**Lab Exercises**

**Select Employee Information**

SELECT

    id,

    concat(first\_name, ' ', last\_name) AS "Full Name",

    job\_title AS "Job Title"

FROM employees;

**Select Employees by Filtering**

SELECT

    id,

    concat(first\_name, ' ', last\_name) AS "full\_name",

    job\_title,

    salary

FROM employees

WHERE salary > 1000.00

ORDER by id

**Select Employees by Multiple Filters**

SELECT

    id,

    first\_name,

    last\_name,

    job\_title,

    department\_id,

    salary

FROM employees

WHERE department\_id = 4 AND salary >= 1000

ORDER by id;

**Insert Data into Employees Table**

INSERT INTO employees (first\_name, last\_name, job\_title, department\_id, salary)

VALUES

    ('Samantha', 'Young', 'Housekeeping', 4, 900),

    ('Roger', 'Palmer', 'Waiter', 3, 928.33)

;

SELECT \* FROM employees;

**Update Salary and Select**

UPDATE employees

SET salary = salary + 100

WHERE job\_title = 'Manager'

;

SELECT

    id,

    first\_name,

    last\_name,

    job\_title,

    department\_id,

    salary

FROM employees

WHERE job\_title = 'Manager'

;

**Top Paid Employee View**

CREATE VIEW top\_paid\_employee AS

    SELECT \* FROM employees

ORDER BY salary DESC LIMIT 1

;

SELECT \* FROM top\_paid\_employee;

**Homework Exercises**

**Concatenate**

SELECT

CONCAT(name, ' ', state) AS "cities\_information",

area AS "area\_km2"

FROM cities

;

**Remove Duplicate Rows**

SELECT DISTINCT ON (name)

name,

area AS "area\_km2"

FROM

cities

ORDER BY

name DESC

;

**Limit Records**

SELECT

id,

CONCAT(first\_name, ' ', last\_name) AS "full\_name",

job\_title

FROM

employees

ORDER BY

first\_name

LIMIT 50

;

**Skip Rows**

SELECT

id AS "id",

CONCAT\_WS(' ', first\_name, middle\_name, last\_name) AS "full\_name",

hire\_date

FROM

employees

ORDER BY

hire\_date

OFFSET 9

;

**Find the Addresses**

SELECT

id,

CONCAT(number, ' ', street) AS "address",

city\_id

FROM

addresses

WHERE

id >= 20

;

**Positive Even Number**

SELECT

CONCAT(number, ' ', street) AS "address",

city\_id

FROM

addresses

WHERE

city\_id > 0

AND

city\_id % 2 = 0

ORDER BY

city\_id

;

**Projects within a Date Range**

SELECT

name,

start\_date,

end\_date

FROM

projects

WHERE

start\_date >= '2016-06-01 07:00:00'

AND

end\_date < '2023-06-04 00:00:00'

ORDER BY

start\_date

;

**Multiple Conditions**

SELECT

number,

street

FROM

addresses

WHERE

id BETWEEN 50 AND 100

OR

number < 1000

;

**Set of Values**

SELECT

employee\_id,

project\_id

FROM

employees\_projects

WHERE

employee\_id IN (200, 250)

AND

project\_id NOT IN (50, 100)

;

**Compare Character Values**

SELECT

name,

start\_date

FROM

projects

WHERE

name IN ('Mountain', 'Road', 'Touring')

LIMIT 20

;

**Salary**

SELECT

CONCAT(first\_name, ' ', last\_name) AS "full\_name",

job\_title,

salary

FROM

employees

WHERE

salary IN (12500, 14000, 23600, 25000)

ORDER BY

salary DESC

;

**Missing Value**

SELECT

id,

first\_name,

last\_name

FROM

employees

WHERE

middle\_name IS NULL

LIMIT 3

;

**INSERT Departments**

INSERT INTO

departments(department,manager\_id)

VALUES

('Finance', 3),

('Information Services', 42),

('Document Control', 90),

('Quality Assurance', 274),

('Facilities and Maintenance', 218),

('Shipping and Receiving', 85),

('Executive', 109)

;

**New Table**

CREATE TABLE company\_chart

AS SELECT

concat(first\_name, ' ', last\_name) AS "full\_name",

job\_title,

department\_id,

manager\_id

FROM

employees

;

**Update the Project End Date**

UPDATE

projects

SET

end\_date = start\_date + INTERVAL '5 months'

WHERE

end\_date IS NULL

;

**Award Employees with Experience**

UPDATE

employees

SET

salary = salary + 1500,

job\_title = CONCAT ('Senior', ' ', job\_title)

WHERE

hire\_date BETWEEN '1998-01-01' AND '2000-01-05'

;

**Delete Addresses**

DELETE FROM

addresses

WHERE

city\_id IN (5, 17, 20, 30)

;

**Create a View**

CREATE VIEW view\_company\_chart AS

SELECT

full\_name,

job\_title

FROM

company\_chart

WHERE

manager\_id = 184

;

CREATE VIEW view\_addresses AS

SELECT

CONCAT(employees.first\_name, ' ', employees.last\_name) AS "full\_name",

employees.department\_id,

CONCAT(addresses.number, ' ', addresses.street) AS "address"

FROM

employees,

addresses

WHERE

employees.address\_id = addresses.id

ORDER BY

address

;

**Create a View with Multiple Tables**

CREATE VIEW view\_addresses AS

SELECT

CONCAT(employees.first\_name, ' ', employees.last\_name) AS "full\_name",

employees.department\_id,

CONCAT(addresses.number, ' ', addresses.street) AS "address"

FROM

employees,

addresses

WHERE

employees.address\_id = addresses.id

ORDER BY

address

;