61A Lecture 35

Announcements

Integer Examples (continued)

A Very Interesting Number

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(Demo)

Aggregation

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  select "penguin"    , 2        , 10           union
  select "t-rex"      , 2        , 12000;
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```

animals:

kind	legs	weight
dog	4	20
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penguin	2	10
t-rex	2	12000

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  select "penguin"    , 2        , 10           union
  select "t-rex"      , 2        , 12000;

select max(legs) from animals;
```

animals:

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dog	4	20
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```

```
select max(legs) from animals;
```

max(legs)
4

animals:

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(Demo)

animals:

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Mixing Aggregate Functions and Single Values

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animals:

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Mixing Aggregate Functions and Single Values

An aggregate function also selects some row in the table to supply the values of columns that are not aggregated. In the case of max or min, this row is that of the max or min value. Otherwise, it is arbitrary.

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create table animals as
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select max(weight), kind from animals;
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select max(weight), kind from animals;

select min(kind), kind from animals;
```

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select max(weight), kind from animals;
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```
select min(kind), kind from animals;
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```
select max(legs), kind from animals;
```

```
select avg(weight), kind from animals;
```

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select max(legs), kind from animals;
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Groups

Grouping Rows

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```
select legs, max(weight) from animals group by legs;
```

animals:

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legs=4

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animals:

	kind	legs	weight
legs=4	dog	4	20
	cat	4	10
	ferret	4	10
legs=2	parrot	2	6
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legs	max(weight)
4	20
2	12000

legs=4

legs=2

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legs	max(weight)
4	20
2	12000

legs=4

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(Demo)

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select weight/legs, count(*) from animals group by weight/legs having count(*)>1;
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animals:

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select weight/legs, count(*) from animals group by weight/legs having count(*)>1;
```

weight/legs=5

animals:

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animals:

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weight/legs=5

weight/legs=2

weight/legs=2

weight/legs=3

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weight/legs=5
weight/legs=2
weight/legs=2
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animals:

kind	legs	weight
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weight/legs=5
weight/legs=2
weight/legs=2
weight/legs=3
weight/legs=5
weight/legs=6000

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select weight/legs, count(*) from animals group by weight/legs having count(*)>1;
```

weight/legs	count(*)
5	2
2	2

weight/legs=5
weight/legs=2
weight/legs=2
weight/legs=3
weight/legs=5
weight/legs=6000

animals:

kind	legs	weight
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weight/legs=5
weight/legs=2
weight/legs=2
weight/legs=3
weight/legs=5
weight/legs=6000

weight/legs	count(*)
5	2
2	2

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weight/legs	count(*)
5	2
2	2

animals:

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Discussion Question

What's the maximum difference between leg count for two animals with the same weight?

Select Grammar

SQL Select Statements

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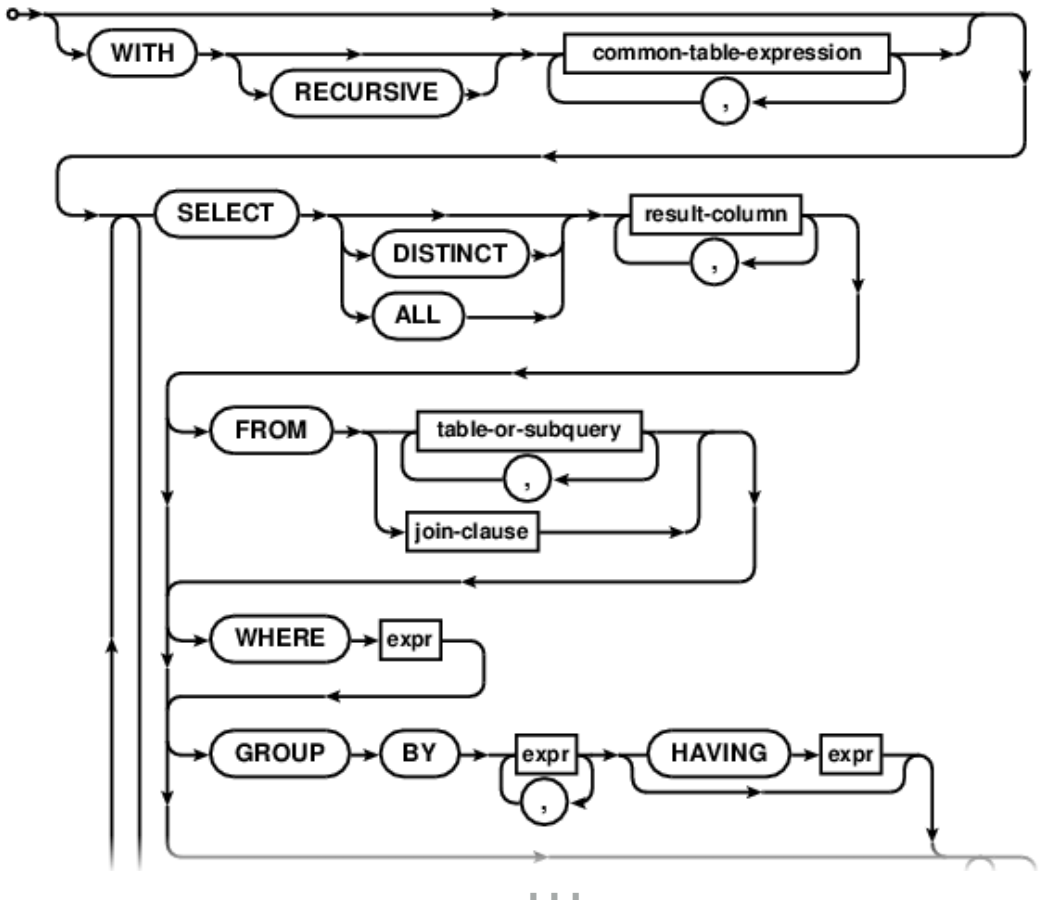

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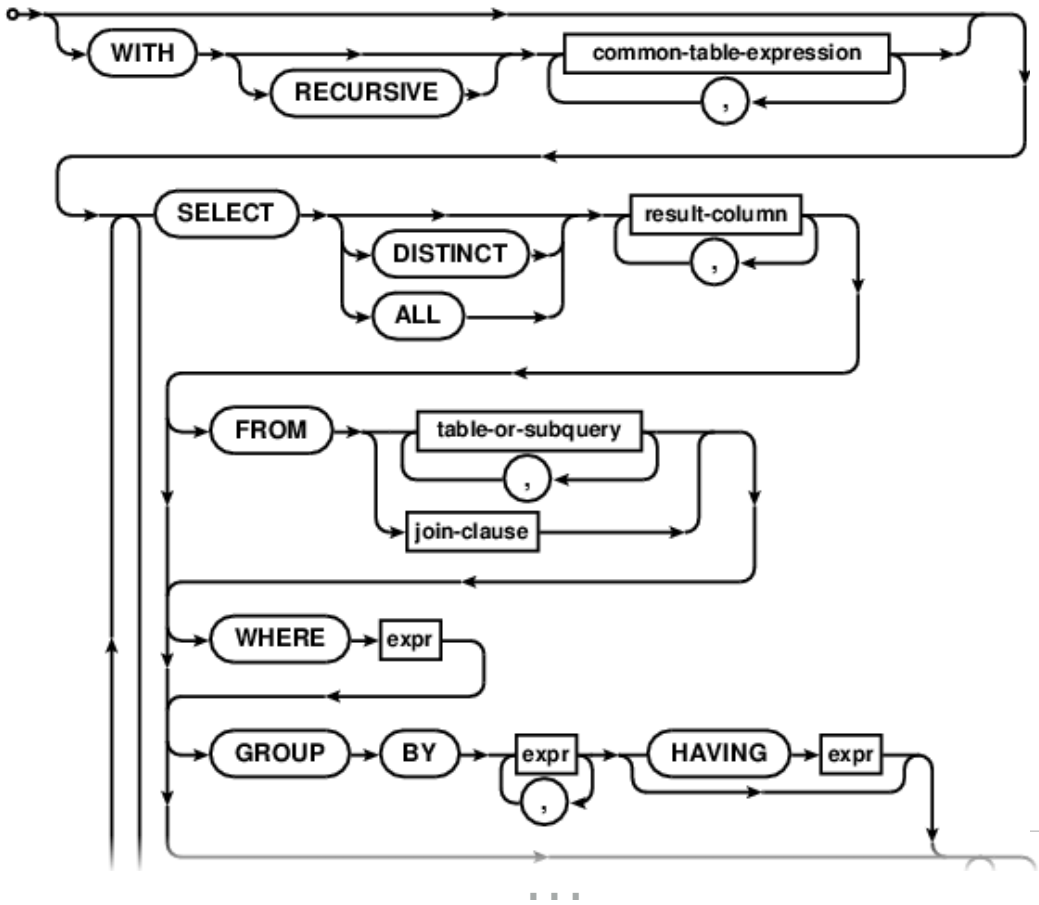

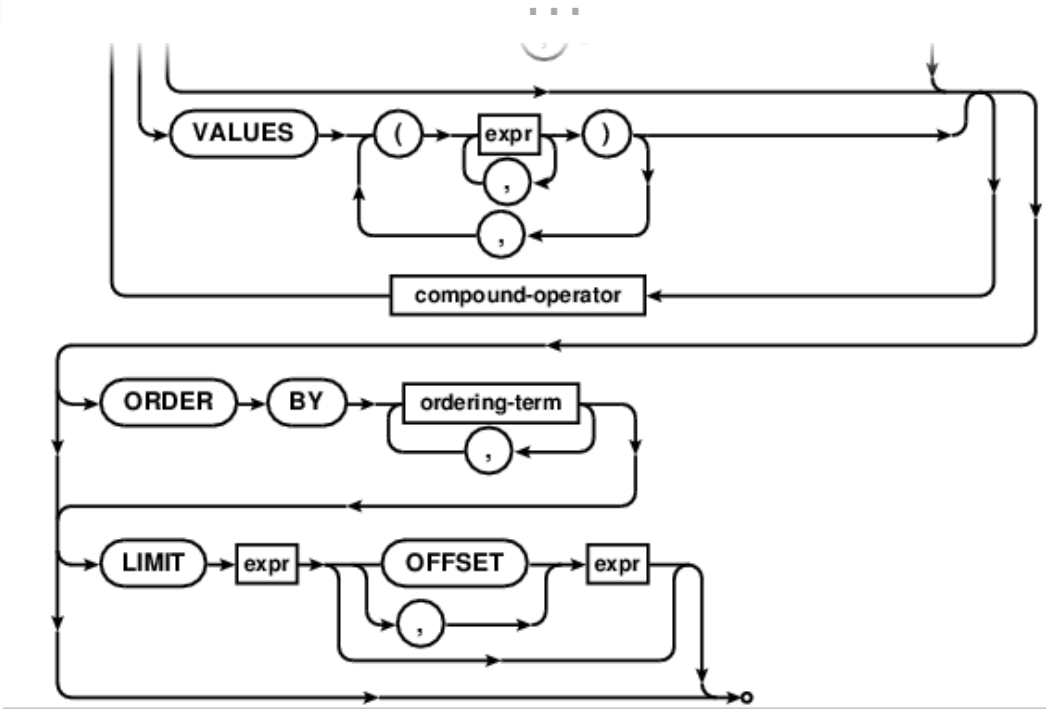

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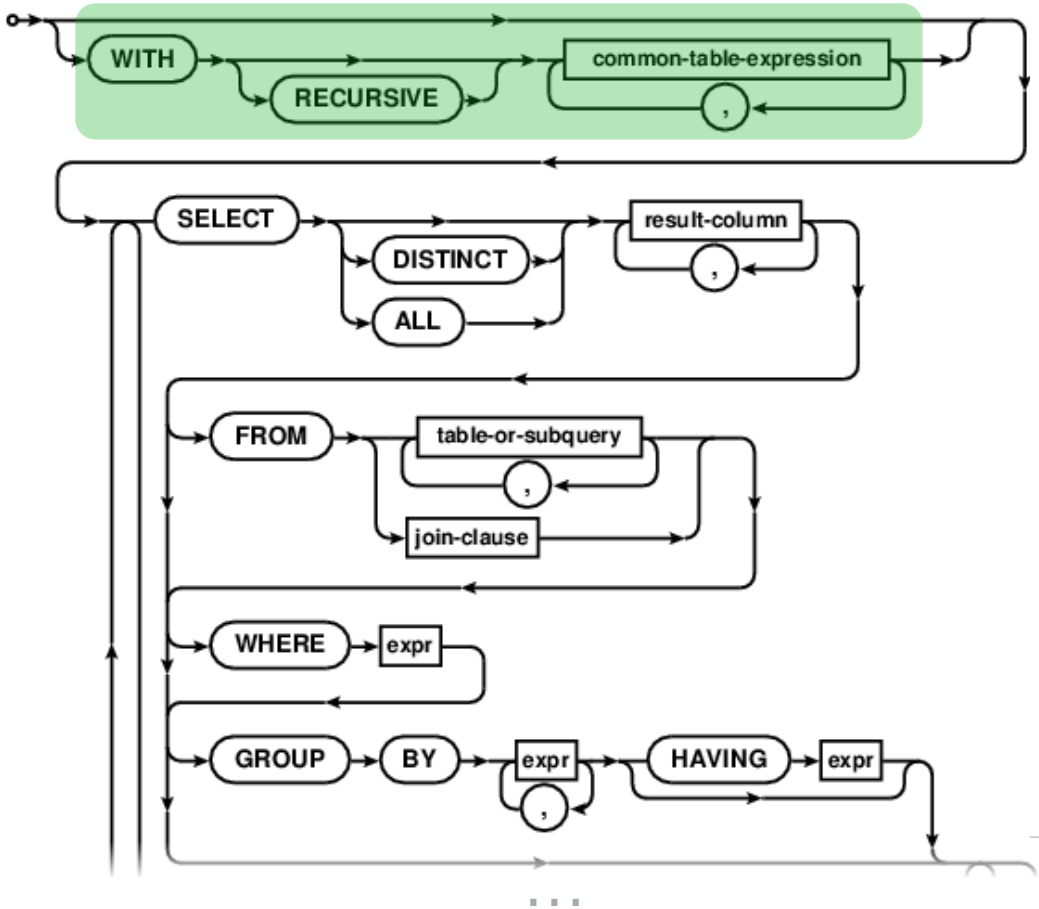

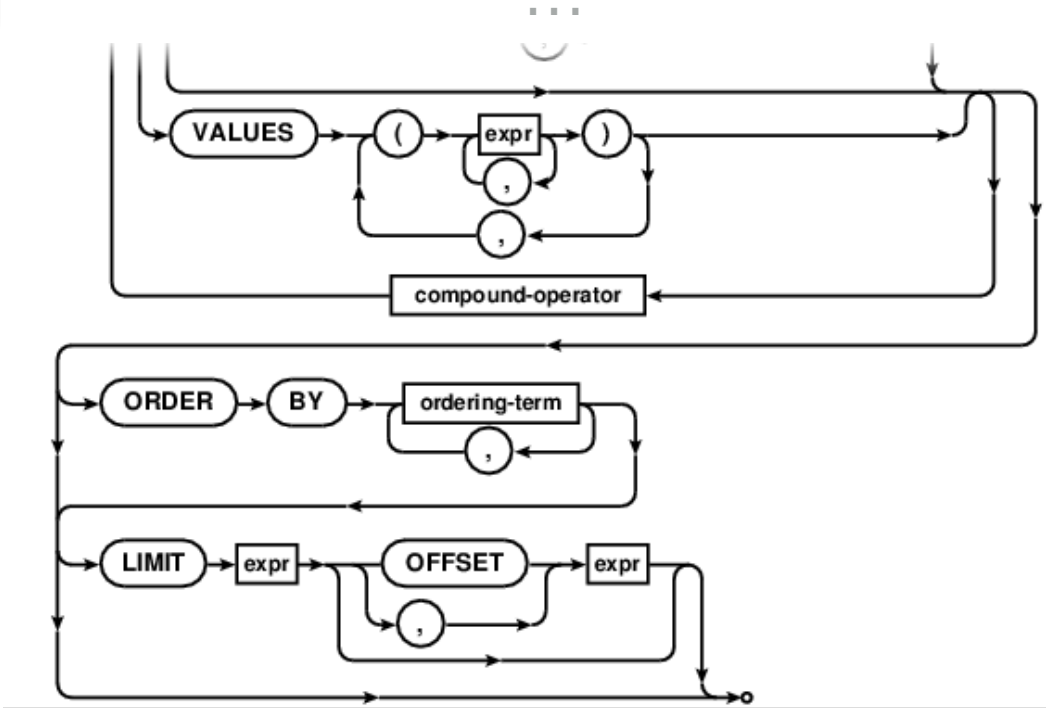

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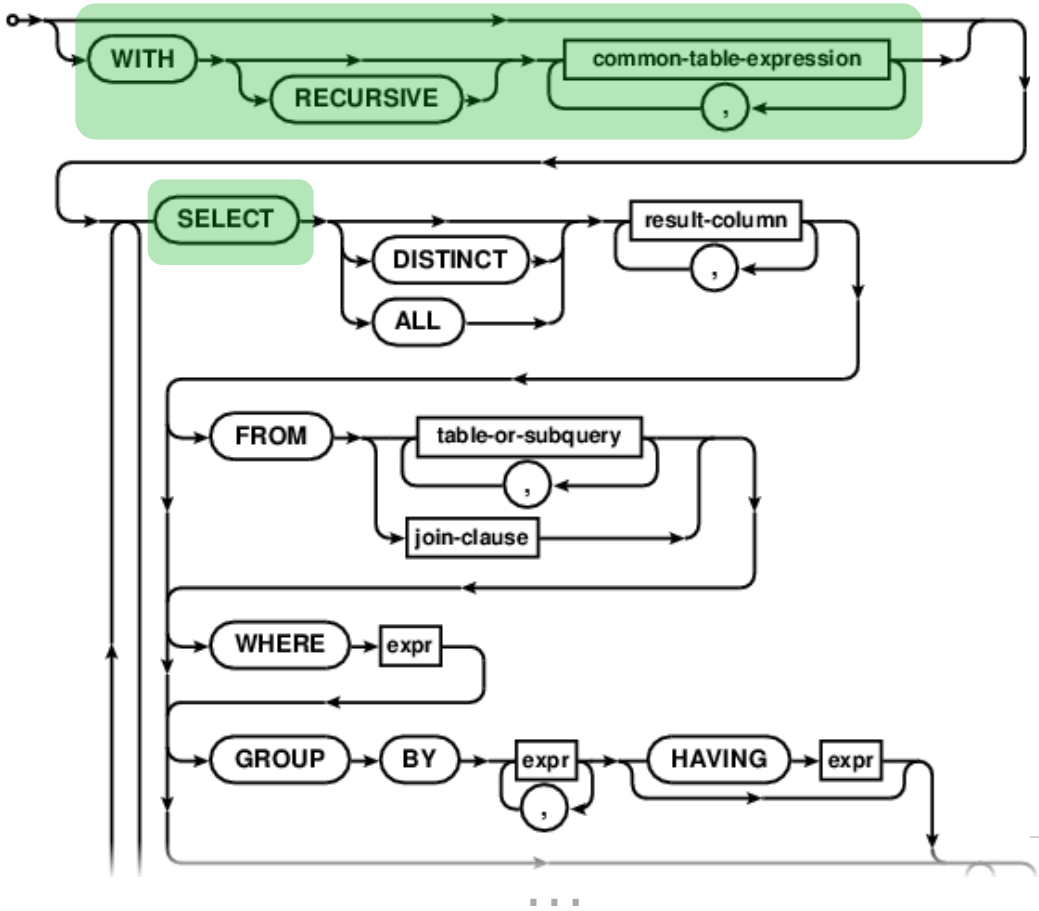

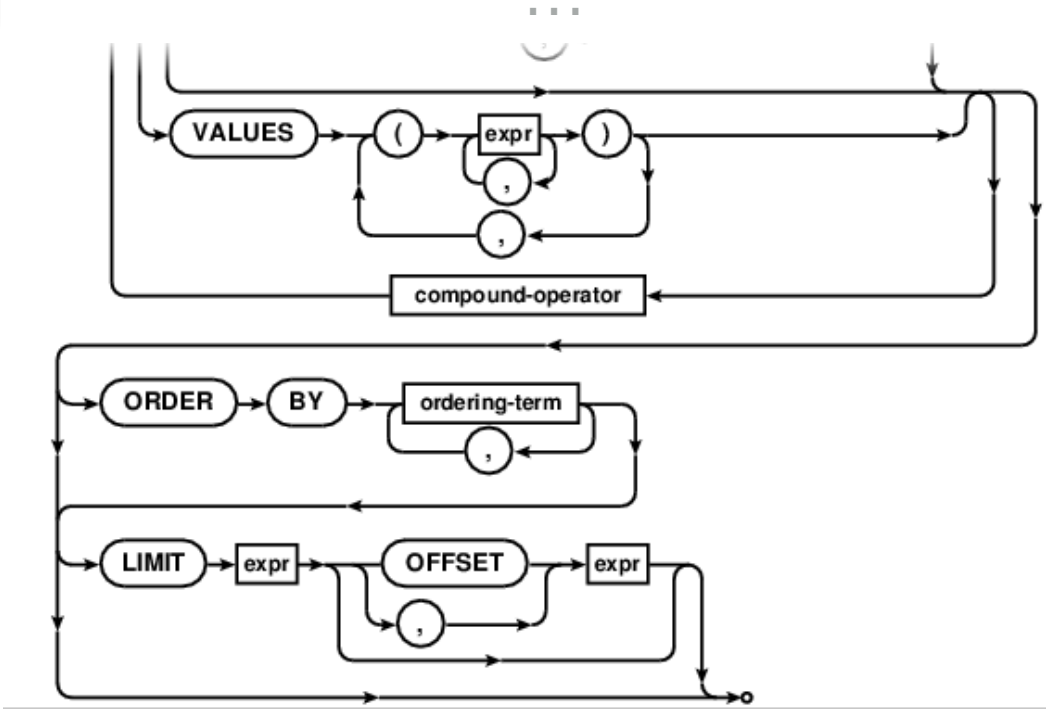

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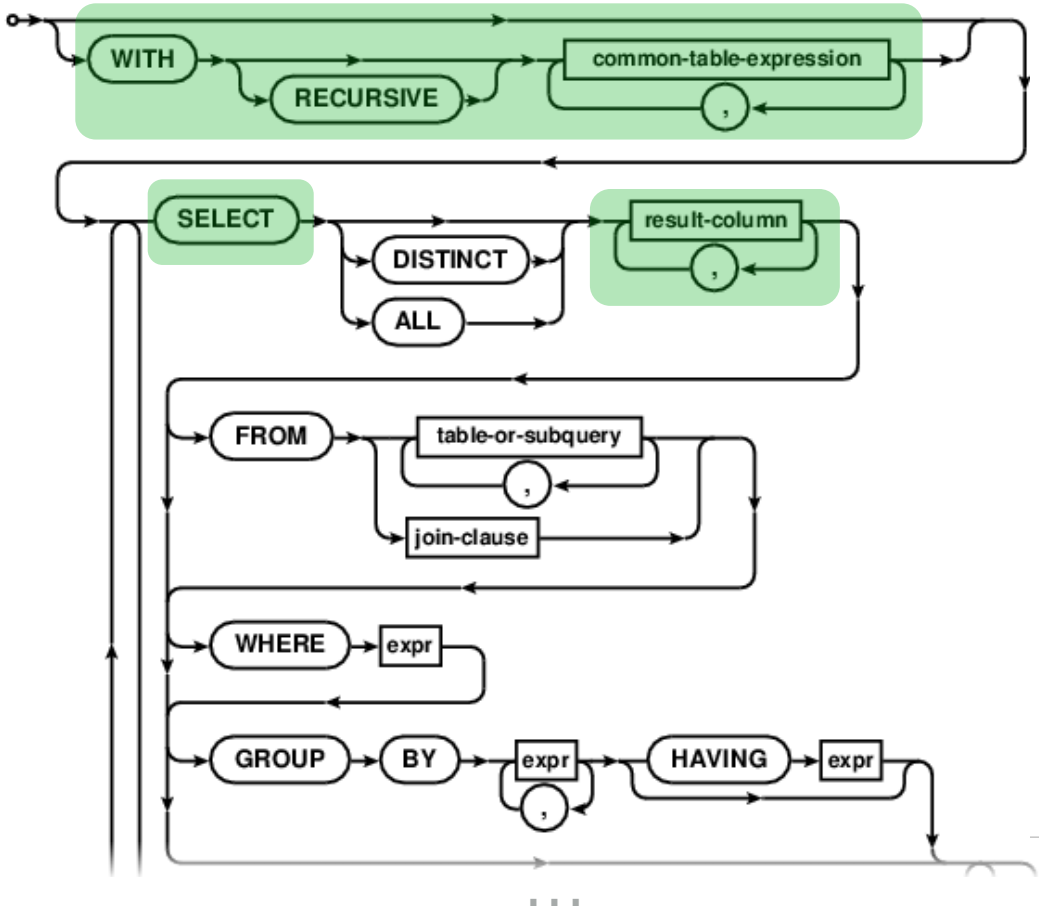

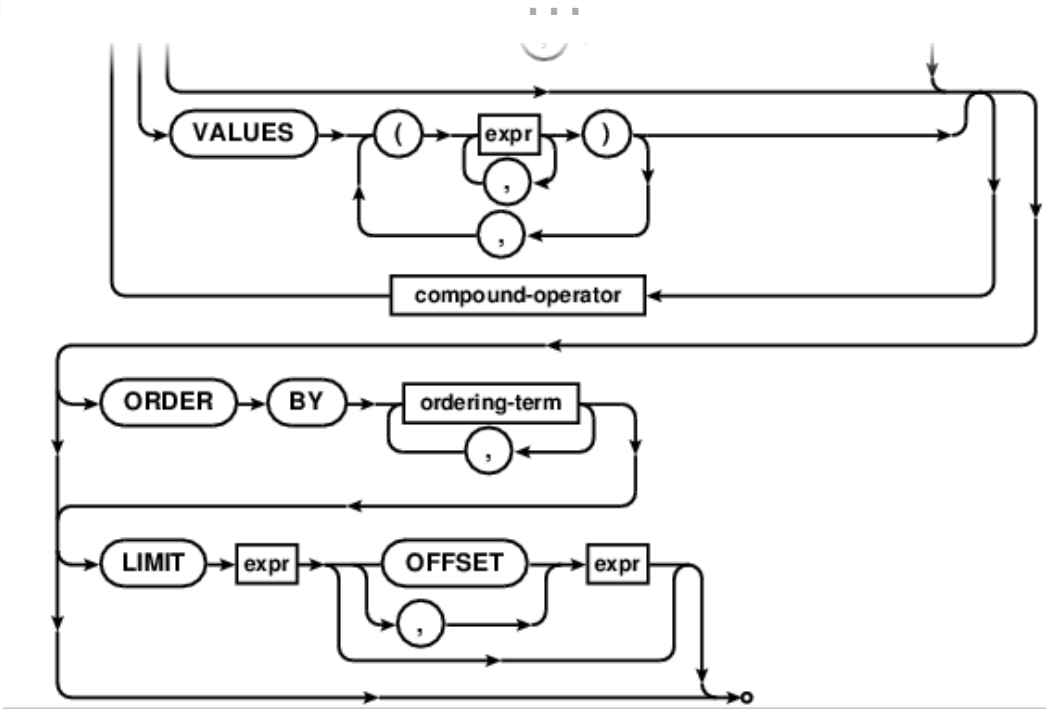

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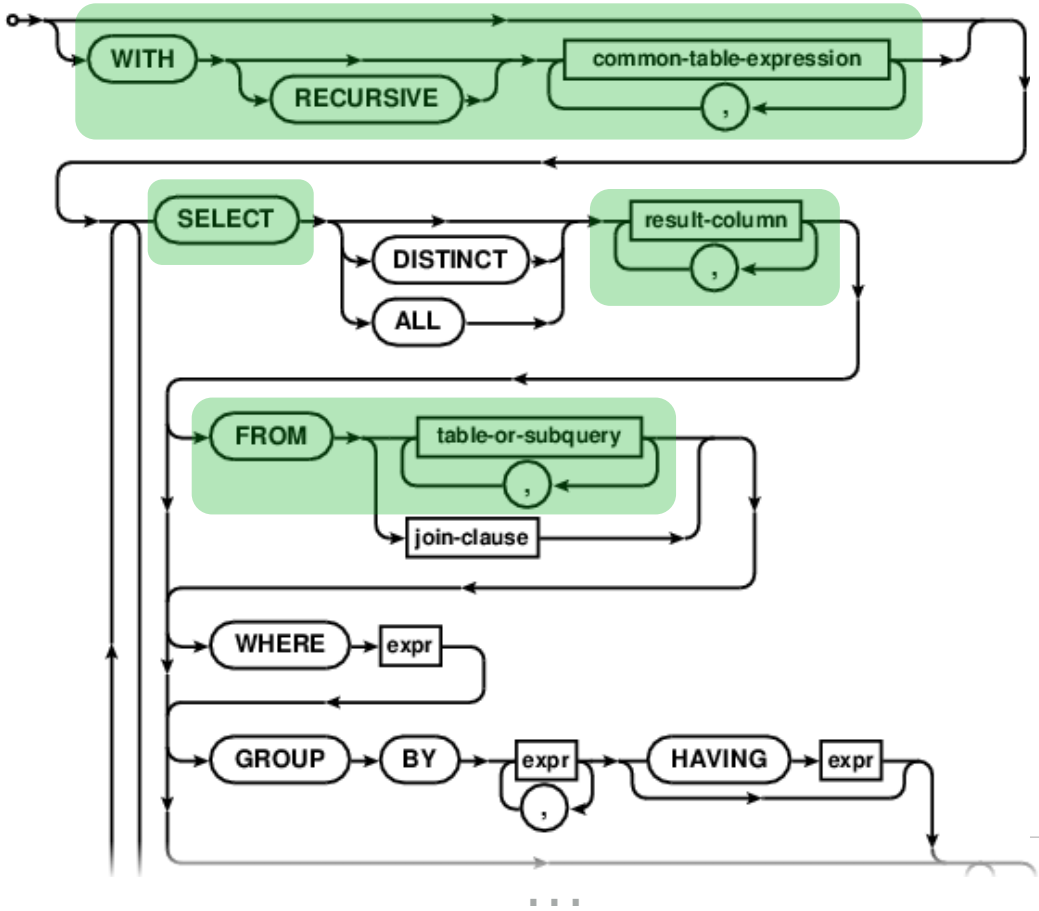

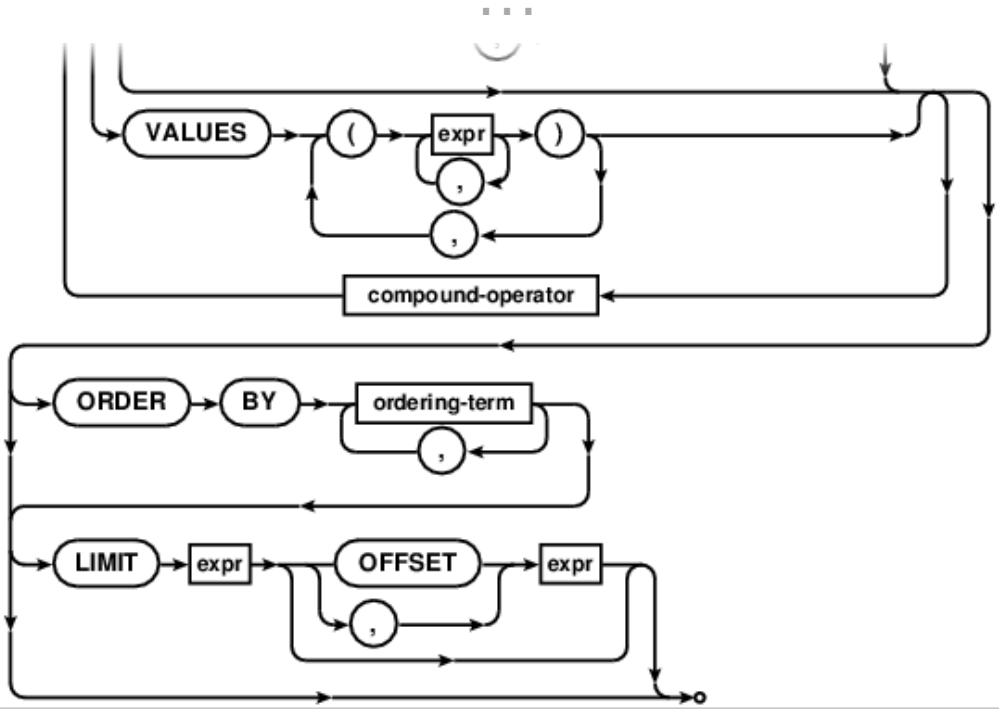

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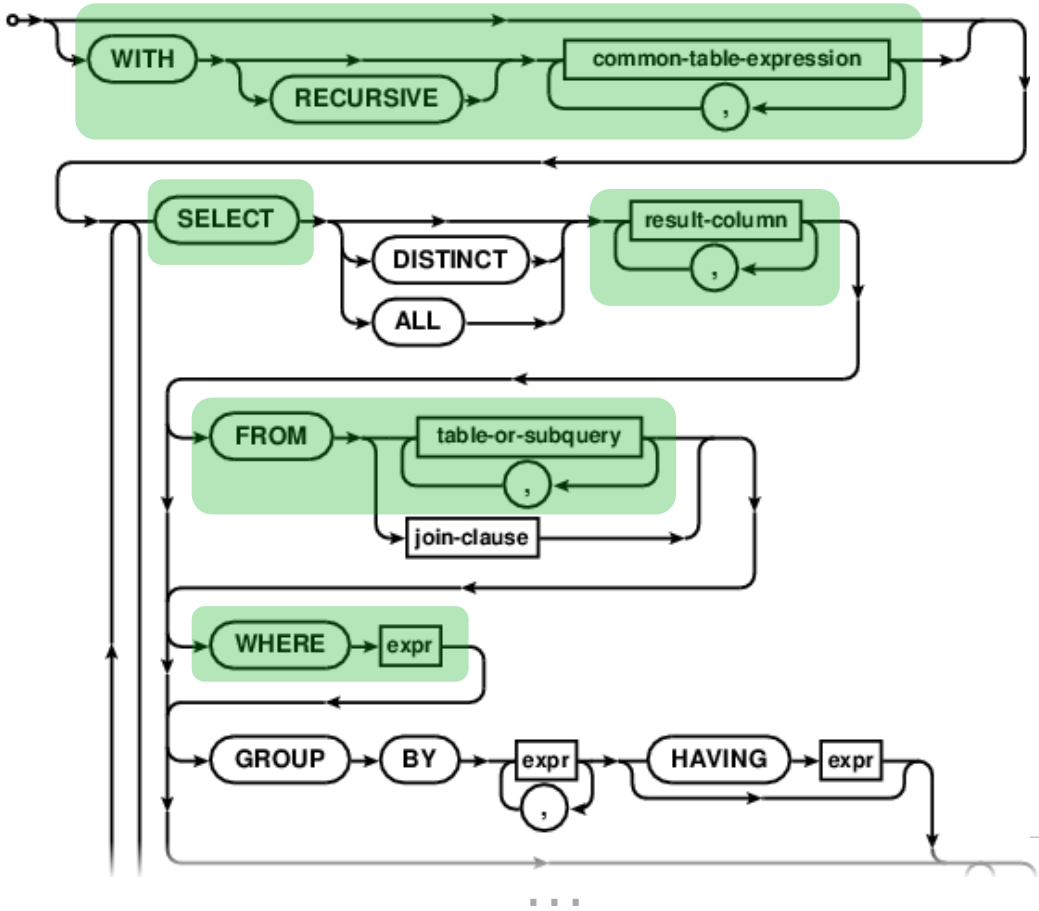

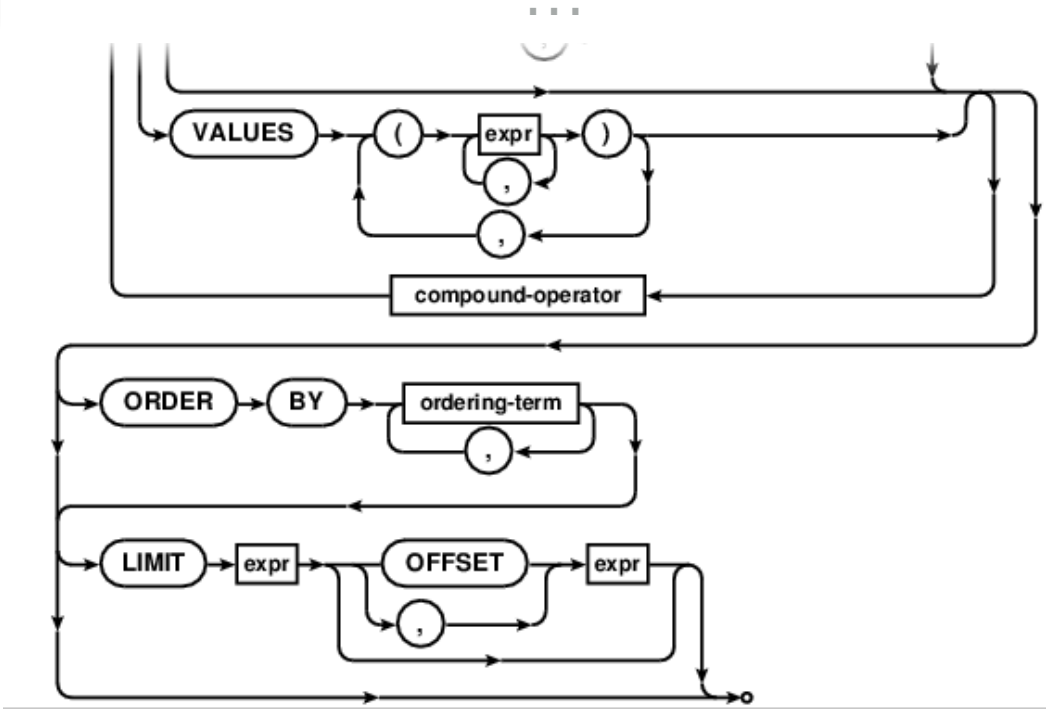

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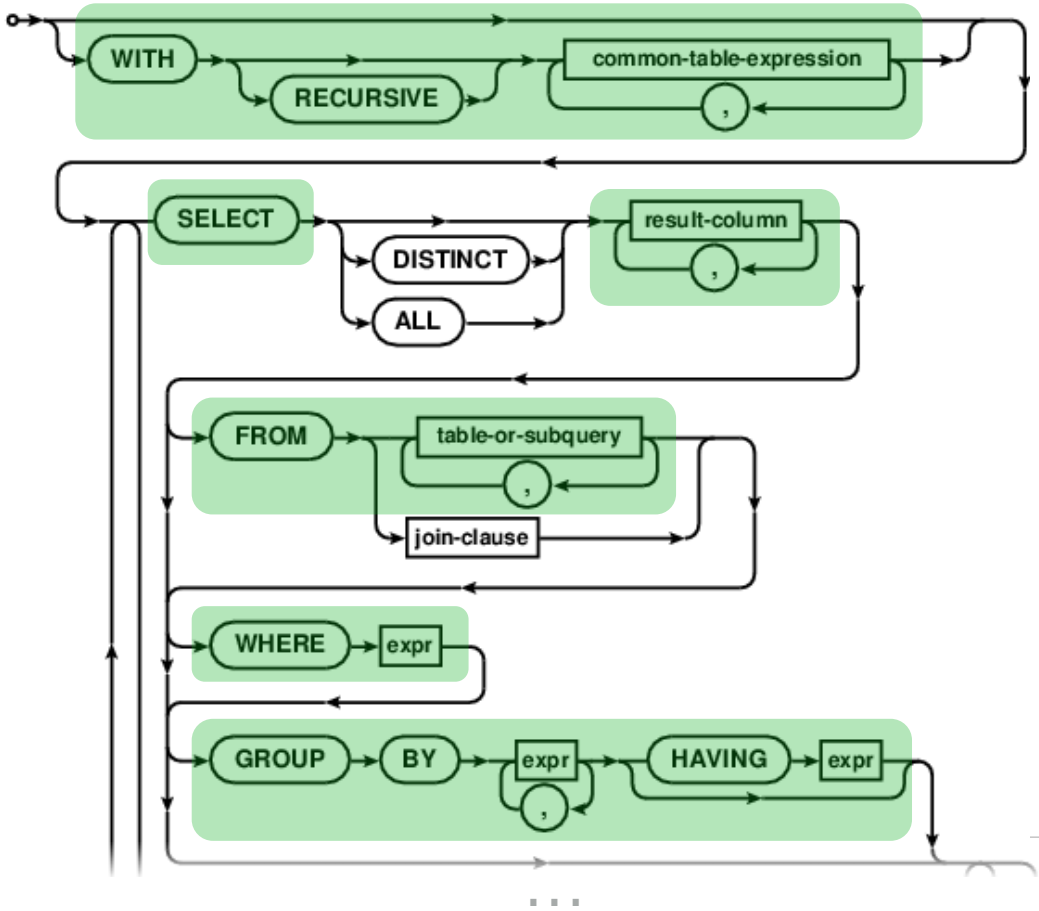

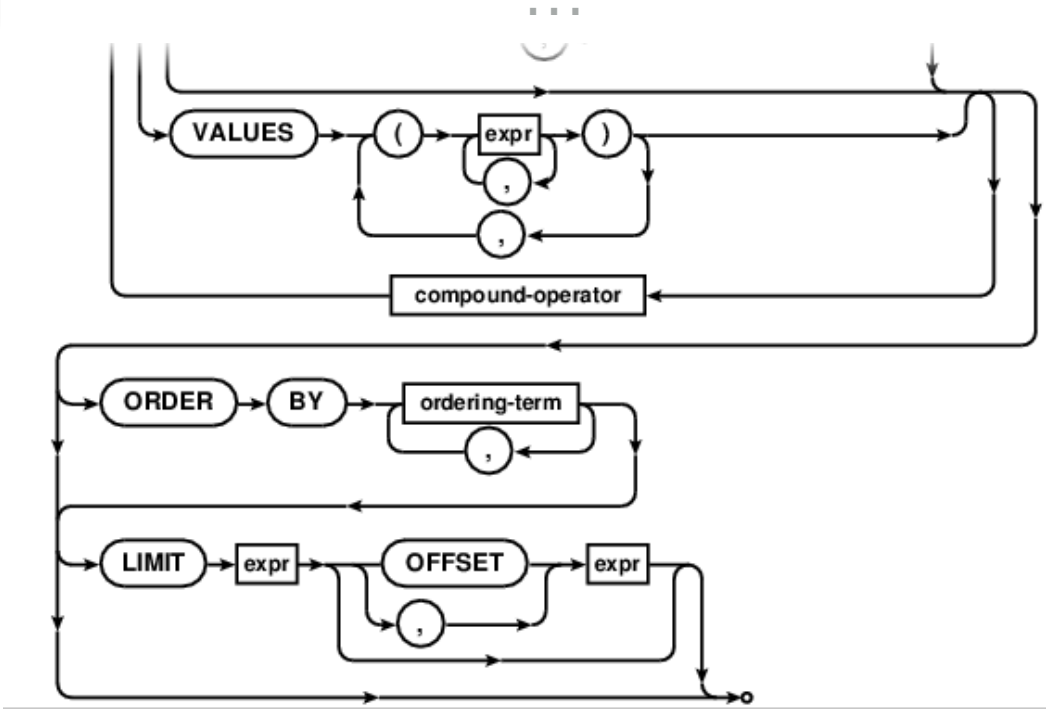

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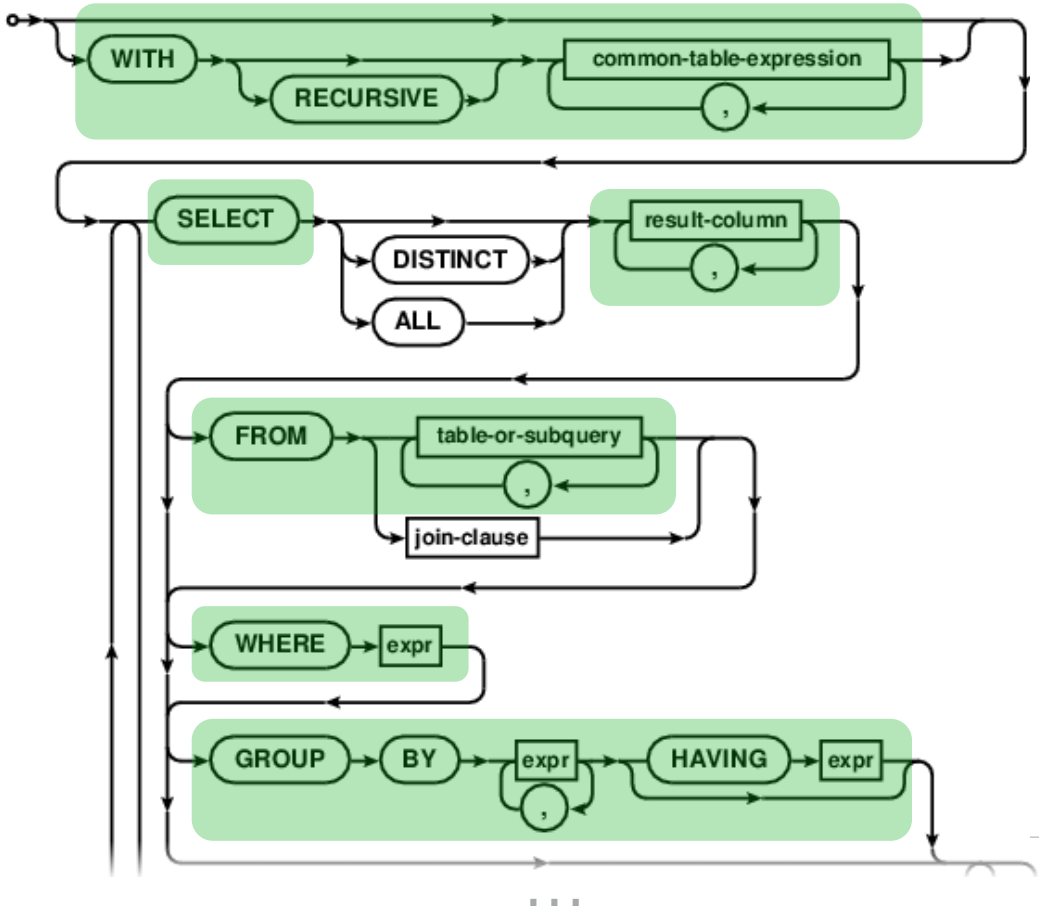

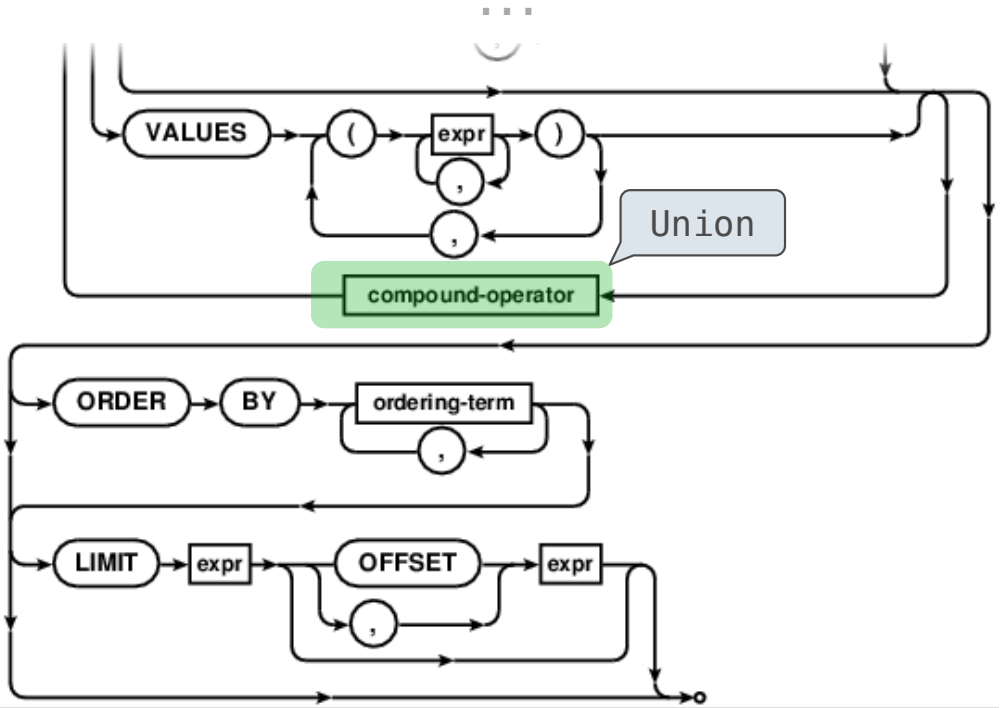

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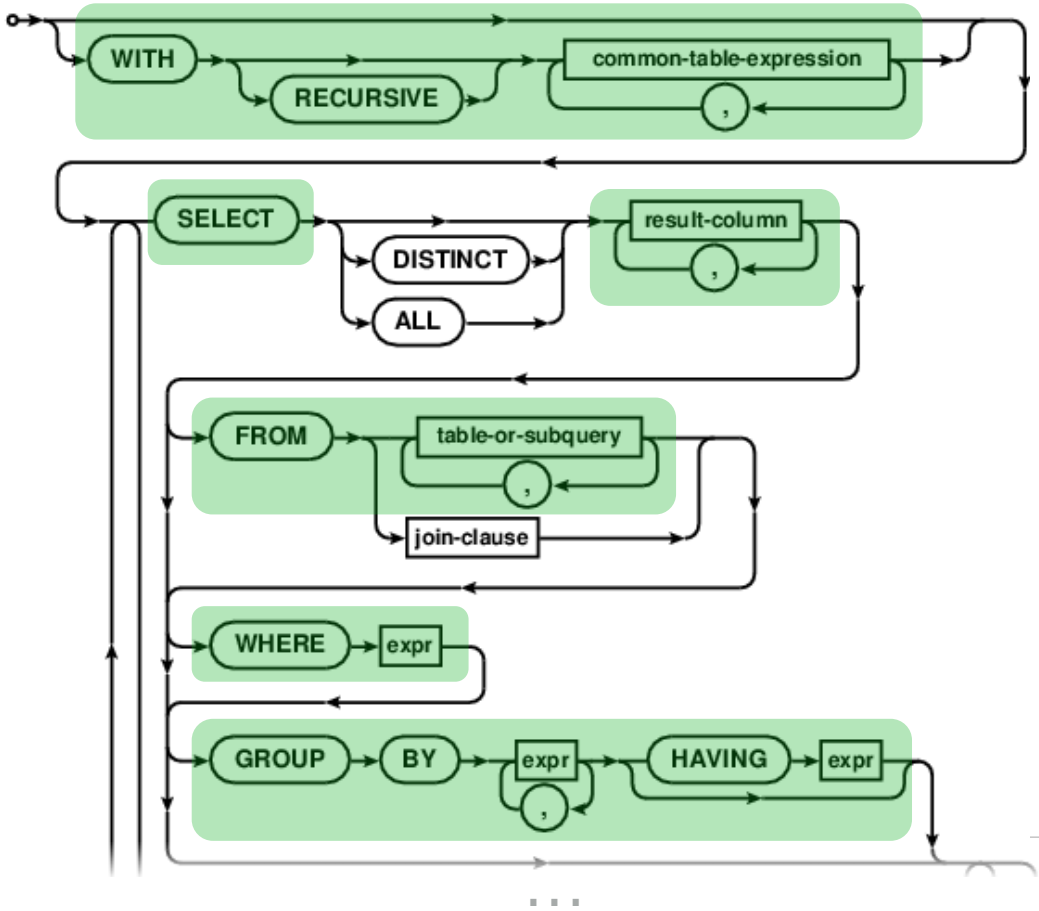

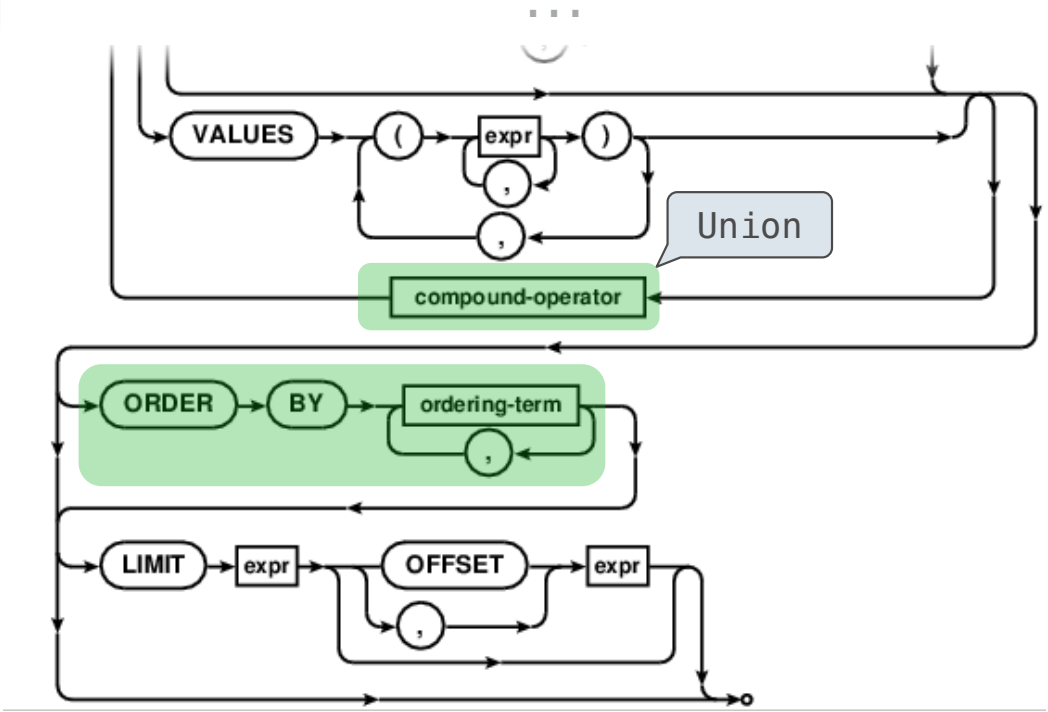

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