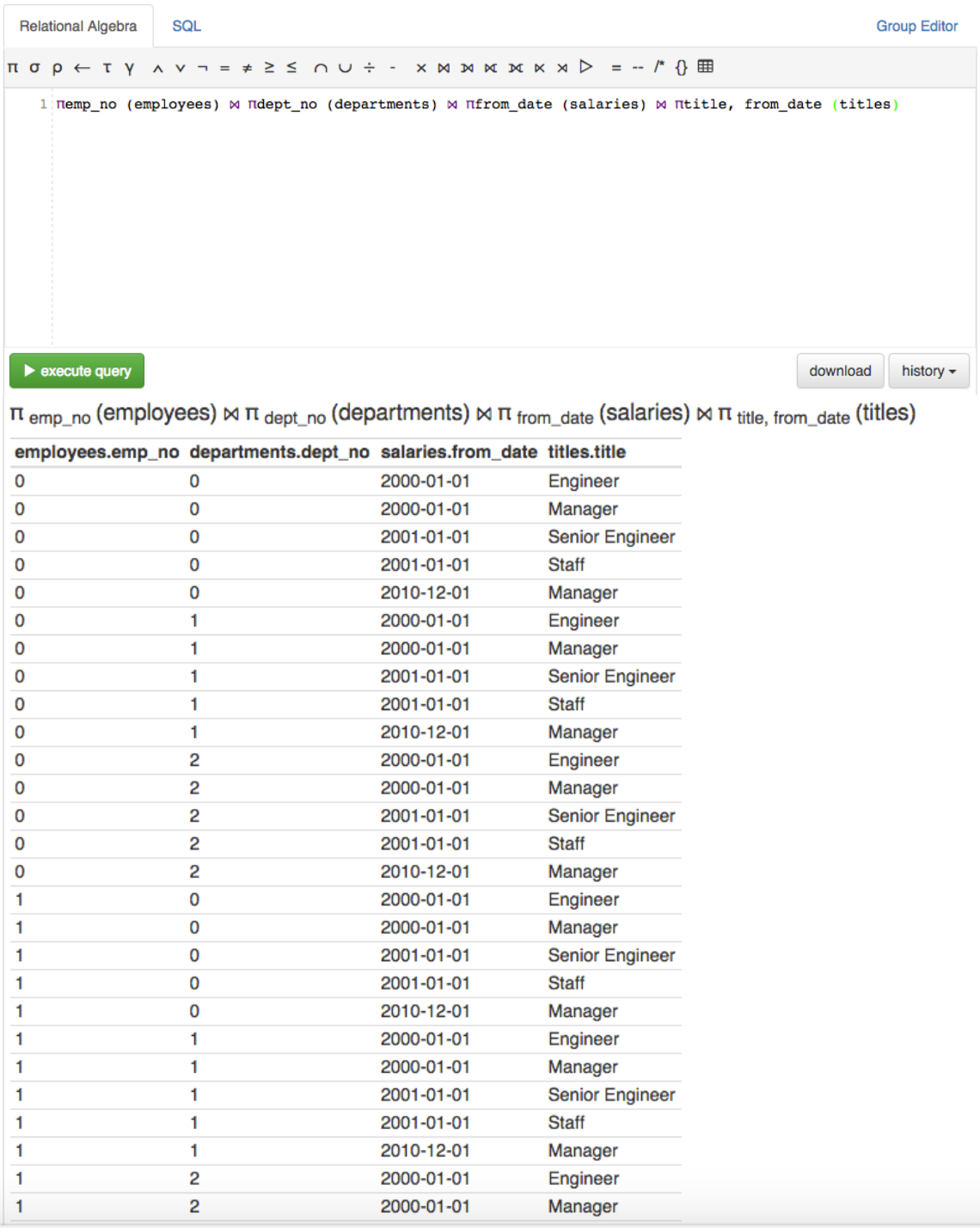
James Logan Piercefield
Project 1
CSC 3300

Gist Used: **ad8153e01ccdcd58e064** (for some)

1.



$\pi_{emp\_no}(employees) \bowtie \pi_{dept\_no}(departments) \bowtie \pi_{from\_date}(salaries) \bowtie \pi_{title,\ from\_date}(titles)$

employees.emp_no	departments.dept_no	salaries.from_date	titles.title
0	0	2000-01-01	Engineer
0	0	2000-01-01	Manager
0	0	2001-01-01	Senior Engineer
0	0	2001-01-01	Staff
0	0	2010-12-01	Manager
0	1	2000-01-01	Engineer
0	1	2000-01-01	Manager
0	1	2001-01-01	Senior Engineer
0	1	2001-01-01	Staff
0	1	2010-12-01	Manager
0	2	2000-01-01	Engineer
0	2	2000-01-01	Manager
0	2	2001-01-01	Senior Engineer
0	2	2001-01-01	Staff
0	2	2010-12-01	Manager
1	0	2000-01-01	Engineer
1	0	2000-01-01	Manager
1	0	2001-01-01	Senior Engineer
1	0	2001-01-01	Staff
1	0	2010-12-01	Manager
1	1	2000-01-01	Engineer
1	1	2000-01-01	Manager
1	1	2001-01-01	Senior Engineer
1	1	2001-01-01	Staff
1	1	2010-12-01	Manager
1	2	2000-01-01	Engineer
1	2	2000-01-01	Manager

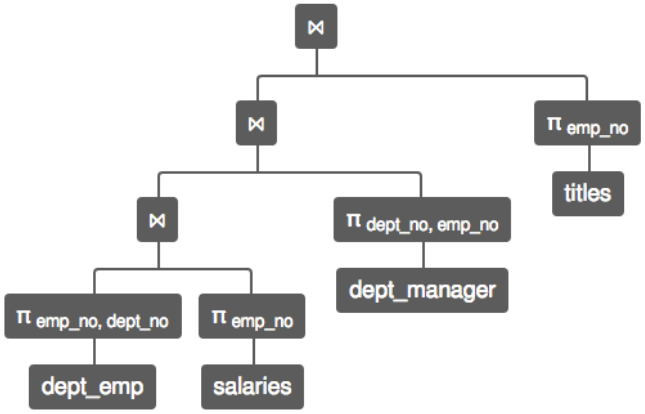
2.

Relational Algebra | SQL | Group Editor

π σ ρ ← τ γ ∧ ∨ ¬ = ≠ ≥ ≤ ∩ ∪ ÷ - × ⋈ ⋉ ⋊ ⋋ ⋌ ⋊ ▷ = -- /* {} ▦

```
1 πemp_no, dept_no (dept_emp) ⋈ πemp_no (salaries) ⋈ πdept_no, emp_no (dept_manager) ⋈ πemp_no (titles)
```

▶ execute query | download | history



$\pi_{emp\_no,\ dept\_no}(dept\_emp) \bowtie \pi_{emp\_no}(salaries) \bowtie \pi_{dept\_no,\ emp\_no}(dept\_manager) \bowtie \pi_{emp\_no}(titles)$

dept_emp.emp_no	dept_emp.dept_no
3	0
4	1
5	2
6	2

3.

Relational Algebra | SQL | Group Editor

π σ ρ ← τ γ ∧ ∨ ¬ = ≠ ≥ ≤ ∩ ∪ ÷ - × ⋈ ⋉ ⋊ ⋋ ⋌ ⋊ ▷ = -- /* {} ▦

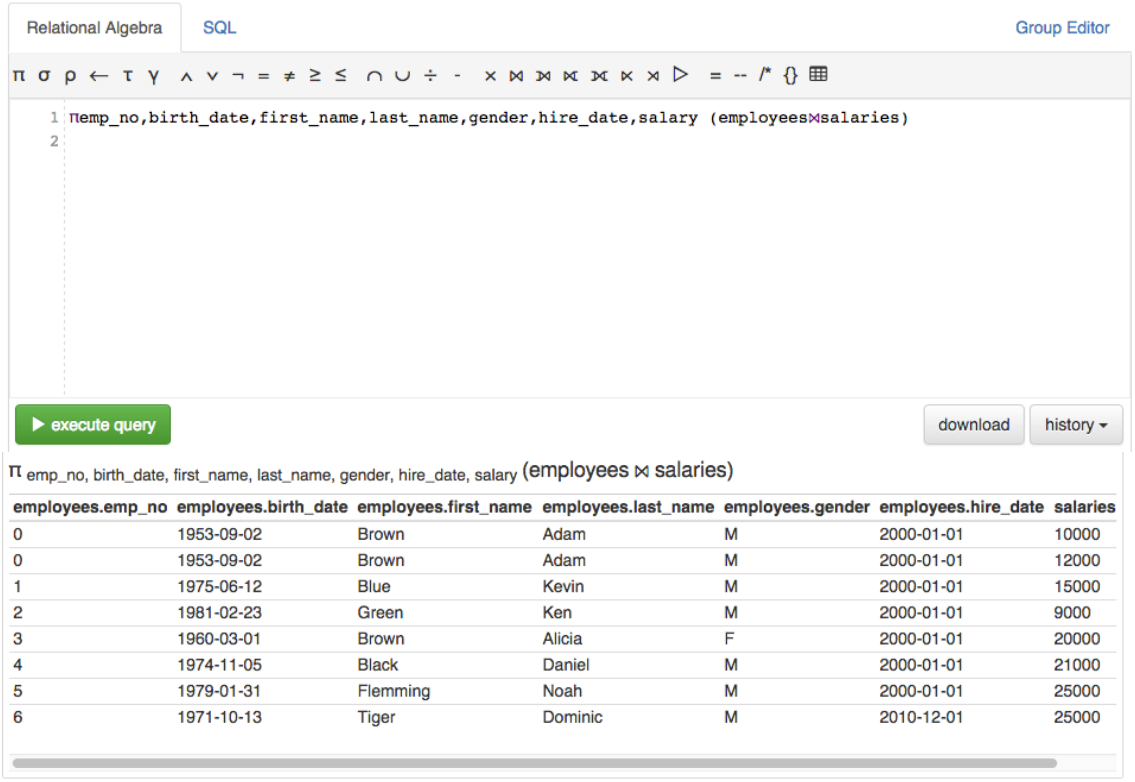
```
1 employees
2
3
```

▶ execute query | download | history

employees

employees.emp_no	employees.birth_date	employees.first_name	employees.last_name	employees.gender	employees.hire_date
0	1953-09-02	Brown	Adam	M	2000-01-01
1	1975-06-12	Blue	Kevin	M	2000-01-01
2	1981-02-23	Green	Ken	M	2000-01-01
3	1960-03-01	Brown	Alicia	F	2000-01-01
4	1974-11-05	Black	Daniel	M	2000-01-01
5	1979-01-31	Flemming	Noah	M	2000-01-01
6	1971-10-13	Tiger	Dominic	M	2010-12-01

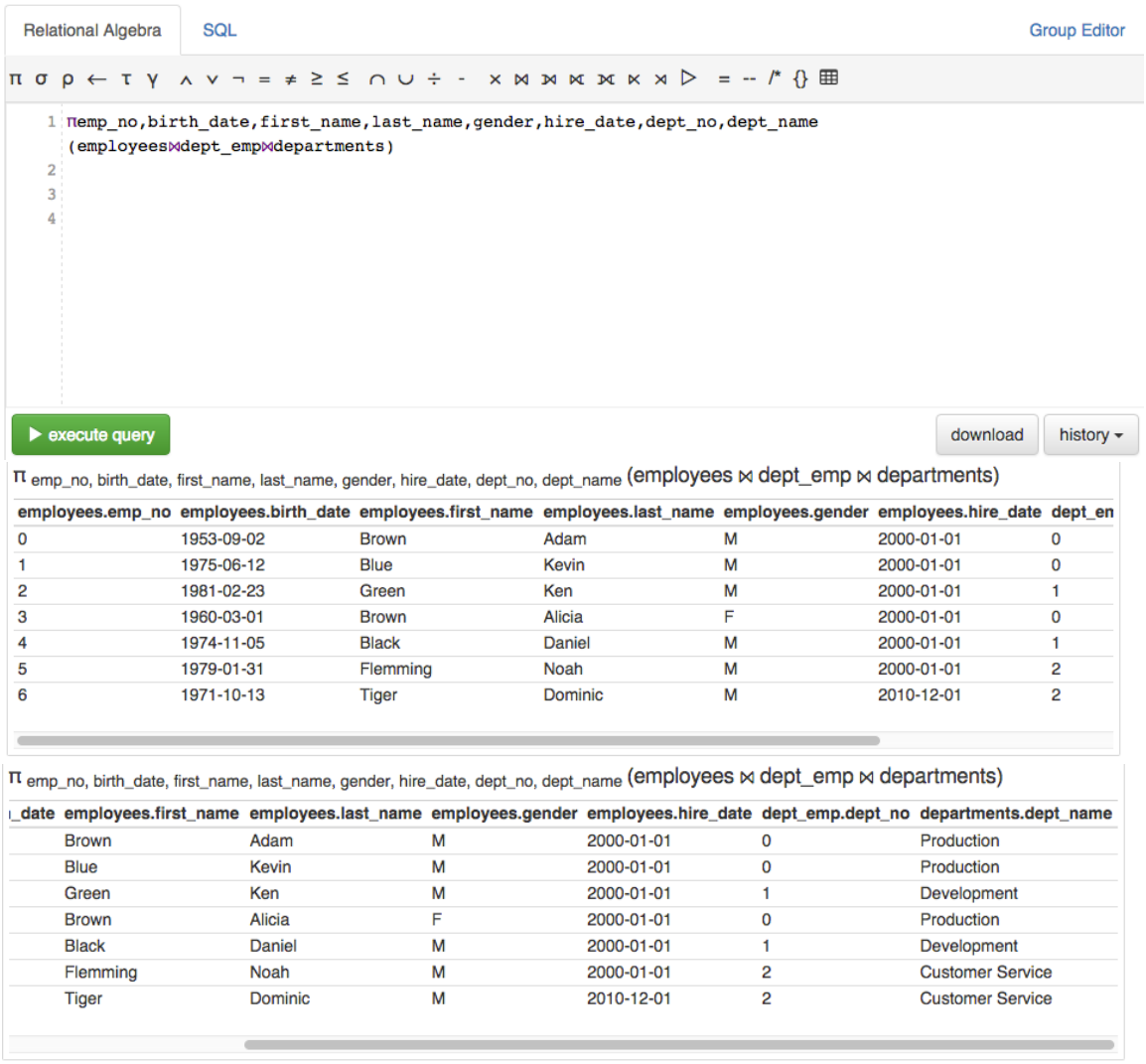
4.



π emp_no, birth_date, first_name, last_name, gender, hire_date, salary (employees ⋈ salaries)

employees.emp_no	employees.birth_date	employees.first_name	employees.last_name	employees.gender	employees.hire_date	salaries
0	1953-09-02	Brown	Adam	M	2000-01-01	10000
0	1953-09-02	Brown	Adam	M	2000-01-01	12000
1	1975-06-12	Blue	Kevin	M	2000-01-01	15000
2	1981-02-23	Green	Ken	M	2000-01-01	9000
3	1960-03-01	Brown	Alicia	F	2000-01-01	20000
4	1974-11-05	Black	Daniel	M	2000-01-01	21000
5	1979-01-31	Flemming	Noah	M	2000-01-01	25000
6	1971-10-13	Tiger	Dominic	M	2010-12-01	25000

5.


Relational Algebra
SQL
Group Editor
π σ ρ ← τ γ ∧ ∨ ¬ = ≠ ≥ ≤ ∩ ∪ ÷ - × ⋈ ⋈ ⋈ ⋈ ⋉ ⋊ ▷ = -- /* {}
1 πemp_no,birth_date,first_name,last_name,gender,hire_date,dept_no,dept_name
(employees⋈dept_emp⋈departments)
2
3
4
▶ execute query
download
history
π emp_no, birth_date, first_name, last_name, gender, hire_date, dept_no, dept_name (employees ⋈ dept_emp ⋈ departments)
employees.emp_no employees.birth_date employees.first_name employees.last_name employees.gender employees.hire_date dept_en
0 1953-09-02 Brown Adam M 2000-01-01 0
1 1975-06-12 Blue Kevin M 2000-01-01 0
2 1981-02-23 Green Ken M 2000-01-01 1
3 1960-03-01 Brown Alicia F 2000-01-01 0
4 1974-11-05 Black Daniel M 2000-01-01 1
5 1979-01-31 Flemming Noah M 2000-01-01 2
6 1971-10-13 Tiger Dominic M 2010-12-01 2
π emp_no, birth_date, first_name, last_name, gender, hire_date, dept_no, dept_name (employees ⋈ dept_emp ⋈ departments)
_date employees.first_name employees.last_name employees.gender employees.hire_date dept_emp.dept_no departments.dept_name
Brown Adam M 2000-01-01 0 Production
Blue Kevin M 2000-01-01 0 Production
Green Ken M 2000-01-01 1 Development
Brown Alicia F 2000-01-01 0 Production
Black Daniel M 2000-01-01 1 Development
Flemming Noah M 2000-01-01 2 Customer Service
Tiger Dominic M 2010-12-01 2 Customer Service

6.

Relational Algebra | SQL | Group Editor

```
1 πemp_no,birth_date,first_name,last_name,gender,hire_date (employees) -
2 πemp_no,birth_date,first_name,last_name,gender,hire_date (employees ⋈ dept_manager)
3
4
5
6
```

▶ execute query | download | history

π emp_no, birth_date, first_name, last_name, gender, hire_date (employees) - π emp_no, birth_date, first_name, last_name, gender, hire_date (employees ⋈ dept_manager)

employees.emp_no	employees.birth_date	employees.first_name	employees.last_name	employees.gender	employees.hire_date
0	1953-09-02	Brown	Adam	M	2000-01-01
1	1975-06-12	Blue	Kevin	M	2000-01-01
2	1981-02-23	Green	Ken	M	2000-01-01

7.

Relational Algebra | SQL | Group Editor

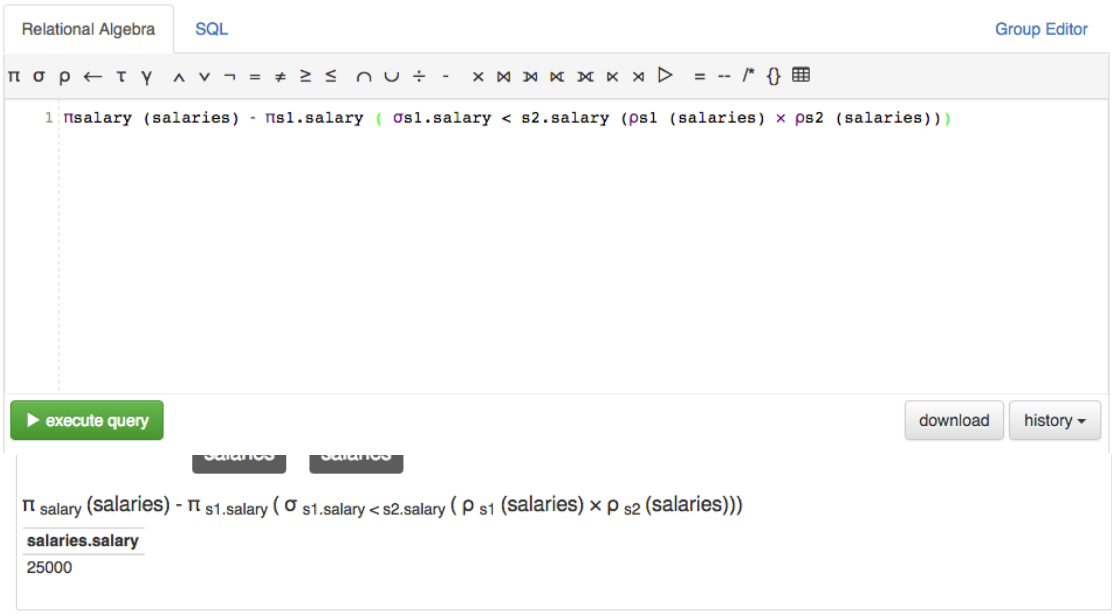
```
1 πemp_no,birth_date,first_name,last_name,gender,hire_date (σdept_no=0 (dept_emp)⋈employees)
2
3
```

▶ execute query | download | history

π emp_no, birth_date, first_name, last_name, gender, hire_date (σ dept_no = 0 (dept_emp) ⋈ employees)

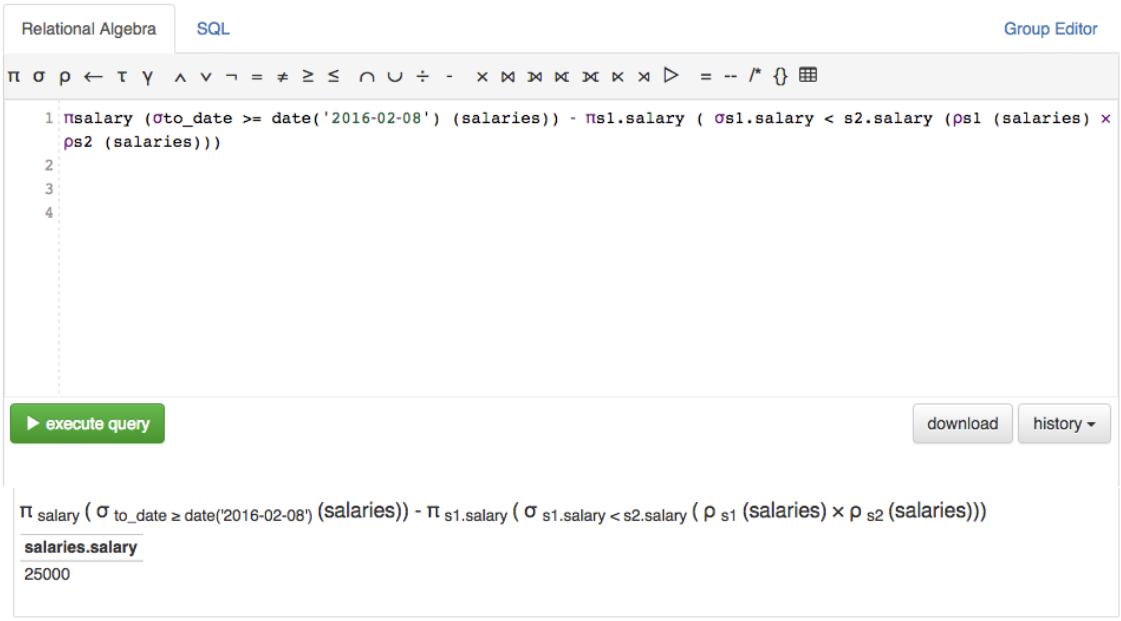
dept_emp.emp_no	employees.birth_date	employees.first_name	employees.last_name	employees.gender	employees.hire_date
0	1953-09-02	Brown	Adam	M	2000-01-01
1	1975-06-12	Blue	Kevin	M	2000-01-01
3	1960-03-01	Brown	Alicia	F	2000-01-01

8.

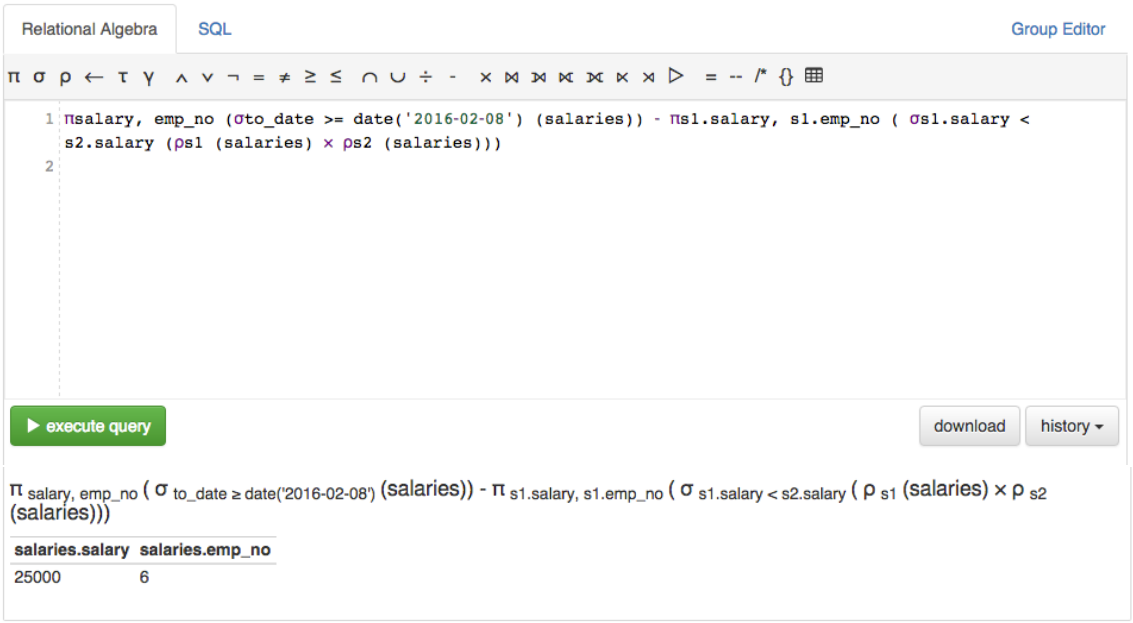


https://dev.mysql.com/doc/employee/en/

9.

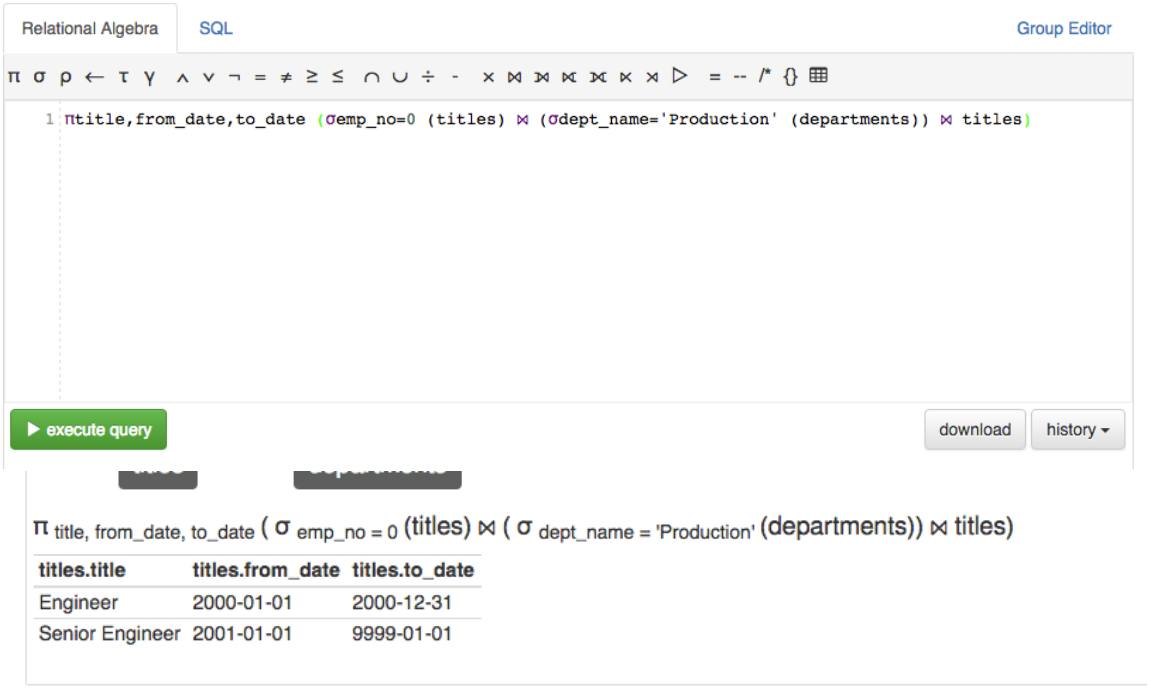


10.

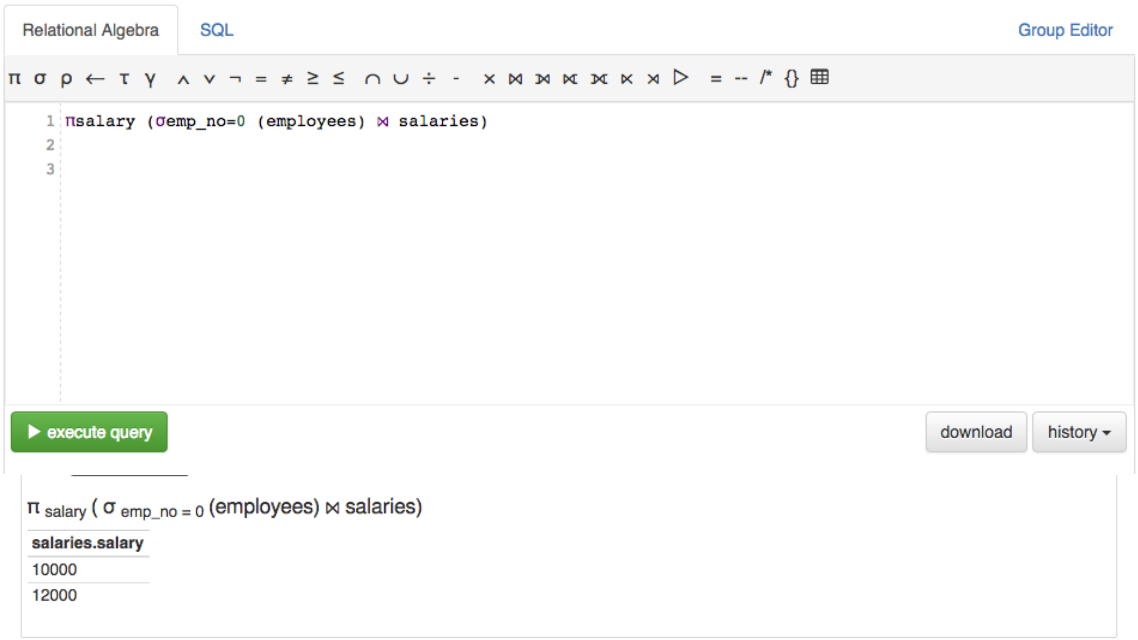


https://dev.mysql.com/doc/employee/en/

11.

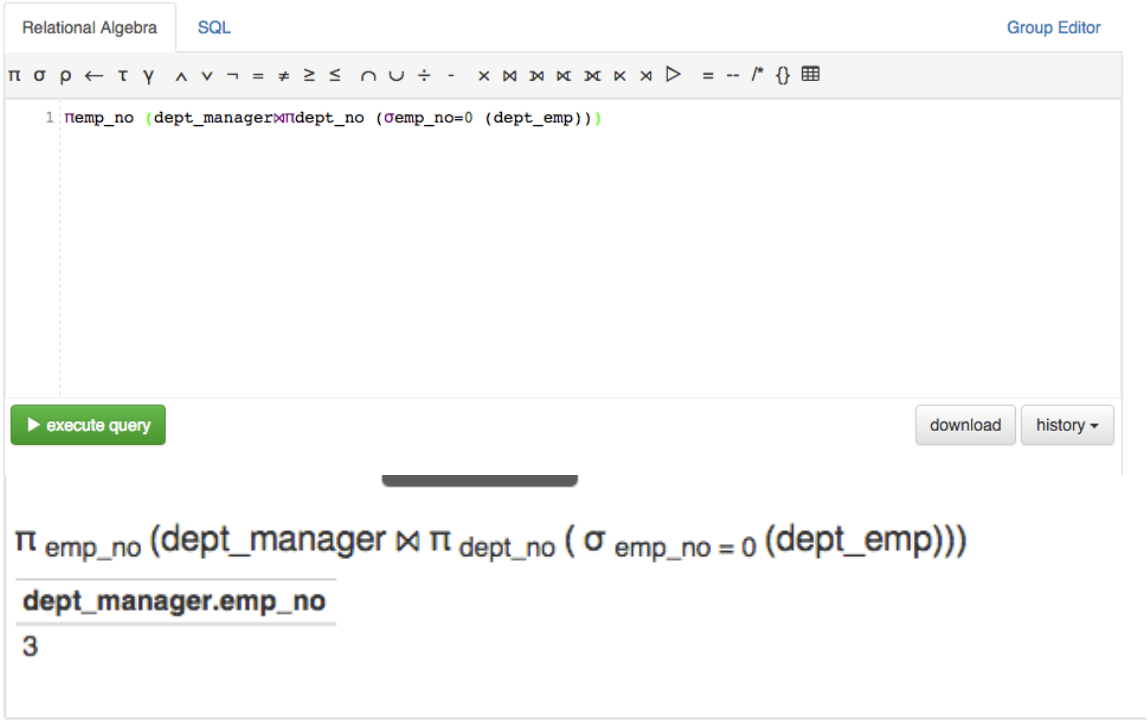


12.



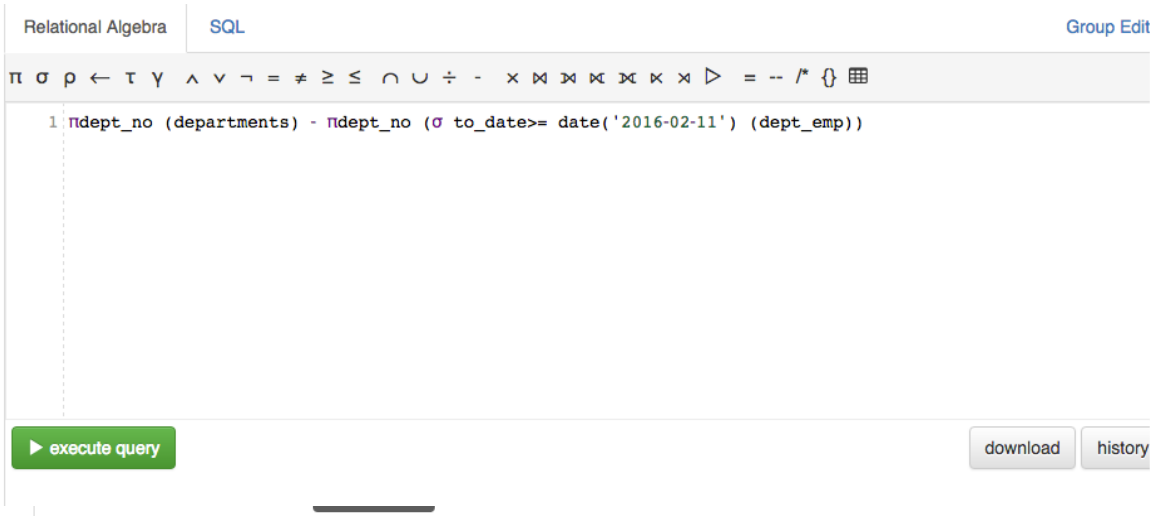
https://dev.mysql.com/doc/employee/en/

13.



https://dev.mysql.com/doc/employee/en/

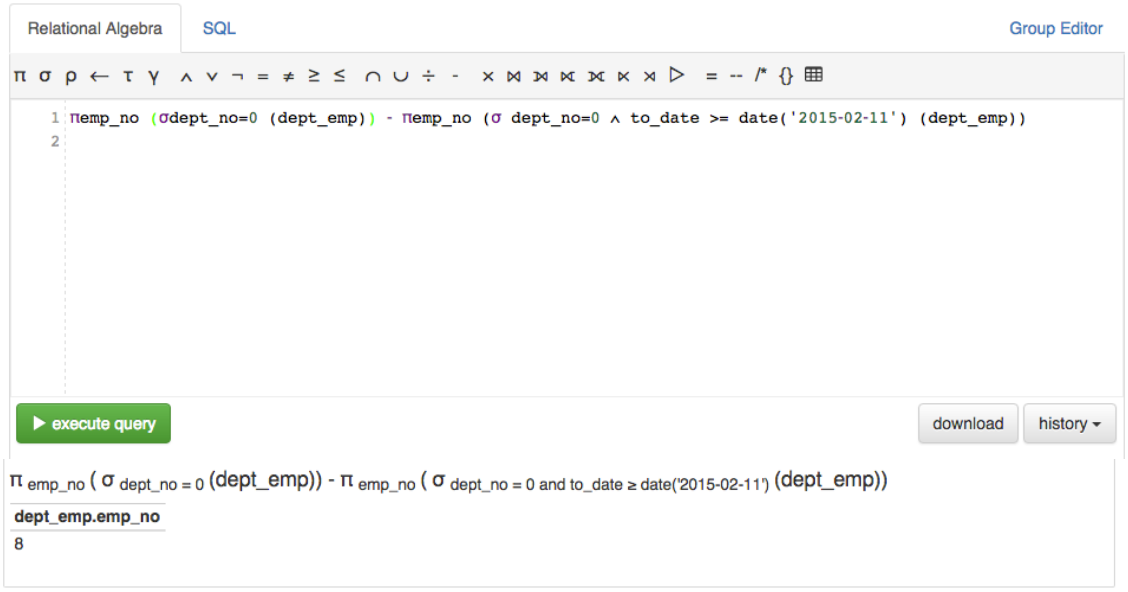
14.



https://dev.mysql.com/doc/employee/en/

Source: gist.github.com

15.

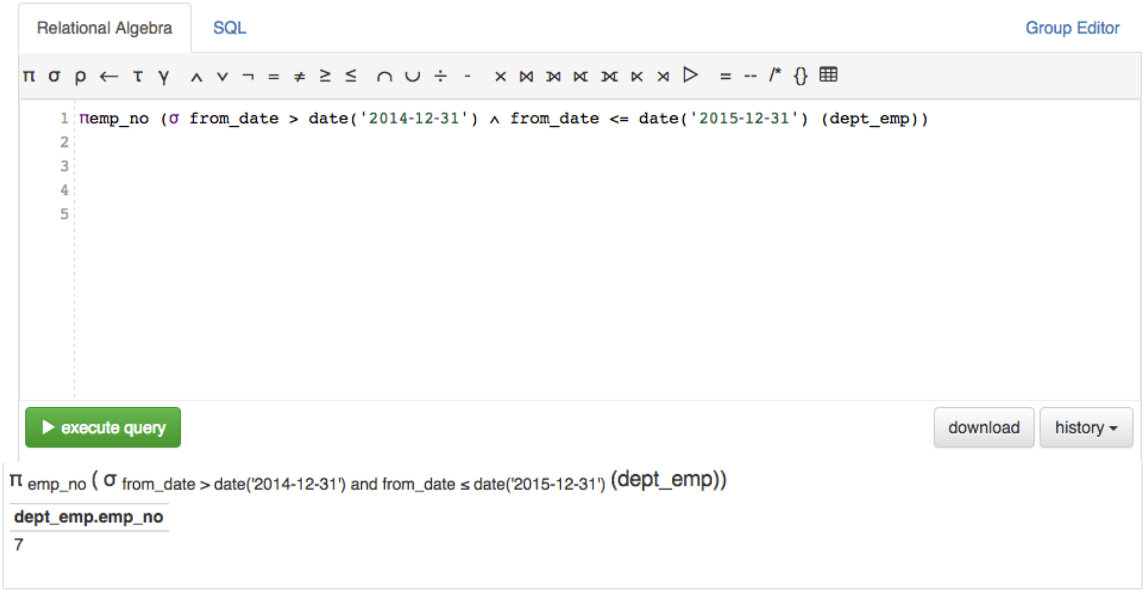


https://dev.mysql.com/doc/employee/en/

16.

https://dev.mysql.com/doc/employee/en/

17.

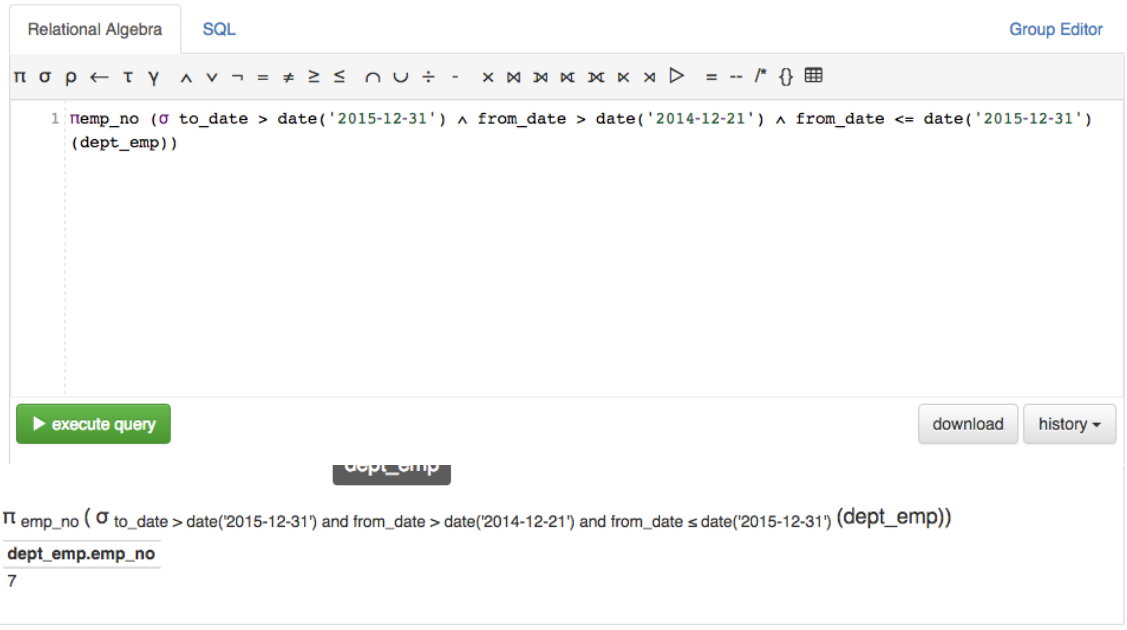


https://dev.mysql.com/doc/employee/en/

18.

https://dev.mysql.com/doc/employee/en/

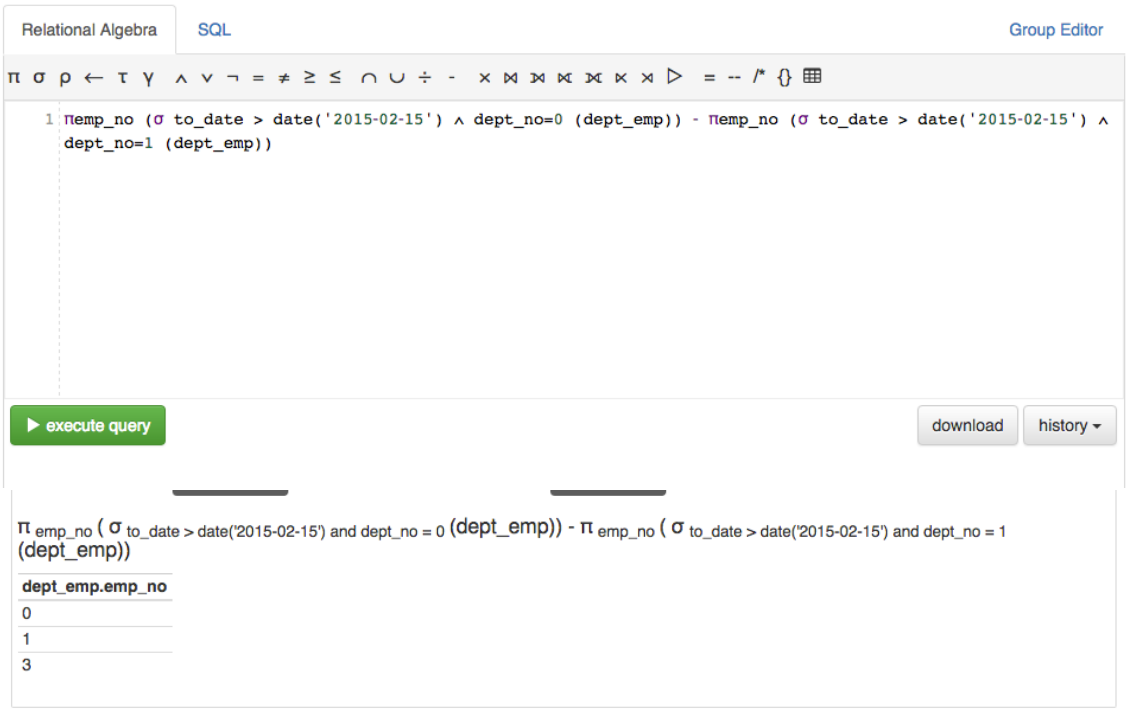
19.



https://dev.mysql.com/doc/employee/en/

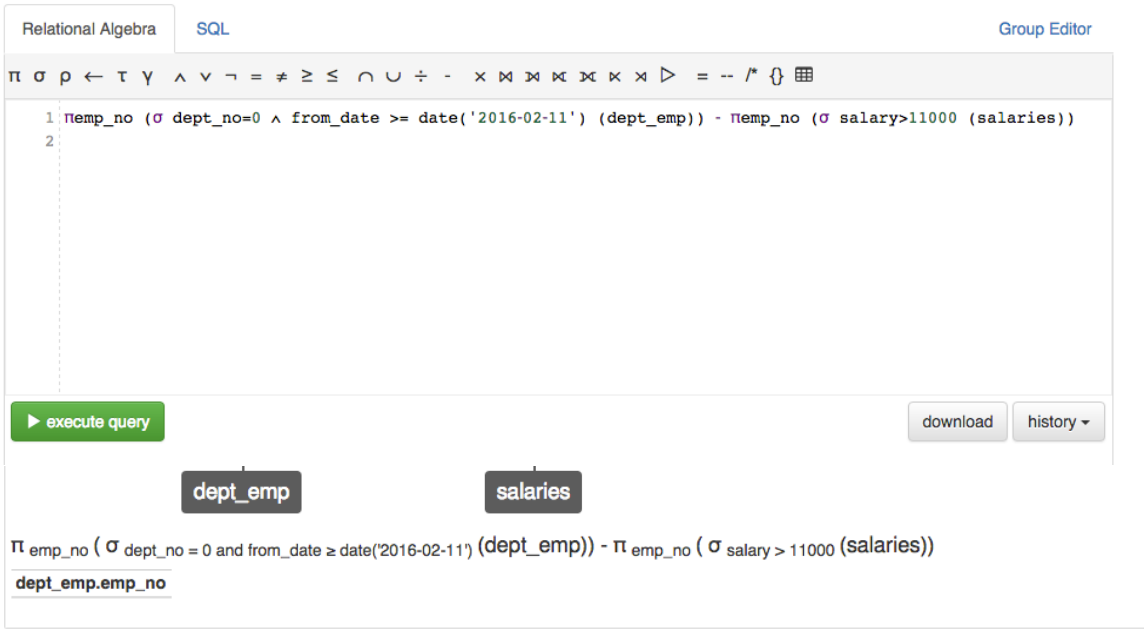
Source: gist.github.com
by anonymous

20.



https://dev.mysql.com/doc/employee/en/

21.



https://dev.mysql.com/doc/employee/en/

Source: gist.github.com
by bkubiak7