Sabrina Alves
SQL Homework

1. List the following details of each employee: employee number, last name, first name, sex, and salary.
   Query:

```sql
SELECT
    employees.emp_no,
    employees.last_name,
    employees.first_name,
    employees.sex,
    salaries.salary
FROM employees
JOIN salaries
    ON employees.emp_no = salaries.emp_no;
```

Output:

	emp_no integer	last_name character varying (30)	first_name character varying (30)	sex character varying (5)	salary integer
1	10005	Maliniak	Kyoichi	M	78228
2	10010	Piveteau	Duangkaew	F	72488
3	10011	Sluis	Mary	F	42365
4	10013	Terkki	Eberhardt	M	40000
5	10017	Bouloucos	Cristinel	F	71380
6	10035	Chappelet	Alain	M	41538
7	10037	Makrucki	Pradeep	M	40000
8	10045	Shanbhogue	Moss	M	41971
9	10051	Caine	Hidefumi	M	48817
10	10058	McFarlin	Berhard	M	52787
11	10078	Mondadori	Danel	F	47280
12	10085	Malabarba	Kenroku	M	40000
13	10096	Mandell	Jayson	M	61395

2. List first name, last name, and hire date for employees who were hired in 1986.

Query:

```sql
SELECT
    employees.first_name,
    employees.last_name,
    employees.hire_date
FROM
    employees
WHERE
    employees.hire_date >= '1986-01-01'
AND
    employees.hire_date <= '1986-12-31';
```

Output:

	first_name character varying (30)	last_name character varying (30)	hire_date date
1	Eran	Cusworth	1986-11-14
2	Bojan	Zallocco	1986-10-14
3	Nevio	Demizu	1986-05-18
4	Ziva	Vecchi	1986-07-03
5	Mohit	Speek	1986-01-14
6	Qunsheng	Speer	1986-02-13
7	Dines	Encarnacion	1986-08-02
8	Harngdar	Swick	1986-05-28
9	Freyja	Uhrig	1986-12-20
10	Zhenhua	Milicic	1986-08-04
11	Bowen	Schmezko	1986-05-30
12	Reuven	Munke	1986-04-13
13	Stabislas	Domenig	1986-08-04
14	Juichirou	Jumpertz	1986-09-18
15	Juichirou	Ghelli	1986-12-13
16	Shmuel	Georg	1986-11-30

3. List the manager of each department with the following information: department number, department name, the manager's employee number, last name, first name.

Query:

```sql
SELECT
    dept_manager.dept_no,
    dept_manager.emp_no,
    departments.dept_name,
    employees.last_name,
    employees.first_name
FROM dept_manager
JOIN employees
    ON dept_manager.emp_no = employees.emp_no
JOIN departments
    on dept_manager.dept_no = departments.dept_no;
```

Output:

	dept_no character varying (10)	emp_no integer	dept_name character varying (30)	last_name character varying (30)	first_name character varying (30)
1	d001	110022	Marketing	Markovitch	Margareta
2	d001	110039	Marketing	Minakawa	Vishwani
3	d002	110085	Finance	Alpin	Ebru
4	d002	110114	Finance	Legleitner	Isamu
5	d003	110183	Human Resources	Ossenbruggen	Shirish
6	d003	110228	Human Resources	Sigstam	Karsten
7	d004	110303	Production	Wegerle	Krassimir
8	d004	110344	Production	Cools	Rosine
9	d004	110386	Production	Kieras	Shem
10	d004	110420	Production	Ghazalie	Oscar
11	d005	110511	Development	Hagimont	DeForest
12	d005	110567	Development	DasSarma	Leon
13	d006	110725	Quality Management	Onuegbe	Peternela
14	d006	110765	Quality Management	Hofmeyr	Rutger
15	d006	110800	Quality Management	Quadeer	Sanjoy
16	d006	110854	Quality Management	Pesch	Dung

4. List the department of each employee with the following information: employee number, last name, first name, and department name.

Query:
```sql
SELECT
    dept_emp.emp_no,
    employees.last_name,
    employees.first_name,
    departments.dept_name
FROM
    dept_emp
JOIN departments
    ON dept_emp.dept_no = departments.dept_no
JOIN employees
    ON dept_emp.emp_no = employees.emp_no;
```

Output:

	emp_no integer	last_name character varying (30)	first_name character varying (30)	dept_name character varying (30)
1	10005	Maliniak	Kyoichi	Human Resources
2	10010	Piveteau	Duangkaew	Production
3	10010	Piveteau	Duangkaew	Quality Management
4	10011	Sluis	Mary	Customer Service
5	10013	Terkki	Eberhardt	Human Resources
6	10017	Bouloucos	Cristinel	Marketing
7	10035	Chappelet	Alain	Production
8	10037	Makrucki	Pradeep	Development
9	10045	Shanbhogue	Moss	Production
10	10051	Caine	Hidefumi	Production
11	10058	McFarlin	Berhard	Marketing
12	10078	Mondadori	Danel	Development
13	10085	Malabarba	Kenroku	Production
14	10096	Mandell	Jayson	Production
15	10117	Blokdijk	Kiyotoshi	Production
16	10156	Fargier	Sumali	Quality Management
17	10167	Rassart	Duangkaew	Production
18	10177	Iisaka	Pragnesh	Finance

5. List first name, last name, and sex for employees whose first name is "Hercules" and last names begin with "B."

Query:

```
SELECT
    first_name,
    last_name,
    sex
FROM
    employees
WHERE
    first_name like 'Hercules'
AND
    last_name like 'B%';
```

Output:

	first_name character varying (30)	last_name character varying (30)	sex character varying (5)
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	Biran	F
11	Hercules	Bernardinello	F
12	Hercules	Baranowski	M
13	Hercules	Bisiani	F
14	Hercules	Benzmuller	M

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

Query:

```sql
SELECT
    dept_emp.emp_no,
    employees.last_name,
    employees.first_name,
    departments.dept_name
FROM
    dept_emp
JOIN departments
    ON departments.dept_no = dept_emp.dept_no
JOIN employees
    ON dept_emp.emp_no = employees.emp_no
WHERE
    departments.dept_name = 'Sales';
```

Output:

	emp_no integer	last_name character varying (30)	first_name character varying (30)	dept_name character varying (30)
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
12	10089	Flasterstein	Sudharsan	Sales
13	10093	Desikan	Sailaja	Sales
14	10095	Morton	Hilari	Sales
15	10099	Sullins	Valter	Sales

7. List all employees in the Sales and Development departments, including their employee number, last name, first name, and department name.

Query:
```sql
SELECT
    dept_emp.emp_no,
    employees.last_name,
    employees.first_name,
    departments.dept_name
FROM
    dept_emp
JOIN departments
    ON departments.dept_no = dept_emp.dept_no
JOIN employees
    ON dept_emp.emp_no = employees.emp_no
WHERE
    departments.dept_name = 'Sales'
OR
    departments.dept_name = 'Development';
```

Output:

	emp_no integer	last_name character varying (30)	first_name character varying (30)	dept_name character varying (30)
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
16	10034	Swan	Bader	Sales
17	10037	Makrucki	Pradeep	Development
18	10040	Meriste	Weiyi	Development

8. In descending order, list the frequency count of employee last names, i.e., how many employees share each last name.

```sql
SELECT
      employees.last_name,
      count(last_name) as "name"
FROM
      employees
GROUP BY
      last_name
ORDER BY
      "name" DESC;
```

	last_name character varying (30) 🔒	name bigint 🔒
1	Baba	226
2	Coorg	223
3	Gelosh	223
4	Farris	222
5	Sudbeck	222
6	Adachi	221
7	Osgood	220
8	Mandell	218
9	Masada	218
10	Neiman	218
11	Wendorf	217
12	Boudaillier	217