**create** **database** qlnhanvien

**use** qlnhanvien

**CREATE** **TABLE** employees (

employee\_id **INT** **PRIMARY** **KEY**,

employee\_name **VARCHAR**(255),

salary **DECIMAL**(10, 2),

start\_date **DATE**,

department\_id **INT**

);

**CREATE** **TABLE** access\_rights (

access\_id **INT** **PRIMARY** **KEY**,

employee\_id **INT**,

access\_level **VARCHAR**(255),

**FOREIGN** **KEY** (employee\_id) **REFERENCES** employees(employee\_id)

);

**CREATE** **TABLE** departments (

department\_id **INT** **PRIMARY** **KEY**,

department\_name **VARCHAR**(255)

);

**INSERT** **INTO** employees (employee\_id, employee\_name, salary, start\_date, department\_id)

**VALUES**

(1, 'John Doe', 60000, '2021-01-15', 1),

(2, 'Jane Smith', 70000, '2020-05-20', 2),

(3, 'Bob Johnson', 55000, '2022-03-10', 1),

(4, 'Alice Williams', 80000, '2021-08-05', 3),

(5, 'Charlie Brown', 65000, '2020-12-01', 2);

**INSERT** **INTO** departments (department\_id, department\_name)

**VALUES**

(1, 'IT'),

(2, 'Sales'),

(3, 'HR');

**INSERT** **INTO** access\_rights (access\_id, employee\_id, access\_level)

**VALUES**

(1, 1, 'Admin'),

(2, 2, 'User'),

(3, 3, 'User'),

(4, 4, 'Admin'),

(5, 5, 'User');

-- câu 1

**select** \* **from** employees

-- câu 2

**select** e.employee\_name,e.salary **from** employees e

-- câu 3

**select** \* **from** employees **WHERE** salary > 50000

-- câu 4

**SELECT** **COUNT**(e.employee\_id) **AS** employee\_count, d.department\_name

**FROM** departments d

**JOIN** employees e **ON** d.department\_id = e.department\_id

**GROUP** **BY** d.department\_id, d.department\_name;

-- câu 5

**SELECT** \* **FROM** employees **order** **by** employee\_name **ASC**

-- câu 6

**select** employee\_name **as** Ten,salary **as** Luong,department\_id **as** Phongban **from** employees **where** salary >= 40000 **and** salary<=60000 **order** **by** salary **desc**

-- câu 7

**select** **SUM**(e.salary) **as** 'Tổng lương của tất cả nhân viên' **from** employees e

-- câu 8

**select** e.employee\_name **as** 'Tên nhân viên' ,d.department\_name **from** employees e **Join** departments d **on** d.department\_id =e.employee\_id

**group** **by** e.employee\_id ,d.department\_name

-- câu 9

**select** **count**(e.department\_id) **as** ls ,d.department\_name **as** 'Tên phòng ban'

**FROM** departments d

**Join** employees e **on** d.department\_id = e.department\_id

**group** **by** d.department\_id , d.department\_name

**HAVING** ls >=3

-- câu 10

**select** e.employee\_name **as** 'Tên Nhân viên' , e.salary **as** 'Lương'

**From** employees e

**Join** departments d **on** e.department\_id = d.department\_id

**where** d.department\_name **in**('IT','Sales')

-- câu 11

**select** e.employee\_name **as**'Tên nhân viên', e.start\_date **as**'Ngày bắt đầu' **from** employees e **WHERE** **Extract**(**YEAR** **from** e.start\_date)>2020

-- câu 12

**select** **AVG**(e.salary) **from** employees e

-- câu 13

**select** d.department\_name **as** 'Phòng ban' , **count**(e.employee\_id) ls

**from** departments d

**Join** employees e **on** e.department\_id = d.department\_id

**GROUP** **BY** d.department\_name

**HAVING** ls>=0

**LIMIT** 10

-- câu 14

**select** e.employee\_name **as** 'Tên nhân viên' , e.salary **as** 'Lương'

**from** employees e

**order** **by** e.salary **DESC**

**limit** 5

-- câu 15

**select** \*

**from** employees e

**WHERE** e.employee\_name **LIKE** "A%"

-- câu 16

**select** e.employee\_name ,a.access\_level **from** employees e

**Join** access\_rights a **ON** a.employee\_id = e.employee\_id

**GROUP** **by** e.employee\_name, a.access\_level

**having** a.access\_level ="Admin"

-- câu 17

**SELECT** **SUM**(e.salary) luong, d.department\_name

**from** employees e

**Join** departments d **on** d.department\_id = e.department\_id

**Group** **by** d.department\_name

**order** **by** luong **DESC**

-- câu 18

**select** e.employee\_name **as** 'Tên nhân viên', e.start\_date

**from** employees e

**order** **by** e.start\_date **ASC**

-- câu 19

**SELECT** e.employee\_name , e.salary,d.department\_name

**from** employees e

**join** departments d **on** d.department\_id = e.employee\_id

**group** **by** e.employee\_name ,e.salary ,d.department\_name

**order** **by** e.salary **DESC**

**limit** 3

-- câu 20

**select** e.employee\_name **as**'Tên nhân viên',a.access\_level **as** 'Quyền'

**from** employees e

**join** access\_rights a **on** a.employee\_id = e.employee\_id