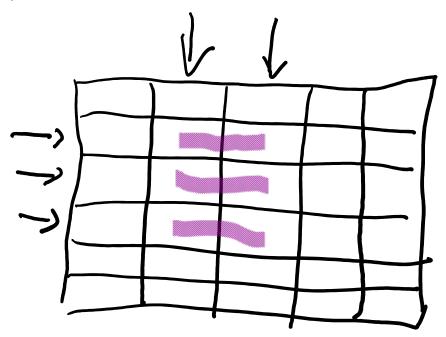
Mittwoch, 26. Mai 2021

16:53

Prof. Dr. Ingo Claßen

Samstag, 17. April 2021 11:52



Selection	Columns
Filtering	Rows
Sorting	Order of rows

select output columns
from table
where condition
order by column names

Samstag, 17. April 2021 12:18

select lastname, salary
from employee
where ouid=14
order by salary;

select lastname, salary
from employee
where ouid=14
order by salary desc;

LASTNAME	SALARY
Sanchez	39000
Nguyen	41000
Li	89000

LASTNAME	SALARY
Li	89000
Nguyen	41000
Sanchez	39000

select *
from employee;

Output of complete table, i.e. all rows and all columns

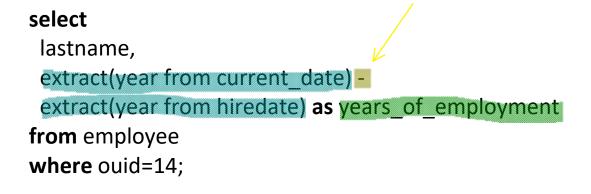
Samstag, 17. April 2021 12:2

appliction of a function

select /	LASTNAME	HIREYEAR
lastname,	Li	2002
extract(year from hiredate) as hireyear	Nguyen	2006
from employee	Sanchez	2014
where ouid=14:		

define column name to be used in output

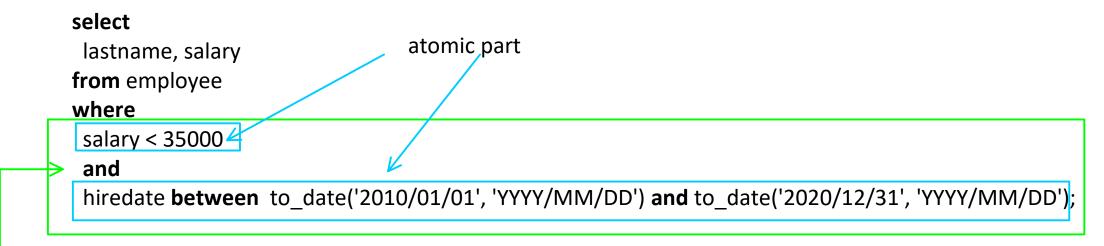
calculation of a value



LASTNAME	YEARS_OF_EMPLOYMENT	
Li		19
Nguyen		15
Sanchez		7

Compoud Condidition

Samstag, 17. April 2021 12:22



logical operator (and, or, not)

LASTNAME	SALARY
Kumar	32000
Krause	31000
Oezdem	33000
Okeke	32000

Null Values in Conditions

Samstag, 17. April 2021 12:2

select

lastname, salary, bonus

from employee

where

bonus=null

order by eid;

select

lastname, salary, bonus

from employee

where

bonus **is null**

order by eid;

select

lastname, salary, bonus

from employee

where

not bonus is null;

wrong: bonus=null

--> empty output

correct: bonus is null

Negation

correct: bonus is nuii

LASTNIAME	SALARY	BONUS	
LASTNAME	SALAKY	POMOS	

LASTNAME	SALARY	BONUS
Patil	180000	(null)
Durmaz	120000	(null)
Blaschke	93000	(null)
Stone	42000	(null)
Li	89000	(null)
Nguyen	41000	(null)
Umarani	142000	(null)
Ortega	90000	(null)
Doshi	42000	(null)
Jadhav	91000	(null)
Popov	34000	(null)
Kumar	32000	(null)
Krause	31000	(null)

LASTNAME	SALARY	BONUS
Dalal	38000	1000
Sanchez	39000	1500
Singh	43000	2100
Oezdem	33000	1900
Okeke	32000	1900

select

lastname, salary, bonus, salary + bonus as total from employee where ouid=17;

select

lastname, salary, bonus, salary+

case

when bonus is null then 0
else bonus

end as total

from employee

where

ouid=17;

wrong: direct usage

LASTNAME	SALARY	BONUS	TOTAL
Popov	34000	(null)	(null)
Kumar	32000	(null)	(null)
Krause	31000	(null)	(null)
Oezdem	33000	1900	34900
Okeke	32000	1900	33900

correct: convert null values

LASTNAME	SALARY	BONUS	TOTAL
Popov	34000	(null)	34000
Kumar	32000	(null)	32000
Krause	31000	(null)	31000
Oezdem	33000	1900	34900
Okeke	32000	1900	33900

conditional calculation expression

Detail Reduction in Output

Samstag, 17. April 2021 12:23

```
select
lastname, ouid,
case
when salary>100000 then 'high'
when salary>35000 then 'medium'
else 'low'
end as salary_band
from employee
order by salary;
```

LASTNAME	OUID	SALARY_BAND
Krause		17 low
Okeke		17 low
Kumar		17 low
Oezdem		17 low
Popov		17 low
Dalal		13 medium
Sanchez		14 medium
Nguyen		14 medium
Doshi	16 medium	
Stone		13 medium
Singh		16 medium
Li		14 medium
Ortega		16 medium
Jadhav		16 medium
Blaschke		13 medium
Durmaz		12 high
Umarani		15 high
Patil		11 high