-HR schema:

The Human Resources (HR) Schema

DEPARTMENTS
department_id
department_name
manager_id
location_id

LOCATIONS
location_id
street_address
postal_code
city
state_province
country_id

JOB_HISTORY
employee_id
start_date
end_date
job_id
department_id

EMPLOYEES
employee_id
first_name
last_name
email
phone_number
hire_date
job_id
salary
commission_pct
manager_id
department_id

COUNTRIES
country_id
country_name
region_id

JOBS
job_id
job_title
min_salary
max_salary

REGIONS
region_id
region_name

1.Display
the difference between
the highest
and lowest salaries
in each department
and rename it "Result".

```
Run SQL Command Line                                                                    —   □   ×

SQL> conn
Enter user-name: hr
Enter password:
Connected.
SQL> select department_id, max(salary) max, min(salary) min, max(salary)-min(salary) result
  2  from employees
  3  group by department_id;

DEPARTMENT_ID       MAX        MIN     RESULT
------------- --------- ---------- ----------
          100     12008       6900       5108
           30     11000       2500       8500
                   7000       7000          0
           90     24000      17000       7000
           20     13000       6000       7000
           70     10000      10000          0
          110     12008       8300       3708
           50      8200       2100       6100
           80     14000       6100       7900
           40      6500       6500          0
           60      9000       4200       4800

DEPARTMENT_ID       MAX        MIN     RESULT
------------- --------- ---------- ----------
           10      4400       4400          0

12 rows selected.

SQL>
```
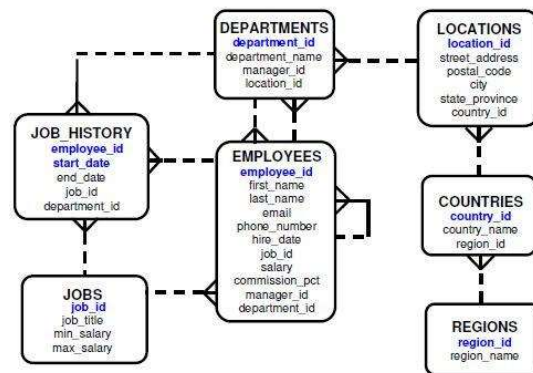
The Human Resources (HR) Schema

2

.Display
the minimum salary

for each job << in each department.

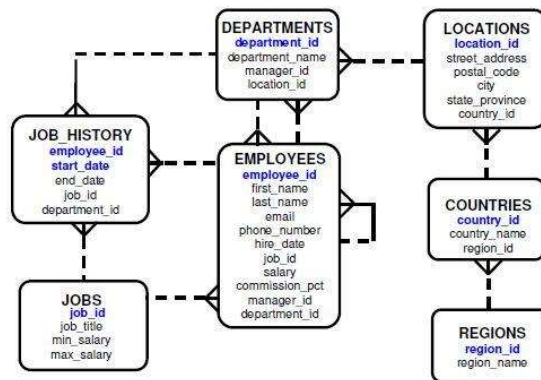```
Run SQL Command Line   —   ☐   ×

20 rows selected.

SQL> select department_id, job_id, min(salary) min
  2 from employees
  3 group by department_id , job_id;

DEPARTMENT_ID JOB_ID   MIN
------------- ---------- ----------
          110 AC_ACCOUNT   8300
           90 AD_VP   17000
           50 ST_CLERK   2100
           80 SA_REP   6100
           50 ST_MAN   5800
           80 SA_MAN   10500
          110 AC_MGR   12008
           90 AD_PRES   24000
           60 IT_PROG   4200
          100 FI_MGR   12008
           30 PU_CLERK   2500

DEPARTMENT_ID JOB_ID   MIN
------------- ---------- ----------
           50 SH_CLERK   2500
           20 MK_MAN   13000
          100 FI_ACCOUNT   6900
              SA_REP   7000
           70 PR_REP   10000
           30 PU_MAN   11000
           10 AD_ASST   4400
           20 MK_REP   6000
           40 HR_REP   6500

20 rows selected.

SQL>
```

# The Human Resources (HR) Schema



**3.Display**

**the departments**

**which their summation of salaries between 15000 and 20000**

**and display the result in descending order.**



```
         20   19000
         70   10000
        110   20308
         50   156400
         80   304500
         40   6500
         60   28800

DEPARTMENT_ID SUMMATION
------------- ----------
         10   4400

12 rows selected.

SQL> select department_id, sum(salary) summation
  2 from employees
  3 group by department_id
  4 order by 2;

DEPARTMENT_ID SUMMATION
------------- ----------
         10   4400
         40   6500
                    7000
         70   10000
         20   19000
        110   20308
         30   24900
         60   28800
        100   51608
         90   58000
         50   156400

DEPARTMENT_ID SUMMATION
------------- ----------
         80   304500

12 rows selected.

SQL> select department_id, sum(salary) summation
  2 from employees
  3 group by department_id
  4 having sum(salary) between 15000 and 20000
  5 order by 2;

DEPARTMENT_ID SUMMATION
------------- ----------
         20   19000

SQL> select department_id, sum(salary) summation
  2 from employees
  3 group by department_id
  4 having sum(salary) between 15000 and 20000
  5 order by 2 desc;

DEPARTMENT_ID SUMMATION
------------- ----------
         20   19000

SQL>
```
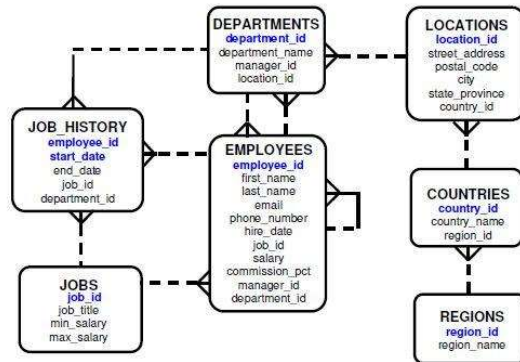
## The Human Resources (HR) Schema



**4.Display**

**the no.of employees**

**in the department**

**that you will enter its number at run-time.**

فقط بيعرض عدد الأشخاص في القسم اللي أنا هدخل رقمه



```
SQL> select  count(employee_id)
  2  from employees
  3  where department_id = &dep_id;
Enter value for dep_id: 100
old   3: where department_id = &dep_id
new   3: where department_id = 100

COUNT(EMPLOYEE_ID)
------------------
                 6

SQL>
```

Not the answer

بتعرض كل الأقسام وقدامها أعداد الموظفين فيها

```
Select Run SQL Command Line                                                    —    □    ×
                                    *
ERROR at line 1:
ORA-00923: FROM keyword not found where expected

SQL> select department_id , count(employee_id)
  2  from employees
  3  group by department_id;

DEPARTMENT_ID COUNT(EMPLOYEE_ID)
------------- ------------------
          100                  6
           30                  6
                               1
           90                  3
           20                  2
           70                  1
          110                  2
           50                 45
           80                 34
           40                  1
           60                  5

DEPARTMENT_ID COUNT(EMPLOYEE_ID)
------------- ------------------
           10                  1

12 rows selected.

SQL>
```

بيعرض رقم القسم وعدد الناس فيه

بس بشرط إني أنا اللي بدخل رقم القسم

وكمان بيرتب العرض حسب رقم القسم

```
Run SQL Command Line                                                           —    □    ×

12 rows selected.

SQL> select  department_id , count(employee_id)
  2  from employees
  3  where department_id = &dep_id
  4  group by department_id;
Enter value for dep_id: 100
old   3: where department_id = &dep_id
new   3: where department_id = 100

DEPARTMENT_ID COUNT(EMPLOYEE_ID)
------------- ------------------
          100                  6

SQL>
```
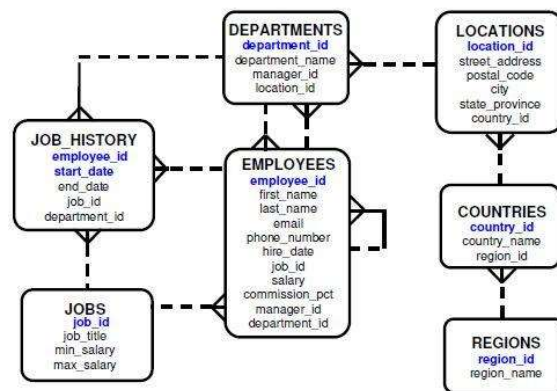
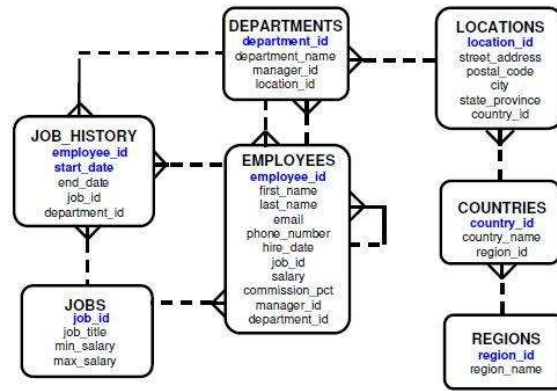# The Human Resources (HR) Schema

5.Display

the summation of salaries

for all employees

whose their first name not start with 'S' letter.

```
1  select sum(salary) sum
2  from employees
3  where first_name not like 'S%';604608
4
5
6  select sum(salary) sum
7  from employees
8  where first_name like 'S%'; 86808
9
10 select sum(salary) sum
11 from employees; 691416
```

The Human Resources (HR) Schema

6.Display
the average of commissions for employees
whose last names end with r
and divide these employees into groups based on the value of salary
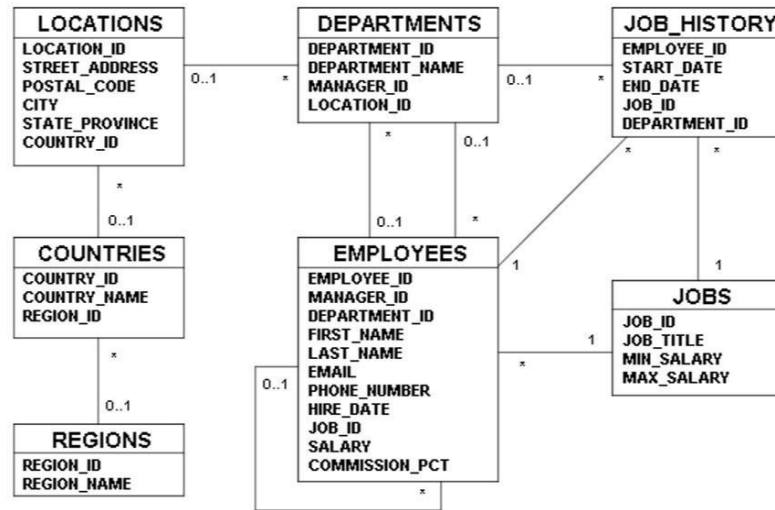**and show only groups with commission average is greater than .125 ,**

display the averages in descending order

```
SQL> select salary,last_name, avg(commission_pct) average_of_comm
  2  from employees
  3  where last_name like '%r'
  4  group by salary ,last_name
  5  having avg(commission_pct) > .125
  6  order by 3 desc;

    SALARY LAST_NAME                 AVERAGE_OF_COMM
---------- ------------------------- ---------------
     10000 Tucker                                 .3
     11500 Ozer                                  .25
      8600 Taylor                                 .2

SQL>
```

a) Create a report to display the manager number and the salary of the lowest-paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is $6,000 or less. Sort the output in descending order of salary.

display

the manager number

and the salary of the lowest-paid employee for that manager.

Exclude anyone whose manager in not known.

Exclude any groups where the min salary is 6000 or less.

Sort desc by salary

```
Run SQL Command Line                                                    —   □   ×

SQL> select manager_id , min(salary)
  2  from employees
  3  where manager_id is not null
  4  group by manager_id
  5  having min(salary) < 6000
  6  order by 2 desc;

MANAGER_ID MIN(SALARY)
---------- -----------
       100        5800
       101        4400
       103        4200
       114        2500
       124        2500
       123        2500
       120        2200
       122        2200
       121        2100

9 rows selected.

SQL>
```