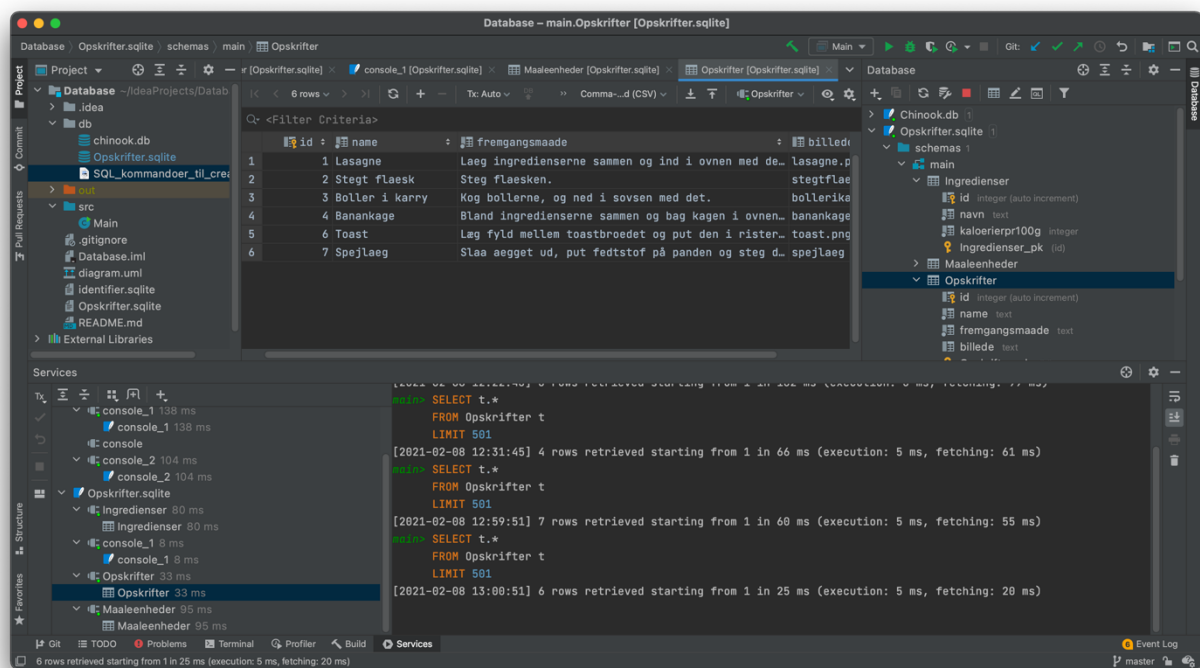


# SQL kommandoer til create, read, update og delete (CRUD)

For at lære at manipulere data vha. SQL queries skal du udarbejde følgende queries:

- INSERT INTO queries, som gemmer 3 nye opskrifter i databasen

```
INSERT INTO Opskrifter (name, fremgangsmaade, billede)
VALUES ('Banankage', 'Bland ingredienserne sammen og bag kagen i ovnen på
200grader varmluft.', 'banankage.png'),
('Toast', 'Læg fyld mellem toastbroedet og put den i risteren',
'toast.png'),
('Spejlaeg', 'Slaa aegget ud, put fedtstof på panden og steg det',
'spejlaeg');
```



- INSERT INTO queries, som gemmer 5 nye ingredienser i databasen

```
INSERT INTO Ingredienser (navn, kaloerierpr100g)
VALUES ('Banan', '140'),
('Chokolade 80%', '490'),
('Bagepulver', '0'),
('Letmælk', '47'),
('Hvedemel', '100');
```

- 1 SELECT query, som viser indholdet af ingrediens-tabellen i ABC-rækkefølge

```
SELECT * FROM Ingredienser ORDER BY navn ASC;
```

Database – console\_1 [Opskrifter.sqlite]

Database Consoles | Opskrifter.sqlite | console\_1 [Opskrifter.sqlite]

Project | Database | .idea | db | chinook.db | Opskrifter.sqlite | src | Main | .gitignore | Database.iml | diagram.uml | identifier.sqlite | Opskrifter.sqlite | README.md | External Libraries | Scratches and Cons

1 ✓ `SELECT * FROM Ingredienser ORDER BY navn ASC;`

Database | Chinook.db | Opskrifter.sqlite | schemas | main | Ingredienser | id integer (auto increment) | navn text | kalorierpr100g integer | Ingredienser\_pk (id) | Maaleenheder | Opskrifter | id integer (auto increment) | name text | fremgangsmaade text | billede text

Services | console\_1 138 ms | console\_1 138 ms | console\_2 104 ms | console\_2 104 ms | Opskrifter.sqlite | Ingredienser 80 ms | Ingredienser 80 ms | console\_1 192 ms | console\_1 192 ms | Opskrifter 76 ms | Opskrifter 76 ms | Maaleenheder 95 ms | Maaleenheder 95 ms

Output | main.Ingredienser | main.Ingredienser 2 | main.Ingredienser 3 | Result 2-5 | Comma-separated (CSV) | 16 rows

id	navn	kalorierpr100g
15	Bagepulver	0
13	Banan	140
14	Chokolade 80%	490
8	Flaesk	590
1	Hakket oksekoed	100
5	Hakket svinekoed	123
3	Hakket tomat	4
17	Hvedemel	100
4	Hvidloeg	2
6	Karry	0

IntelliJ IDEA 2020.3.2 available // Update... (3 minutes ago) | 1:46 | master | Event Log

- 1 UPDATE query, som opdaterer navnet af en opskrift

```
UPDATE Ingredienser
SET navn='Chokolade 70%'
WHERE id=14;
```

The screenshot shows an IDE window titled "Database - console\_1 [Opskrifter.sqlite]". The main editor displays the following SQL query:

```
UPDATE Ingredienser
SET navn='Chokolade 70%'
WHERE id=14;
```

The query has been executed successfully, as indicated by the green checkmark and the number "1" in the status bar. The "Database" panel on the right shows the schema structure, including the "Ingredienser" table with columns: id (integer, auto increment), navn (text), and kaloriespr100g (integer). The "Opskrifter" table is also visible with columns: id (integer, auto increment), name (text), fremgangsmaade (text), and billede (text).

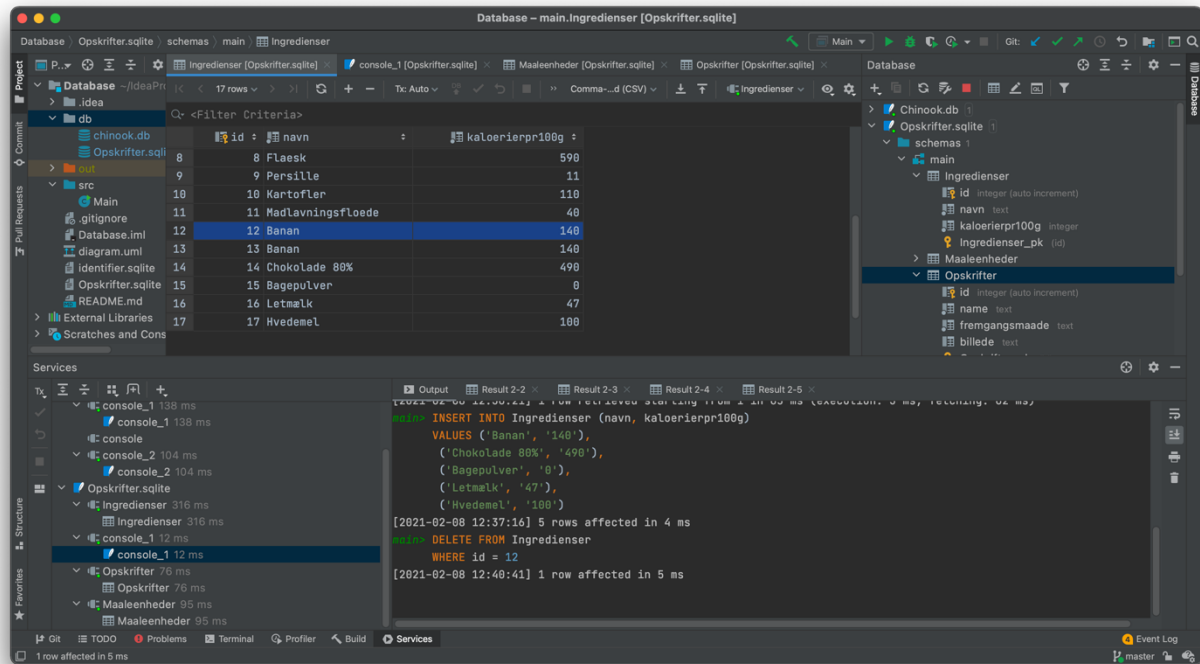
The "Services" panel at the bottom shows the execution results of the query. The results are displayed in a table with columns: id, navn, and kaloriespr100g. The table contains 16 rows, with the 14th row showing the updated record:

id	navn	kaloriespr100g
10	Kartofler	110
11	Madlavningsfloede	40
12	Banan	140
13	Chokolade 70%	490
14	Bagepulver	0
15	Letmaalk	47
16	Hvedemel	100

The status bar at the bottom indicates that 16 rows were retrieved starting from 1 in 61 ms (execution: 4 ms, fetching: 77 ms).

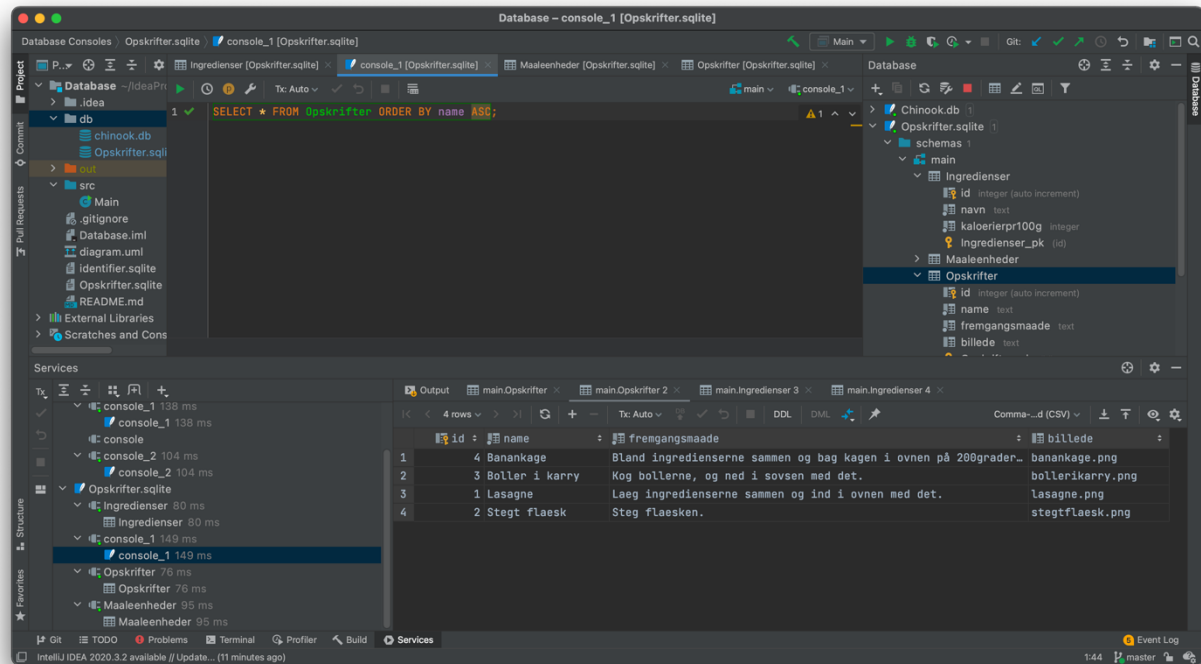
- 1 DELETE query, som sletter en opskrift

```
DELETE FROM Ingredienser  
WHERE id = 12;
```



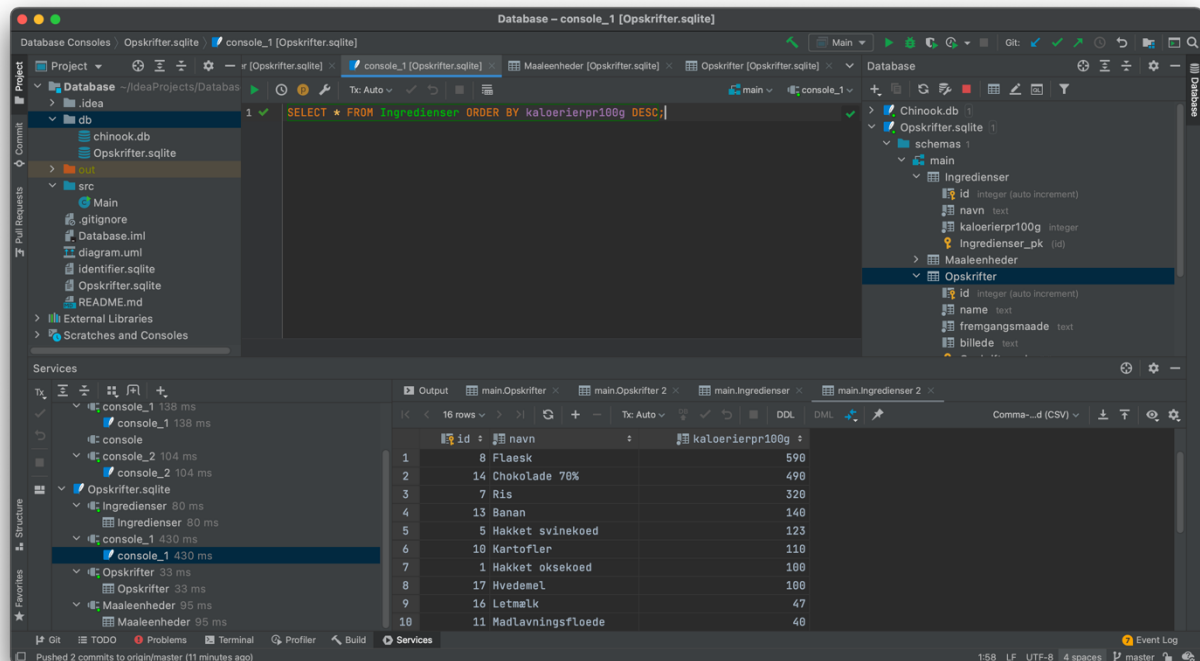
- 1 SELECT query, som viser indholdet af opskrifts-tabellen i ABC-rækkefølge

```
SELECT * FROM Opskrifter ORDER BY name ASC;
```



- 1 SELECT query, som viser indholdet af ingrediens-tabellen i faldende næringsindholds rækkefølge

```
SELECT * FROM Ingredienser ORDER BY kaloerierpr100g DESC;
```



Gem alle queries i en tekstfil, og aflever tekstfilen og databasefilen i et GitHub-projekt.