In [3]:
```
#pip install ipython-sql 1)Load the Extension, 2)Check SQL Cell
%load_ext sql
%sql sqlite://
```

In [6]:
```
%%sql

-- Create a table
CREATE TABLE employees (
    employee_id INT PRIMARY KEY,
    first_name TEXT,
    last_name TEXT,
    department TEXT,
    salary INT
);

-- Insert sample data
INSERT INTO employees (employee_id, first_name, last_name, department,
VALUES
    (1, 'John', 'Doe', 'HR', 50000),
    (2, 'Jane', 'Williams', 'Finance', 60000),
    (3, 'Alice', 'Johnson', 'IT', 55000),
    (4, 'John', 'Brown', 'IT', 60000),
    (5, 'John', 'Brown', 'HR', 60000),
    (6, 'Eve', 'Williams', 'Finance', 62000);
```

```
 * sqlite://
Done.
Done.
```

Out[6]:
```
[]
```

In [7]:
```
%%sql
SELECT * FROM employees;
```

```
 * sqlite://
Done.
```

Out[7]:

employee_id	first_name	last_name	department	salary
1	John	Doe	HR	50000
2	Jane	Williams	Finance	60000
3	Alice	Johnson	IT	55000
4	John	Brown	IT	60000
5	John	Brown	HR	60000
6	Eve	Williams	Finance	62000

Removing duplicates based on one column

In [16]:
```
%%sql
SELECT DISTINCT first_name
FROM employees;
```

```
 * sqlite://
Done.
```

Out[16]:

first_name
John
Jane
Alice
Eve

SELECT DISTINCT column_name FROM table_name;

Removing duplicates based on multiple columns

In [9]:
```
%%sql
SELECT DISTINCT first_name, last_name
FROM employees;
```

```
 * sqlite://
Done.
```

Out[9]:

first_name	last_name
John	Doe
Jane	Williams
Alice	Johnson
John	Brown
Eve	Williams

SELECT DISTINCT column1, column2 FROM table_name;

Removing duplicates and keeping one occurrence

In [26]:
```
%%sql
SELECT first_name, COUNT(*) as count
FROM employees
GROUP BY first_name;
```

```
 * sqlite://
Done.
```

Out[26]:

first_name	count
Alice	1
Eve	1
Jane	1
John	3

In [14]:
```
%%sql
SELECT first_name, COUNT(*) as count
FROM employees
GROUP BY first_name
HAVING count = 1;
```

```
 * sqlite://
Done.
```

Out[14]:

first_name	count
Alice	1
Eve	1
Jane	1

In [27]:
```
%%sql
SELECT first_name, COUNT(first_name) as count
FROM employees
GROUP BY first_name
HAVING count = 1;
```

```
 * sqlite://
Done.
```

Out[27]:

first_name	count
Alice	1
Eve	1
Jane	1

SELECT column_name, COUNT(*) as count FROM table_name GROUP BY column_name HAVING count = 1;