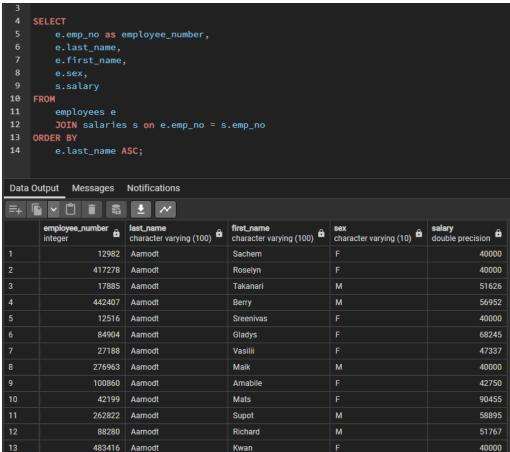# Homework 9: SQL | Screenshots of Results
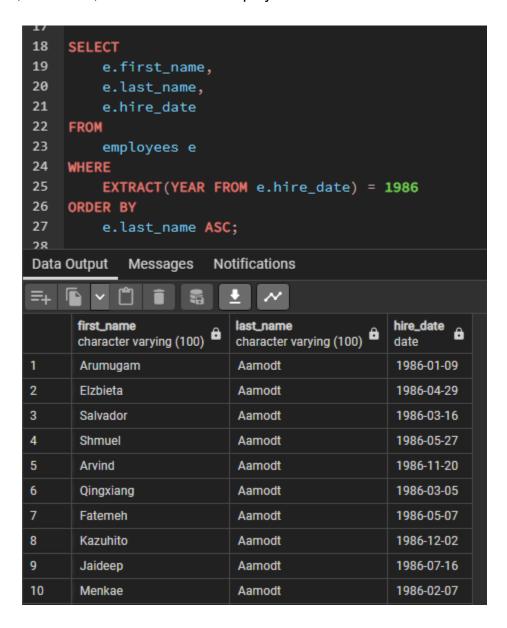
SMU Data Analytics Bootcamp

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

```
 3
 4  SELECT
 5      e.emp_no as employee_number,
 6      e.last_name,
 7      e.first_name,
 8      e.sex,
 9      s.salary
10  FROM
11      employees e
12      JOIN salaries s on e.emp_no = s.emp_no
13  ORDER BY
14      e.last_name ASC;
```

Data Output   Messages   Notifications

	employee_number integer	last_name character varying (100)	first_name character varying (100)	sex character varying (10)	salary double precision
1	12982	Aamodt	Sachem	F	40000
2	417278	Aamodt	Roselyn	F	40000
3	17885	Aamodt	Takanari	M	51626
4	442407	Aamodt	Berry	M	56952
5	12516	Aamodt	Sreenivas	F	40000
6	84904	Aamodt	Gladys	F	68245
7	27188	Aamodt	Vasilii	F	47337
8	276963	Aamodt	Maik	M	40000
9	100860	Aamodt	Amabile	F	42750
10	42199	Aamodt	Mats	F	90455
11	262822	Aamodt	Supot	M	58895
12	88280	Aamodt	Richard	M	51767
13	483416	Aamodt	Kwan	F	40000

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

```
17
18  SELECT
19      e.first_name,
20      e.last_name,
21      e.hire_date
22  FROM
23      employees e
24  WHERE
25      EXTRACT(YEAR FROM e.hire_date) = 1986
26  ORDER BY
27      e.last_name ASC;
28
```

Data Output   Messages   Notifications

	first_name character varying (100)	last_name character varying (100)	hire_date date
1	Arumugam	Aamodt	1986-01-09
2	Elzbieta	Aamodt	1986-04-29
3	Salvador	Aamodt	1986-03-16
4	Shmuel	Aamodt	1986-05-27
5	Arvind	Aamodt	1986-11-20
6	Qingxiang	Aamodt	1986-03-05
7	Fatemeh	Aamodt	1986-05-07
8	Kazuhito	Aamodt	1986-12-02
9	Jaideep	Aamodt	1986-07-16
10	Menkae	Aamodt	1986-02-07

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

```
32  SELECT
33      d.dept_no,
34      d.dept_name,
35      dm.emp_no,
36      e.last_name,
37      e.first_name
38  FROM
39      departments d
40      JOIN dept_manager dm ON d.dept_no = dm.dept_no
41      JOIN employees e ON dm.emp_no = e.emp_no
42  ORDER BY
43      e.last_name ASC;
44
```
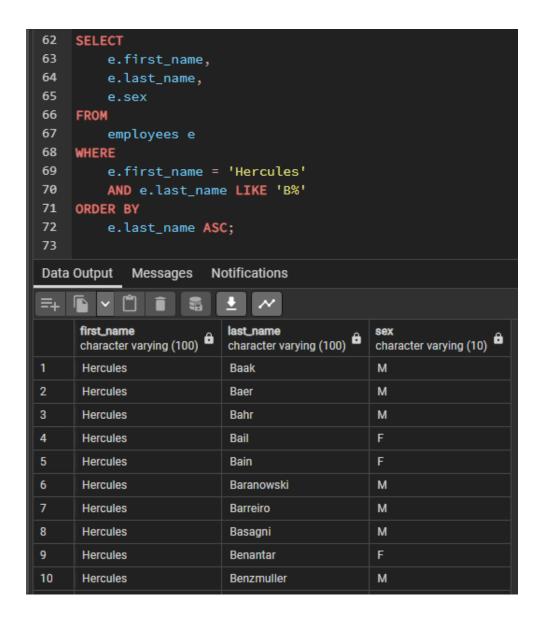
Data Output   Messages   Notifications

	dept_no character varying (10)	dept_name character varying (100)	emp_no integer	last_name character varying (100)	first_name character varying (100)
1	d002	Finance	110085	Alpin	Ebru
2	d009	Customer Service	111692	Butterworth	Tonny
3	d004	Production	110344	Cools	Rosine
4	d005	Development	110567	DasSarma	Leon
5	d004	Production	110420	Ghazalie	Oscar
6	d009	Customer Service	111784	Giarratana	Marjo
7	d005	Development	110511	Hagimont	DeForest
8	d006	Quality Management	110765	Hofmeyr	Rutger
9	d007	Sales	111035	Kaelbling	Przemyslawa
10	d008	Research	111534	Kambil	Hilary

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

```
48  SELECT
49      de.emp_no,
50      e.last_name,
51      e.first_name,
52      d.dept_name
53  FROM
54      departments d
55      JOIN dept_emp de ON d.dept_no = de.dept_no
56      JOIN employees e ON de.emp_no = e.emp_no
57  ORDER BY
58      e.last_name ASC;
59
```

Data Output   Messages   Notifications

	emp_no integer	last_name character varying (100)	first_name character varying (100)	dept_name character varying (100)
1	244716	Aamodt	Subhash	Production
2	290159	Aamodt	Leandro	Finance
3	36585	Aamodt	Menkae	Sales
4	78545	Aamodt	Sumant	Production
5	36577	Aamodt	Mahmut	Development
6	422538	Aamodt	Matk	Sales
7	90035	Aamodt	Georgi	Production
8	43174	Aamodt	Mariusz	Sales
9	438271	Aamodt	Geraldo	Development
10	429641	Aamodt	Tze	Production

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

```sql
62  SELECT
63      e.first_name,
64      e.last_name,
65      e.sex
66  FROM
67      employees e
68  WHERE
69      e.first_name = 'Hercules'
70      AND e.last_name LIKE 'B%'
71  ORDER BY
72      e.last_name ASC;
73
```

Data Output   Messages   Notifications

	first_name character varying (100)	last_name character varying (100)	sex character varying (10)
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

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

```sql
76  SELECT
77      e.emp_no,
78      e.last_name,
79      e.first_name,
80      d.dept_name
81  FROM
82      departments d
83      JOIN dept_emp de ON d.dept_no = de.dept_no
84      JOIN employees e ON de.emp_no = e.emp_no
85  WHERE
86      d.dept_name = 'Sales'
87  ORDER BY
88      e.last_name ASC;
```

Data Output   Messages   Notifications

	emp_no integer	last_name character varying (100)	first_name character varying (100)	dept_name character varying (100)
1	36585	Aamodt	Menkae	Sales
2	279540	Aamodt	Luisa	Sales
3	57933	Aamodt	Yishay	Sales
4	221023	Aamodt	Shan	Sales
5	433338	Aamodt	Gian	Sales
6	493102	Aamodt	Srinidhi	Sales
7	428594	Aamodt	Breannda	Sales
8	36264	Aamodt	Sariel	Sales
9	297498	Aamodt	Lenore	Sales
10	283857	Aamodt	Weiru	Sales

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

```sql
93  SELECT
94      e.emp_no,
95      e.last_name,
96      e.first_name,
97      d.dept_name
98  FROM
99      departments d
100     JOIN dept_emp de ON d.dept_no = de.dept_no
101     JOIN employees e ON de.emp_no = e.emp_no
102 WHERE
103     d.dept_name = 'Sales' OR d.dept_name = 'Development'
104 ORDER BY
105     e.last_name ASC;
106
```

Data Output   Messages   Notifications

	emp_no integer	last_name character varying (100)	first_name character varying (100)	dept_name character varying (100)
1	84904	Aamodt	Gladys	Development
2	103125	Aamodt	Huican	Sales
3	239949	Aamodt	Zhiwei	Development
4	107602	Aamodt	Sorina	Development
5	36264	Aamodt	Sariel	Sales
6	19898	Aamodt	Vidar	Sales
7	57989	Aamodt	Takahira	Development
8	88280	Aamodt	Richard	Development
9	238705	Aamodt	Anoosh	Development
10	16572	Aamodt	Matt	Development

8. List the frequency count of employee last names (i.e., how many employees share each last name) in descending order.

```sql
109  SELECT
110      e.last_name,
111      COUNT(*) AS num_emps
112  FROM
113      employees e
114  GROUP BY
115      e.last_name
116  ORDER BY
117      num_emps DESC;
118
```

Data Output   Messages   Notifications

	last_name character varying (100)	num_emps 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	Mandell	218
10	Masada	218