QUESTION 1

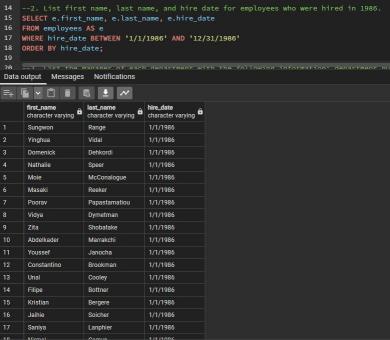--1. List the following details of each employee: employee number, last name, first name, gender, and salary.

```sql
--1. List the following details of each employee: employee number, last name, first name, gender, and salary.
SELECT e.emp_no,e.last_name,e.first_name,e.sex,s.salary
FROM employees AS e
INNER JOIN salaries AS s
ON s.emp_no = e.emp_no;

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

Data output | Messages | Notifications

	emp_no integer	last_name character varying	first_name character varying	sex character (1)	salary integer
1	57444	Babb	Berry	F	48973
2	13616	Lorho	Perry	F	40000
3	240129	Karnin	Roddy	M	43548
4	427958	Poujol	Feixiong	F	63377
5	35916	Talmon	Wonhee	F	40000
6	67799	Cools	Pantung	M	48111
7	105597	Kabayashi	Christfried	M	43841
8	215615	Chinal	Bader	F	40000
9	95280	Hiraishi	Owen	F	40000
10	43471	Gihr	Mechthild	F	40023
11	444985	Verspoor	Giap	F	71042
12	492723	Sanella	Piyawadee	M	46740
13	430653	Peroz	Masoud	F	69077
14	222134	Speer	Qunsheng	M	48391
15	406318	Gunderson	Hitomi	M	55145
16	42625	Swick	Harngdar	F	55095
17	451259	Milicic	Zhenhua	M	46138

QUESTION 2

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

```sql
--2. List first name, last name, and hire date for employees who were hired in 1986.
SELECT e.first_name, e.last_name, e.hire_date
FROM employees AS e
WHERE hire_date BETWEEN '1/1/1986' AND '12/31/1986'
ORDER BY hire_date;

--3. List the manager of each department with the following information: department nu
```

Data output   Messages   Notifications

	first_name character varying	last_name character varying	hire_date character varying
1	Sungwon	Range	1/1/1986
2	Yinghua	Vidal	1/1/1986
3	Domenick	Dehkordi	1/1/1986
4	Nathalie	Speer	1/1/1986
5	Moie	McConalogue	1/1/1986
6	Masaki	Reeker	1/1/1986
7	Poorav	Papastamatiou	1/1/1986
8	Vidya	Dymetman	1/1/1986
9	Zita	Shobatake	1/1/1986
10	Abdelkader	Marrakchi	1/1/1986
11	Youssef	Janocha	1/1/1986
12	Constantino	Brookman	1/1/1986
13	Unal	Cooley	1/1/1986
14	Filipe	Bottner	1/1/1986
15	Kristian	Bergere	1/1/1986
16	Jaihie	Soicher	1/1/1986
17	Saniya	Lanphier	1/1/1986
	Nirmal	Gomun	1/1/1986

QUESTION 3

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

```sql
--3. List the manager of each department with the following information: department number, department name, the manager's employee number, last name, first name.
SELECT d.dept_no, d.dept_name, dm.emp_no, e.last_name, e.first_name
FROM departments AS d
    JOIN dept_manager AS dm
    ON (d.dept_no=dm.dept_no)
        JOIN employees as e
        ON (dm.emp_no=e.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	d004	Production	110303	Wegerle	Krassimir
2	d006	Quality Manage…	110800	Quadeer	Sanjoy
3	d006	Quality Manage…	110854	Pesch	Dung
4	d007	Sales	111035	Kaelbling	Przemyslawa
5	d008	Research	111400	Staelin	Arie
6	d009	Customer Service	111692	Butterworth	Tonny
7	d003	Human Resources	110228	Sigstam	Karsten
8	d006	Quality Manage…	110725	Onuegbe	Peternela
9	d003	Human Resources	110183	Ossenbruggen	Shirish
10	d004	Production	110344	Cools	Rosine
11	d001	Marketing	110022	Markovitch	Margareta
12	d001	Marketing	110039	Minakawa	Vishwani
13	d002	Finance	110085	Alpin	Ebru
14	d004	Production	110386	Kieras	Shem
15	d005	Development	110567	DasSarma	Leon
16	d007	Sales	111133	Zhang	Hauke

QUESTION 4

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

```sql
--4. List the department of each employee with the following information: employee number, last name, first name, and department name.
SELECT e.emp_no, e.last_name, e.first_name, d.dept_name
FROM employees AS e
    JOIN dept_emp AS de
    ON (e.emp_no=de.emp_no)
        JOIN departments as d
        ON (de.dept_no=d.dept_no);
```

Data output | Messages | Notifications

	emp_no integer	last_name character varying	first_name character varying	dept_name character varying
1	10005	Maliniak	Kyoichi	Human Resources
2	10010	Piveteau	Duangkaew	Production
3	10010	Piveteau	Duangkaew	Quality Manageme...
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 Manageme...
17	10167	Rassart	Duangkaew	Production
18	10177	Iisaka	Pragnesh	Finance

QUESTION 5

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

```
36  --5. List first name, last name, and sex for employees whose first name is "Hercules" and last names begin with "B."
37  SELECT first_name, last_name, sex
38  FROM employees
39  WHERE first_name = 'Hercules'
40  AND last_name like 'B%';
41
```

Data output | Messages | Notifications

	first_name character varying	last_name character varying	sex character (1)
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
13	Hercules	Benzmuller	M
14	Hercules	Bahr	M
15	Hercules	Biran	F
16	Hercules	Bain	F
17	Hercules	Brendel	F

QUESTION 6

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

```sql
--6. List all employees in the Sales department, including their employee number, last name, first name, and department name.
SELECT e.emp_no, e.last_name, e.first_name, d.dept_name
FROM employees AS e
    JOIN dept_emp AS de
    ON (e.emp_no=de.emp_no)
        JOIN departments as d
        ON (de.dept_no=d.dept_no)
        WHERE d.dept_name = 'Sales';
```

Data output | Messages | Notifications

	emp_no integer	last_name character varying	first_name character varying	dept_name character varying
1	217945	Georg	Shmuel	Sales
2	109600	Chvatal	Xuejun	Sales
3	279661	Bach	Xiadong	Sales
4	268566	Parveen	Panayotis	Sales
5	53312	Lagarias	Quingbo	Sales
6	211383	Candan	Uli	Sales
7	496429	Luders	Takanari	Sales
8	219797	Demeyer	Neelam	Sales
9	426193	Rattan	Huiqun	Sales
10	246449	Bultermann	Subbu	Sales
11	78524	Bahk	Zhiwei	Sales
12	205246	Demizu	Nevio	Sales
13	476443	Asmuth	Ziya	Sales
14	424270	Yoshizawa	Kellyn	Sales
15	280408	Perl	Elliott	Sales
16	289261	Nollmann	Gad	Sales
17	494351	Maginnis	Boriana	Sales

QUESTION 7

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

```sql
--7. List all employees in the Sales and Development departments, including their employee number, last name, first name, and department name.
SELECT e.emp_no, e.last_name, e.first_name, d.dept_name
FROM employees AS e
    JOIN dept_emp AS de
    ON (e.emp_no=de.emp_no)
        JOIN departments AS d
        ON (de.dept_no=d.dept_no)
        WHERE d.dept_name = 'Sales' OR d.dept_name = 'Development';
```

Data output   Messages   Notifications

	emp_no integer	last_name character varying	first_name character varying	dept_name character varying
1	53312	Lagarias	Quingbo	Sales
2	13616	Lorho	Perry	Development
3	35916	Talmon	Wonhee	Development
4	444985	Verspoor	Giap	Sales
5	492723	Sanella	Piyawadee	Development
6	430653	Peroz	Masoud	Development
7	222134	Speer	Qunsheng	Development
8	406318	Gunderson	Hitomi	Development
9	42625	Swick	Harngdar	Sales
10	225842	Schmezko	Bowen	Development
11	205366	Shimshoni	Kazuhira	Sales
12	223670	Chinin	Erez	Development
13	62117	Crouzet	Bojan	Development
14	11980	Pews	Yechezkel	Sales
15	457800	Domenig	Stabislas	Sales
16	279067	Rajaraman	Szabolcs	Development
17	441170	Munck	Shir	Development

QUESTION 8

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

```sql
--8. In descending order, list the frequency count of employee last names, i.e., how many employees share each last name.
SELECT last_name, count(last_name) AS frequency
FROM employees
GROUP BY last_name
ORDER BY frequency desc;
```

Data output | Messages | Notifications

	last_name character varying	frequency bigint
1	Baba	226
2	Coorg	223
3	Gelosh	223
4	Sudbeck	222
5	Farris	222
6	Adachi	221
7	Osgood	220
8	Masada	218
9	Neiman	218
10	Mandell	218
11	Wendorf	217
12	Boudaillier	217
13	Solares	216
14	Pettis	216
15	Mahnke	216
16	Cummings	216
17	Birjandi	215