

Vejledende løsninger

Hvis I vil tjekke løsningerne i Postgres også, kan I oprette en database og køre scriptet academy.sql. Det giver jer de relevante tabeller med data.

Opgave 1:

Join mellem students og enrollments:

student_id	first_name	last_name	role_id	enrollment_id	student_id	course_id	grade
integer	character varying (50)	character varying (50)	integer	integer	integer	integer	character varying (2)
1	Emil	Hansen	1	1	1	1	7
1	Emil	Hansen	1	2	1	2	10
2	Sofie	Nielsen	2	3	2	1	4
2	Sofie	Nielsen	2	4	2	3	7
3	Mads	Kristensen	1	5	3	2	12
3	Mads	Kristensen	1	6	3	3	10
4	Anna	Møller	3	7	4	1	02
4	Anna	Møller	3	8	4	2	4
5	Frederik	Olsen	2	9	5	3	7
6	Julie	Andersen	1	10	6	1	10

I kan få dette frem i pgAdmin ved at eksekvere følgende query:

```
SELECT *  
FROM students JOIN enrollments ON students.student_id = enrollments.student_id
```

Resultatsæt for query

```
SELECT students.first_name, students.last_name  
FROM students JOIN enrollments ON students.student_id = enrollments.student_id  
WHERE grade = '7'
```

first_name	last_name
character varying (50)	character varying (50)
Emil	Hansen
Sofie	Nielsen
Frederik	Olsen

Opgave 2

Join mellem enrollments og courses:

course_id integer	course_name character varying (50)	teacher_id integer	enrollment_id integer	student_id integer	course_id integer	grade character varying (2)
1	DAT2	1	1	1	1	7
2	SOFT	2	2	1	2	10
1	DAT2	1	3	2	1	4
3	WEB	1	4	2	3	7
2	SOFT	2	5	3	2	12
3	WEB	1	6	3	3	10
1	DAT2	1	7	4	1	02
2	SOFT	2	8	4	2	4
3	WEB	1	9	5	3	7
1	DAT2	1	10	6	1	10

I kan få dette frem i pgAdmin med følgende query:

```
SELECT *  
FROM courses JOIN enrollments ON courses.course_id = enrollments.course_id
```

Resultatsæt fra query

```
SELECT course_name, grade  
FROM courses JOIN enrollments ON courses.course_id = enrollments.course_id  
ORDER BY course_name
```

course_name character varying (50)	grade character varying (2)
DAT2	7
DAT2	4
DAT2	02
DAT2	10
SOFT	12
SOFT	10
SOFT	4
WEB	10
WEB	7
WEB	7

Opgave 3

Join mellem enrollments, students og courses.

enrollment_id integer	student_id integer	course_id integer	grade character varying (2)	student_id integer	first_name character varying (50)	last_name character varying (50)	role_id integer	course_id integer	course_name character varying (50)	teacher_id integer
1	1	1	7	1	Emil	Hansen		1	DAT2	1
2	1	2	10	1	Emil	Hansen	1	2	SOFT	2
3	2	1	4	2	Sofie	Nielsen	2	1	DAT2	1
4	2	3	7	2	Sofie	Nielsen	2	3	WEB	1
5	3	2	12	3	Mads	Kristensen	1	2	SOFT	2
6	3	3	10	3	Mads	Kristensen	1	3	WEB	1
7	4	1	02	4	Anna	Møller	3	1	DAT2	1
8	4	2	4	4	Anna	Møller	3	2	SOFT	2
9	5	3	7	5	Frederik	Olsen	2	3	WEB	1
10	6	1	10	6	Julie	Andersen	1	1	DAT2	1

I kan få dette frem i PgAdmin med følgende query:

```
SELECT *  
FROM enrollments e  
JOIN students s ON e.student_id = s.student_id  
JOIN courses c ON e.course_id = c.course_id
```

Resultatsæt fra query

```
SELECT first_name, last_name, grade, c.course_name  
FROM enrollments e  
JOIN students s ON e.student_id = s.student_id  
JOIN courses c ON e.course_id = c.course_id
```

first_name character varying (50)	last_name character varying (50)	grade character varying (2)	course_name character varying (50)
Emil	Hansen	7	DAT2
Emil	Hansen	10	SOFT
Sofie	Nielsen	4	DAT2
Sofie	Nielsen	7	WEB
Mads	Kristensen	12	SOFT
Mads	Kristensen	10	WEB
Anna	Møller	02	DAT2
Anna	Møller	4	SOFT
Frederik	Olsen	7	WEB
Julie	Andersen	10	DAT2