**Database management system**

# **Labsheet**

**CODE**

-- CREATE TABLE Sectors(

-- sector\_id int primary key,

-- sector\_name varchar(50)

-- );

-- CREATE TABLE packages(

-- pack\_id int primary key,

-- speed varchar(50),

-- start\_date date,

-- monthly\_payment decimal(10, 2),

-- sector\_id int,

-- foreign key (sector\_id) references sectors(sector\_id)

-- );

-- CREATE TABLE Customers (

-- Customer\_id INT PRIMARY KEY,

-- first\_Name VARCHAR(50),

-- last\_Name VARCHAR(50),

-- Birth\_Date DATE,

-- Join\_Date DATE,

-- City VARCHAR(50),

-- State VARCHAR(50),

-- Street VARCHAR(100),

-- main\_phone\_num VARCHAR(15), secondary\_phone\_num VARCHAR(15),

-- fax VARCHAR(15),

-- monthly\_discount DECIMAL(10, 2),

-- pack\_id INT,

-- FOREIGN KEY (pack\_id) REFERENCES packages(pack\_id)

-- );

-- INSERT INTO Sectors (Sector\_Id, Sector\_Name)

-- VALUES

-- (1, 'Private'),

-- (2, 'Business'),

-- (3, 'Residential');

-- INSERT INTO Packages (pack\_id, Speed, Start\_Date, Monthly\_Payment, Sector\_Id)

-- VALUES

-- (22, '100 Mbps', '2022-01-01', 50.00, 1),

-- (27, '200 Mbps', '2021-06-15', 75.00, 2),

-- (23, '50 Mbps', '2023-02-01', 30.00, 3), -- (24, '45 Mbps', '2022-04-11', 50.00, 2),

-- (28, '20 Mbps', '2021-12-18', 75.00, 1);

-- INSERT INTO Customers (Customer\_Id, first\_Name, last\_Name, Birth\_Date, Join\_Date, City, State, Street, main\_phone\_num, secondary\_phone\_num, fax, monthly\_discount, pack\_id)

-- VALUES

-- (1, 'John', 'Doe', '1990-05-15', '2022-01-10', 'New York', 'NY', '123 Main St',

'555-111-1234', '111-555-5678', '515-8165', 10.00, 22),

-- (2, 'Jane', 'Smith', '1985-09-23', '2021-08-15', 'Los Angeles', 'CA', '456 Elm St',

'111-313-2345', '222-555-6789', '554-1876', 15.00, 27),

-- (3, 'Alice', 'Johnson', '1992-07-10', '2023-03-05', 'Chicago', 'IL', '789 Oak St',

'777-555-3456', '333-555-7890', '575-5431', 5.00, 28),

(4, 'Rose', 'Jack', '1995-10-23', '2016-06-08', 'Berlin', 'GE', '321 Sqr St',

'222-111-2345', '444-555-6789', '455-9076', 15.00, 24),

-- (5, 'Millie', 'Brown', '1982-12-10', '2023-04-21', 'Finland', 'FI', '987 Joint St',

'333-878-3456', '555-555-7890', '500-5232', 5.00, 23);

-- select c.first\_name, c.last\_name, c.pack\_id, p.speed from Customers c

-- inner join packages p on c.pack\_id = p.pack\_id;

-- select c.first\_name, c.last\_name, c.pack\_id, p.speed from Customers c

-- inner join packages p on c.pack\_id = p.pack\_id where

-- c.pack\_id in (22, 27) order by c.last\_name;

-- select p.pack\_id, p.speed, p.monthly\_payment, s.sector\_name from packages p

-- inner join sectors s on p.sector\_id = s.sector\_id;

-- select c.first\_name , c.last\_name, c.pack\_id, p.speed, p.monthly\_payment, s.sector\_name from Customers c

-- inner join packages p on c.pack\_id = p.pack\_id inner join sectors s on p.sector\_id = s.sector\_id;

-- select c.first\_name, c.last\_name, c.pack\_id, p.speed, p.monthly\_payment, s.sector\_name from Customers c

-- inner join packages p on c.pack\_id = p.pack\_id

-- inner join sectors s on p.sector\_id = s.sector\_id where s.sector\_name = 'Business';

-- select c.first\_name, c.last\_name, c.join\_date, c.pack\_id, p.speed, s.sector\_name from Customers c

-- inner join packages p on c.pack\_id = p.pack\_id

-- inner join sectors s on p.sector\_id = s.sector\_id where s.sector\_name = 'Private'; select c.first\_name, c.last\_name, p.speed, p.monthly\_payment from Customers c

-- inner join packages p on c.pack\_id = p.pack\_id;

-- select c.first\_name, c.last\_name, p.speed, p.monthly\_payment from Customers c

-- left outer join packages p on c.pack\_id = p.pack\_id;

-- select c.first\_name, c.last\_name, p.speed, p.pack\_id from Customers c

-- right outer join packages p on c.pack\_id = p.pack\_id;

-- select c.first\_name, c.last\_name, p.speed, p.pack\_id from Customers c

-- full join packages p on c.pack\_id = p.pack\_id;

-- INSERT INTO Packages (pack\_id, Speed, Start\_Date, Monthly\_Payment, Sector\_Id)

-- VALUES

-- (10, '111 Mbps', '2022-01-01', 50.00, 1),

-- (17, '20 Mbps', '2021-04-15', 75.00, 2);

-- INSERT INTO Customers (Customer\_Id, first\_Name, last\_Name, Birth\_Date, Join\_Date, City, State, Street, main\_phone\_num, secondary\_phone\_num, fax, monthly\_discount, pack\_id)

-- VALUES

-- (101, 'Amado', 'Taylor', '1990-04-15', '2022-01-10', 'New York', 'NY', '113 Main St',

'551-111-1234', '111-505-5678', '445-8165', 10.00, 10),

-- (103, 'Bright', 'Win', '1985-09-27', '2021-08-21', 'Los Angeles', 'CA', '455 Elm St',

'101-313-2345', '222-155-6789', '524-1876', 15.00, 17);

-- select c1.last\_name, c1.first\_name, c1.pack\_id from Customers c1

-- join customers c2 on c1.pack\_id = c2.pack\_id where c2.first\_name = 'Amado'

-- and c2.last\_name = 'Taylor';

-- SELECt c1.last\_name, c1.first\_name, c1.monthly\_discount FROM Customers c1

-- JOIN Customers c2 ON c1.monthly\_discount < c2.monthly\_discount

-- WHERE c2.customer\_id = 103;

-- INSERT INTO Packages (pack\_id, Speed, Start\_Date, Monthly\_Payment, Sector\_Id)

-- VALUES

-- (11, '111 Mbps', '2022-01-01', 50.00, 2);

-- SELECT p1.pack\_id, p1.speed FROM packages p1

-- JOIN packages p2 ON p1.speed = p2.speed WHERE p2.pack\_id = 10;

**OUTPUTS**

















