HW9

Data Analysis

1. **List the employee number, last name, first name, sex, and salary of each employee.**
   ```
   select
           e.emp_no,
           e.last_name,
           e.first_name,
           e.sex,
           s.salary

   from
           employees as e
           join salaries as s on e.emp_no = s.emp_no
   order by
           s.salary desc
   limit 10
   ```

   Data Output   Messages   Notifications

	emp_no integer	last_name character varying	first_name character varying	sex character varying	salary integer
1	205000	Griswold	Charmane	M	129492
2	44188	Peac	Slavian	M	127238
3	444756	Varker	Nahid	M	127041
4	458302	Esposito	Poorav	M	126703
5	37558	Thambidurai	Juichirou	M	125469
6	296857	Reghbati	Toshimo	M	124357
7	20004	Pfau	Radoslaw	M	123749
8	109334	Alameldin	Tsutomu	M	123668
9	474456	Heydon	Martine	F	123477
10	474684	Klyachko	Chinhyun	M	122726

2. **List the first name, last name, and hire date for the employees who were hired in 1986.**
   ```
   select
           e.first_name,
           e.last_name,
           e.hire_date

   from
           employees as e
   where
           hire_date between '1986-01-01' and '1986-12-31'
   order by
           e.hire_date asc
   limit 10
   ```

Data Output   Messages   Notifications

	first_name character varying	last_name character varying	hire_date date
1	Yinghua	Vidal	1986-01-01
2	Unal	Cooley	1986-01-01
3	Domenick	Dehkordi	1986-01-01
4	Sumant	Stemann	1986-01-01
5	Bedir	Vanwelkenhuysen	1986-01-01
6	Danae	Nyanchama	1986-01-01
7	Vidya	Dymetman	1986-01-01
8	Shawna	Reinhart	1986-01-01
9	Abdelkader	Marrakchi	1986-01-01
10	Arlette	Boguraev	1986-01-01

3. **List the manager of each department along with their department number, department name, employee number, last name, and first name.**

```
select
    departments.dept_no,
    departments.dept_name,
    dept_manager.emp_no,
    employees.last_name,
    employees.first_name

from
    departments
join dept_manager
    on departments.dept_no = dept_manager.dept_no

join employees
    on dept_manager.emp_no = employees.emp_no;
```

Data Output   Messages   Notifications

	dept_no character varying	dept_name character varying	emp_no integer	last_name character varying	first_name character varying
1	d001	Marketing	110022	Markovitch	Margareta
2	d001	Marketing	110039	Minakawa	Vishwani
3	d002	Finance	110085	Alpin	Ebru
4	d002	Finance	110114	Legleitner	Isamu
5	d003	Human Resources	110183	Ossenbruggen	Shirish
6	d003	Human Resources	110228	Sigstam	Karsten
7	d004	Production	110303	Wegerle	Krassimir
8	d004	Production	110344	Cools	Rosine
9	d004	Production	110386	Kieras	Shem
10	d004	Production	110420	Ghazalie	Oscar
11	d005	Development	110511	Hagimont	DeForest
12	d005	Development	110567	DasSarma	Leon
13	d006	Quality Management	110725	Onuegbe	Peternela
14	d006	Quality Management	110765	Hofmeyr	Rutger

4. **List the department number for each employee along with that employee's employee number, last name, first name, and department name.**

```
select
    dept_emp.dept_no,
    dept_emp.emp_no,
    employees.last_name,
```

```
        employees.first_name,
        departments.dept_name

from
        dept_emp

join employees
        on dept_emp.emp_no = employees.emp_no

join departments
        on departments.dept_no = dept_emp.dept_no;
```

Data Output   Messages   Notifications

	dept_no character varying	emp_no integer	last_name character varying	first_name character varying	dept_name character varying
1	d005	10001	Facello	Georgi	Development
2	d003	10005	Maliniak	Kyoichi	Human Resources
3	d004	10010	Piveteau	Duangkaew	Production
4	d006	10010	Piveteau	Duangkaew	Quality Management
5	d009	10011	Sluis	Mary	Customer Service
6	d003	10013	Terkki	Eberhardt	Human Resources
7	d001	10017	Bouloucos	Cristinel	Marketing
8	d004	10018	Peha	Kazuhide	Production
9	d005	10018	Peha	Kazuhide	Development
10	d008	10019	Haddadi	Lillian	Research
11	d004	10026	Berztiss	Yongqiao	Production
12	d004	10035	Chappelet	Alain	Production

5. **List first name, last name, and sex of each employee whose first name is Hercules and whose last name begins with the letter B.**

```
select
        employees.first_name,
        employees.last_name,
        employees.sex

from
        employees

where
        employees.first_name = 'Hercules' and employees.last_name like 'B%';
```

	first_name character varying 🔒	last_name character varying 🔒	sex character varying 🔒
1	Hercules	Baer	M
2	Hercules	Biron	F
3	Hercules	Birge	F
4	Hercules	Berstel	F
5	Hercules	Bernatsky	M
6	Hercules	Bail	F
7	Hercules	Bodoff	M
8	Hercules	Benantar	F
9	Hercules	Basagni	M
10	Hercules	Bernardinello	F
11	Hercules	Baranowski	M
12	Hercules	Bisiani	F

6. **List each employee in the Sales department, including their employee number, last name, and first name.**

    select
        dept_emp.emp_no,
        employees.last_name,
        employees.first_name,
        departments.dept_name

    from
        dept_emp

    join employees
        on dept_emp.emp_no = employees.emp_no

    join departments
        on departments.dept_no = dept_emp.dept_no
    where
        departments.dept_name = 'Sales';

	emp_no integer 🔒	last_name character varying 🔒	first_name character varying 🔒	dept_name character varying 🔒
1	10002	Simmel	Bezalel	Sales
2	10016	Cappelletti	Kazuhito	Sales
3	10034	Swan	Bader	Sales
4	10041	Lenart	Uri	Sales
5	10050	Dredge	Yinghua	Sales
6	10053	Zschoche	Sanjiv	Sales
7	10060	Billingsley	Breannda	Sales
8	10061	Herber	Tse	Sales
9	10068	Brattka	Charlene	Sales
10	10087	Eugenio	Xinglin	Sales
11	10088	Syrzycki	Jungsoon	Sales

Total rows: 1000 of 52245   Query complete 00:00:00.186

7. List each employee in the Sales and Development departments, including their employee number, last name,

    first name, and department name.

    select
        dept_emp.emp_no,
        employees.last_name,
        employees.first_name,

```
        departments.dept_name

from
        dept_emp

join employees
        on dept_emp.emp_no = employees.emp_no

join departments
        on departments.dept_no = dept_emp.dept_no
where
        departments.dept_name = 'Sales' or departments.dept_name = 'Development';
```

Query   Query History

Data Output   Messages   Notifications

	emp_no integer	last_name character varying	first_name character varying	dept_name character varying
1	10001	Facello	Georgi	Development
2	10002	Simmel	Bezalel	Sales
3	10006	Preusig	Anneke	Development
4	10008	Kalloufi	Saniya	Development
5	10012	Bridgland	Patricio	Development
6	10014	Genin	Berni	Development
7	10016	Cappelletti	Kazuhito	Sales
8	10018	Peha	Kazuhide	Development
9	10021	Erde	Ramzi	Development
10	10022	Famili	Shahaf	Development
11	10023	Montemayor	Bojan	Development
12	10025	Heyers	Prasadram	Development
13	10027	Reistad	Divier	Development
14	10028	Tempesti	Domenick	Development
15	10031	Joslin	Karsten	Development

Total rows: 1000 of 137952   Query complete 00:00:00.305

8. **List the frequency counts, in descending order, of all the employee last names (that is, how many employees share each last name).**

```
select
        last_name,
count(last_name) as "frequency"

from
        employees
group by
        last_name
order by
        count(last_name) desc;
```

Data Output   Messages   Notifications

	last_name character varying	frequency bigint
1	Baba	226
2	Gelosh	223
3	Coorg	223
4	Farris	222
5	Sudbeck	222
6	Adachi	221
7	Osgood	220
8	Neiman	218
9	Masada	218
10	Mandell	218
11	Wendorf	217
12	Boudaillier	217
13	Solares	216
14	Pettis	216
15	Mahnke	216

Total rows: 1000 of 1638   Query complete 00:00:00.183