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**BAI-23S-043**

**BS AI (2B)**

**Database System**

**Assignment**

1. Retrieve all pet IDs.

SELECT PId FROM PTable;

1. Retrieve distinct pet breeds.

SELECT DISTINCT Breed FROM PTable;

1. Count the number of pets vaccinated.

SELECT COUNT(\*) AS VaccinatedPets FROM PTable WHERE Vaccine IS NOT NULL;

1. Find the total price of all pets.

SELECT SUM(Price) AS TotalPrice FROM PTable;

1. Retrieve customer names sorted alphabetically.

SELECT CName FROM CTable ORDER BY CName ASC;

1. Retrieve the number of male customers.

SELECT COUNT(\*) AS MaleCustomers FROM CTable WHERE Gender = 'Male';

1. Find the maximum price of a pet.

SELECT MAX(Price) AS MaximumPetPrice FROM PTable;

1. Calculate the average bill amount of customers.

SELECT AVG(Bill) AS AverageBill FROM CTable;

1. Retrieve the IDs and names of customers who have a bill greater than 6000.

SELECT CId, CName FROM CTable WHERE Bill > 6000;

1. Count the number of unique pet names.

SELECT COUNT(DISTINCT Category) AS PetNames FROM PTable;

1. Find the lowest and highest priced pets for each breed.

SELECT Breed, MIN(Price) AS LowestPrice, MAX(Price) AS HighestPrice

FROM PTable GROUP BY Breed;

1. Retrieve customer names and their reviews.

SELECT CName FROM CTable c JOIN Review FROM Review r WHERE r.Review IS NOT NULL;

1. Calculate the total bill amount for all customers.

SELECT SUM(Bill) AS TotalBill FROM CTable;

1. Find the average price of pets by breed.

SELECT Breed, AVG(Price) AS AveragePrice FROM PTable GROUP BY Breed;

1. Retrieve the pet names and their corresponding breeds.

SELECT Category, Breed FROM PTable;

1. Find the most expensive pet in each breed.

SELECT Breed, Name, Price

FROM PTable p WHERE Price = (SELECT MAX(Price) FROM PTable

WHERE Breed = p.Breed);

1. Retrieve customers who have not provided reviews.

SELECT CName FROM CTable c JOIN Review r WHERE r.Review IS NULL;

1. Count the number of female customers who have spent more than 100000.

SELECT COUNT(\*) AS FemaleCustomers FROM CTable

WHERE Gender = 'Female' AND Bill > 100000;

1. Find the names of customers whose bills are below the average bill amount.

SELECT CName FROM CTable WHERE Bill < (SELECT AVG(Bill) FROM CTable);

1. Retrieve customers who have purchased pets without vaccines.

SELECT DISTINCT c.CName FROM CTable c JOIN PTable p ON c.CID= p.CID WHERE p.Vaccine IS NULL;

1. Find the highest bill amount by gender.

SELECT Gender, MAX(Bill) AS HighestBill FROM CustomerTable GROUP BY Gender;

1. Retrieve customers who have a bill between $6000 and 100000.

SELECT CName FROM CTable WHERE Bill BETWEEN 60000 AND 100000;

1. Count the number of customers who have reviewed pets.

SELECT COUNT(\*) AS ReviewedCustomers FROM Review WHERE Review IS NOT NULL;

1. Find the average price of pets vaccinated against a specific vaccine.

SELECT AVG(Price) AS AvgPriceOfVaccinatedPets FROM PTable

WHERE Vaccine = NO;

1. Retrieve pet names and their corresponding vaccine details.

SELECT Name, Vaccine FROM PTable WHERE Vaccine IS NOT NULL;

1. Find the lowest bill amount for each gender.

SELECT Gender, MIN(Bill) AS LowestBillAmount FROM CTable GROUP BY CustomerGender;

1. Calculate the total number of pets sold to each customer.

SELECT CName, COUNT(\*) AS TotalPetsSold FROM CTable

GROUP BY CID;

1. Find the top 5 most expensive pets.

SELECT Name, Price FROM PTable ORDER BY Price DESC LIMIT 5;

1. Retrieve customers who have purchased more than one pet.

SELECT c.CID, c.CName FROM CTable c JOIN (SELECT CIDFROM PTable GROUP BY CID HAVING COUNT(\*) > 1) p ON c.CID = p.CID;

1. Count the number of unique breeds of pets.

SELECT COUNT(DISTINCT Breed) AS UniqueBreeds FROM PTable;