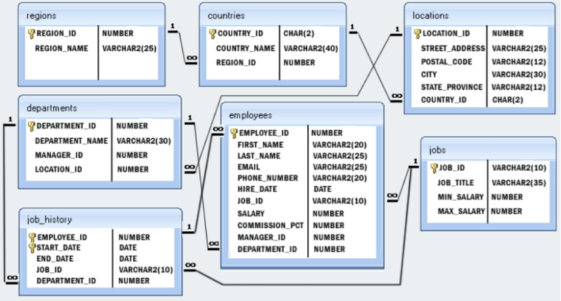
**Practical – 3**

**Aim – Create a database and create the tables given below and execute the mentioned queries on this database.**

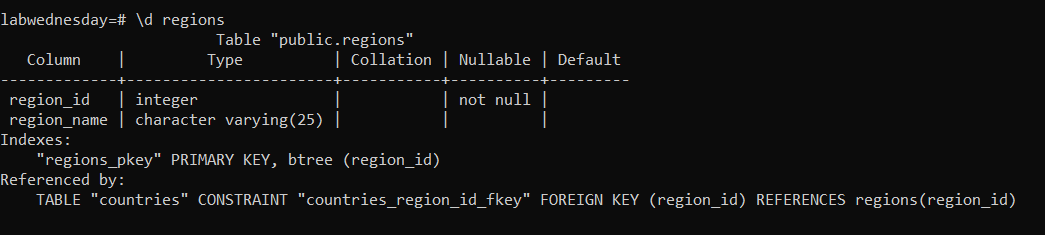
**Schema –**

**Tables –**

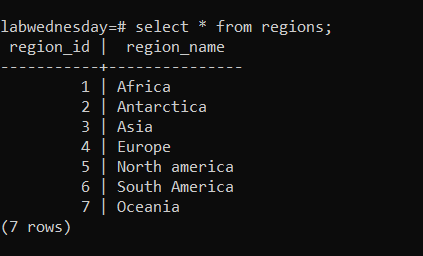
* **Regions –**

Query - *CREATE TABLE regions(REGION\_ID INT PRIMARY KEY, REGION\_NAME VARCHAR(25));*

**Table schema**

******

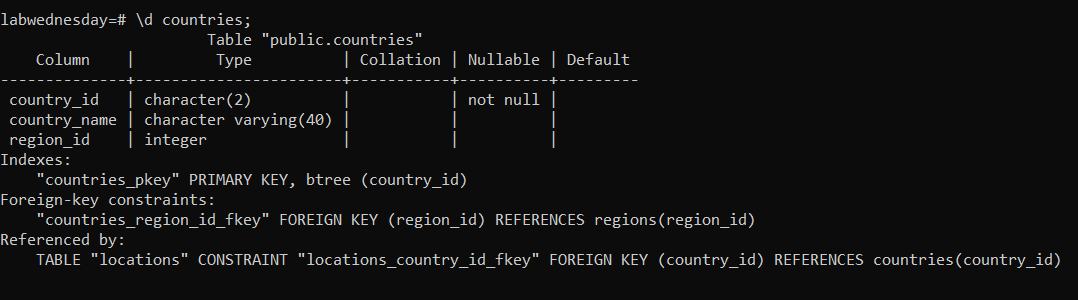
**Table Data**

******

* **Countries -**

Query –*CREATE TABLE countries (COUNTRY\_ID CHAR(2) primary key, COUNTRY\_NAME VARCHAR(40), REGION\_ID INT REFERENCES regions(REGION\_ID));*

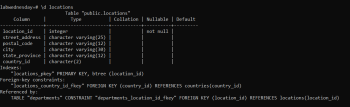
**Table schema**

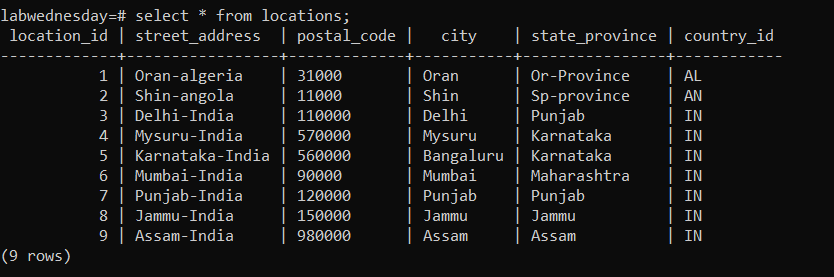
****

**Table data**

* **Locations –**

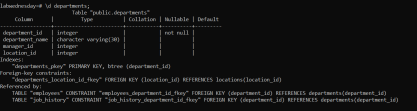
Query - *CREATE TABLE locations (LOCATION\_ID INT PRIMARY KEY, STREET\_ADDRESS VARCHAR(25), POSTAL\_CODE VARCHAR(12), CITY VARCHAR(30), STATE\_PROVINCE VARCHAR(12), COUNTRY\_ID CHAR(2) REFERENCES countries(COUNTRY\_ID));*

**Table Schema**

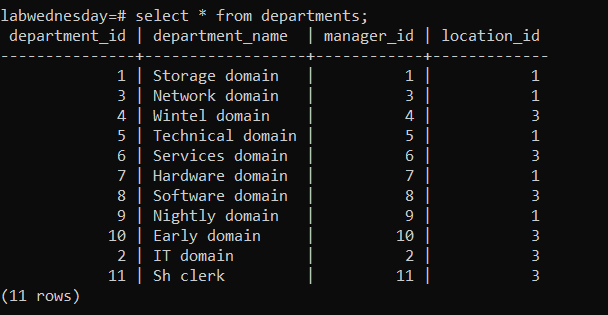
** Table Data**

* **Departments –**

Query - *CREATE TABLE departments (DEPARTMENT\_ID INT, DEPARTMENT\_NAME VARCHAR(30), MANAGER\_ID INT, LOCATION\_ID INT REFERENCES locations(location\_id), primary key(department\_id));*

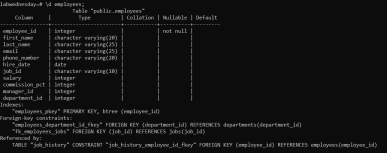
** Table schema**

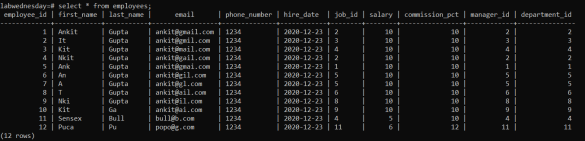
**Table Data**

****

* **Employees –**

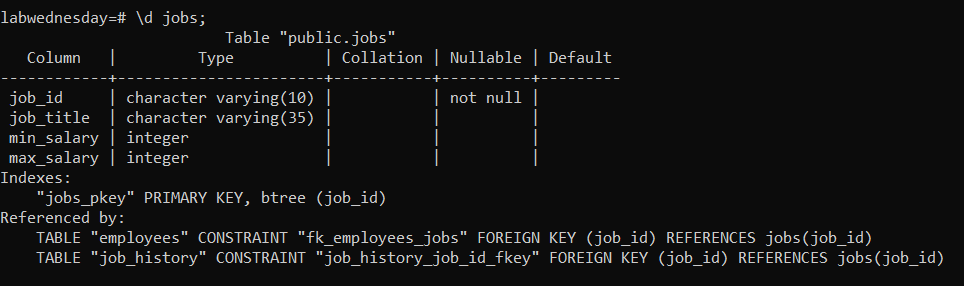
Query - *CREATE TABLE employees(employee\_id int, first\_name varchar(20), last\_name varchar(25), email varchar(25), phone\_number varchar(20), hire\_date date, job\_id varchar(10) references jobs(job\_id), salary int, commission\_pct int, manager\_id int, department\_id int references departments(department\_id), primary key(employee\_id));*

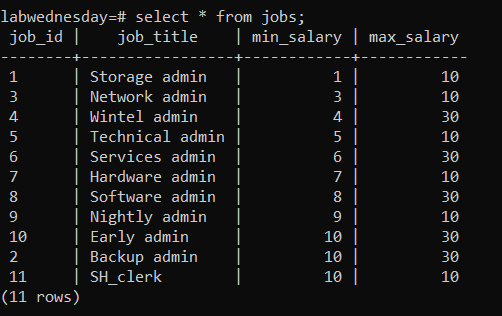
**Table schema**

** Table Data**

* **Jobs –**

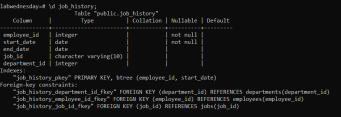
Query- *CREATE TABLE jobs (job\_id varchar(10) primary key, job\_title varchar(35), min\_salary int, max\_salary int);*

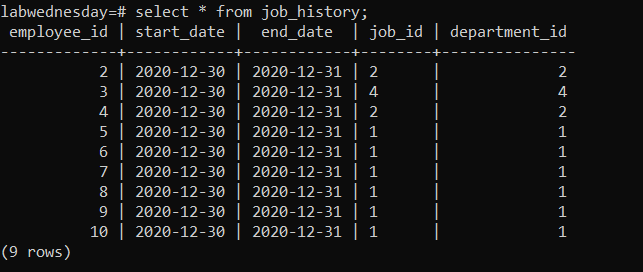
** Table schema**

** Table Data**

* **Jobs history –**

Query - *CREATE TABLE job\_history(employee\_id int references employees(employee\_id), start\_date date, end\_date date, job\_id varchar(10) references jobs(job\_id), department\_id int references departments(department\_id), primary key(employee\_id, start\_date));*

** Table schema**

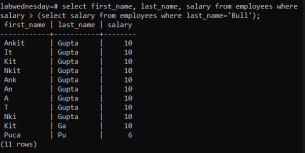
** Table Data**

**Queries –**

1. **Write a query to find the first\_name, last\_name and salaries of the employees who have a higher salary than the employee who’s last\_name is Bull.**

Sol.

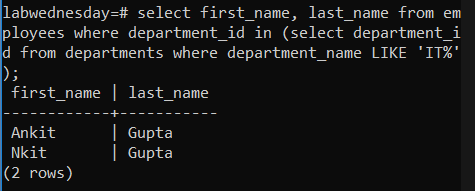
Query - *select first\_name, last\_name, salary from employees where salary > (select salary from employees where last\_name='Bull');*

**Output :**

1. **Write a SQL subquery to find the first\_name and last\_name of all employees who works in the IT department.**

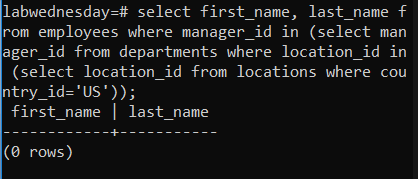
Sol.

Query - *select first\_name, last\_name from employees where department\_id in (select department\_id from departments where department\_name LIKE 'IT%');*

**Output :**

1. **Write a SQL subquery to find the first\_name and last\_name of the employees under a manager who works for a department based in the United States.**

Sol.

Query - *select first\_name, last\_name from employees where manager\_id in (select manager\_id from departments where location\_id in (select location\_id from locations where country\_id='US'));*

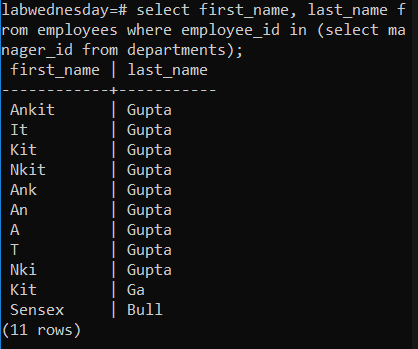
**Output :**

1. **Write a SQL subquery to find the first\_name and last\_name of the employees who are working as a manager.**

Sol.

Query- *select first\_name, last\_name from employees where employee\_id in (select manager\_id from departments);*

**Output :**

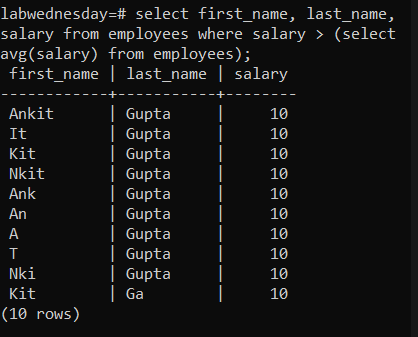
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1. **Write a SQL subquery to find the first\_name, last\_name and salary, which is greater than the average salary of the employees.**

Sol.

Query- *select first\_name, last\_name, salary from employees where salary > (select avg(salary) from employees);*

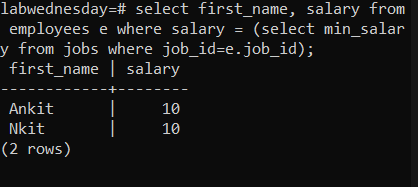
**Output :**

******

1. **Write a SQL subquery to find the first\_name, last\_name and salary, which is equal to the minimum salary for this post, he/she is working on.**

Sol.

Query - *select first\_name, salary from employees e where salary = (select min\_salary from jobs where job\_id=e.job\_id);*

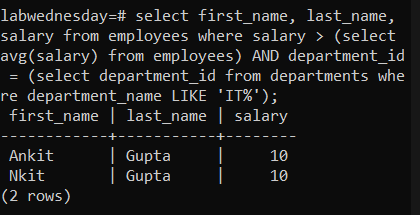
**Output :**

1. **Write a SQL Subquery to find the first\_name, last\_name and salary of the employees who earn more than the average salary and works in any of the IT departments.**

Sol.

Query- *select first\_name, last\_name, salary from employees where salary > (select avg(salary) from employees) AND department\_id = (select department\_id from departments where department\_name LIKE 'IT%');*

**Output :**

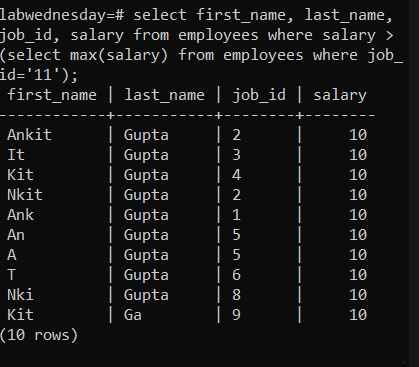
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1. **Write a subquery to find the first\_name, last\_name, job\_id and salary of the employees who draws a salary that is higher than the salary of all the Shipping Clerk (JOB\_ID = 'SH\_CLERK'). Sort the results on salary from the lowest to highest.**

Sol.

Query - *select first\_name, last\_name, job\_id, salary from employees where salary > (select max(salary) from employees where job\_id='11');*

**Output :**

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