

61A Lecture 34

Announcements

Integer Examples (continued)

A Very Interesting Number

The mathematician G. H. Hardy once remarked to the mathematician Srinivasa Ramanujan...

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(Demo)

Aggregation

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create table animals as  
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  select "t-rex"    , 2      , 12000;
```

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```

animals:

kind	legs	weight
dog	4	20
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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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max(legs)
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(Demo)

animals:

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Mixing Aggregate Functions and Single Values

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create table animals as
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animals:

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An aggregate function also selects a row in the table, which may be meaningful

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

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Groups

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

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legs=4

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animals:

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

legs=4

legs=2

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legs	max(weight)
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2	12000

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legs=2

(Demo)

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select weight/legs, count(*) from animals group by weight/legs having count(*)>1;
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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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weight/legs=5

weight/legs=2

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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

weight/legs=3

weight/legs=5

weight/legs=6000

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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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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	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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penguin	2	10
t-rex	2	12000

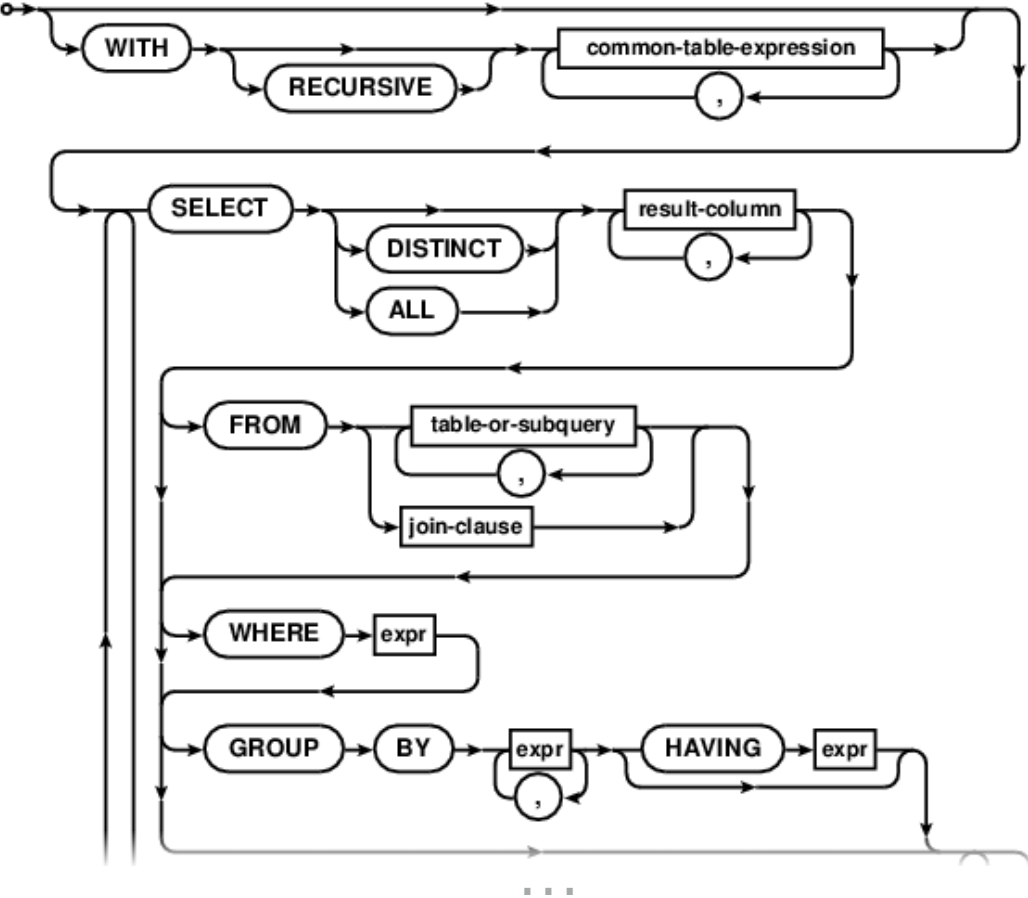
Discussion Question

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

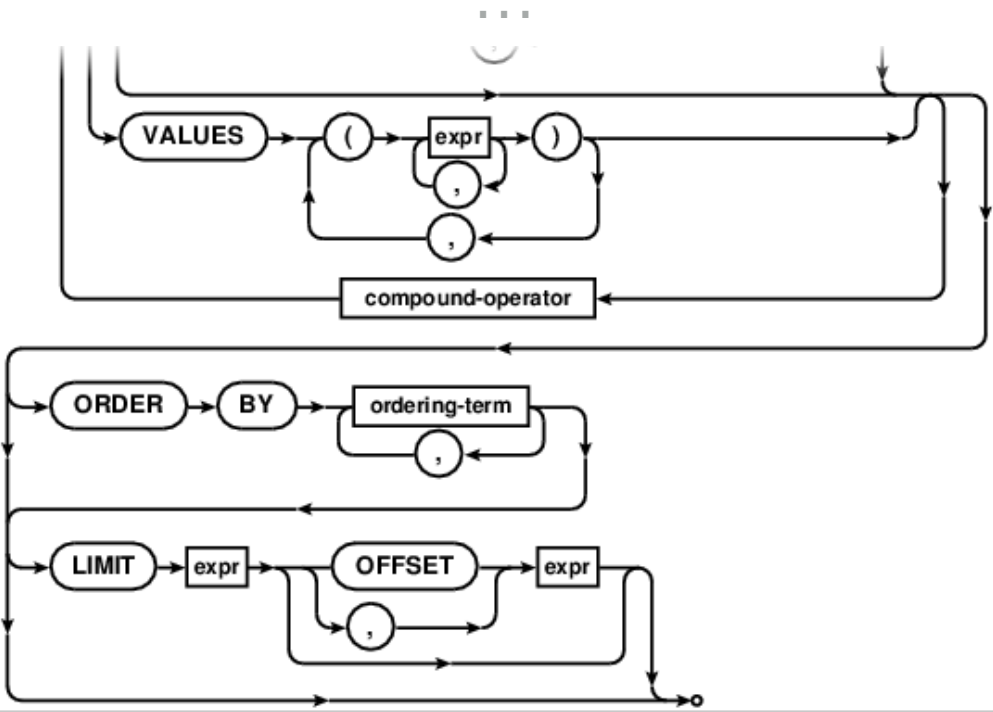
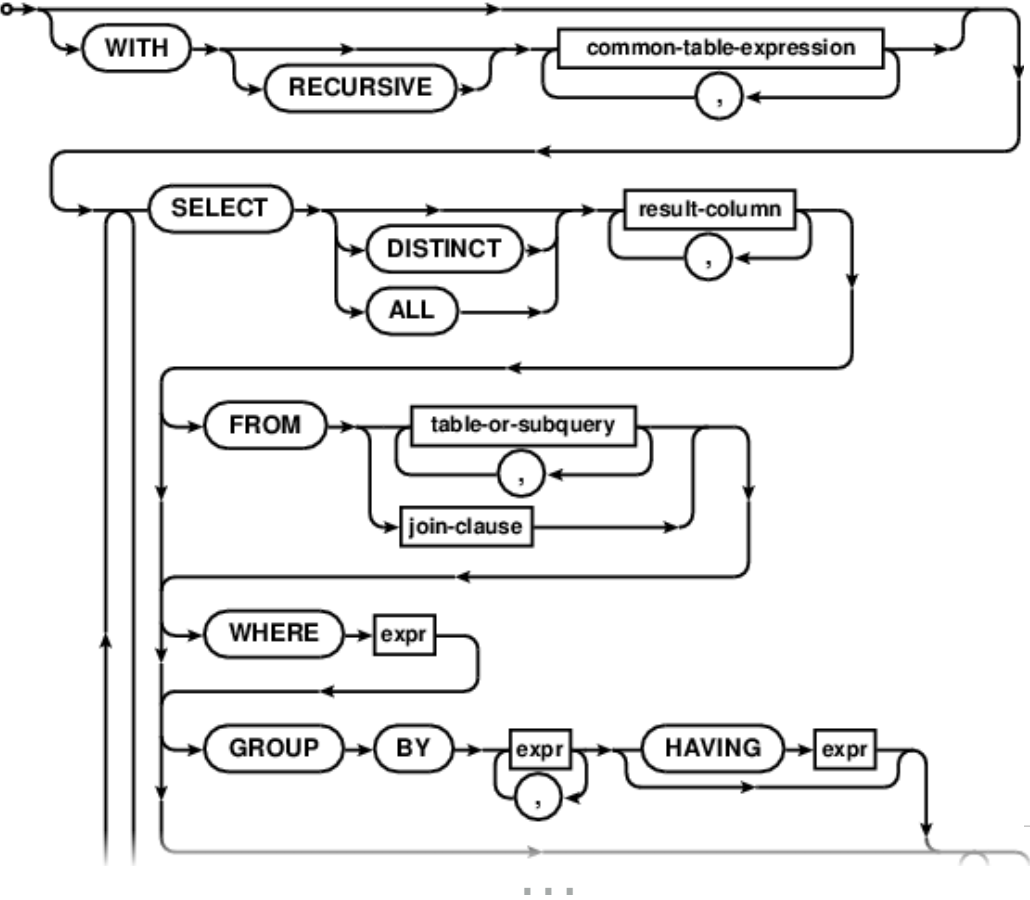
Select Grammar

SQL Select Statements

SQL Select Statements

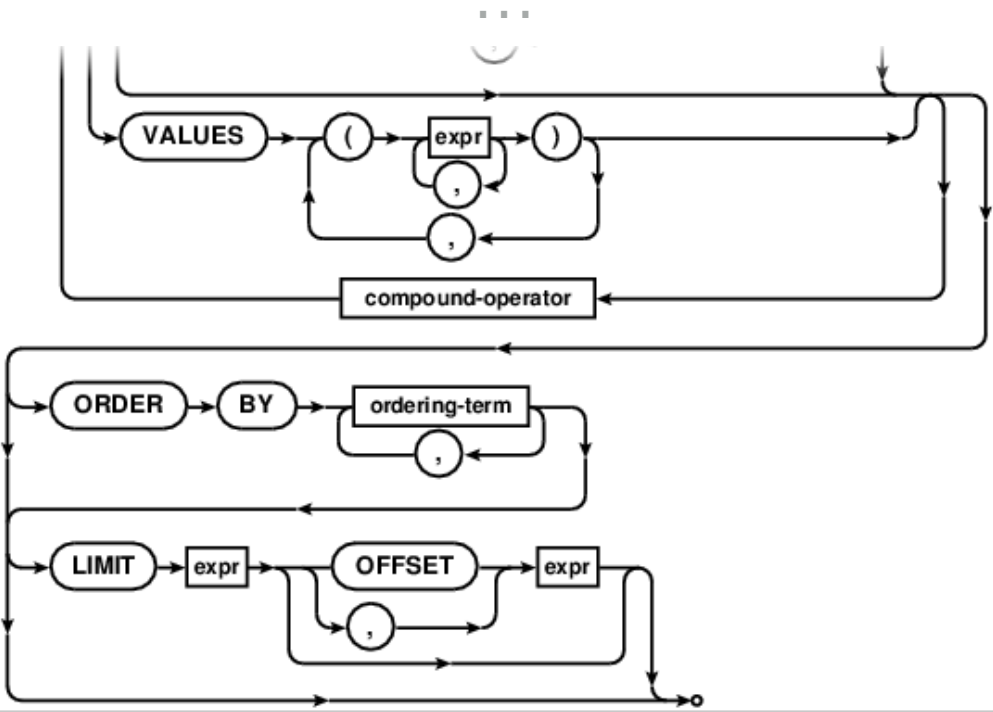
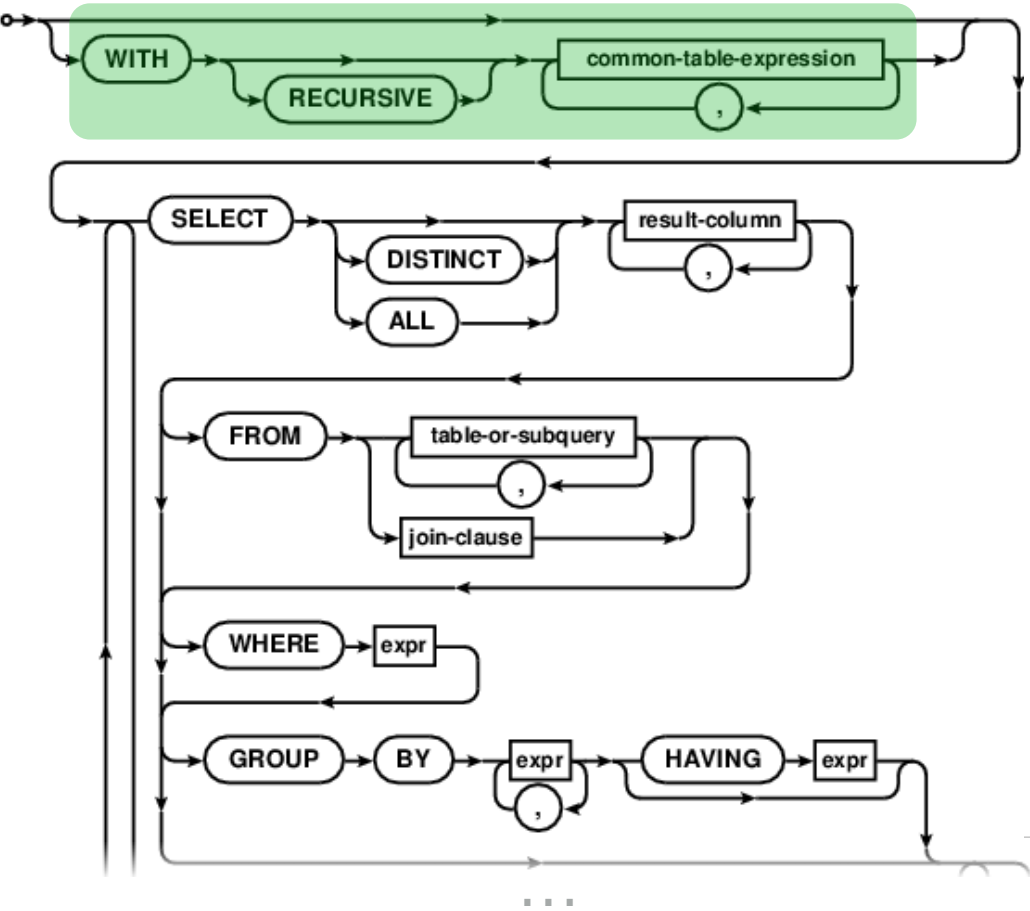


SQL Select Statements



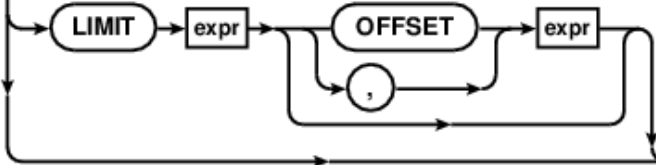
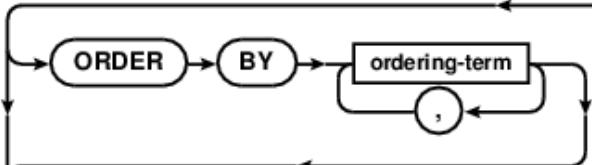
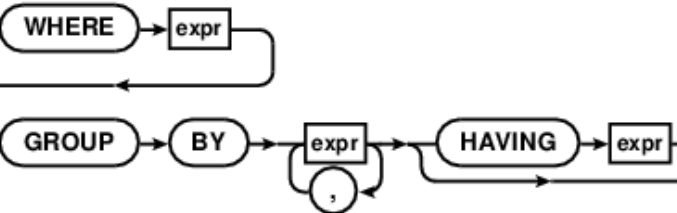
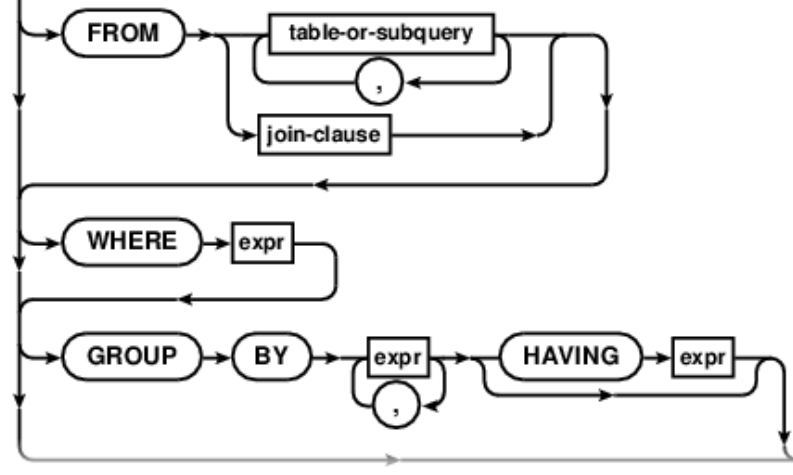
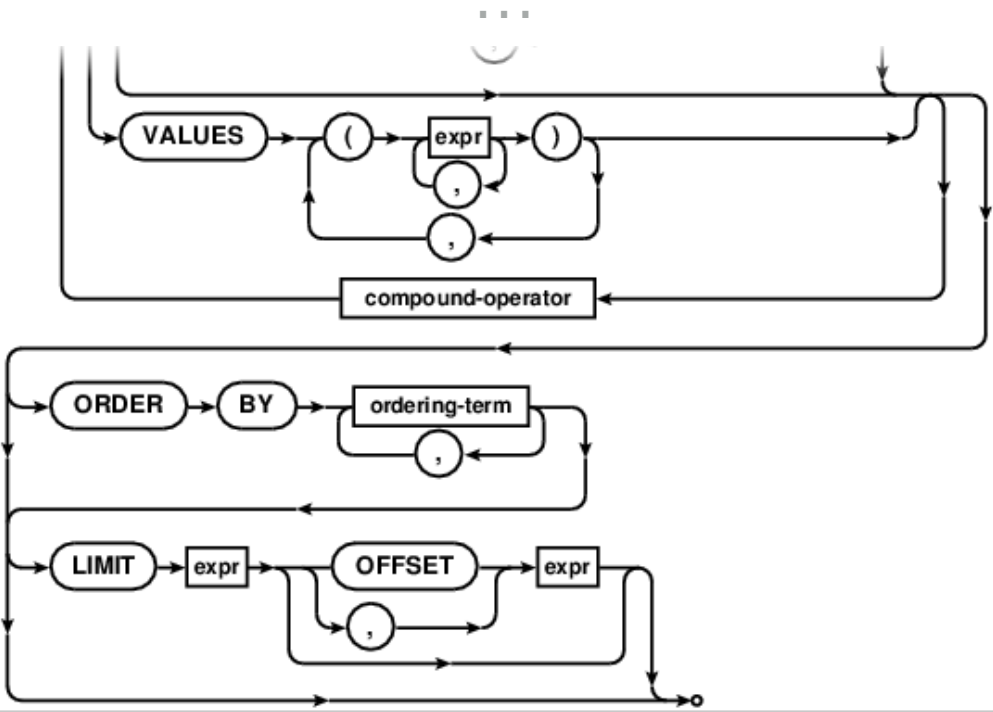
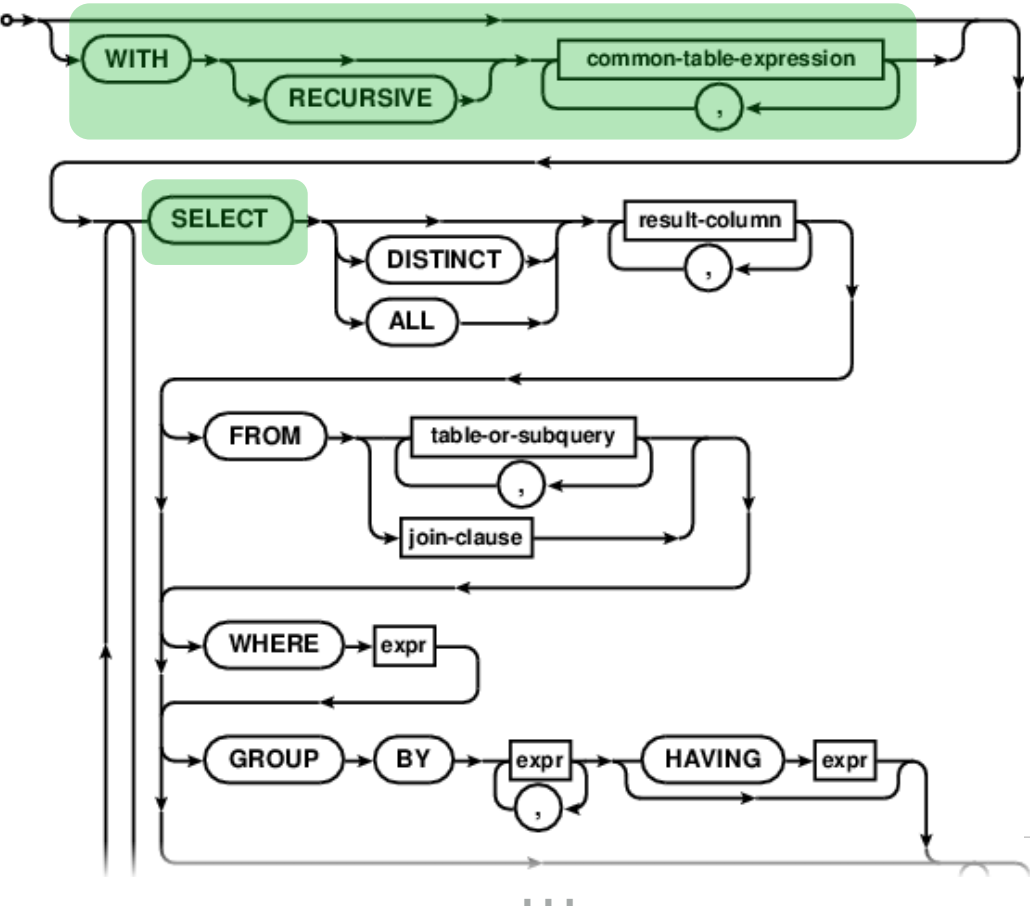
http://www.sqlite.org/lang_select.html

SQL Select Statements



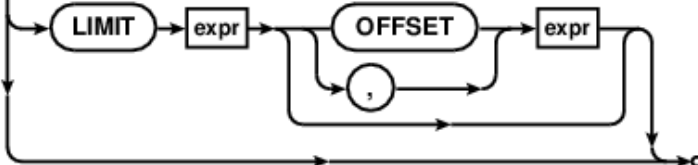
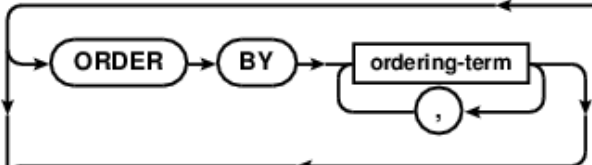
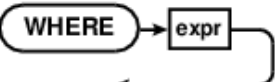
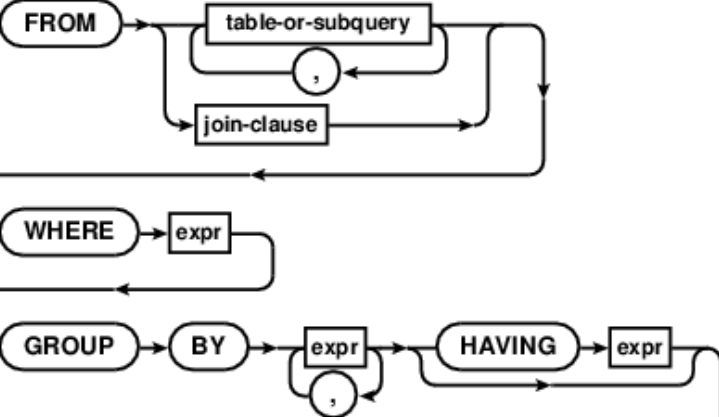
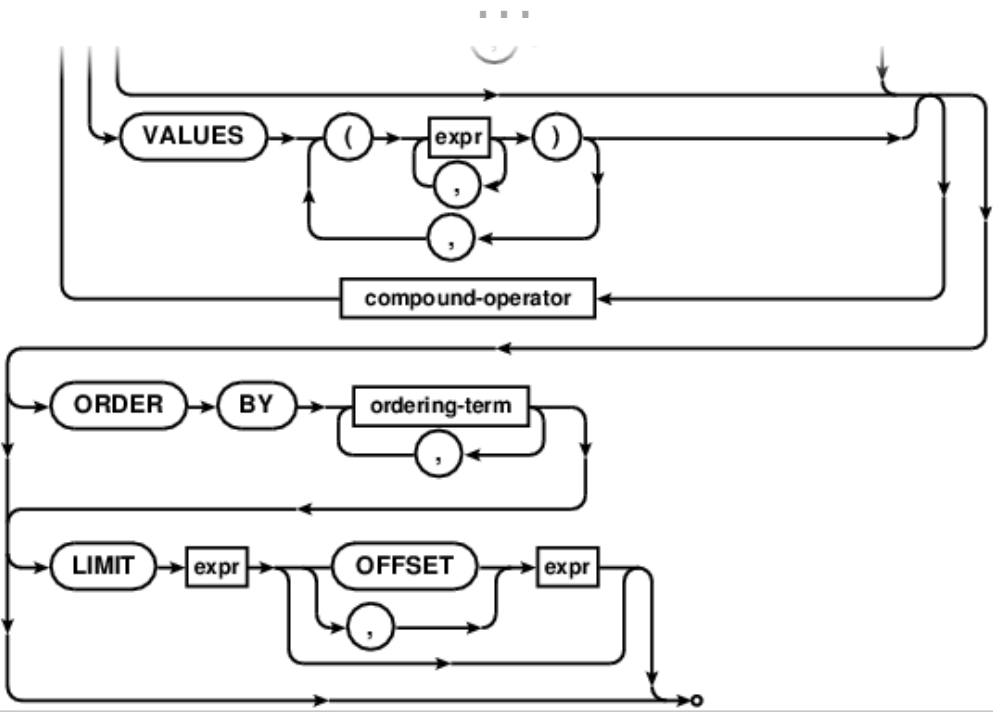
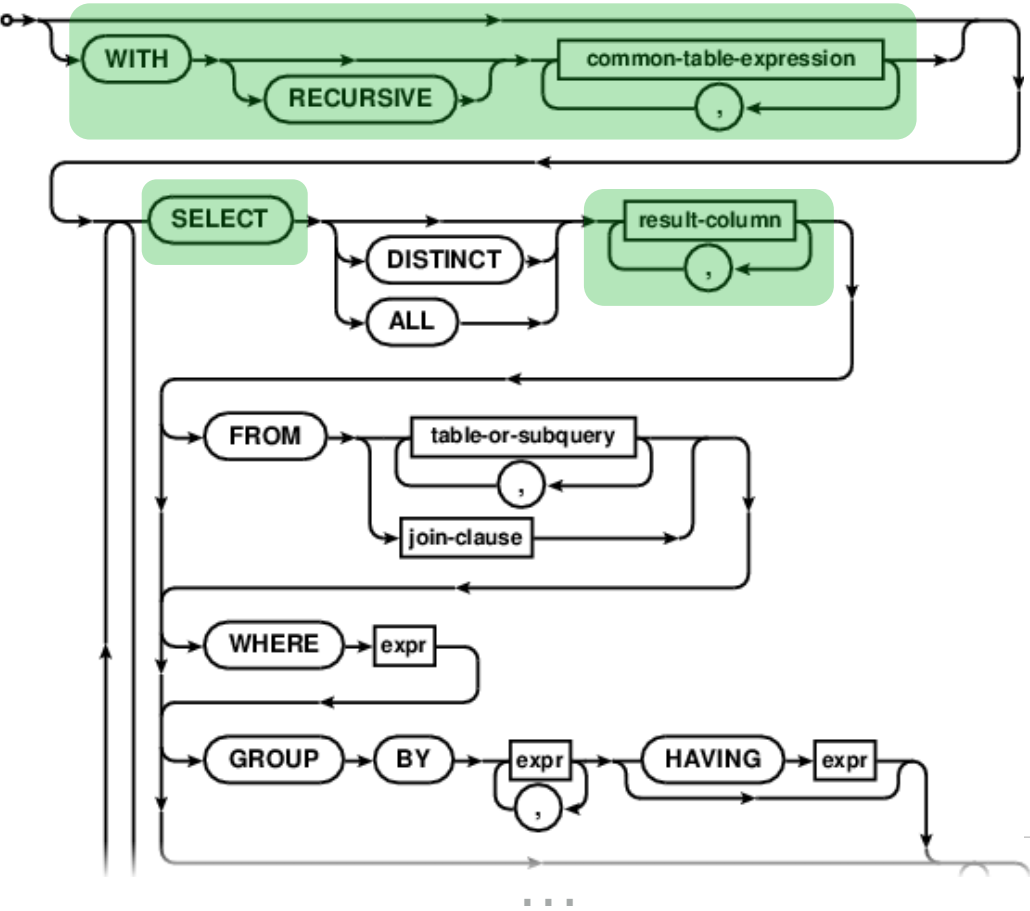
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SQL Select Statements



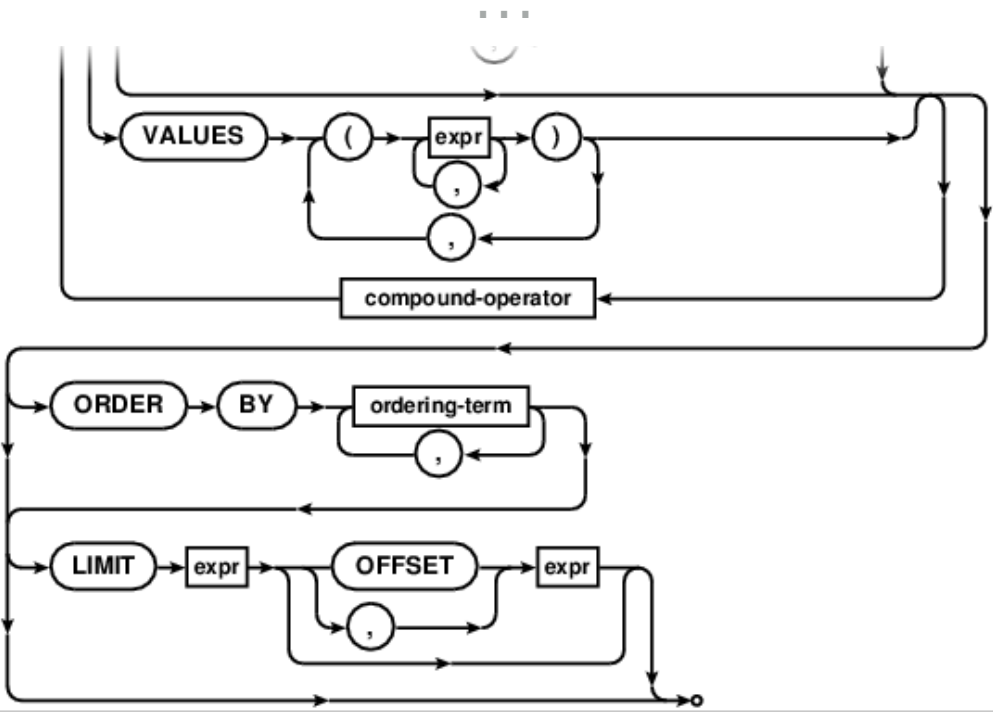
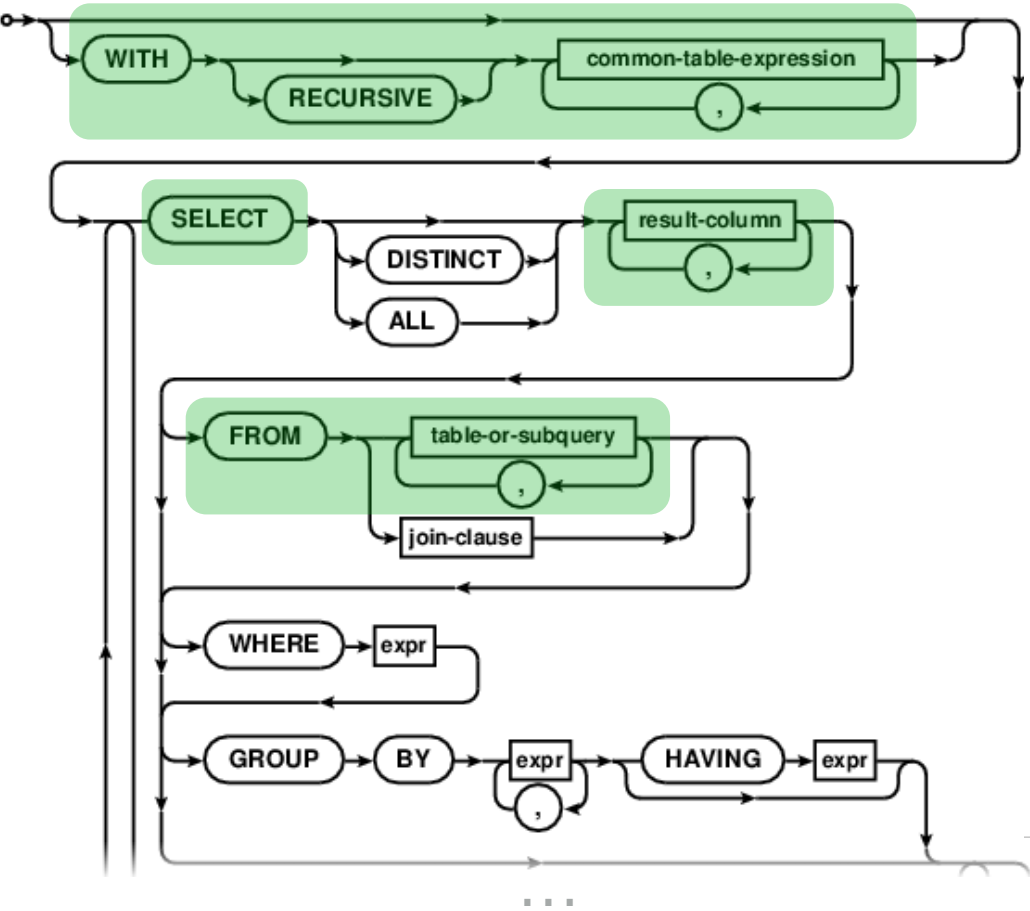
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SQL Select Statements



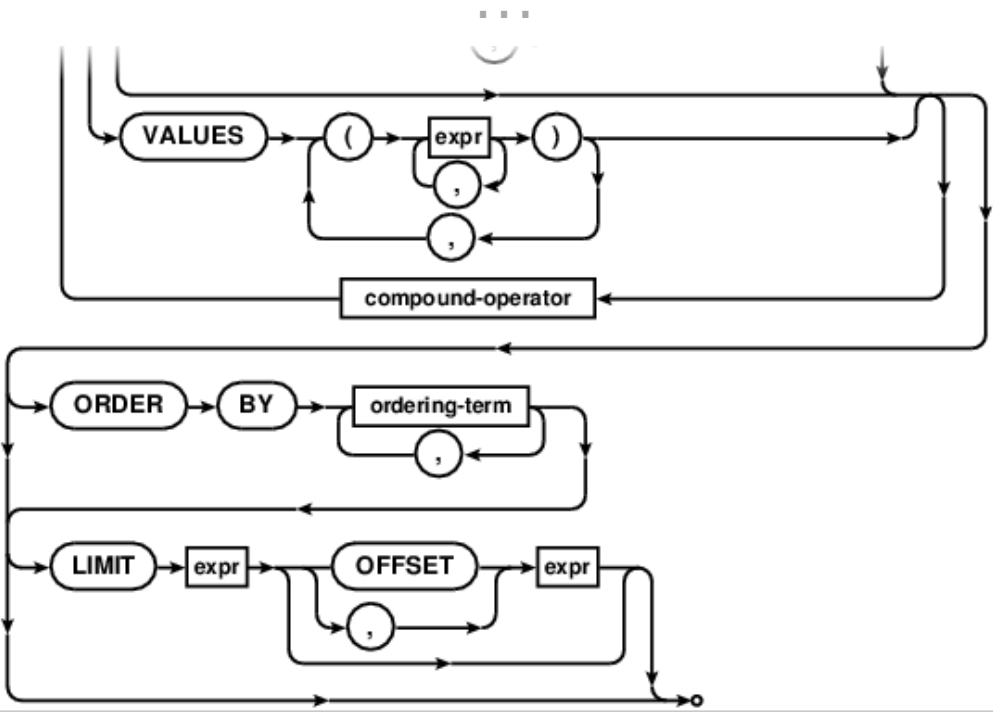
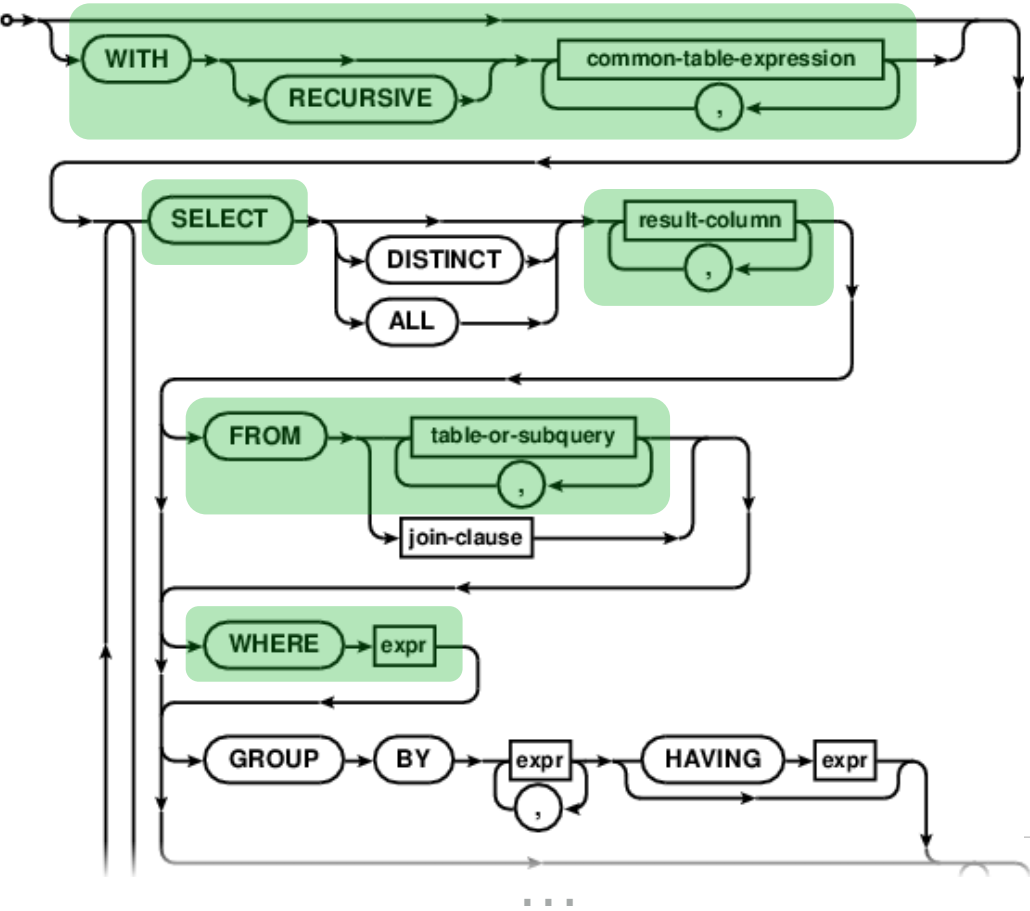
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SQL Select Statements



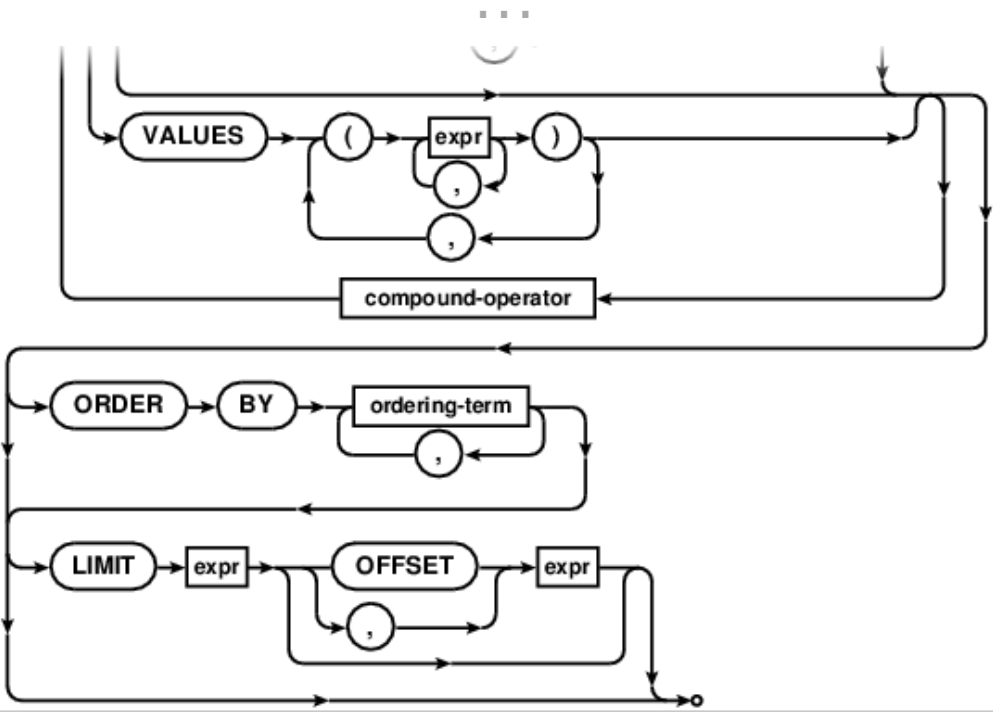
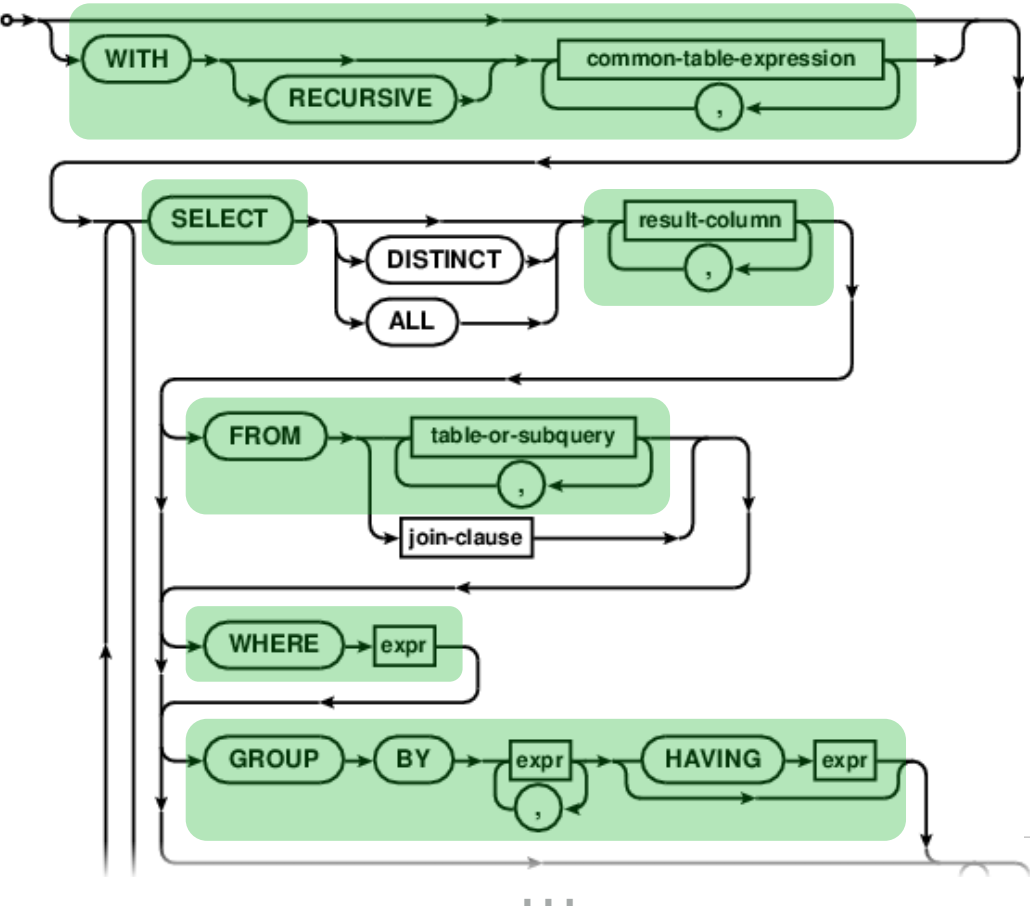
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SQL Select Statements



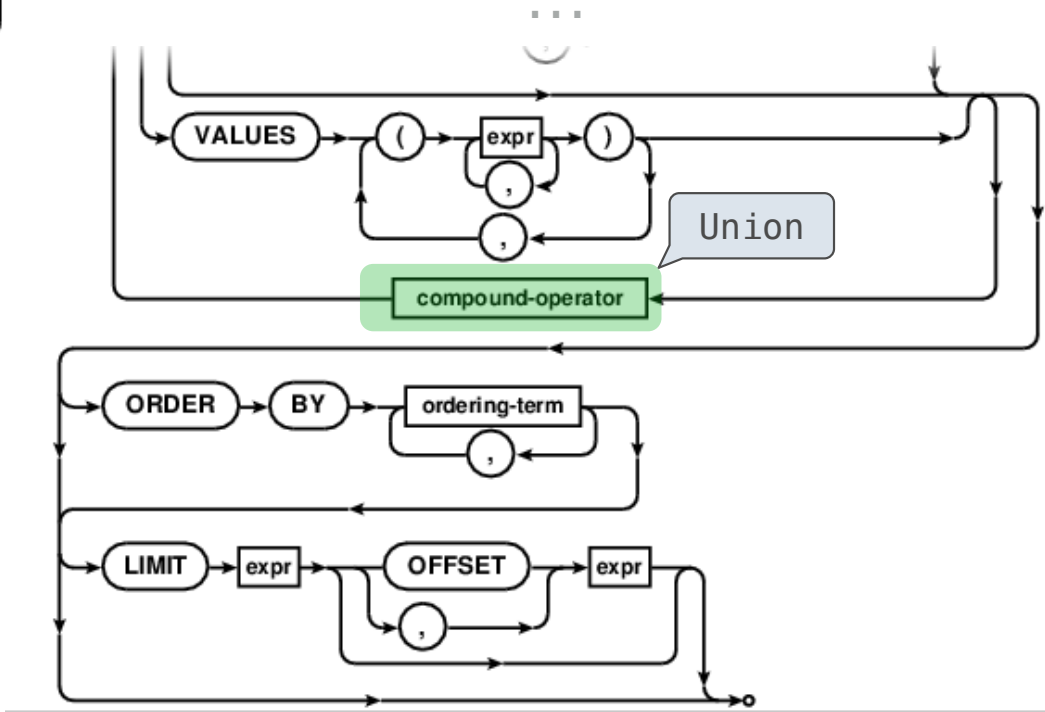
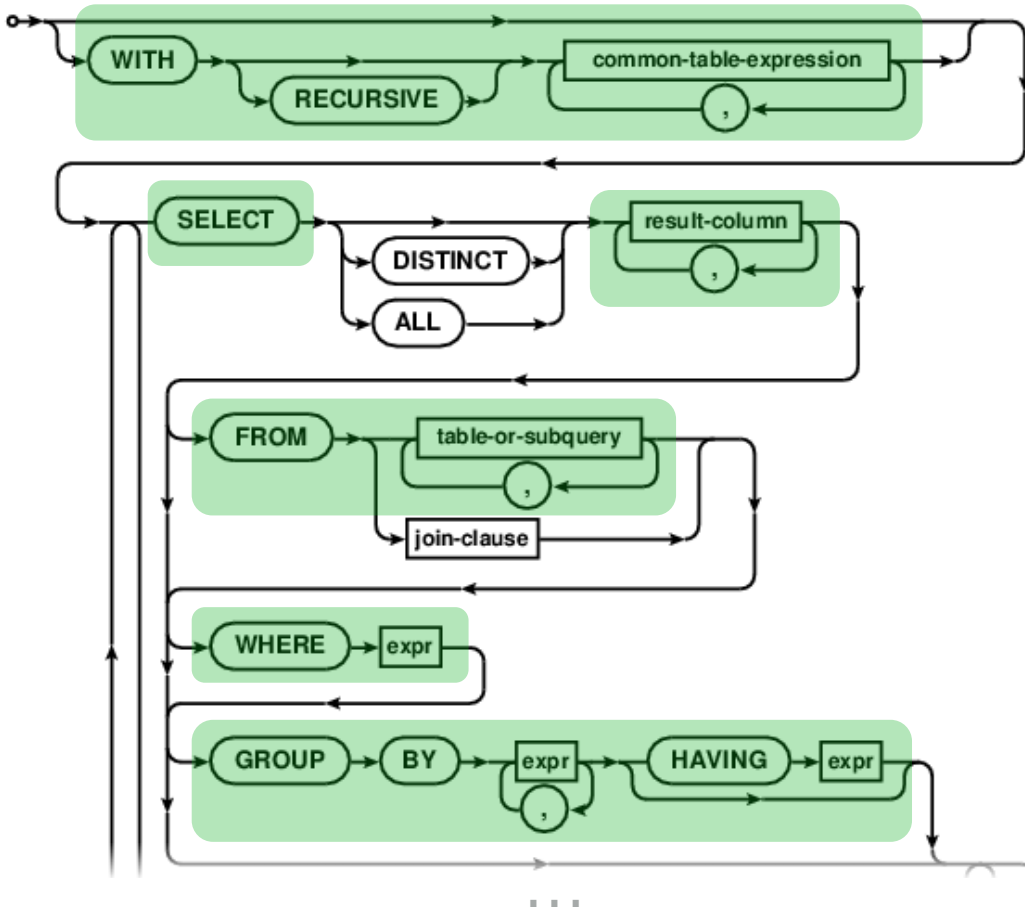
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SQL Select Statements



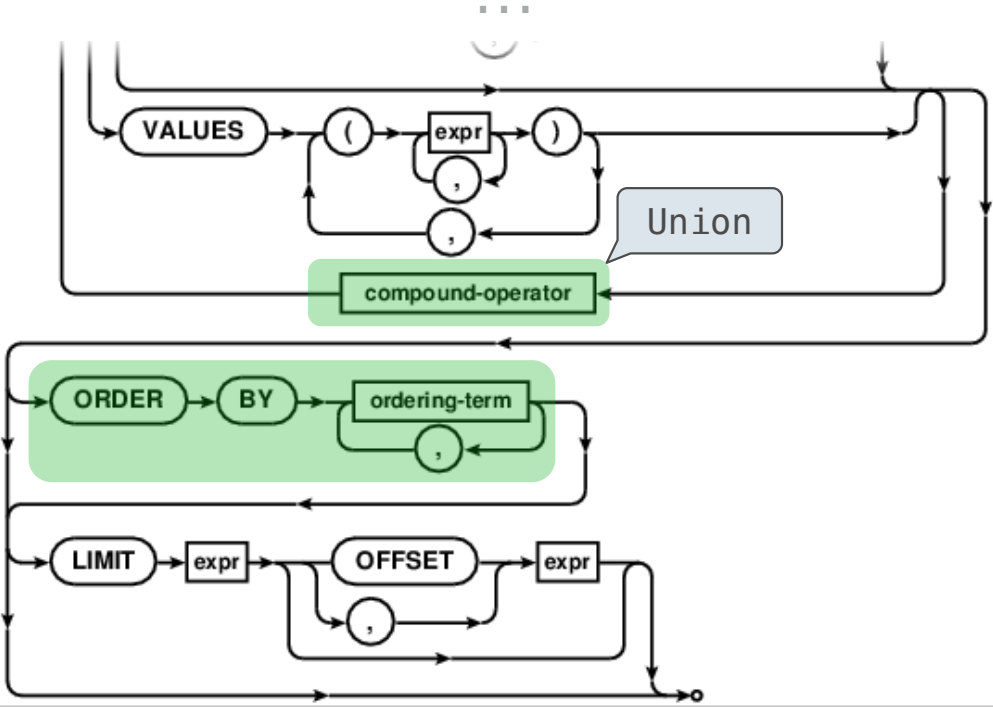
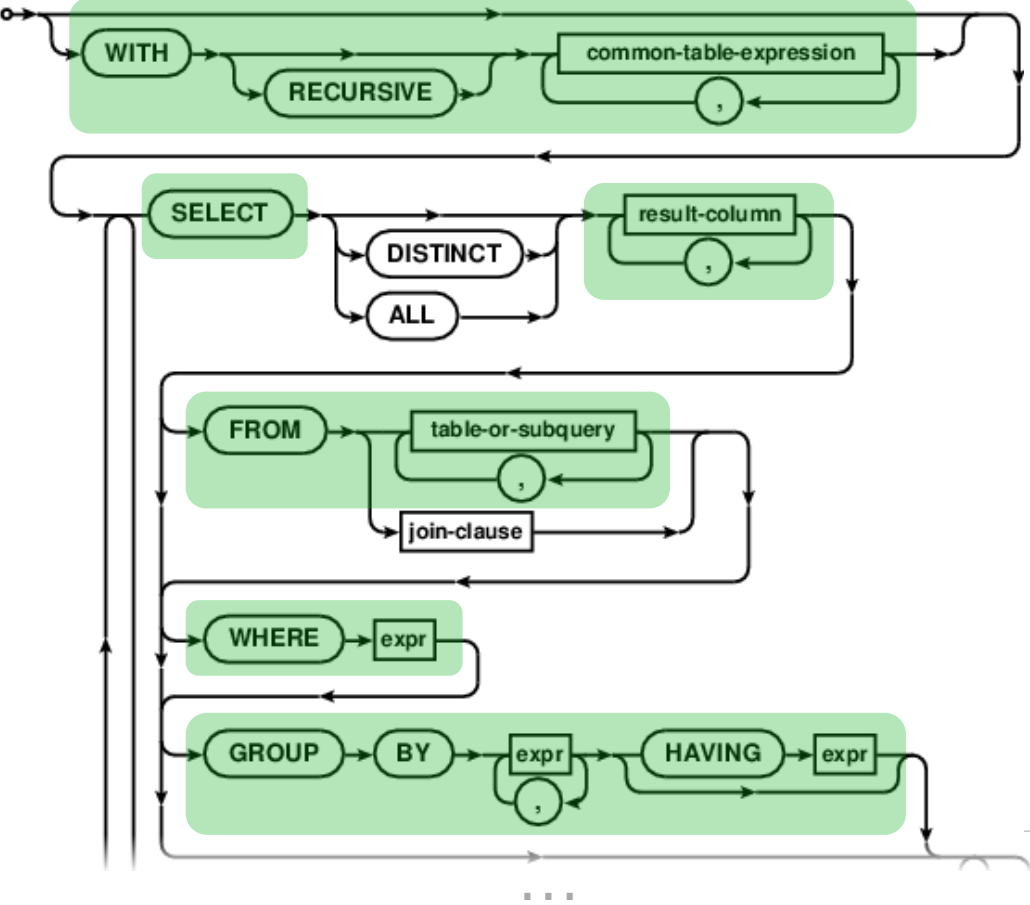
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