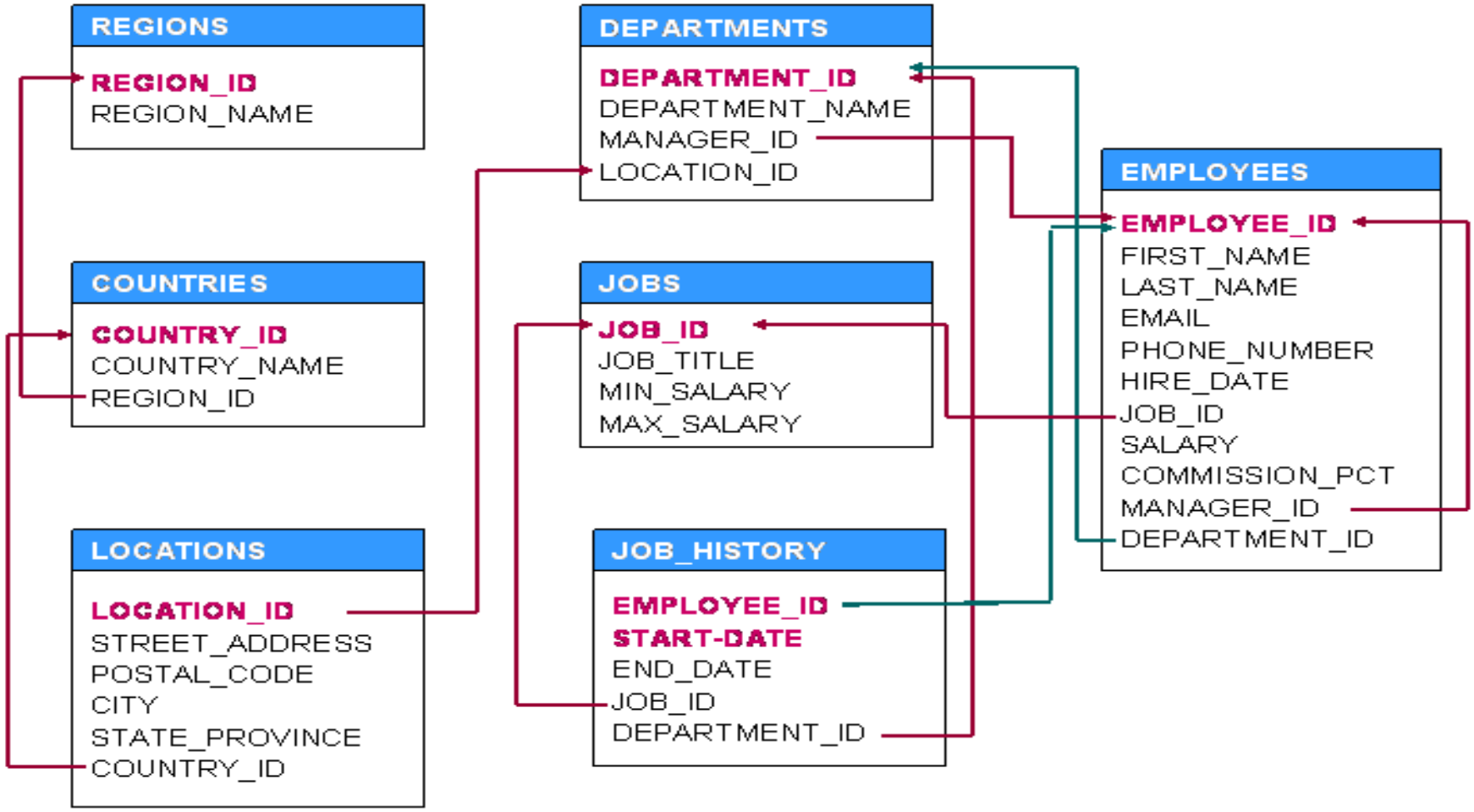
نظم قواعد المعطيات المتقدمة

الجلسة الثانية

HR_Schema Tables



Note: Columns in RED color indicate primary key(s).

LIKE CONDITION

The SQL LIKE condition is used in where clause of a SELECT, INSERT, UPDATE, DELETE STATEMENT .

EXAMPLES :

- SELECT FIRST_NAME FROM EMPLOYEES WHERE FIRST_NAME LIKE ‘%te%’;
- SELECT FIRST_NAME FROM EMPLOYEES WHERE FIRST_NAME NOT LIKE ‘%te%’;
- SELECT FIRST_NAME FROM EMPLOYEES WHERE FIRST_NAME LIKE ‘_te%’;

Display details of employee with ID 150 or 160.

```
SELECT *
FROM EMPLOYEES
WHERE EMPLOYEE_ID in (150,160)
```

Or

```
SELECT *
FROM EMPLOYEES
WHERE EMPLOYEE_ID= 150
      OR EMPLOYEE_ID=160
```

Display details of the employees where commission percentage is null and salary in the range 5000 to 10000 and department is 60.

```
SELECT *
FROM EMPLOYEES
WHERE COMMISSION_PCT IS NULL
AND SALARY BETWEEN 5000 AND 10000 AND
DEPARTMENT_ID=60
```

Display maximum salary of employees.

```
SELECT MAX(SALARY)
FROM EMPLOYEES
```

Display number of employees.

```
SELECT COUNT(*)
FROM EMPLOYEES
```

Display manager ID and number of employees managed by the manager.

```
SELECT MANAGER_ID, COUNT(*)
FROM EMPLOYEES
GROUP BY MANAGER_ID
```

Display department ID and number of employees in each department.

```
SELECT DEPARTMENT_ID, COUNT(*)
FROM EMPLOYEES
GROUP BY DEPARTMENT_ID
```

Display department ID and MAX SALARY of employees in each department.

```
SELECT DEPARTMENT_ID, MAX(SALARY)
FROM EMPLOYEES
GROUP BY DEPARTMENT_ID
```

Display department ID and average salary of employees in each department who have commission percentage.

```
SELECT DEPARTMENT_ID, AVG(SALARY)
FROM EMPLOYEES
WHERE COMMISSION_PCT IS NOT NULL
GROUP BY DEPARTMENT_ID
```

Display job ID, number of employees, sum of salary, and difference between highest salary and lowest salary of the employees of the job.

```
SELECT JOB_ID, COUNT(*), SUM(SALARY),
MAX(SALARY)-MIN(SALARY) DIFFERENCE
FROM EMPLOYEES
GROUP BY JOB_ID
```

Display job ID and average salary for jobs with average salary more than 10000.

```
SELECT JOB_ID, AVG(SALARY)
FROM EMPLOYEES
GROUP BY JOB_ID
HAVING AVG(SALARY)>10000
```

Display department IDs in which more than five employees have commission percentage.

```
SELECT DEPARTMENT_ID
FROM EMPLOYEES
WHERE COMMISSION_PCT IS NOT NULL
GROUP BY DEPARTMENT_ID
HAVING COUNT(EMPLOYEE_ID)>5
```

Display department name and manager first name.

```
SELECT DEPARTMENT_NAME, FIRST_NAME
FROM DEPARTMENTS JOIN EMPLOYEES ON
DEPARTMENTS.MANAGER_ID=
EMPLOYEES.EMPLOYEE_ID
Or
SELECT DEPARTMENT_NAME, FIRST_NAME
FROM DEPARTMENTS D JOIN EMPLOYEES E ON
D.MANAGER_ID=E.EMPLOYEE_ID
```

Display employee ID, First name of employee, and manager ID for all employees.

```
SELECT  EMPLOYEE_ID, FIRST_NAME,  MANAGER_ID
FROM  EMPLOYEES
```

Display employee ID, First name of employee, and First name of manager for all employees.

```
SELECT  EMP.EMPLOYEE_ID, EMP.FIRST_NAME,
MANAGER.FIRST_NAME
FROM  EMPLOYEES EMP, EMPLOYEES MANAGER
WHERE EMP.MANAGER_ID=MANAGER.EMPLOYEE_ID
```

Display department name, manager name, and city.

```
SELECT DEPARTMENT_NAME, FIRST_NAME, CITY
FROM DEPARTMENTS D JOIN EMPLOYEES E ON
D.MANAGER_ID=E.EMPLOYEE_ID
JOIN LOCATIONS L ON D.LOCATION_ID=L.LOCATION_ID
```

Display job title, employee name, and the difference between maximum salary for the job and salary of the employee.

```
SELECT JOB_TITLE, FIRST_NAME, MAX_SALARY-SALARY DIFFERENCE
FROM EMPLOYEES NATURAL JOIN JOBS
```

Display department name and number of employees in the department.

```
SELECT DEPARTMENT_NAME, COUNT(*)
FROM EMPLOYEES JOIN DEPARTMENTS
ON  DEPARTMENTS.DEPARTMENT_ID=EMPLOYEES. DEPARTMENT_ID
GROUP BY DEPARTMENT_NAME
```

Display details of departments managed by ‘John’.

```
SELECT * FROM DEPARTMENTS WHERE MANAGER_ID IN
(SELECT EMPLOYEE_ID FROM EMPLOYEES WHERE
FIRST_NAME='John')
```

Or

```
Select DEPARTMENTS.* from DEPARTMENTS JOIN EMPLOYEES
ON DEPARTMENTS.MANAGER_ID=EMPLOYEES.EMPLOYEE_ID
WHERE FIRST_NAME='John'
```