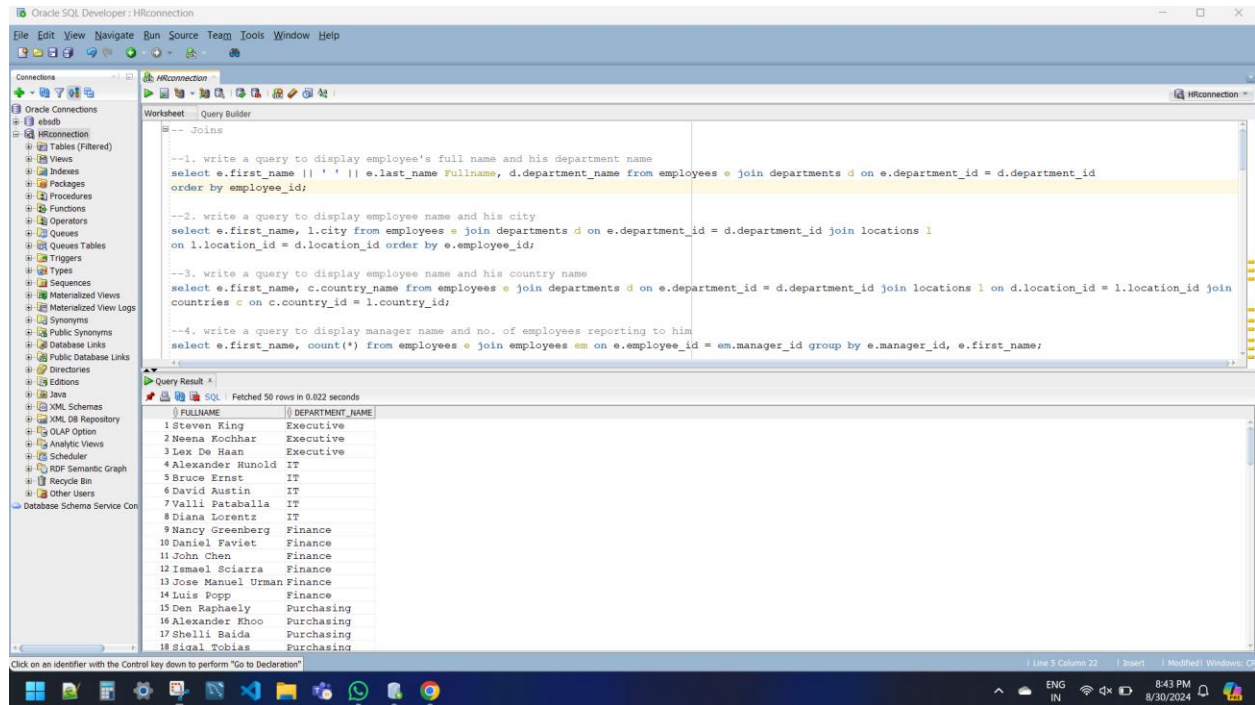


-- Joins

--1. write a query to display employee's full name and his department name

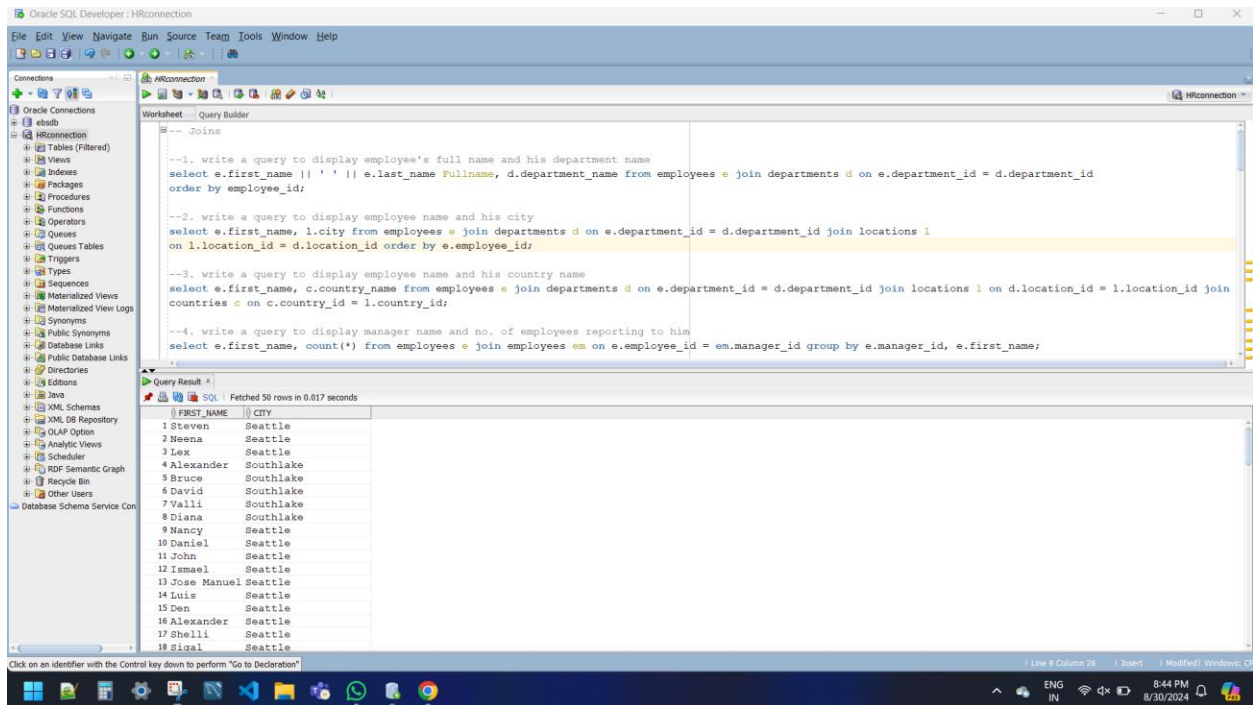
```
select e.first_name || ' ' || e.last_name Fullname, d.department_name from employees e
join departments d on e.department_id = d.department_id

order by employee_id;
```



--2. write a query to display employee name and his city

```
select e.first_name, l.city from employees e join departments d on e.department_id =
d.department_id join locations l
on l.location_id = d.location_id order by e.employee_id;
```



--3. write a query to display employee name and his country name

```
select e.first_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 c.country_id = l.country_id;
```

The screenshot shows the Oracle SQL Developer interface with a query in the Worksheet. The query is designed to display employee names and their country names by joining the employees, departments, and locations tables. The results are shown in a table with two columns: FIRST_NAME and COUNTRY_NAME.

```

select e.first_name || ' ' || e.last_name Fullname, d.department_name from employees e join departments d on e.department_id = d.department_id
order by employee_id;

--2. write a query to display employee name and his city
select e.first_name, l.city from employees e join departments d on e.department_id = d.department_id join locations l
on l.location_id = d.location_id order by e.employee_id;

--3. write a query to display employee name and his country name
select e.first_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 c.country_id = l.country_id;

--4. write a query to display manager name and no. of employees reporting to him
select e.first_name, count(*) from employees e join employees em on e.employee_id = em.manager_id group by e.manager_id, e.first_name;

--5. write a query to display department id and department name and include departments which does not have any employee assigned.
select d.department_id, d.department_name from employees e right outer join departments d on e.department_id = d.department_id

```

FIRST_NAME	COUNTRY_NAME
1 Ellen	United Kingdom
2 Sundar	United Kingdom
3 Mozhe	United States of America
4 David	United States of America
5 Hermann	Germany
6 Shelli	United States of America
7 Amit	United Kingdom
8 Elizabeth	United Kingdom
9 Sarah	United States of America
10 David	United Kingdom
11 Laura	United States of America
12 Harrison	United Kingdom
13 Alexis	United States of America
14 Anthony	United States of America
15 Gerald	United Kingdom
16 Nanette	United Kingdom
17 John	United States of America
18 Kelly	United States of America

--4. write a query to display manager name and no. of employees reporting to him

select e.first_name, count(*) from employees e join employees em on e.employee_id = em.manager_id group by e.manager_id, e.first_name;

The screenshot shows the Oracle SQL Developer interface with a query in the Worksheet. The query is designed to display the manager's name and the number of employees reporting to them by joining the employees table with itself. The results are shown in a table with two columns: FIRST_NAME and COUNT(*).

```

--3. write a query to display employee name and his country name
select e.first_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 c.country_id = l.country_id;

--4. write a query to display manager name and no. of employees reporting to him
select e.first_name, count(*) from employees e join employees em on e.employee_id = em.manager_id group by e.manager_id, e.first_name;

--5. write a query to display department id and department name and include departments which does not have any employee assigned.
select d.department_id, d.department_name from employees e right outer join departments d on e.department_id = d.department_id
group by d.department_id, department_name;

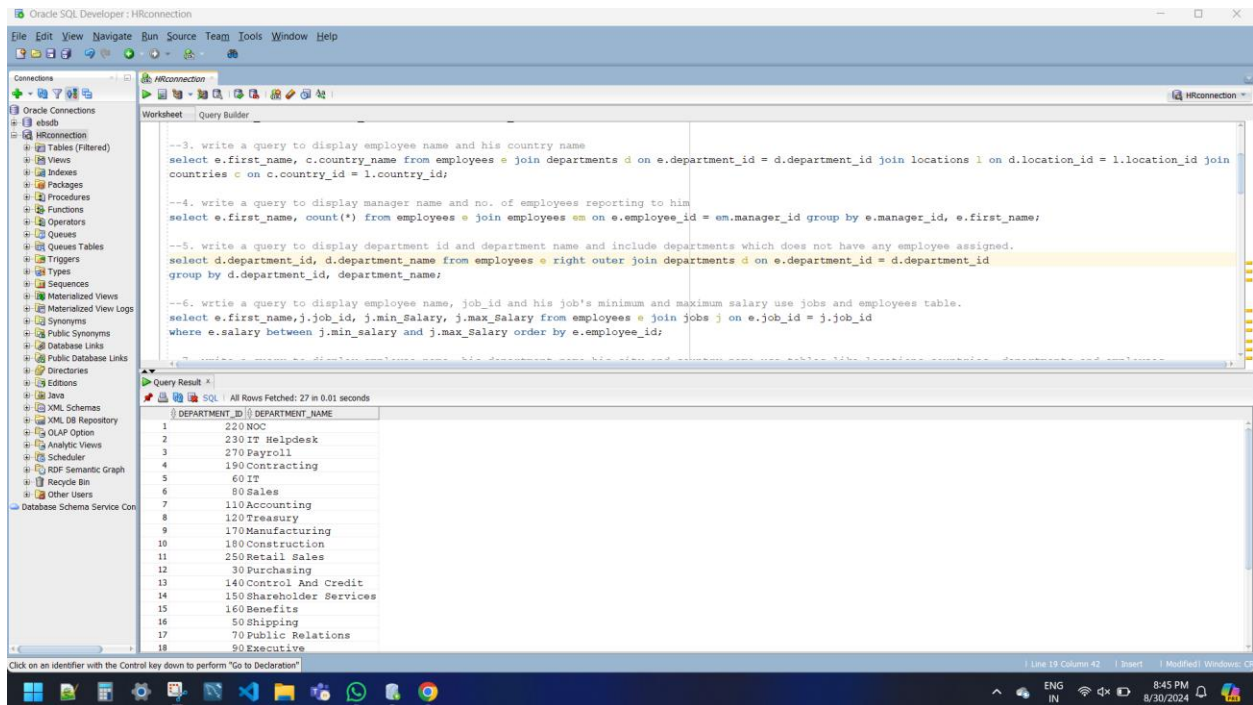
--6. write a query to display employee name, job_id and his job's minimum and maximum salary use jobs and employees table.
select e.first_name, j.job_id, j.min_salary, j.max_salary from employees e join jobs j on e.job_id = j.job_id
where e.salary between j.min_salary and j.max_salary order by e.employee_id;

```

FIRST_NAME	COUNT(*)
1 Lex	1
2 Kevin	8
3 John	6
4 Michael	1
5 Steven	14
6 Neena	5
7 Alberto	6
8 Gerald	6
9 Shelley	1
10 Eleni	6
11 Alexander	4
12 Den	5
13 Shanta	8
14 Matthew	8
15 Payam	8
16 Nancy	5
17 Adam	8
18 Karen	6

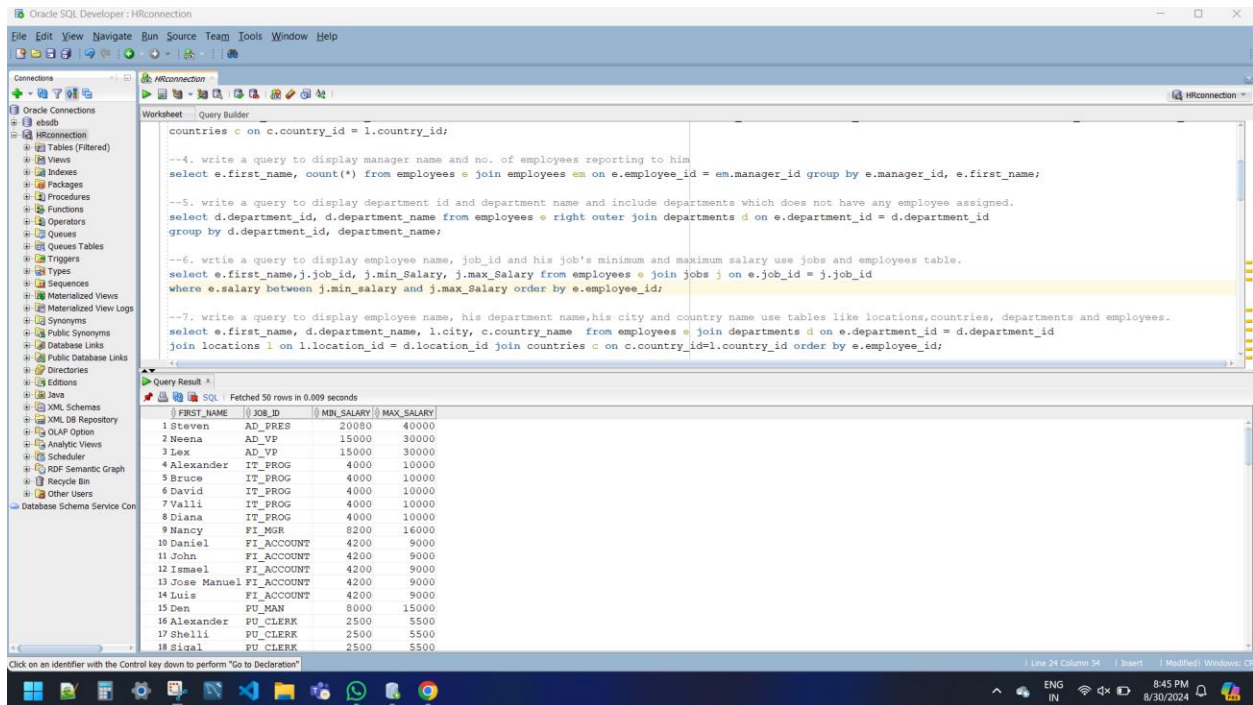
--5. write a query to display department id and department name and include departments which does not have any employee assigned.

```
select d.department_id, d.department_name from employees e right outer join  
departments d on e.department_id = d.department_id  
group by d.department_id, department_name;
```



--6. write a query to display employee name, job_id and his job's minimum and maximum salary use jobs and employees table.

```
select e.first_name, j.job_id, j.min_salary, j.max_salary from employees e join jobs j on  
e.job_id = j.job_id  
where e.salary between j.min_salary and j.max_salary order by e.employee_id;
```



--7. write a query to display employee name, his department name, his city and country name use tables like locations, countries, departments and employees.

select e.first_name, d.department_name, l.city, c.country_name from employees e join departments d on e.department_id = d.department_id

join locations l on l.location_id = d.location_id join countries c on c.country_id=l.country_id order by e.employee_id;

The screenshot shows the Oracle SQL Developer interface with a query result table containing 18 rows of employee data. The columns are FIRST_NAME, DEPARTMENT_NAME, CITY, and COUNTRY_NAME. The data is filtered to show only employees from the Marketing department.

FIRST_NAME	DEPARTMENT_NAME	CITY	COUNTRY_NAME
1 Steven	Executive	Seattle	United States of America
2 Neena	Executive	Seattle	United States of America
3 Lex	Executive	Seattle	United States of America
4 Alexander	IT	Southlake	United States of America
5 Bruce	IT	Southlake	United States of America
6 David	IT	Southlake	United States of America
7 Valli	IT	Southlake	United States of America
8 Diana	IT	Southlake	United States of America
9 Nancy	Finance	Seattle	United States of America
10 Daniel	Finance	Seattle	United States of America
11 John	Finance	Seattle	United States of America
12 Imael	Finance	Seattle	United States of America
13 Jose Manuel	Finance	Seattle	United States of America
14 Luis	Finance	Seattle	United States of America
15 Den	Purchasing	Seattle	United States of America
16 Alexander	Purchasing	Seattle	United States of America
17 Shelli	Purchasing	Seattle	United States of America
18 Sigal	Purchasing	Seattle	United States of America

--8. write a query to display employees from Marketing department only

select e.first_name,d.department_name from employees e,departments d where e.department_id=d.department_id and d.department_name in('Marketing');

The screenshot shows the Oracle SQL Developer interface with a query result table containing 2 rows of employee data. The columns are FIRST_NAME and DEPARTMENT_NAME. The data is filtered to show only employees from the Marketing department.

FIRST_NAME	DEPARTMENT_NAME
1 Michael	Marketing
2 Pat	Marketing

--9. write a query to display department's details like it's city, country from United Kingdom

```
select d.department_id, l.city, c.country_name from departments d, locations l, countries c
```

```
where d.location_id = l.location_id and l.country_id = c.country_id order by d.department_id ;
```

--or

```
select department_id, department_name, city, country_name
```

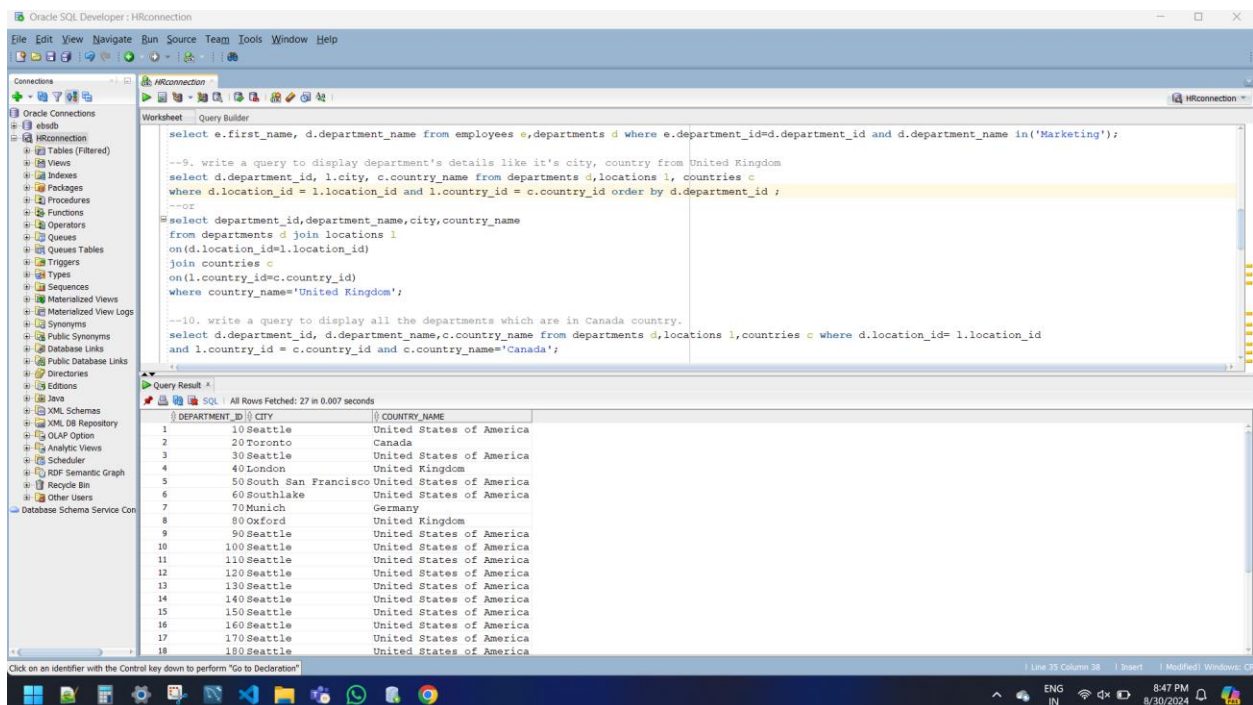
```
from departments d join locations l
```

```
on(d.location_id=l.location_id)
```

```
join countries c
```

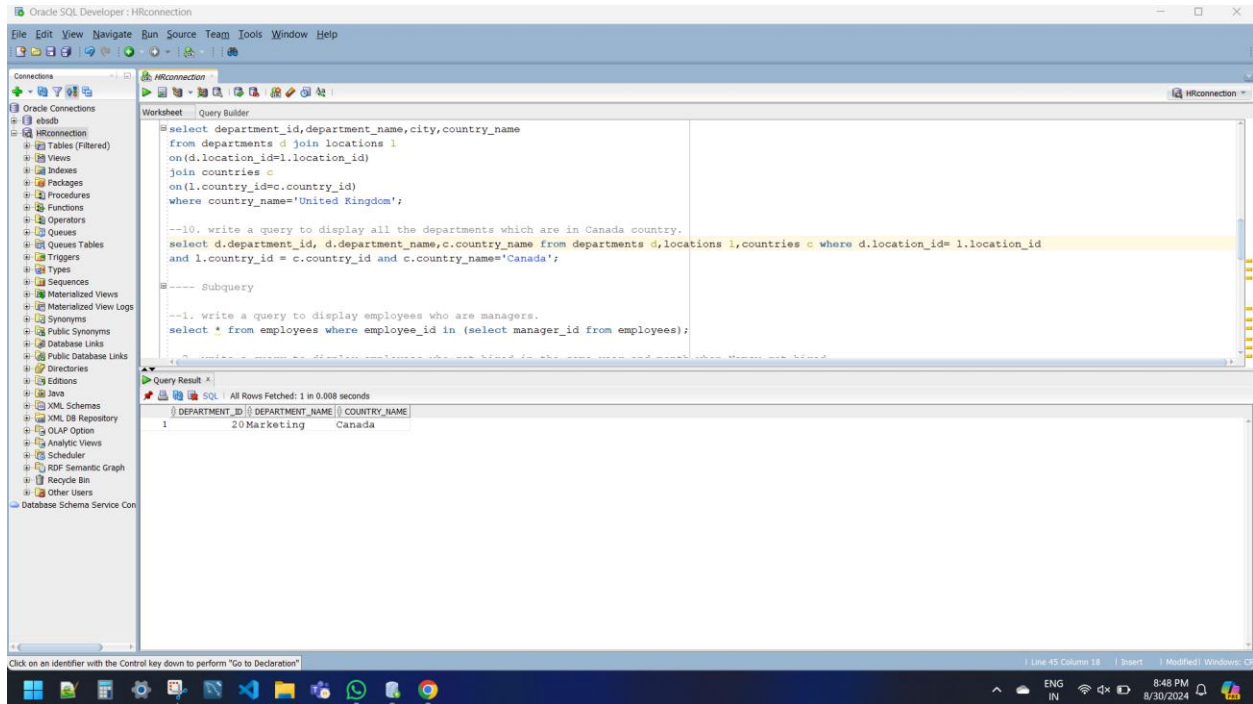
```
on(l.country_id=c.country_id)
```

```
where country_name='United Kingdom';
```



--10. write a query to display all the departments which are in Canada country.

select d.department_id, d.department_name, c.country_name from departments
d, locations l, countries c where d.location_id= l.location_id
and l.country_id = c.country_id and c.country_name='Canada';



----- Subquery

--1. write a query to display employees who are managers.

select * from employees where employee_id in (select manager_id from employees);

Oracle SQL Developer: HRConnection

Connections: Oracle Connections, HRConnection

Worksheet: Query Builder

```

--1. write a query to display employees who are managers.
select * from employees where employee_id in (select manager_id from employees);

--2. write a query to display employees who got hired in the same year and month when Nancy got hired
select * from employees where to_char(hire_date, 'MM-YY') in (select to_char(hire_date, 'MM-YY') from employees where first_name = 'Nancy' );

--3. write a query to display employees who has either same job as Valli or works in the same department where Lex works.
select * from employees where job_id in (select job_id from employees where first_name='Valli') or
department_id in (select department_id from employees where first_name='Lex');

--4. write a query to display departments which does not have employees into it.
select department_id from departments where department_id not in
(select department_id from employees where department_id is not null group by department_id) order by 1;

```

Query Result: All Rows Fetched: 18 in 0.011 seconds

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
2	Neena	Kochhar	NEENA@YAHOO.COM	515.123.4568	21-SEP-05	AD_VP	17000	(null)	100	90
3	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	(null)	100	90
4	Alexander	Runold	ARUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
5	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	(null)	101	100
6	Den	Raphaely	DRAPHEAL	515.127.4561	07-DEC-02	PU_MAN	11000	(null)	100	30
7	Matthew	Weiss	MWEISS	650.123.1234	18-JUL-04	ST_MAN	8000	(null)	100	60
8	Adam	Frapp	AFRAPP	650.123.2234	10-APR-05	ST_MAN	8200	(null)	100	50
9	Payam	Kaufling	PKAUFLIN	650.123.3234	01-MAY-03	ST_MAN	7900	(null)	100	50
10	Shanta	Vollman	SVOLLMAN	650.123.4234	10-OCT-05	ST_MAN	6500	(null)	100	50
11	Kevin	Mourgos	KMOURGOS	650.123.5234	16-NOV-07	ST_MAN	5800	(null)	100	50
12	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	0.4	100	80
13	Raren	Partners	RPARTNER	011.44.1344.467268	05-JAN-05	SA_MAN	13500	0.3	100	80
14	Alberto	Errazuriz	AERRAZUR	011.44.1344.429278	10-MAR-05	SA_MAN	12000	0.3	100	80
15	Gerald	Cambraut	GCAMBRAU	011.44.1344.619268	15-OCT-07	SA_MAN	11000	0.3	100	80
16	Eleni	Soltrey	ESLOTREY	011.44.1344.429018	29-JAN-08	SA_MAN	10500	0.2	100	80
17	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-04	MK_MAN	13000	(null)	100	20
18	Shelley	Higgins	SHIGGINS	515.123.6000	07-JUN-02	AC_MGR	12008	(null)	101	110

--2. write a query to display employees who got hired in the same year and month when Nancy got hired

select * from employees where to_char(hire_date, 'MM-YY') in (select to_char(hire_date, 'MM-YY') from employees where first_name = 'Nancy');

Oracle SQL Developer: HRConnection

Connections: Oracle Connections, HRConnection

Worksheet: Query Builder

```

--1. write a query to display employees who are managers.
select * from employees where employee_id in (select manager_id from employees);

--2. write a query to display employees who got hired in the same year and month when Nancy got hired
select * from employees where to_char(hire_date, 'MM-YY') in (select to_char(hire_date, 'MM-YY') from employees where first_name = 'Nancy' );

--3. write a query to display employees who has either same job as Valli or works in the same department where Lex works.
select * from employees where job_id in (select job_id from employees where first_name='Valli') or
department_id in (select department_id from employees where first_name='Lex');

--4. write a query to display departments which does not have employees into it.
select department_id from departments where department_id not in
(select department_id from employees where department_id is not null group by department_id) order by 1;

```

Query Result: All Rows Fetched: 2 in 0.238 seconds

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	(null)	101	100
2	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	(null)	108	100

--3. write a query to display employees who has either same job as Valli or works in the same department where Lex works.

select * from employees where job_id in(select job_id from employees where first_name='Valli') or

department_id in(select department_id from employees where first_name='Lex');

The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab contains a query with five numbered comments. The third query is highlighted in yellow. The 'Query Result' tab shows the results of the third query, displaying 8 rows of employee data.

Worksheet: Query Builder

```
--1. write a query to display employees who are managers.
select * from employees where employee_id in (select manager_id from employees);

--2. write a query to display employees who got hired in the same year and month when Nancy got hired
select * from employees where to_char(hire_date, 'MM-YY') in (select to_char(hire_date, 'MM-YY') from employees where first_name = 'Nancy' );

--3. write a query to display employees who has either same job as Valli or works in the same department where Lex works.
select * from employees where job_id in (select job_id from employees where first_name='Valli') or
department_id in (select department_id from employees where first_name='Lex');

--4. write a query to display departments which does not have employees into it.
select department_id from departments where department_id not in
(select department_id from employees where department_id is not null group by department_id) order by 1;

--5. write a query to display employee who earns highest salary
select first_name, salary from employees where salary>all(select salary from employees);
```

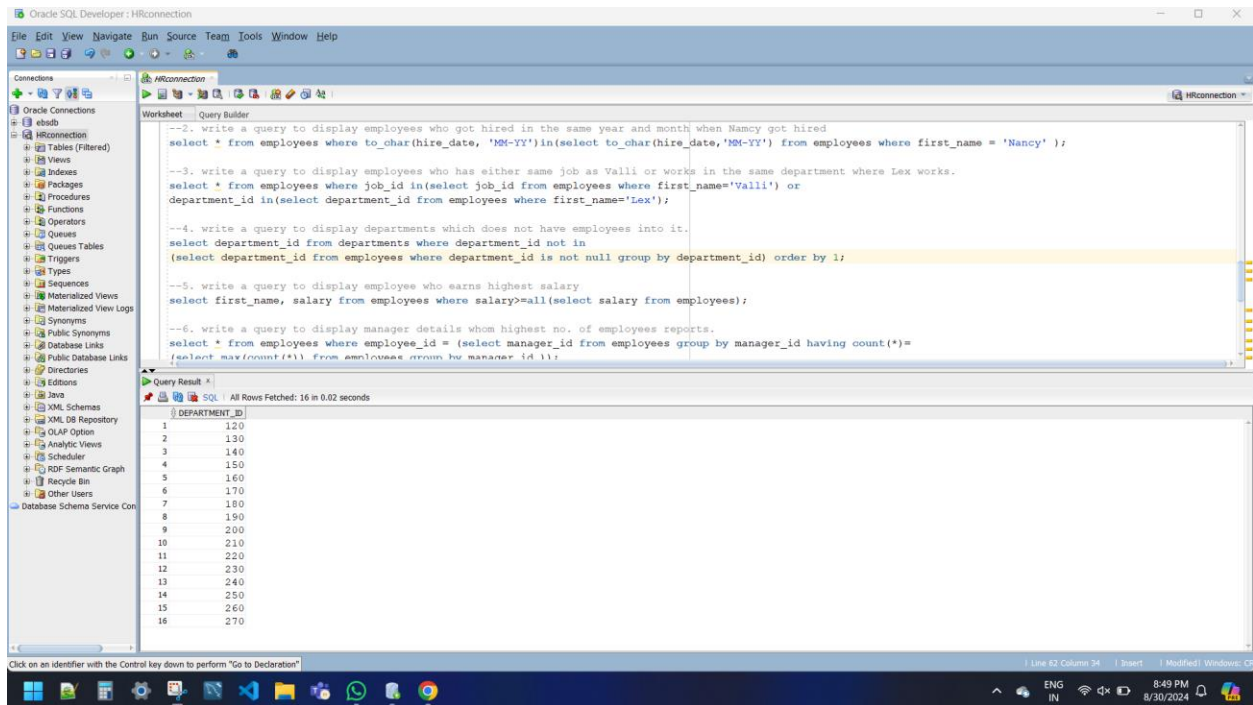
Query Result: All Rows Fetched: 8 in 0.017 seconds

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
2	Neena	Kochhar	nkg@yahoo.com	515.123.4568	21-SEP-05	AD_VP	17000	(null)	100	90
3	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	(null)	100	90
4	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
5	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	IT_PROG	6000	(null)	103	60
6	David	Austin	DAUSTIN	590.423.4569	25-JUN-05	IT_PROG	4800	(null)	103	60
7	Valli	Pataballa	VPATABAL	590.423.4560	05-FEB-06	IT_PROG	4800	(null)	103	60
8	Diana	Lorentz	DLORENTZ	590.423.5567	07-FEB-07	IT_PROG	4200	(null)	103	60

--4. write a query to display departments which does not have employees into it.

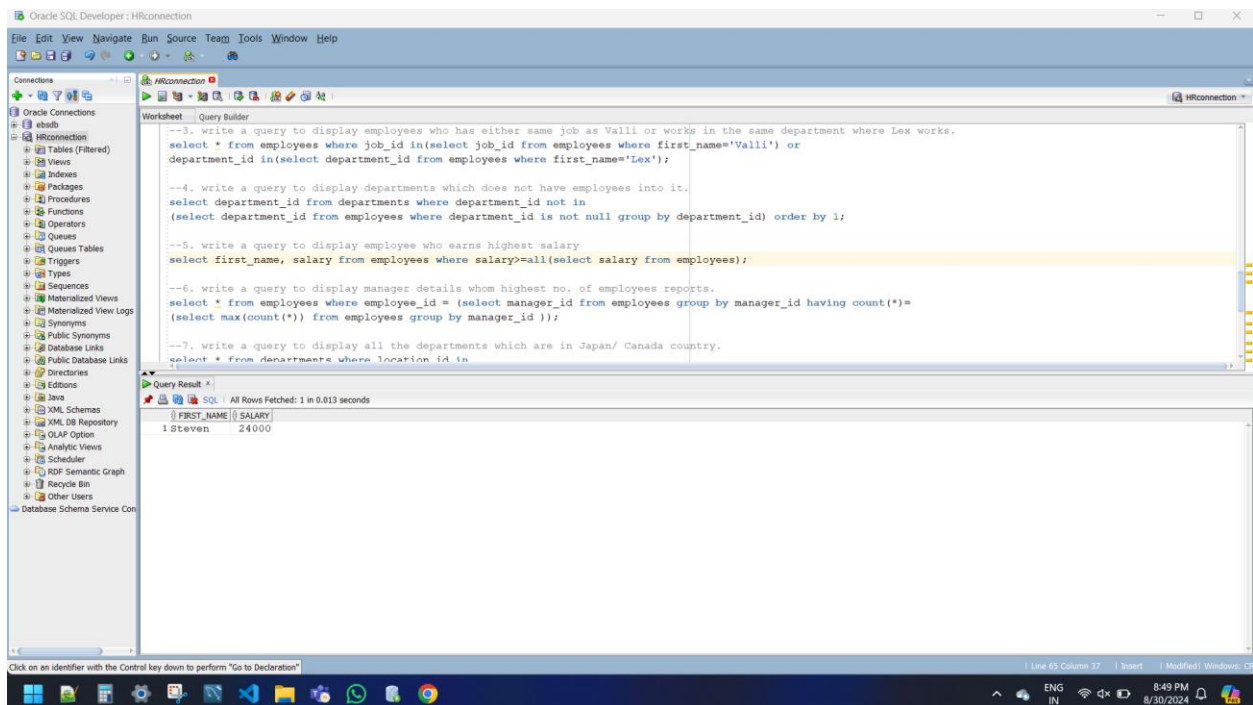
select department_id from departments where department_id not in

(select department_id from employees where department_id is not null group by department_id) order by 1;



--5. write a query to display employee who earns highest salary

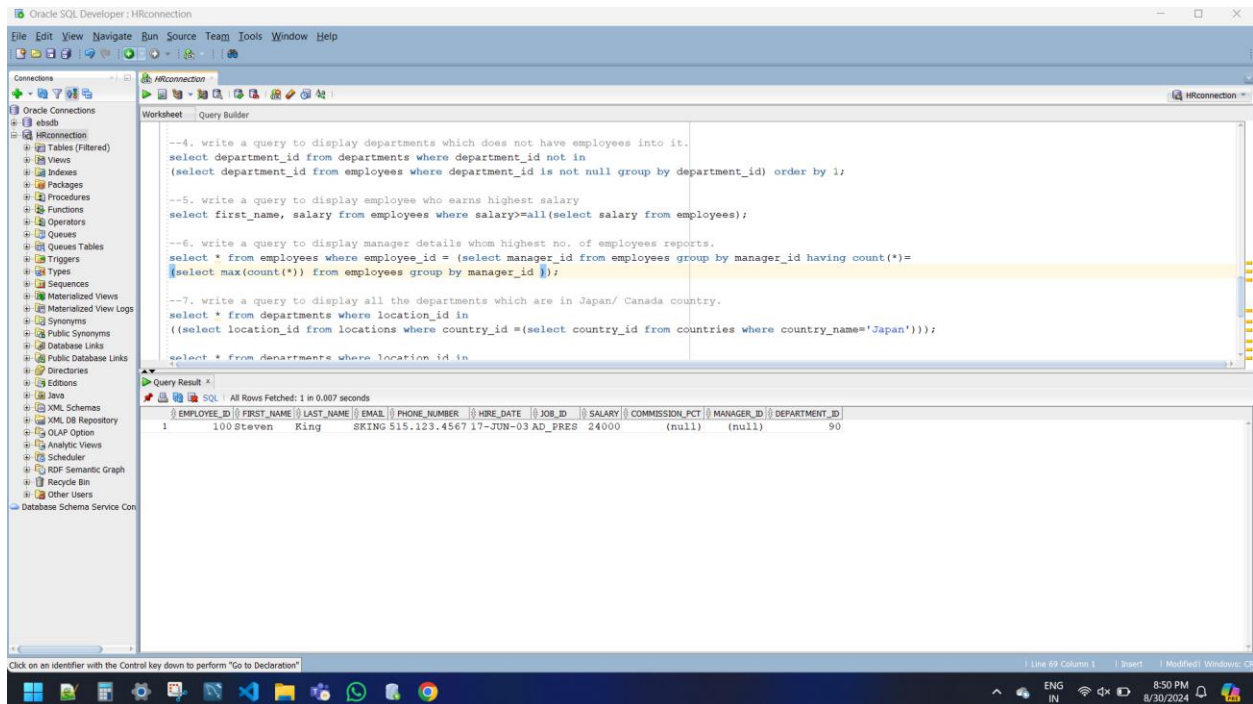
select first_name, salary from employees where salary >= all(select salary from employees);



--6. write a query to display manager details whom highest no. of employees reports.

select * from employees where employee_id = (select manager_id from employees group
by manager_id having count(*)=

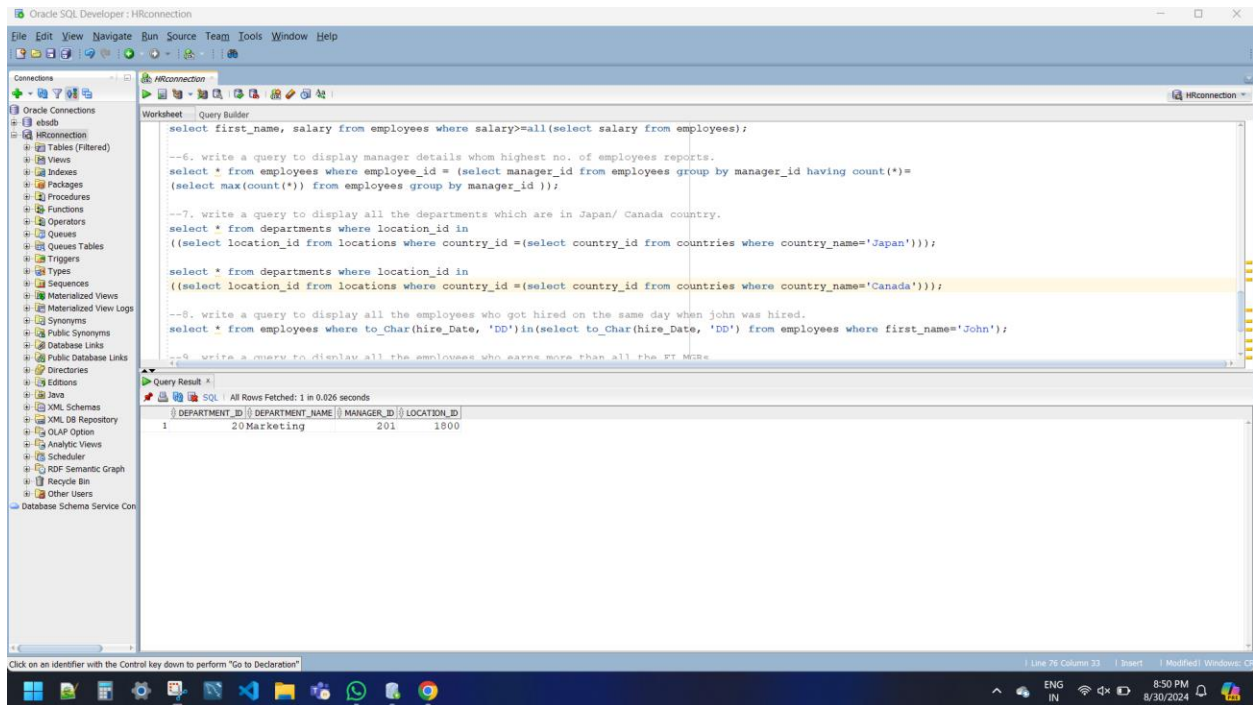
(select max(count(*)) from employees group by manager_id));



--7. write a query to display all the departments which are in Japan/ Canada country.

select * from departments where location_id in

((select location_id from locations where country_id =(select country_id from countries
where country_name='Japan')));



select * from departments where location_id in

((select location_id from locations where country_id =(select country_id from countries where country_name='Canada')));

--8. write a query to display all the employees who got hired on the same day when John was hired.

select * from employees where to_char(hire_date, 'DD') in (select to_char(hire_date, 'DD') from employees where first_name='John');

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Worksheet Query Builder

```
--7. write a query to display all the departments which are in Japan/ Canada country.
select * from departments where location_id in
((select location_id from locations where country_id =(select country_id from countries where country_name='Japan')));

select * from departments where location_id in
((select location_id from locations where country_id =(select country_id from countries where country_name='Canada')));

--8. write a query to display all the employees who got hired on the same day when john was hired.
select * from employees where to_char(hire_date, 'DD')in(select to_char(hire_date, 'DD') from employees where first_name='John');

--9. write a query to display all the employees who earns more than all the FI_MGRs
SELECT * from employees where salary >(select salary from employees where job_id='FI_MGR');

--10. write a query to display all the employees whom David reports
select * from employees where employee_id in(select manager_id from employees where first_name='David');
```

Query Result

SQL All Rows Fetched: 8 in 0.006 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	110	John	Chen	JCHEN	515.124.4269	01-SEP-05	FI_ACCOUNT	8200	(null)	100	100
2	122	Payam	Kaufling	PKAUFLIN	650.123.3234	01-MAY-03	ST_MAN	7900	(null)	100	50
3	126	Irene	Mikkilineni	IMIKKILIN	650.124.1224	28-SEP-06	ST_CLERK	2700	(null)	120	50
4	135	Ki	Gee	KGEE	650.127.1734	12-DEC-07	ST_CLERK	2400	(null)	122	50
5	139	John	Seo	JSEO	650.121.2019	12-FEB-06	ST_CLERK	2700	(null)	123	50
6	145	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	0.4	100	80
7	159	Allan	McEwen	AMCEWEN	011.44.1345.829268	01-AUG-04	SA_REP	9000	0.35	146	80
8	194	Samuel	McCain	SMCCAIN	650.501.3876	01-JUL-06	SH_CLERK	3200	(null)	123	50

Click on an identifier with the Control key down to perform "Go to Declaration"

Line 79 Column 86 | 1 Select | Modified: Windows

ENG IN 8:53 PM 8/30/2024

--9. write a query to display all the employees who earns more than all the FI_MGRs

SELECT * from employees where salary >(select salary from employees where job_id='FI_MGR');

Oracle SQL Developer: HRConnection

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Worksheet Query Builder

```
--7. write a query to display all the departments which are in Japan/ Canada country.
select * from departments where location_id in
((select location_id from locations where country_id =(select country_id from countries where country_name='Japan')));

select * from departments where location_id in
((select location_id from locations where country_id =(select country_id from countries where country_name='Canada')));

--8. write a query to display all the employees who got hired on the same day when john was hired.
select * from employees where to_char(hire_date, 'DD')in(select to_char(hire_date, 'DD') from employees where first_name='John');

--9. write a query to display all the employees who earns more than all the FI_MGRs
SELECT * from employees where salary >(select salary from employees where job_id='FI_MGR');

--10. write a query to display all the employees whom David reports
select * from employees where employee_id in(select manager_id from employees where first_name='David');
```

Query Result

SQL All Rows Fetched: 6 in 0.011 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
2	101	Neena	Kochhar	NEEKCH	515.123.4568	21-SEP-05	AD_VP	17000	(null)	100	90
3	102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	(null)	100	90
4	145	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	0.4	100	80
5	146	Karen	Partners	KPARTNER	011.44.1344.467268	05-JAN-05	SA_MAN	13500	0.3	100	80
6	201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-04	HR_MAN	13000	(null)	100	20

Click on an identifier with the Control key down to perform "Go to Declaration"

Line 82 Column 34 | 1 Select | Modified: Windows

ENG IN 8:53 PM 8/30/2024

--10. write a query to display all the employees whom David reports

select * from employees where employee_id in(select manager_id from employees where first_name='David');

The screenshot shows the Oracle SQL Developer interface. The left pane displays the 'Connections' tree with 'HRConnection' selected. The main workspace shows a SQL script with several queries. The 10th query, which is highlighted in yellow, is: `select * from employees where employee_id in(select manager_id from employees where first_name='David');`. Below the script, the 'Query Result' window shows the output of this query as a table with 10 columns: EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER, HIRE_DATE, JOB_ID, SALARY, COMMISSION_PCT, and DEPARTMENT_ID. The results show three rows of data.

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	DEPARTMENT_ID
1	Alexander	Rusold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	60
2	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	0.4	80
3	Alberto	Errazuriz	AERRAZUR	011.44.1344.429278	10-MAR-05	SA_MAN	12000	0.3	80