

Folie 2 (Questions?):

--- NOT IN

<https://www.w3resource.com/sqlite/in-operator.php>

--- NOT EXISTS

<https://www.sqlitetutorial.net/sqlite-exists/>

--- UNION

<https://www.sqlitetutorial.net/sqlite-union/>

--- EXCEPT

<https://www.sqlitetutorial.net/sqlite-except/>

--- EXCEPT ALL

Folie 3 (Setting up Maneths Pub):

create all necessary tables:

cocktails:

```
CREATE TABLE cocktails (Name TEXT NOT NULL, Ingr TEXT NOT NULL, Amount_cl REAL);
```

ingredients:

```
CREATE TABLE ingredients (Name TEXT NOT NULL, Alcohol REAL NOT NULL, InStock  
INTEGER, Price REAL);
```

soldby:

```
CREATE TABLE soldby (Ingredients TEXT NOT NULL, Supplier TEXT NOT NULL, DelTim  
INTEGER, Price REAL);
```

import all data from the csvs:

```
.separator ,
```

```
.import --skip 1 cocktails.csv cocktails
```

```
.import --skip 1 ingredients.csv ingredients
```

```
.import --skip 1 soldby.csv soldby
```

Folie 4 (Pub Queries):

Basic:

--- Find ingredients, that have no alcohol

```
SELECT * FROM ingredients WHERE alcohol = 0;
```

--- Find the ingredient with the most alcohol

```
SELECT * FROM ingredients WHERE alcohol = (SELECT max(alcohol) FROM ingredients);
```

--- At which supplier can we buy our ingredients?

```
SELECT * FROM ingredients i, soldby s WHERE i.name = s.ingredient;
```

--- How much is our current storage of beverages worth?

```
SELECT SUM(InStock * Price) Current FROM ingredients;
```

Advanced:

--- How many Ingredients have alcohol and how many have none?

```
SELECT COUNT(Alcohol) FROM ingredients WHERE Alcohol = 0;
```

```
SELECT COUNT(Alcohol) FROM ingredients WHERE Alcohol != 0;
```

Alternatively:

```
SELECT COUNT(Alcohol) FROM ingredients WHERE Alcohol > 0;
```

--- List the cocktails and their alcohol percentage

Subquerie:

```
SELECT * FROM cocktails c LEFT JOIN ingredients i ON c.Ingr = i.Name;
```

Solution:

```
SELECT Name, SUM(Amount_cl * Alcohol)/sum(Amount_cl) AS Percentage FROM (SELECT *  
FROM cocktails c LEFT JOIN ingredients i ON c.Ingr = i.Name) GROUP BY Name ORDER BY  
Percentage DESC;
```

Folie 14 (Any idea?):

Found ideas:

Let's look if mainly the animation movies don't have actors in them:

Which genres are there?

select distinct genre from genres;

Order them:

select distinct genre from genres order by genre;

How does the joined table look:

select * from movies natural join genres where genre = 'Animation' limit 20;

How many animation movies are there?

select count(*) from movies natural join genres where genre = 'Animation';

How much percent of the movies are animation movies?

The craziest query anyone has ever seen:

select (select count(*) from movies natural join genres where genre = 'Animation') * 1.0 /
(select count(*) from movies);

How many animation movies are there without actors?

select count(*) from movies natural join genres where genre = 'Animation' and movieid not
in (select movieid from actors2movies);

Which are they?

select * from movies natural join genres where genre = 'Animation' and movieid not in
(select movieid from actors2movies) limit 20;

Barbie looks interesting, are the Barbie movies always without actors?

select * from movies natural join genres where genre = 'Animation' and movieid not in
(select movieid from actors2movies) and originaltitle like '%Barbie%' limit 20;

All Barbie movies:

select * from movies where originaltitle like '%Barbie%';

First movie doesn't look like a Barbie movie. Let's check the genre on it:

select * from movies natural join genres where originaltitle like '%Barbie%';