-- 1. Display the last name concatenated with the job id, separated by a

-- comma and space and name the column [Employee and Title] as alias

select last\_name||' , '||job\_id as "Employee and Title" from hr.employees

-- 2. Display the last name and salary for all employees whose salary is not

-- in the range of $1500 and $7000.

SELECT last\_name, salary

FROM hr.employees

WHERE salary NOT BETWEEN 1500 AND 7000;

-- 3. Display the last name, salary and commission for all employees who

-- earn commissions, Sort data in descending order of salary and

-- commissions.

select last\_name,salary,commission\_pct

from hr.employees

-- where commission\_pct !=0         X

where commission\_pct IS NOT NULL

order by salary desc , commission\_pct desc

-- 4. Display the last name, job id and salary for all employees whose job id

-- is SA\_REP or PU\_MAN and their salary is not equal to $9500, $9000

-- or $8000

select last\_name,job\_id,salary

from employees

where job\_id in ('SA\_REP','PU\_MAN')

-- 5. Display all information about employees whose last name begin with

-- letter 'S’ or letter ‘s’

select \* from employees

where last\_name like 's%' or last\_name like 'S%'--  iklie not case sensitive ,,  like case sensitive

-- 6. Display allemployees whose first name contains letter before last ‘e’

-- or ‘E’

select \* from employees

where first\_name like '%e\_' or first\_name like '%E\_' -- another way >>  where first\_name ilike '%e\_'

-- # DDLs

-- 1. Create table with name of emps based on employees table ( with no

-- data )- populate the emps table using a select statement from the

-- employees table for the employees in department 20.

CREATE TABLE emps

AS

SELECT \*

FROM employees

WHERE 1=0;

INSERT INTO emps

SELECT \*

FROM employees

WHERE department\_id = 20;

-- • Add column Gender to table emps. ( int ), default 0 ; add comment on

-- column ( 0 stands for Male, 1 stands for Female )

ALTER TABLE hr.emps

ADD COLUMN gender INT DEFAULT 0;

COMMENT ON COLUMN hr.emps.gender

IS '0  for Male, 1  for Female';

-- 2. Create the DEPTS table based on the following table instance chart.

-- Create table with 2 columns

CREATE TABLE depts (

    id SERIAL PRIMARY KEY,

    name VARCHAR(100) NOT NULL ,

);

-- no need to PRIMARY KEY , NOT NULL as we used the table to copy valid data below here

-- • Populate the DEPTS table with data from departments table. Include

-- only columns that you need. ( insert using sub query )

insert into depts

 select department\_id,department\_name from hr.departments

-- 2. Create table employee\_bkp based on the structure of the employees

-- table(Structure with data).

--  Include only the employee\_id, last\_name, email, salary and

-- department\_id columns

create table employee\_bkp as select employee\_id, last\_name, email, salary ,department\_id from hr.employees

-- # DMLs

-- 1- Insert new location with suitable data

insert into hr.locations

(location\_id,street\_address,postal\_code,city,state\_province,country\_id)

values(3201 ,'new street' , 15021,'shobra','cairo','UK')

-- 2- Insert new department with suitable data for this location

insert into hr.departments

(department\_id,department\_name,manager\_id,location\_id)

values(271 ,'Finance' ,200 , 3201 )

-- 3- Insert new employee with suitable data for this department

insert into hr.employees

(employee\_id,first\_name,last\_name,email,phone\_number,hire\_date,job\_id,salary,commission\_pct,manager\_id,department\_id)

values(300, 'Ali', 'Hassan', 'ALI.HASSAN', '01012345678', '2025-10-01', 'IT\_PROG', 6000, NULL, 103, 271);

-- 4- Update your salary + 4000, update your job\_id to have the same job\_id

UPDATE hr.employees

SET salary = salary + 4000,

    job\_id = job\_id

WHERE employee\_id = 300;

-- for employee no. 107, updte your phone\_number to null

UPDATE hr.employees

SET phone\_number = null

where employee\_id = 107;

-- 5- Be sure to Delete the created location

delete from hr.employees

where employee\_id = 300;

delete from hr.departments

where department\_id =271;

delete from hr.locations

where location\_id=3201;