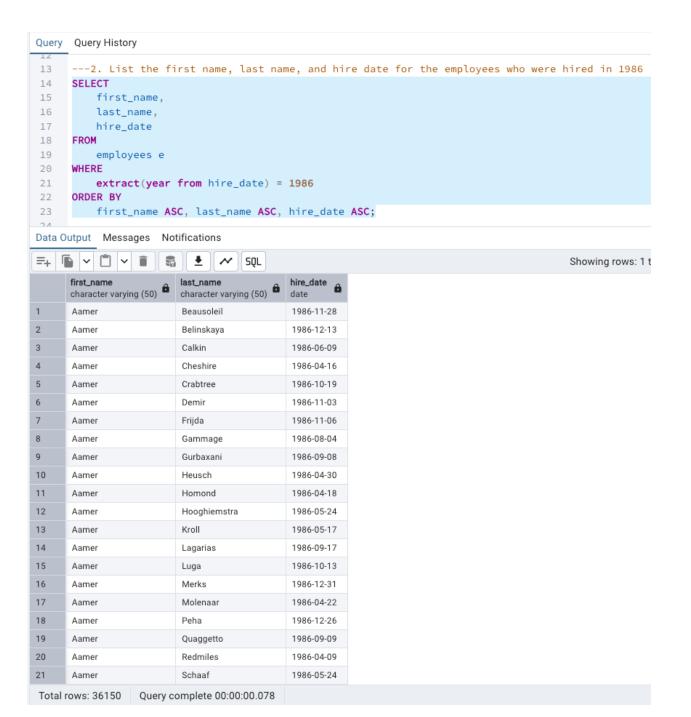```sql
1 --Data Analyss Queries
2 --1. List the employee number, last name, first name, sex, and salary of each employee
3 SELECT
4   e.emp_no,
5   e.last_name,
6   e.first_name,
7   e.sex,
8   s.salary
9 FROM
10   employees e
11   JOIN salaries s on e.emp_no = s.emp_no
12 ORDER BY
13   emp_no ASC;
14
```

Data Output   Messages   Notifications

Showing r

| | emp_no<br>integer | last_name<br>character varying (50) | first_name<br>character varying (50) | sex<br>character varying (5) | salary<br>integer |
|---|---|---|---|---|---|
| 1 | 10001 | Facello | Georgi | M | 60117 |
| 2 | 10002 | Simmel | Bezalel | F | 65828 |
| 3 | 10003 | Bamford | Parto | M | 40006 |
| 4 | 10004 | Koblick | Chirstian | M | 40054 |
| 5 | 10005 | Maliniak | Kyoichi | M | 78228 |
| 6 | 10006 | Preusig | Anneke | F | 40000 |
| 7 | 10007 | Zielinski | Tzvetan | F | 56724 |
| 8 | 10008 | Kalloufi | Saniya | M | 46671 |
| 9 | 10009 | Peac | Sumant | F | 60929 |
| 10 | 10010 | Piveteau | Duangkaew | F | 72488 |
| 11 | 10011 | Sluis | Mary | F | 42365 |
| 12 | 10012 | Bridgland | Patricio | M | 40000 |
| 13 | 10013 | Terkki | Eberhardt | M | 40000 |
| 14 | 10014 | Genin | Berni | M | 46168 |
| 15 | 10015 | Nooteboom | Guoxiang | M | 40000 |
| 16 | 10016 | Cappelletti | Kazuhito | M | 70889 |
| 17 | 10017 | Bouloucos | Cristinel | F | 71380 |
| 18 | 10018 | Peha | Kazuhide | F | 55881 |
| 19 | 10019 | Haddadi | Lillian | M | 44276 |
| 20 | 10020 | Warwick | Mayuko | M | 40000 |

Total rows: 300024    Query complete 00:00:00.180

```sql
12
13    ---2. List the first name, last name, and hire date for the employees who were hired in 1986
14    SELECT
15        first_name,
16        last_name,
17        hire_date
18    FROM
19        employees e
20    WHERE
21        extract(year from hire_date) = 1986
22    ORDER BY
23        first_name ASC, last_name ASC, hire_date ASC;
24
```

Data Output   Messages   Notifications

Showing rows: 1 t

	first_name character varying (50)	last_name character varying (50)	hire_date date
1	Aamer	Beausoleil	1986-11-28
2	Aamer	Belinskaya	1986-12-13
3	Aamer	Calkin	1986-06-09
4	Aamer	Cheshire	1986-04-16
5	Aamer	Crabtree	1986-10-19
6	Aamer	Demir	1986-11-03
7	Aamer	Frijda	1986-11-06
8	Aamer	Gammage	1986-08-04
9	Aamer	Gurbaxani	1986-09-08
10	Aamer	Heusch	1986-04-30
11	Aamer	Homond	1986-04-18
12	Aamer	Hooghiemstra	1986-05-24
13	Aamer	Kroll	1986-05-17
14	Aamer	Lagarias	1986-09-17
15	Aamer	Luga	1986-10-13
16	Aamer	Merks	1986-12-31
17	Aamer	Molenaar	1986-04-22
18	Aamer	Peha	1986-12-26
19	Aamer	Quaggetto	1986-09-09
20	Aamer	Redmiles	1986-04-09
21	Aamer	Schaaf	1986-05-24

Total rows: 36150   Query complete 00:00:00.078

```sql
27    --3. List the manager of each department along with their department number, department name, employee number, last name, and first name
28 ∨ SELECT
29        e.last_name,
30        e.first_name,
31        de.dept_no,
32        d.dept_name,
33        de.emp_no
34    FROM
35        dept_manager de
36        JOIN departments d on de.dept_no = d.dept_no
37        JOIN employees e on de.emp_no = e.emp_no
38    ORDER BY
39        dept_no ASC, last_name ASC;
```

Data Output   Messages   Notifications

Showing rows: 1 to 24   Page No: 1   of 1

	last_name character varying (50)	first_name character varying (50)	dept_no character varying (10)	dept_name character varying (50)	emp_no integer
1	Markovitch	Margareta	d001	Marketing	110022
2	Minakawa	Vishwani	d001	Marketing	110039
3	Alpin	Ebru	d002	Finance	110085
4	Legleitner	Isamu	d002	Finance	110114
5	Ossenbruggen	Shirish	d003	Human Resources	110183
6	Sigstam	Karsten	d003	Human Resources	110228
7	Cools	Rosine	d004	Production	110344
8	Ghazalie	Oscar	d004	Production	110420
9	Kieras	Shem	d004	Production	110386
10	Wegerle	Krassimir	d004	Production	110303
11	DasSarma	Leon	d005	Development	110567
12	Hagimont	DeForest	d005	Development	110511
13	Hofmeyr	Rutger	d006	Quality Management	110765
14	Onuegbe	Peternela	d006	Quality Management	110725
15	Pesch	Dung	d006	Quality Management	110854
16	Quadeer	Sanjoy	d006	Quality Management	110800
17	Kaelbling	Przemyslawa	d007	Sales	111035
18	Zhang	Hauke	d007	Sales	111133
19	Kambil	Hilary	d008	Research	111534
20	Staelin	Arie	d008	Research	111400

Total rows: 24   Query complete 00:00:00.050   LF   Ln 28,

```
37   --4. List the department number for each employee along with that employee's employee number, last name, first name, and department name
38   SELECT
39       de.dept_no,
40       de.emp_no,
41       e.last_name,
42       e.first_name,
43       d.dept_name
44   FROM
45       dept_emp de
46       JOIN employees e on de.emp_no = e.emp_no
47       JOIN departments d on de.dept_no = d.dept_no
48   ORDER BY
49       dept_no ASC, last_name ASC;
```

Data Output   Messages   Notifications

Showing rows: 1 to 1000   Page No: 1   of 332

	dept_no character varying (10)	emp_no integer	last_name character varying (50)	first_name character varying (50)	dept_name character varying (50)
1	d001	255520	Aamodt	Hidefumi	Marketing
2	d001	452757	Aamodt	Gaetan	Marketing
3	d001	487598	Aamodt	Alexius	Marketing
4	d001	260324	Aamodt	Salvador	Marketing
5	d001	493601	Aamodt	Sreekrishna	Marketing
6	d001	27413	Aamodt	Phuoc	Marketing
7	d001	268194	Aamodt	Gila	Marketing
8	d001	42199	Aamodt	Mats	Marketing
9	d001	407793	Aamodt	Jeanne	Marketing
10	d001	87193	Aamodt	Roddy	Marketing
11	d001	292102	Aamodt	Hidefumi	Marketing
12	d001	15171	Acton	Brigham	Marketing
13	d001	219052	Acton	Marsal	Marketing
14	d001	105207	Acton	Basim	Marketing
15	d001	299405	Acton	Werner	Marketing
16	d001	433150	Acton	Fay	Marketing
17	d001	431877	Acton	Terresa	Marketing
18	d001	80582	Acton	Jongsuk	Marketing
19	d001	34354	Acton	Kristen	Marketing
20	d001	28649	Acton	Koichi	Marketing

Total rows: 331603   Query complete 00:00:00.299   LF   Ln 38, C

```
55    --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
56  ⌄ SELECT
57        e.first_name,
58        e.last_name,
59        e.sex
60    FROM
61        employees e
62    WHERE
63        first_name = 'Hercules'
64        and last_name like 'B%'
65    ORDER BY
66        last_name ASC;
67
```

Data Output   Messages   Notifications

Showing rows: 1 to 20   Page No: 1   of 1

	first_name character varying (50)	last_name character varying (50)	sex character varying (5)
1	Hercules	Baak	M
2	Hercules	Baer	M
3	Hercules	Bahr	M
4	Hercules	Bail	F
5	Hercules	Bain	F
6	Hercules	Baranowski	M
7	Hercules	Barreiro	M
8	Hercules	Basagni	M
9	Hercules	Benantar	F
10	Hercules	Benzmuller	M
11	Hercules	Bernardinello	F
12	Hercules	Bernatsky	M
13	Hercules	Berstel	F
14	Hercules	Biran	F
15	Hercules	Birge	F
16	Hercules	Biron	F
17	Hercules	Bisiani	F
18	Hercules	Bodoff	M
19	Hercules	Brendel	F
20	Hercules	Buchter	M

Total rows: 20   Query complete 00:00:00.046   LF   L

```sql
68  ---6. List each employee in the Sales department, including their employee number, last name, and first name
69  SELECT
70      e.emp_no,
71      e.last_name,
72      e.first_name,
73      d.dept_name
74  FROM
75      employees e
76      JOIN dept_emp de on e.emp_no = de.emp_no
77      JOIN departments d on de.dept_no = d.dept_no
78  WHERE
79      d.dept_name = 'Sales'
80  ORDER BY
81      last_name ASC, first_name ASC;
```

Data Output   Messages   Notifications

Showing rows: 1 to 1000   Page No: 1

	emp_no integer	last_name character varying (50)	first_name character varying (50)	dept_name character varying (50)
1	455773	Aamodt	Aemilian	Sales
2	107094	Aamodt	Baoqiu	Sales
3	203802	Aamodt	Berry	Sales
4	428594	Aamodt	Breannda	Sales
5	61219	Aamodt	Chuanyi	Sales
6	492546	Aamodt	Elzbieta	Sales
7	433338	Aamodt	Gian	Sales
8	290839	Aamodt	Guoxiang	Sales
9	233941	Aamodt	Hairong	Sales
10	103125	Aamodt	Huican	Sales
11	275120	Aamodt	Jaideep	Sales
12	240207	Aamodt	Jiann	Sales
13	257214	Aamodt	Kaijung	Sales
14	443223	Aamodt	Karlis	Sales
15	42706	Aamodt	Khalid	Sales
16	71936	Aamodt	Kish	Sales
17	408737	Aamodt	Leen	Sales
18	203606	Aamodt	Lenore	Sales
19	297498	Aamodt	Lenore	Sales

Total rows: 52245   Query complete 00:00:00.086

```
77    --7. List each employee in the Sales and Development departments, including their employee number, last name, first name, and department name
78  ∨ SELECT
79        e.emp_no,
80        e.last_name,
81        e.first_name,
82        d.dept_name
83    FROM
84        employees e
85        JOIN dept_emp de on e.emp_no = de.emp_no
86        JOIN departments d on de.dept_no = d.dept_no
87    WHERE
88        d.dept_name IN ('Sales', 'Development')
89    ORDER BY
90        dept_name DESC, last_name ASC, first_name ASC;
91
```

Data Output   Messages   Notifications

Showing rows: 1 to 1000   Page No: 1   of 138

	emp_no integer	last_name character varying (50)	first_name character varying (50)	dept_name character varying (50)
1	455773	Aamodt	Aemilian	Sales
2	107094	Aamodt	Baoqiu	Sales
3	203802	Aamodt	Berry	Sales
4	428594	Aamodt	Breannda	Sales
5	61219	Aamodt	Chuanyi	Sales
6	492546	Aamodt	Elzbieta	Sales
7	433338	Aamodt	Gian	Sales
8	290839	Aamodt	Guoxiang	Sales
9	233941	Aamodt	Hairong	Sales
10	103125	Aamodt	Huican	Sales
11	275120	Aamodt	Jaideep	Sales
12	240207	Aamodt	Jiann	Sales
13	257214	Aamodt	Kaijung	Sales
14	443223	Aamodt	Karlis	Sales
15	42706	Aamodt	Khalid	Sales
16	71936	Aamodt	Kish	Sales
17	408737	Aamodt	Leen	Sales
18	297498	Aamodt	Lenore	Sales
19	203606	Aamodt	Lenore	Sales

Total rows: 137952   Query complete 00:00:00.207   LF   Ln 90, Col 48

```
92    ---8. List the frequency counts, in descending order, of all the employee last names (that is, how many employees share each last name)
93  ∨ SELECT
94        e.last_name,
95        count(e.emp_no) as num_last_name
96    FROM
97        employees e
98    GROUP BY
99        e.last_name
100   ORDER BY
101       num_last_name DESC;
```

Data Output   Messages   Notifications

Showing rows: 1 to 1000   Page No: 1   of 2

	last_name character varying (50) 🔒	num_last_name bigint 🔒
1	Baba	226
2	Gelosh	223
3	Coorg	223
4	Sudbeck	222
5	Farris	222
6	Adachi	221
7	Osgood	220
8	Mandell	218
9	Masada	218
10	Neiman	218
11	Boudaillier	217
12	Wendorf	217
13	Mahnke	216
14	Solares	216
15	Cummings	216
16	Pettis	216
17	Birjandi	215
18	Kulisch	215
19	Collette	215
20	Maksimenko	215
21	Emmart	215
22	Rosaz	214

Total rows: 1638   Query complete 00:00:00.073   LF   Ln 101,