**Institute of Computer Technology**

**Ganpat University**

**(2CSE301) DATABASE MANAGEMENT SYSTEM**

**Practical 8 MySQL Views (2)**

**Database and tables:**

[**https://drive.google.com/file/d/12ukAhPUqcms9dobK\_XKLQgamMO9vVCn0/vie w?usp=sharing**](https://drive.google.com/file/d/12ukAhPUqcms9dobK_XKLQgamMO9vVCn0/view?usp=sharing)

1. Create a view that contains the addresses (department\_name, location\_id, street\_address, city, state\_province, country\_name) of all the departments

CREATE VIEW department\_addresses AS

SELECT

d.DEPARTMENT\_NAME,

l.LOCATION\_ID,

l.STREET\_ADDRESS,

l.CITY,

l.STATE\_PROVINCE,

c.COUNTRY\_NAME

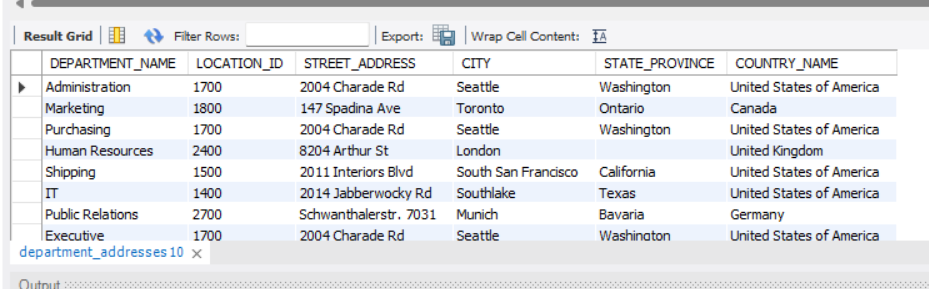
FROM

departments d

JOIN locations l ON d.LOCATION\_ID = l.LOCATION\_ID

JOIN countries c ON l.COUNTRY\_ID = c.COUNTRY\_ID;

select \* from department\_addresses;



1. Create a view that contains the full name (e.g. Steven King) of all employees along with the country in which they are working

CREATE VIEW employee\_country\_names AS

SELECT

CONCAT(e.FIRST\_NAME, ' ', e.LAST\_NAME) AS full\_name,

c.COUNTRY\_NAME

FROM

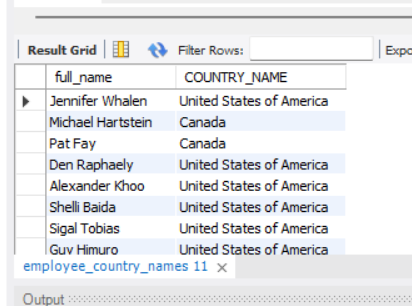
employees e

JOIN departments d ON e.DEPARTMENT\_ID= d.DEPARTMENT\_ID

JOIN locations l ON d.LOCATION\_ID = l.LOCATION\_ID

JOIN countries c ON l.COUNTRY\_ID = c.COUNTRY\_ID;

select \* from employee\_country\_names;



1. Create a view to find the name (first\_name, last\_name) and salary of the employees whose salary is greater than the average salary.

CREATE VIEW high\_salary\_employees AS

SELECT

FIRST\_NAME,

LAST\_NAME,

SALARY

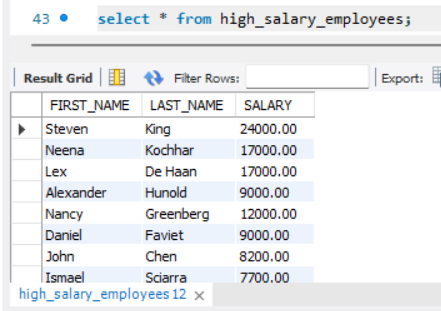
FROM

employees

WHERE

SALARY > (SELECT AVG(SALARY) FROM employees);

select \* from high\_salary\_employees;



1. Create a view to get the job\_ID, JOB\_title and maximum salary of the employees where the maximum salary is greater than or equal to $4000.

CREATE VIEW high\_salary\_jobs AS

SELECT

j.JOB\_ID,

j.JOB\_TITLE,

MAX(e.SALARY) AS max\_SALARY

FROM

employees e

JOIN jobs j ON e.JOB\_ID = j.JOB\_ID

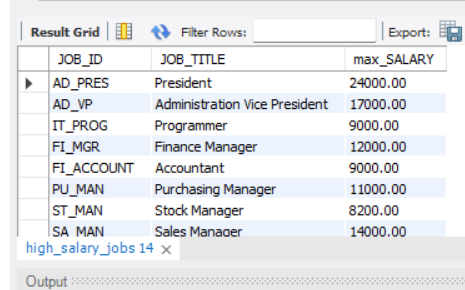
GROUP BY

j.JOB\_ID, j.JOB\_TITLE

HAVING

MAX(e.SALARY) >= 4000;

select \* from high\_salary\_jobs;



1. Create a view that displays the first\_name and last\_name of employees who are managers.

CREATE VIEW manager\_names AS

SELECT

e.FIRST\_NAME,

e.LAST\_NAME

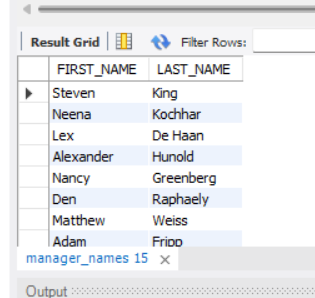
FROM

employees e

WHERE

e.EMPLOYEE\_ID IN (SELECT DISTINCT MANAGER\_ID FROM employees);

select \* from manager\_names ;



1. Create a view to list the department ID, department\_name and city of all the departments where no employee is working.

CREATE VIEW departments\_with\_no\_employees AS

SELECT

d.DEPARTMENT\_ID,

d.DEPARTMENT\_NAME,

l.CITY

FROM

departments d

JOIN locations l ON d.LOCATION\_ID = l.LOCATION\_ID

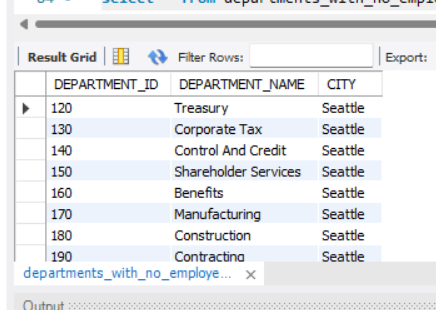
LEFT JOIN

employees e ON d.DEPARTMENT\_ID = e.DEPARTMENT\_ID

WHERE

e.EMPLOYEE\_ID IS NULL;

select \* from departments\_with\_no\_employees;



1. Create a view to list the full names and hire\_date of the employees who were hired before Susan Mavris.

CREATE VIEW employees\_hired\_before\_susan AS

SELECT

CONCAT(FIRST\_NAME, ' ', LAST\_NAME) AS full\_name,HIRE\_DATE

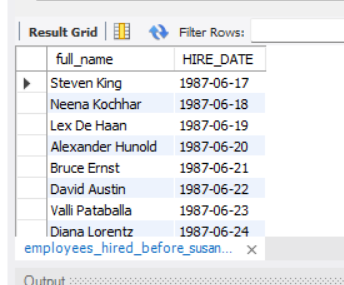
FROM

employees

WHERE

HIRE\_DATE < (SELECT HIRE\_DATE FROM employees WHERE FIRST\_NAME = 'Susan' AND LAST\_NAME = 'Mavris');

select \* from employees\_hired\_before\_susan;



1. Create a view to find the employee ID, job title, number of days between ending date and starting date for all jobs in department 80 and 90.

CREATE VIEW job\_duration\_view AS

SELECT

e.EMPLOYEE\_ID,

j.JOB\_TITLE,

DATEDIFF(jh.END\_DATE, jh.START\_DATE) AS duration\_days

FROM

employees e

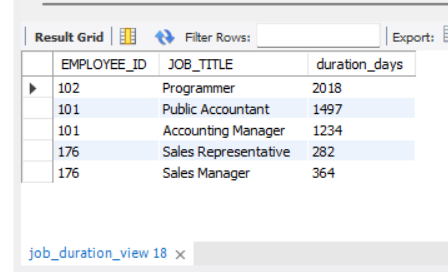
JOIN job\_history jh ON e.EMPLOYEE\_ID = jh.EMPLOYEE\_ID

JOIN jobs j ON jh.JOB\_ID = j.JOB\_ID

WHERE

e.DEPARTMENT\_ID IN (80, 90);

select \* from job\_duration\_view;



1. Create a view to display the department names in which the difference between minimum and maximum salary is more than 4000

CREATE VIEW departments\_salary\_difference AS

SELECT

d.DEPARTMENT\_NAME

FROM

departments d

JOIN employees e ON d.DEPARTMENT\_ID = e.DEPARTMENT\_ID

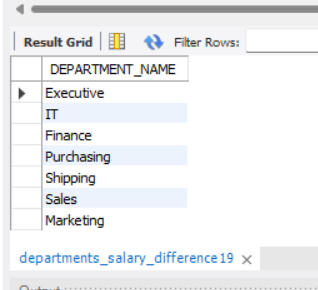
GROUP BY

d.DEPARTMENT\_NAME

HAVING

MAX(e.SALARY) - MIN(e.SALARY) > 4000;

select \* from departments\_salary\_difference;



**10.**For all above created views, Update at least 1 record from each and verify whether the update gets reflected in the base table(s) or not

UPDATE high\_salary\_employees

SET SALARY = SALARY + 1000

WHERE FIRST\_NAME = 'John' AND LAST\_NAME = 'Doe';

