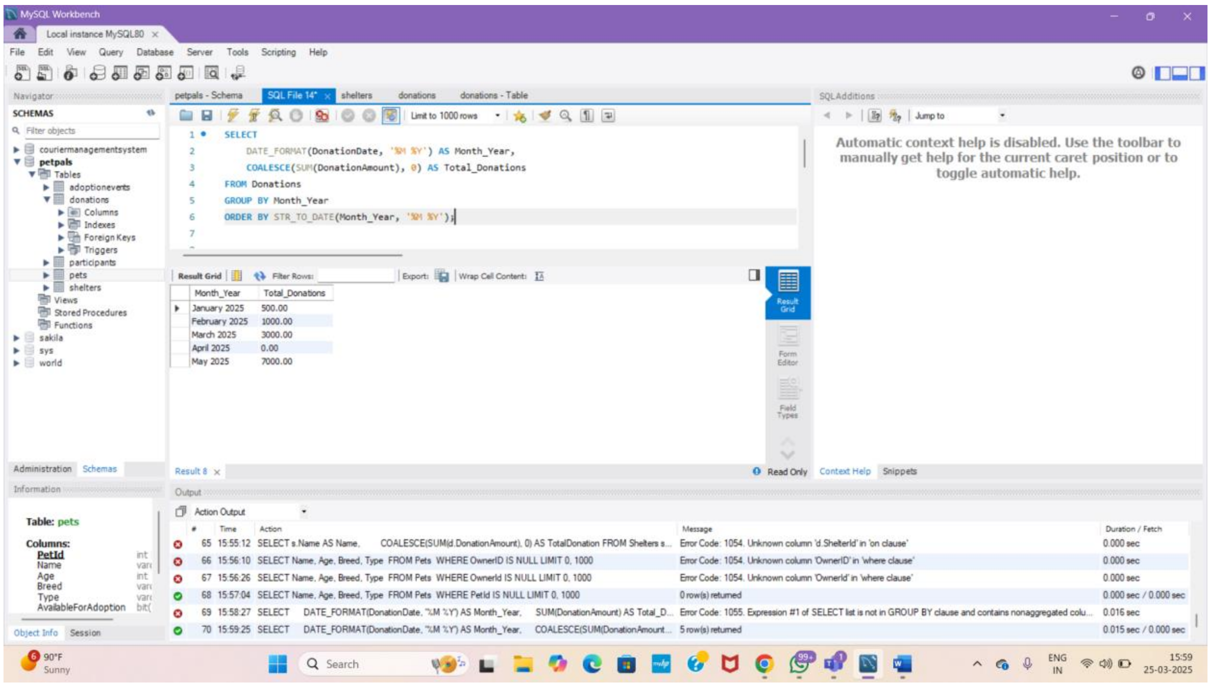
Table: pets

Columns:
PetId int
Name varc
Age int
Breed varc
Type varc
AvailableForAdoption bit(

```
#   Time      Action                                                                                          Message                                                     Duration / Fetch
63  15:54:28  SELECT s.Name AS ShelterName,      COALESCE(SUM(d.DonationAmount), 0) AS TotalDonation FROM Sh...  Error Code: 1054. Unknown column 's.ShelterI' in 'on clause'  0.000 sec
64  15:54:39  SELECT s.Name AS ShelterName,      COALESCE(SUM(d.DonationAmount), 0) AS TotalDonation FROM Sh...  Error Code: 1054. Unknown column 'd.ShelterId' in 'on clause' 0.000 sec
65  15:55:12  SELECT s.Name AS Name,      COALESCE(SUM(d.DonationAmount), 0) AS TotalDonation FROM Shelters s...  Error Code: 1054. Unknown column 'd.ShelterId' in 'on clause' 0.000 sec
66  15:56:10  SELECT Name, Age, Breed, Type  FROM Pets  WHERE OwnerID IS NULL LIMIT 0, 1000                    Error Code: 1054. Unknown column 'OwnerID' in 'where clause'  0.000 sec
67  15:56:26  SELECT Name, Age, Breed, Type  FROM Pets  WHERE OwnerId IS NULL LIMIT 0, 1000                    Error Code: 1054. Unknown column 'OwnerId' in 'where clause'  0.000 sec
68  15:57:04  SELECT Name, Age, Breed, Type  FROM Pets  WHERE PetId IS NULL LIMIT 0, 1000                      0 row(s) returned                                             0.000 sec / 0.000 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.

```
SELECT

    DATE_FORMAT(DonationDate, '%M %Y') AS Month_Year,

    COALESCE(SUM(DonationAmount), 0) AS Total_Donations

FROM Donations

GROUP BY Month_Year

ORDER BY STR_TO_DATE(Month_Year, '%M %Y');
```



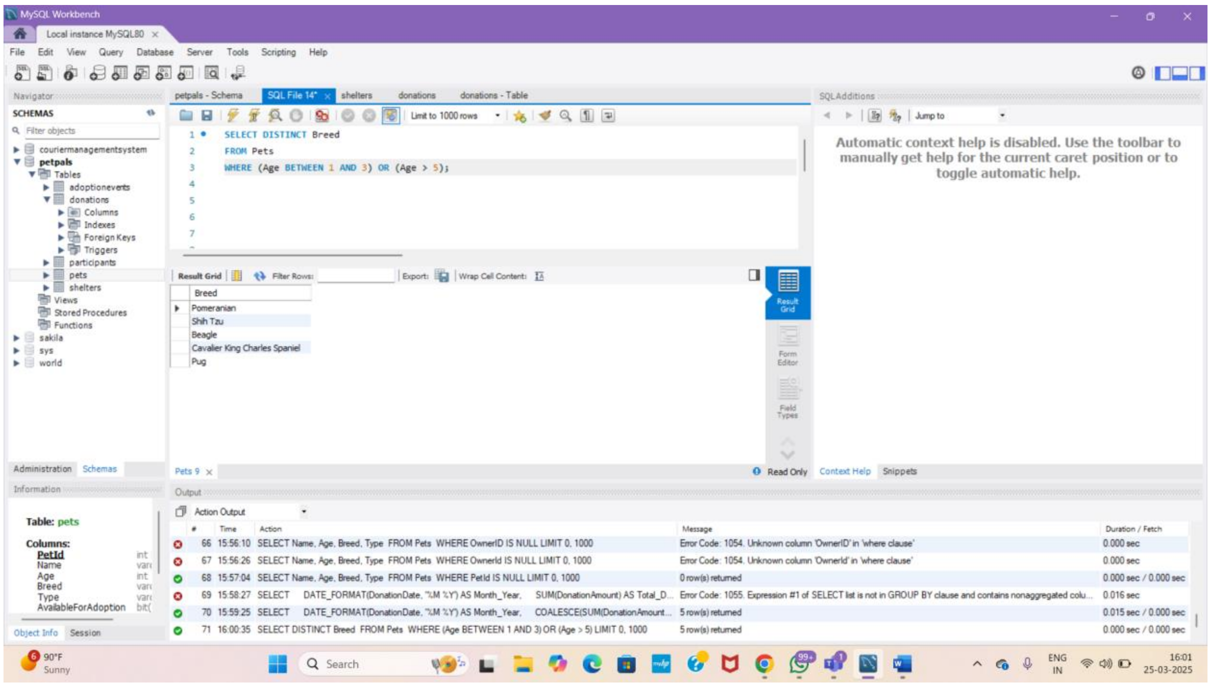
```
SELECT
    DATE_FORMAT(DonationDate, '%M %Y') AS Month_Year,
    COALESCE(SUM(DonationAmount), 0) AS Total_Donations
FROM Donations
GROUP BY Month_Year
ORDER BY STR_TO_DATE(Month_Year, '%M %Y');
```

Month_Year	Total_Donations
January 2025	500.00
February 2025	1000.00
March 2025	3000.00
April 2025	0.00
May 2025	7000.00

```
#   Time      Action                                                                                   Message                                                                                        Duration / Fetch
65  15:55:12  SELECT s.Name AS Name,    COALESCE(SUM(d.DonationAmount), 0) AS TotalDonation FROM Shelters s...  Error Code: 1054. Unknown column 'd.ShelterId' in 'on clause'                                    0.000 sec
66  15:56:10  SELECT Name, Age, Breed, Type  FROM Pets  WHERE OwnerID IS NULL LIMIT 0, 1000            Error Code: 1054. Unknown column 'OwnerID' in 'where clause'                                     0.000 sec
67  15:56:26  SELECT Name, Age, Breed, Type  FROM Pets  WHERE OwnerId IS NULL LIMIT 0, 1000            Error Code: 1054. Unknown column 'OwnerId' in 'where clause'                                     0.000 sec
68  15:57:04  SELECT Name, Age, Breed, Type  FROM Pets  WHERE PetId IS NULL LIMIT 0, 1000              0 row(s) returned                                                                                0.000 sec / 0.000 sec
69  15:58:27  SELECT    DATE_FORMAT(DonationDate, '%M %Y') AS Month_Year,    SUM(DonationAmount) AS Total_D...  Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu...  0.016 sec
70  15:59:25  SELECT    DATE_FORMAT(DonationDate, '%M %Y') AS Month_Year,    COALESCE(SUM(DonationAmount...  5 row(s) returned                                                                                0.015 sec / 0.000 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.

```
SELECT DISTINCT Breed

FROM Pets

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



```
SELECT DISTINCT Breed
FROM Pets
WHERE (Age BETWEEN 1 AND 3) OR (Age > 5);
```

	Breed
▶	Pomeranian
	Shih Tzu
	Beagle
	Cavalier King Charles Spaniel
	Pug

```
#   Time      Action                                                                                  Message                                                                                     Duration / Fetch
66  15:56:10  SELECT Name, Age, Breed, Type  FROM Pets  WHERE OwnerID IS NULL LIMIT 0, 1000          Error Code: 1054. Unknown column 'OwnerID' in 'where clause'                                0.000 sec
67  15:56:26  SELECT Name, Age, Breed, Type  FROM Pets  WHERE OwnerId IS NULL LIMIT 0, 1000          Error Code: 1054. Unknown column 'OwnerId' in 'where clause'                                0.000 sec
68  15:57:04  SELECT Name, Age, Breed, Type  FROM Pets  WHERE PetId IS NULL LIMIT 0, 1000            0 row(s) returned                                                                           0.000 sec / 0.000 sec
69  15:58:27  SELECT   DATE_FORMAT(DonationDate, '%M %Y') AS Month_Year,   SUM(DonationAmount) AS Total_D...   Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated colu...   0.016 sec
70  15:59:25  SELECT   DATE_FORMAT(DonationDate, '%M %Y') AS Month_Year,   COALESCE(SUM(DonationAmount...   5 row(s) returned                                                                   0.015 sec / 0.000 sec
71  16:00:35  SELECT DISTINCT Breed  FROM Pets  WHERE (Age BETWEEN 1 AND 3) OR (Age > 5) LIMIT 0, 1000   5 row(s) returned                                                                    0.000 sec / 0.000 sec
```

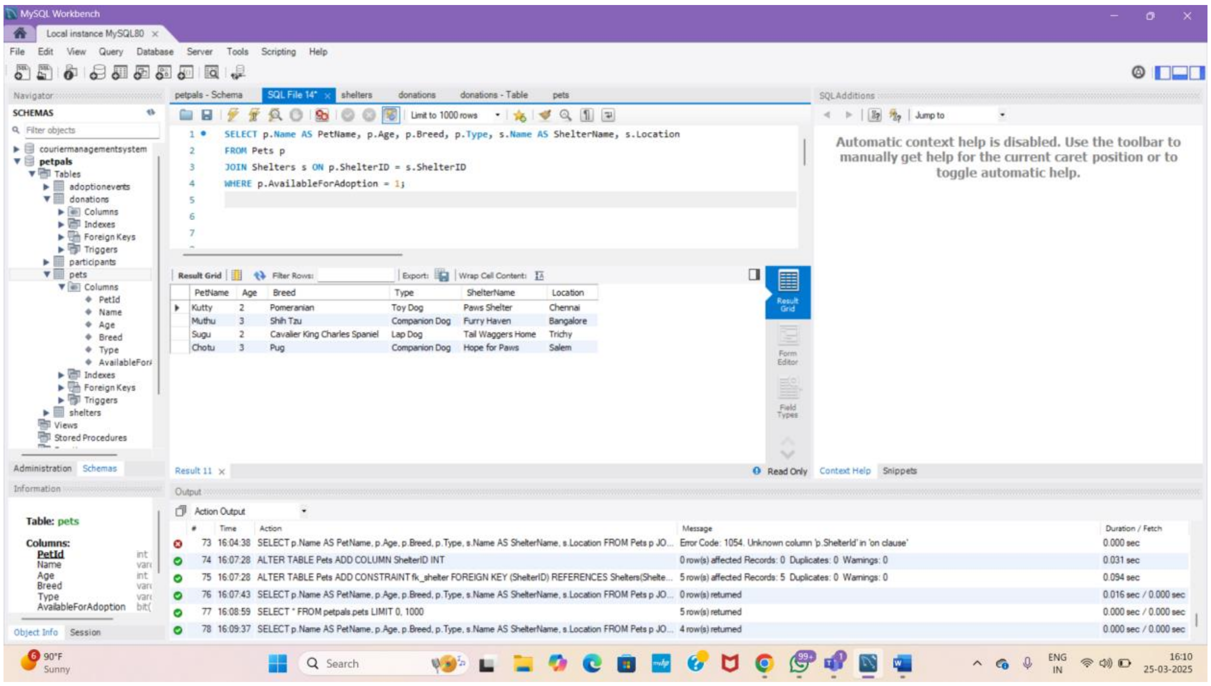
12. Retrieve a list of pets and their respective shelters where the pets are currently available for adoption.

SELECT p.Name AS PetName, p.Age, p.Breed, p.Type, s.Name AS ShelterName, s.Location

FROM Pets p

JOIN Shelters s ON p.ShelterID = s.ShelterID

WHERE p.AvailableForAdoption = 1;



```
SELECT p.Name AS PetName, p.Age, p.Breed, p.Type, s.Name AS ShelterName, s.Location
FROM Pets p
JOIN Shelters s ON p.ShelterID = s.ShelterID
WHERE p.AvailableForAdoption = 1;
```

	PetName	Age	Breed	Type	ShelterName	Location
▶	Kutty	2	Pomeranian	Toy Dog	Paws Shelter	Chennai
	Muthu	3	Shih Tzu	Companion Dog	Furry Haven	Bangalore
	Sugu	2	Cavalier King Charles Spaniel	Lap Dog	Tail Waggers Home	Trichy
	Chotu	3	Pug	Companion Dog	Hope for Paws	Salem

```
#   Time      Action                                                                                      Message                                                          Duration / Fetch
73  16:04:38  SELECT p.Name AS PetName, p.Age, p.Breed, p.Type, s.Name AS ShelterName, s.Location FROM Pets p JO...   Error Code: 1054. Unknown column 'p.ShelterId' in 'on clause'   0.000 sec
74  16:07:28  ALTER TABLE Pets ADD COLUMN ShelterID INT                                                  0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0         0.031 sec
75  16:07:28  ALTER TABLE Pets ADD CONSTRAINT fk_shelter FOREIGN KEY (ShelterID) REFERENCES Shelters(Shelte...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.094 sec
76  16:07:43  SELECT p.Name AS PetName, p.Age, p.Breed, p.Type, s.Name AS ShelterName, s.Location FROM Pets p JO...   0 row(s) returned                                          0.016 sec / 0.000 sec
77  16:08:59  SELECT * FROM petpals.pets LIMIT 0, 1000                                                   5 row(s) returned                                                0.000 sec / 0.000 sec
78  16:09:37  SELECT p.Name AS PetName, p.Age, p.Breed, p.Type, s.Name AS ShelterName, s.Location FROM Pets p JO...   4 row(s) returned                                          0.000 sec / 0.000 sec
```

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

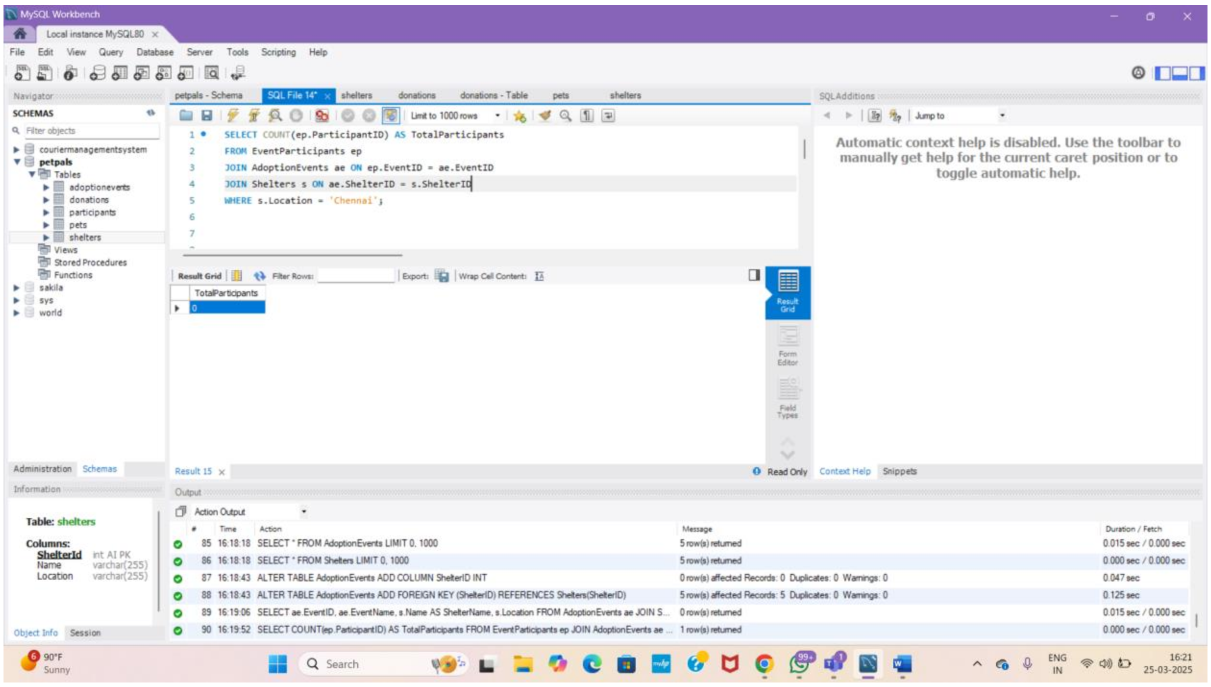
SELECT COUNT(ep.ParticipantID) AS TotalParticipants

FROM EventParticipants ep

JOIN AdoptionEvents ae ON ep.EventID = ae.EventID

JOIN Shelters s ON ae.ShelterID = s.ShelterID

WHERE s.Location = 'Chennai';



```
SELECT COUNT(ep.ParticipantID) AS TotalParticipants
FROM EventParticipants ep
JOIN AdoptionEvents ae ON ep.EventID = ae.EventID
JOIN Shelters s ON ae.ShelterID = s.ShelterID
WHERE s.Location = 'Chennai';
```

```
TotalParticipants
0
```

Table: shelters

Columns:
ShelterId   int AI PK
Name   varchar(255)
Location   varchar(255)

```
#   Time      Action                                                                           Message                                                  Duration / Fetch
85  16:18:18  SELECT * FROM AdoptionEvents LIMIT 0, 1000                                       5 row(s) returned                                        0.015 sec / 0.000 sec
86  16:18:18  SELECT * FROM Shelters LIMIT 0, 1000                                             5 row(s) returned                                        0.000 sec / 0.000 sec
87  16:18:43  ALTER TABLE AdoptionEvents ADD COLUMN ShelterID INT                               0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0  0.047 sec
88  16:18:43  ALTER TABLE AdoptionEvents ADD FOREIGN KEY (ShelterID) REFERENCES Shelters(ShelterID)  5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0  0.125 sec
89  16:19:06  SELECT ae.EventID, ae.EventName, s.Name AS ShelterName, s.Location FROM AdoptionEvents ae JOIN S...  0 row(s) returned  0.015 sec / 0.000 sec
90  16:19:52  SELECT COUNT(ep.ParticipantID) AS TotalParticipants FROM EventParticipants ep JOIN AdoptionEvents ae ...  1 row(s) returned  0.000 sec / 0.000 sec
```

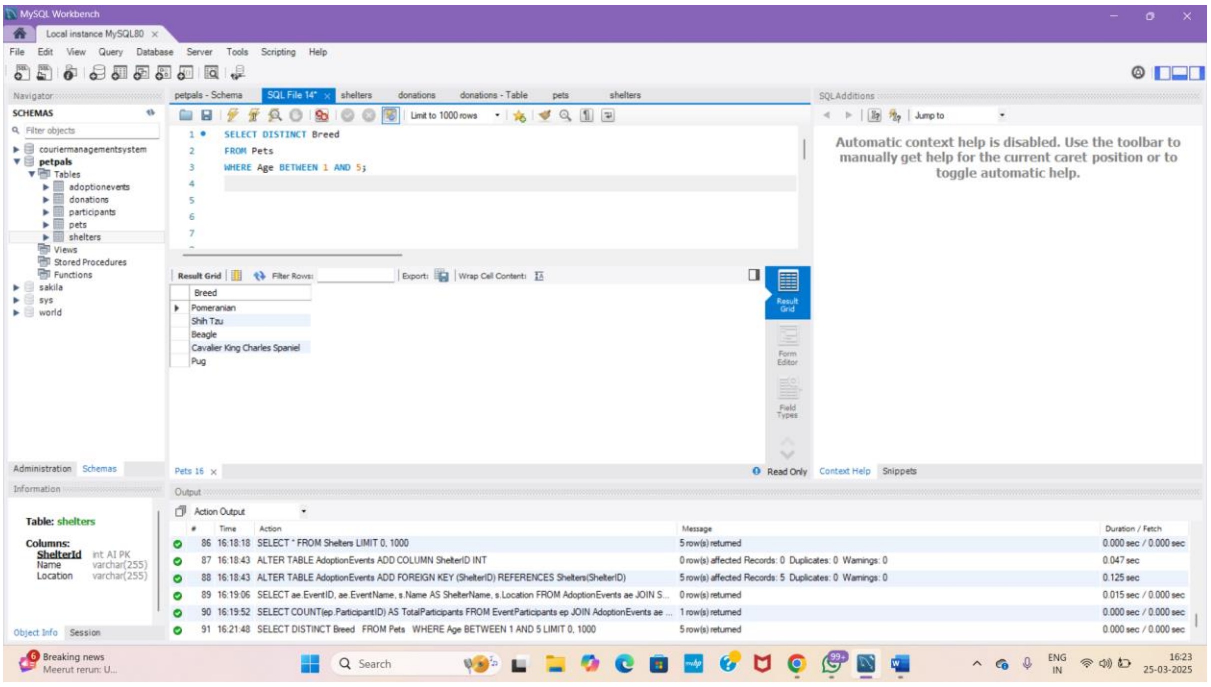
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

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;



```
SELECT DISTINCT Breed
FROM Pets
WHERE Age BETWEEN 1 AND 5;
```

Breed
Pomeranian
Shih Tzu
Beagle
Cavalier King Charles Spaniel
Pug

```
#   Time      Action                                                                                      Message                                              Duration / Fetch
86  16:18:18  SELECT * FROM Shelters LIMIT 0, 1000                                                        5 row(s) returned                                    0.000 sec / 0.000 sec
87  16:18:43  ALTER TABLE AdoptionEvents ADD COLUMN ShelterID INT                                         0 row(s) affected Records: 0  Duplicates: 0  Warnings: 0   0.047 sec
88  16:18:43  ALTER TABLE AdoptionEvents ADD FOREIGN KEY (ShelterID) REFERENCES Shelters(ShelterID)       5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.125 sec
89  16:19:06  SELECT ae.EventID, ae.EventName, s.Name AS ShelterName, s.Location FROM AdoptionEvents ae JOIN S...   0 row(s) returned              0.015 sec / 0.000 sec
90  16:19:52  SELECT COUNT(ep.ParticipantID) AS TotalParticipants FROM EventParticipants ep JOIN AdoptionEvents ae ...   1 row(s) returned    0.000 sec / 0.000 sec
91  16:21:48  SELECT DISTINCT Breed   FROM Pets   WHERE Age BETWEEN 1 AND 5 LIMIT 0, 1000                 5 row(s) returned                                    0.000 sec / 0.000 sec
```

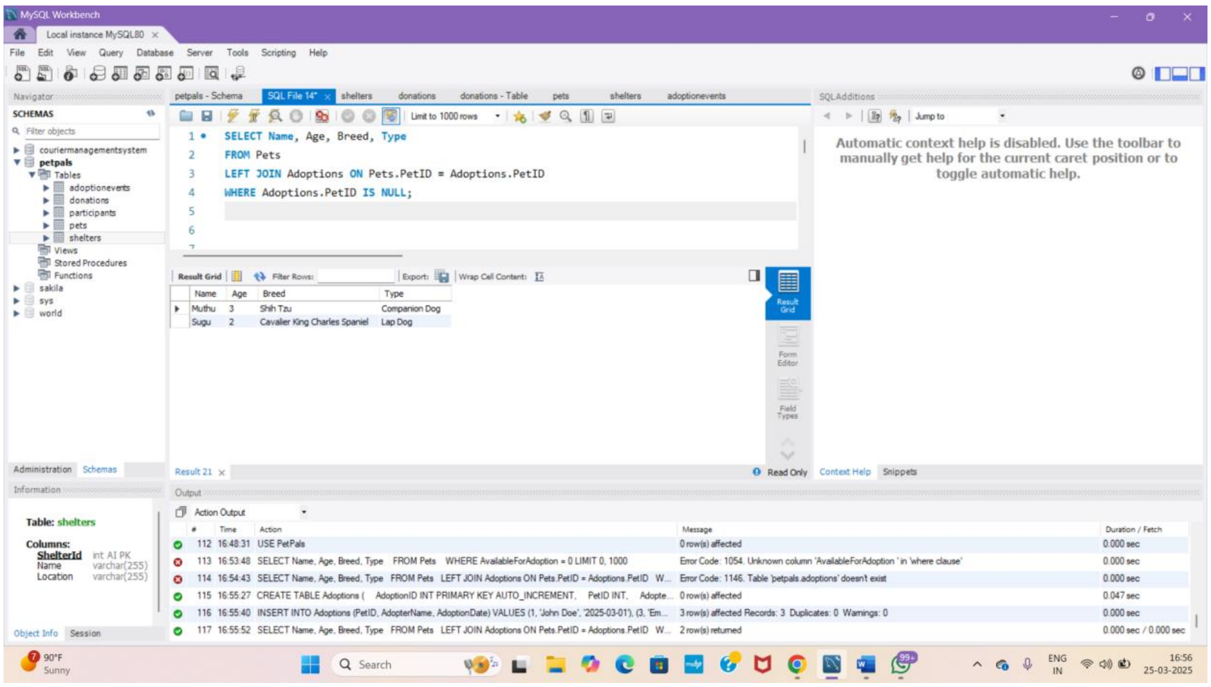
15. Find the pets that have not been adopted by selecting their information from the 'Pet' table

SELECT Name, Age, Breed, Type

FROM Pets

LEFT JOIN Adoptions ON Pets.PetID = Adoptions.PetID

WHERE Adoptions.PetID IS NULL;



```
SELECT Name, Age, Breed, Type
FROM Pets
LEFT JOIN Adoptions ON Pets.PetID = Adoptions.PetID
WHERE Adoptions.PetID IS NULL;
```

Name	Age	Breed	Type
Muthu	3	Shih Tzu	Companion Dog
Sugu	2	Cavalier King Charles Spaniel	Lap Dog

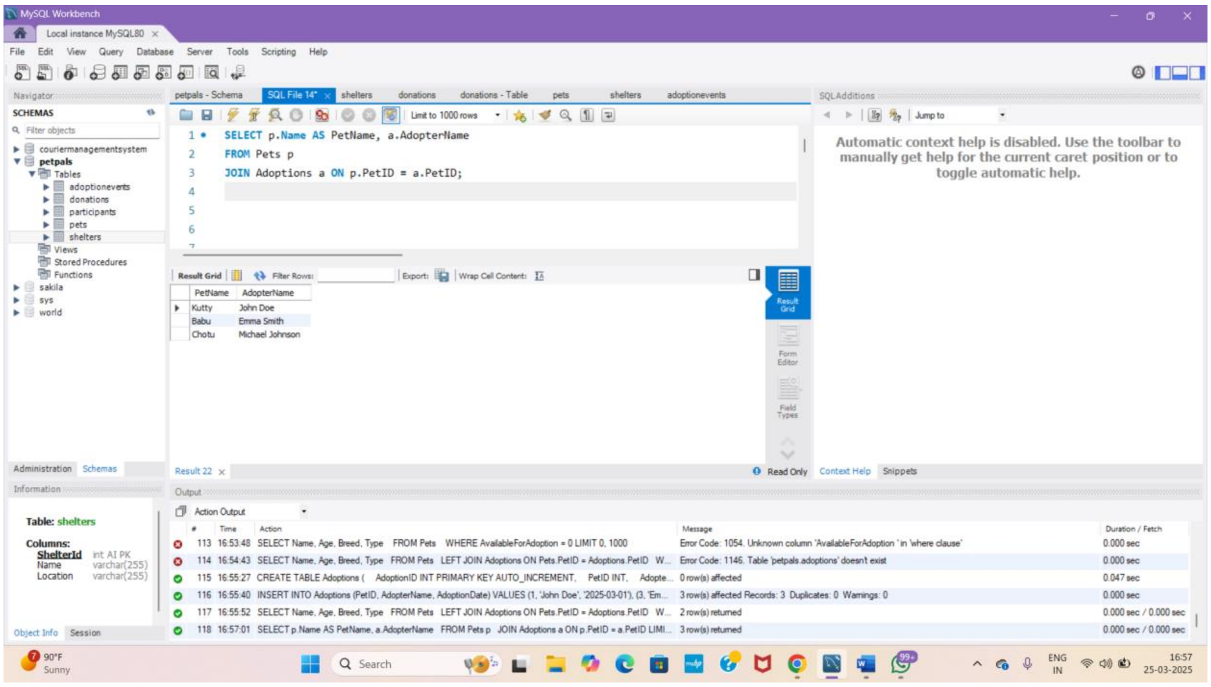
```
#    Time      Action                                                                                     Message                                                          Duration / Fetch
112  16:48:31  USE PetPals                                                                                0 row(s) affected                                                0.000 sec
113  16:53:48  SELECT Name, Age, Breed, Type   FROM Pets   WHERE AvailableForAdoption = 0 LIMIT 0, 1000    Error Code: 1054. Unknown column 'AvailableForAdoption ' in 'where clause'   0.000 sec
114  16:54:43  SELECT Name, Age, Breed, Type   FROM Pets   LEFT JOIN Adoptions ON Pets.PetID = Adoptions.PetID   W...   Error Code: 1146. Table 'petpals.adoptions' doesn't exist   0.000 sec
115  16:55:27  CREATE TABLE Adoptions (   AdoptionID INT PRIMARY KEY AUTO_INCREMENT,   PetID INT,   Adopte...   0 row(s) affected                     0.047 sec
116  16:55:40  INSERT INTO Adoptions (PetID, AdopterName, AdoptionDate) VALUES (1, 'John Doe', '2025-03-01'), (3, 'Em...   3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0   0.000 sec
117  16:55:52  SELECT Name, Age, Breed, Type   FROM Pets   LEFT JOIN Adoptions ON Pets.PetID = Adoptions.PetID   W...   2 row(s) returned          0.000 sec / 0.000 sec
```

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

SELECT p.Name AS PetName, a.AdopterName

FROM Pets p

JOIN Adoptions a ON p.PetID = a.PetID;



```
SELECT p.Name AS PetName, a.AdopterName
FROM Pets p
JOIN Adoptions a ON p.PetID = a.PetID;
```

PetName	AdopterName
Kutty	John Doe
Babu	Emma Smith
Chotu	Michael Johnson

```
#    Time      Action                                                                           Message                                                                      Duration / Fetch
113  16:53:48  SELECT Name, Age, Breed, Type   FROM Pets   WHERE AvailableForAdoption = 0 LIMIT 0, 1000   Error Code: 1054. Unknown column 'AvailableForAdoption ' in 'where clause'   0.000 sec
114  16:54:43  SELECT Name, Age, Breed, Type   FROM Pets   LEFT JOIN Adoptions ON Pets.PetID = Adoptions.PetID   W...   Error Code: 1146. Table 'petpals.adoptions' doesn't exist   0.000 sec
115  16:55:27  CREATE TABLE Adoptions (   AdoptionID INT PRIMARY KEY AUTO_INCREMENT,   PetID INT,   Adopte...   0 row(s) affected   0.047 sec
116  16:55:40  INSERT INTO Adoptions (PetID, AdopterName, AdoptionDate) VALUES (1, 'John Doe', '2025-03-01'), (3, 'Em...   3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0   0.000 sec
117  16:55:52  SELECT Name, Age, Breed, Type   FROM Pets   LEFT JOIN Adoptions ON Pets.PetID = Adoptions.PetID   W...   2 row(s) returned   0.000 sec / 0.000 sec
118  16:57:01  SELECT p.Name AS PetName, a.AdopterName   FROM Pets p   JOIN Adoptions a ON p.PetID = a.PetID LIMI...   3 row(s) returned   0.000 sec / 0.000 sec
```

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

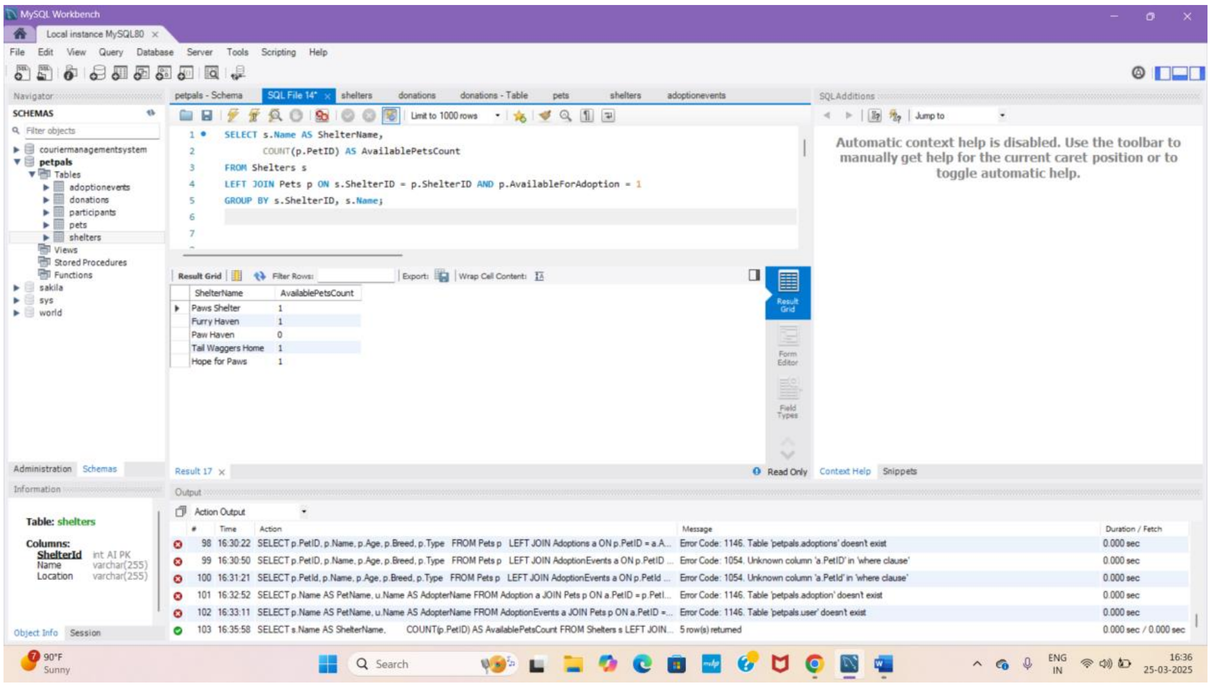
SELECT s.Name AS ShelterName,

    COUNT(p.PetID) AS AvailablePetsCount

FROM Shelters s

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

GROUP BY s.ShelterID, s.Name;



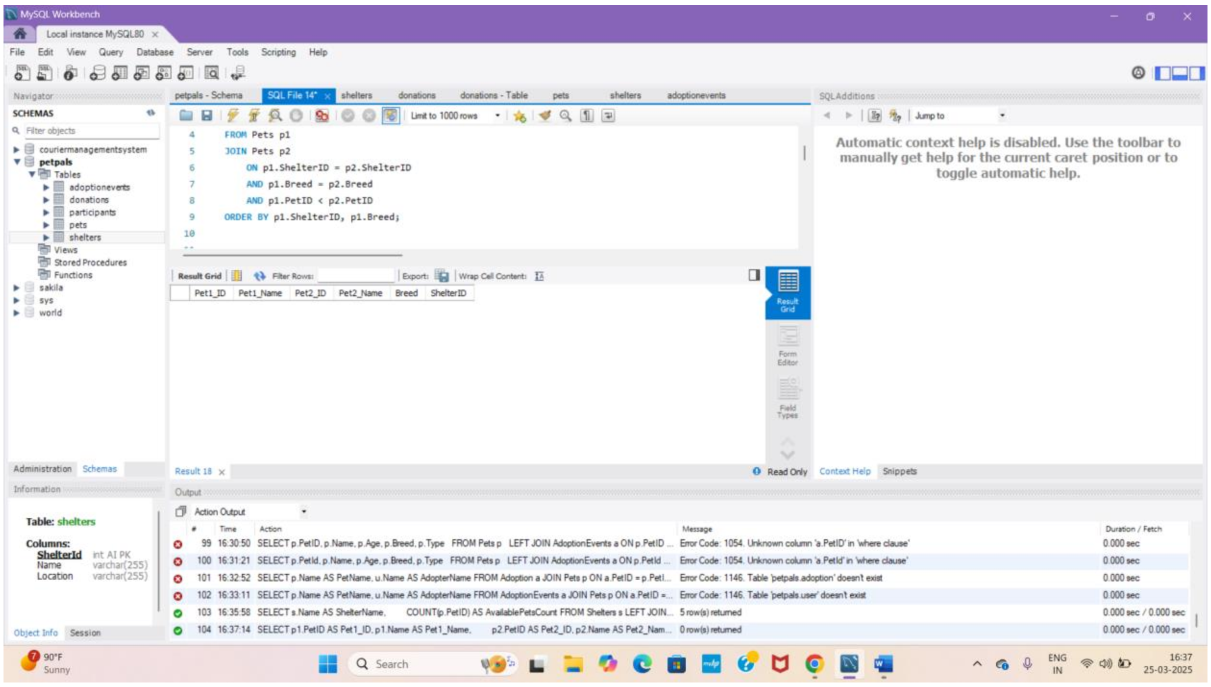
```
SELECT s.Name AS ShelterName,
       COUNT(p.PetID) AS AvailablePetsCount
FROM Shelters s
LEFT JOIN Pets p ON s.ShelterID = p.ShelterID AND p.AvailableForAdoption = 1
GROUP BY s.ShelterID, s.Name;
```

ShelterName	AvailablePetsCount
Paws Shelter	1
Furry Haven	1
Paw Haven	0
Tail Waggers Home	1
Hope for Paws	1

```
#    Time      Action                                                                                    Message                                                       Duration / Fetch
98   16:30:22  SELECT p.PetID, p.Name, p.Age, p.Breed, p.Type  FROM Pets p  LEFT JOIN Adoptions a ON p.PetID = a.A...   Error Code: 1146. Table 'petpals.adoptions' doesn't exist   0.000 sec
99   16:30:50  SELECT p.PetID, p.Name, p.Age, p.Breed, p.Type  FROM Pets p  LEFT JOIN AdoptionEvents a ON p.PetID ...   Error Code: 1054. Unknown column 'a.PetID' in 'where clause'   0.000 sec
100  16:31:21  SELECT p.PetId, p.Name, p.Age, p.Breed, p.Type  FROM Pets p  LEFT JOIN AdoptionEvents a ON p.PetId ...   Error Code: 1054. Unknown column 'a.PetId' in 'where clause'   0.000 sec
101  16:32:52  SELECT p.Name AS PetName, u.Name AS AdopterName FROM Adoption a JOIN Pets p ON a.PetID = p.PetI...   Error Code: 1146. Table 'petpals.adoption' doesn't exist   0.000 sec
102  16:33:11  SELECT p.Name AS PetName, u.Name AS AdopterName FROM AdoptionEvents a JOIN Pets p ON a.PetID =...   Error Code: 1146. Table 'petpals.user' doesn't exist   0.000 sec
103  16:35:58  SELECT s.Name AS ShelterName,     COUNT(p.PetID) AS AvailablePetsCount FROM Shelters s LEFT JOIN...   5 row(s) returned   0.000 sec / 0.000 sec
```

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

```
SELECT p1.PetID AS Pet1_ID, p1.Name AS Pet1_Name,

       p2.PetID AS Pet2_ID, p2.Name AS Pet2_Name,

       p1.Breed, p1.ShelterID

FROM Pets p1

JOIN Pets p2

    ON p1.ShelterID = p2.ShelterID

    AND p1.Breed = p2.Breed

    AND p1.PetID < p2.PetID

ORDER BY p1.ShelterID, p1.Breed;
```



```
    FROM Pets p1
    JOIN Pets p2
        ON p1.ShelterID = p2.ShelterID
        AND p1.Breed = p2.Breed
        AND p1.PetID < p2.PetID
    ORDER BY p1.ShelterID, p1.Breed;
```

Pet1_ID	Pet1_Name	Pet2_ID	Pet2_Name	Breed	ShelterID

```
#    Time      Action                                                                            Message                                                          Duration / Fetch
99   16:30:50  SELECT p.PetID, p.Name, p.Age, p.Breed, p.Type  FROM Pets p  LEFT JOIN AdoptionEvents a ON p.PetID ...  Error Code: 1054. Unknown column 'a.PetID' in 'where clause'  0.000 sec
100  16:31:21  SELECT p.PetId, p.Name, p.Age, p.Breed, p.Type  FROM Pets p  LEFT JOIN AdoptionEvents a ON p.PetId ...  Error Code: 1054. Unknown column 'a.PetId' in 'where clause'  0.000 sec
101  16:32:52  SELECT p.Name AS PetName, u.Name AS AdopterName FROM Adoption a JOIN Pets p ON a.PetID = p.PetI...  Error Code: 1146. Table 'petpals.adoption' doesn't exist  0.000 sec
102  16:33:11  SELECT p.Name AS PetName, u.Name AS AdopterName FROM AdoptionEvents a JOIN Pets p ON a.PetID = ...  Error Code: 1146. Table 'petpals.user' doesn't exist  0.000 sec
103  16:35:58  SELECT s.Name AS ShelterName,     COUNT(p.PetID) AS AvailablePetsCount FROM Shelters s LEFT JOIN...  5 row(s) returned  0.000 sec / 0.000 sec
104  16:37:14  SELECT p1.PetID AS Pet1_ID, p1.Name AS Pet1_Name,     p2.PetID AS Pet2_ID, p2.Name AS Pet2_Nam...  0 row(s) returned  0.000 sec / 0.000 sec
```

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

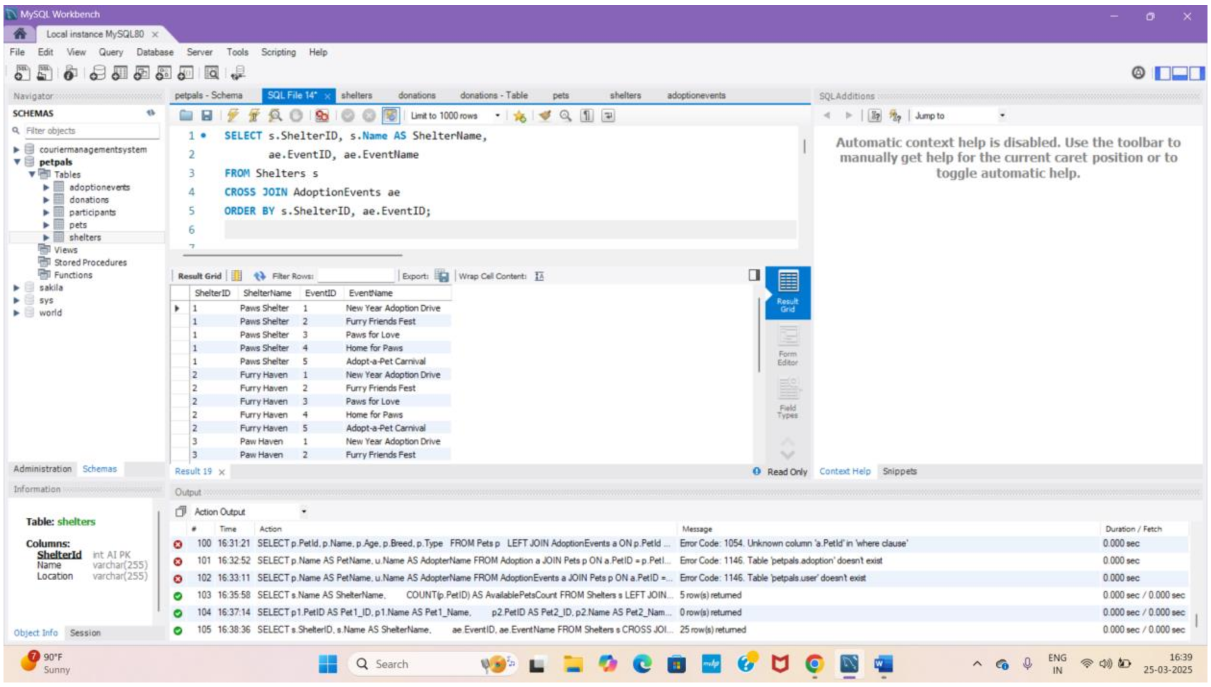
SELECT s.ShelterID, s.Name AS ShelterName,

    ae.EventID, ae.EventName

FROM Shelters s

CROSS JOIN AdoptionEvents ae

ORDER BY s.ShelterID, ae.EventID;



```
SELECT s.ShelterID, s.Name AS ShelterName,
       ae.EventID, ae.EventName
FROM Shelters s
CROSS JOIN AdoptionEvents ae
ORDER BY s.ShelterID, ae.EventID;
```

ShelterID	ShelterName	EventID	EventName
1	Paws Shelter	1	New Year Adoption Drive
1	Paws Shelter	2	Furry Friends Fest
1	Paws Shelter	3	Paws for Love
1	Paws Shelter	4	Home for Paws
1	Paws Shelter	5	Adopt-a-Pet Carnival
2	Furry Haven	1	New Year Adoption Drive
2	Furry Haven	2	Furry Friends Fest
2	Furry Haven	3	Paws for Love
2	Furry Haven	4	Home for Paws
2	Furry Haven	5	Adopt-a-Pet Carnival
3	Paw Haven	1	New Year Adoption Drive
3	Paw Haven	2	Furry Friends Fest

```
#    Time      Action                                                                            Message                                                          Duration / Fetch
100  16:31:21  SELECT p.PetId, p.Name, p.Age, p.Breed, p.Type  FROM Pets p  LEFT JOIN AdoptionEvents a ON p.PetId ...  Error Code: 1054. Unknown column 'a.PetId' in 'where clause'  0.000 sec
101  16:32:52  SELECT p.Name AS PetName, u.Name AS AdopterName FROM Adoption a JOIN Pets p ON a.PetID = p.PetI...  Error Code: 1146. Table 'petpals.adoption' doesn't exist  0.000 sec
102  16:33:11  SELECT p.Name AS PetName, u.Name AS AdopterName FROM AdoptionEvents a JOIN Pets p ON a.PetID = ...  Error Code: 1146. Table 'petpals.user' doesn't exist  0.000 sec
103  16:35:58  SELECT s.Name AS ShelterName,     COUNT(p.PetID) AS AvailablePetsCount FROM Shelters s LEFT JOIN...  5 row(s) returned  0.000 sec / 0.000 sec
104  16:37:14  SELECT p1.PetID AS Pet1_ID, p1.Name AS Pet1_Name,     p2.PetID AS Pet2_ID, p2.Name AS Pet2_Nam...  0 row(s) returned  0.000 sec / 0.000 sec
105  16:38:36  SELECT s.ShelterID, s.Name AS ShelterName,     ae.EventID, ae.EventName FROM Shelters s CROSS JOI...  25 row(s) returned  0.000 sec / 0.000 sec
```

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

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

FROM Shelters s

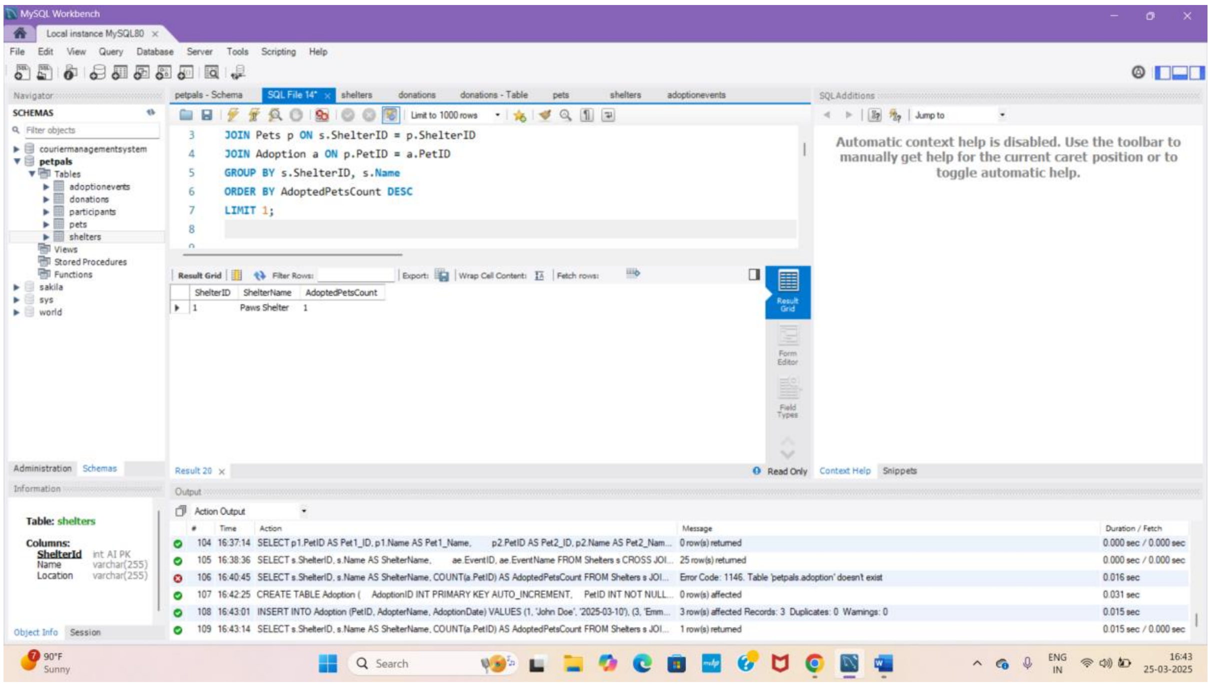
JOIN Pets p ON s.ShelterID = p.ShelterID

JOIN Adoption a ON p.PetID = a.PetID

GROUP BY s.ShelterID, s.Name

ORDER BY AdoptedPetsCount DESC

LIMIT 1;



```
JOIN Pets p ON s.ShelterID = p.ShelterID
JOIN Adoption a ON p.PetID = a.PetID
GROUP BY s.ShelterID, s.Name
ORDER BY AdoptedPetsCount DESC
LIMIT 1;
```

	ShelterID	ShelterName	AdoptedPetsCount
▶	1	Paws Shelter	1

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Table: shelters

Columns:

ShelterId	int AI PK
Name	varchar(255)
Location	varchar(255)

```
#    Time      Action                                                                              Message                                                        Duration / Fetch
104  16:37:14  SELECT p1.PetID AS Pet1_ID, p1.Name AS Pet1_Name,     p2.PetID AS Pet2_ID, p2.Name AS Pet2_Nam...  0 row(s) returned                                     0.000 sec / 0.000 sec
105  16:38:36  SELECT s.ShelterID, s.Name AS ShelterName,     ae.EventID, ae.EventName FROM Shelters s CROSS JOI...  25 row(s) returned                                    0.000 sec / 0.000 sec
106  16:40:45  SELECT s.ShelterID, s.Name AS ShelterName, COUNT(a.PetID) AS AdoptedPetsCount FROM Shelters s JOI...  Error Code: 1146. Table 'petpals.adoption' doesn't exist   0.016 sec
107  16:42:25  CREATE TABLE Adoption (    AdoptionID INT PRIMARY KEY AUTO_INCREMENT,    PetID INT NOT NULL...  0 row(s) affected                                     0.031 sec
108  16:43:01  INSERT INTO Adoption (PetID, AdopterName, AdoptionDate) VALUES (1, 'John Doe', '2025-03-10'), (3, 'Emm...  3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0   0.015 sec
109  16:43:14  SELECT s.ShelterID, s.Name AS ShelterName, COUNT(a.PetID) AS AdoptedPetsCount FROM Shelters s JOI...  1 row(s) returned                                     0.015 sec / 0.000 sec
```