Whiteboard Exercise

Setup mariaDB

The following exercises should be completed on a localhost database named ‘Whiteboard’.

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CREATE TABLE LoanPeriod (

PeriodId INT NULL,

LoanId INT NULL,

Balance DECIMAL(19, 2),

DelinquencyStatus INT NULL

);

CREATE TABLE Loan (

LoanId INT NULL,

DealId INT NULL,

MaturityDate DATE NULL,

OriginalAmount DECIMAL(19 , 2)

);

CREATE TABLE Deal (

DealId INT NULL,

DealName VARCHAR(10) NULL

);

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INSERT INTO Loan VALUES

(1, 1, '2026-07-01', 243546.00),

(2, 1, '2031-02-01', 465764.00),

(3, 1, '2035-03-01', 354657.00),

(4, 1, '2029-06-01', 645342.00),

(5, 1, '2027-11-01', 534231.00),

(6, 2, '2034-12-01', 523421.00),

(7, 2, '2033-11-01', 445231.00),

(8, 2, '2037-09-01', 601201.00);

INSERT INTO LoanPeriod VALUES

(1, 1, 241844.00, 0),

(1, 2, 463521.00, 0),

(1, 3, 352657.00, 0),

(1, 4, 645342.00, 3),

(1, 5, 531210.00, 0),

(1, 6, 521201.00, 0),

(1, 7, 443231.00, 0),

(1, 8, 601201.00, 1),

(2, 1, 241844.00, 1),

(2, 2, 451321.00, 0),

(2, 3, 350543.00, 0),

(2, 4, 645342.00, 4),

(2, 5, 529321.00, 0),

(2, 6, 519321.00, 0),

(2, 7, 441209.00, 0),

(2, 8, 601201.00, 2);

INSERT INTO Deal VALUES

(1, 'SQ101'),

(2, 'SQ131'),

(3, 'SQ132');

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Repeat MariaDB inserts for Loan and LoanPeriod tables.

Using the data loaded above, two queries will give you an opportunity to demonstrate some of your data skills.

Query 1: What was the average loan balance for each deal during period 2?

SELECT Deal.DealName, AVG(LoanPeriod.Balance) AS 'AverageBalance'

FROM Deal

JOIN Loan ON Deal.DealId = Loan.DealId

JOIN LoanPeriod ON Loan.LoanId = LoanPeriod.LoanId

WHERE LoanPeriod.PeriodId = 2

GROUP BY Deal.DealName;

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Query 2: Which loans had a change in delinquency status between period 1 and period 2?

SELECT P1.LoanId

FROM LoanPeriod P1

JOIN LoanPeriod P2 ON P1.LoanId = P2.LoanId

WHERE P1.PeriodId = 1

AND P2.PeriodId = 2

AND P1.DelinquencyStatus <> P2.DelinquencyStatus;

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**CREATE** USER foo2@test IDENTIFIED **BY** 'password';

CREATE OR REPLACE USER whiteboard IDENTIFIED BY ‘exercise’;

GRANT ALL privileges ON ‘Whiteboard’.\* TO 'whiteboard';