O melhor do SQL Ilustrado

/RATARCA

COMANDOS + UTEIS!

Abaixo disponibilizo uma sheet cheat dos meus comandos favoritos, esse é um resumão para saber como eles operam verifique as outras paginas...

NÃO VIVO SEM

> Select , Alias, Filter, Order by e os operadores (like, in e between)

LÓGICA E JUNÇÃO DE TABELAS

* Case e os famosos JOINS,

FUNÇÕES

- **"String"**

* lower, trim, length, locate (instr), replace, substring

- **"Number"**

* abs, round

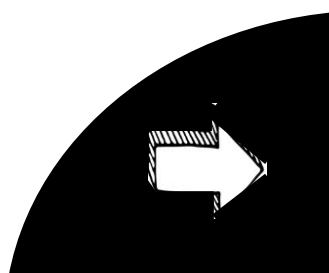
- **"Date"**

* Extract, date_format ~~current_date~~

- **"Gerais"**

* NVL(Substituir null) , convert/cast

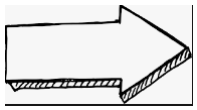
BONUS VEJA NO FINAL!



NÃO VIVO SEM!

Select *
From tbl_a;

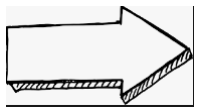
Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50

Select A, B as price
From tbl_a;

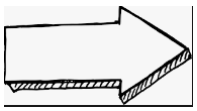
Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



Key	A	PRICE
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50

Select A, B
From tbl_a
Where b >= 40;

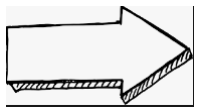
Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



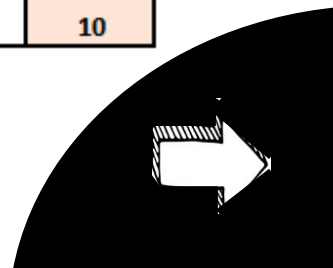
Key	A	B
4	A4	40
5	A5	50

Select A, B
From tbl_a
Order by b desc;

Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



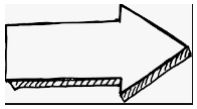
Key	A	B
5	A5	50
4	A4	40
3	A3	30
2	A2	20
1	A1	10



NÃO VIVO SEM!

```
Select *
From tbl_a
Where B in (10,50);
```

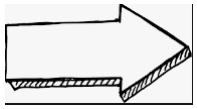
Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



Key	A	B
1	A1	10
5	A5	50

```
Select *
From tbl_a Where
between 19 and 31;
```

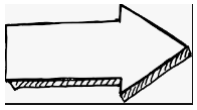
Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



Key	A	B
2	A2	20
3	A3	30

```
Select *
From tbl_a
Where A like '%A1%';
```

Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50



Key	A	B
1	A1	10

Group By

```
Select A, sum(B) as B
From tbl_a
Group by a;
```

Operações comuns

Sum, avg....

Seleciona

Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	40
5	A5	50
6	A2	10
7	A3	20
8	A4	30
9	A6	40
10	A1	50

Agrupar por A

Key	A	B
1	A1	10
10	A1	50

Key	A	B
2	A2	20
6	A2	10

Key	A	B
3	A3	30
7	A3	20

Key	A	B
4	A4	40
8	A4	30

Key	A	B
5	A5	50

Key	A	B
9	A6	40

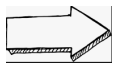
Aplica operação (sum)

A	B
A1	60
A2	30
A3	50
A4	70
A5	50
A6	40

Estrutura de Decisão

```
Select Key,B,
Case
     When check >30 then ‘velho’
     When check <= 30 then ‘novo’
End check
From tbl_b;
```

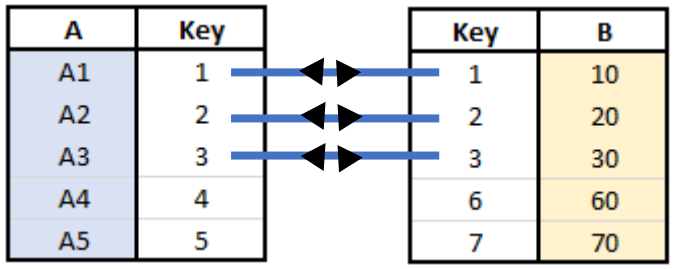
Key	B
1	10
2	20
3	30
6	60
7	70



Key	B	Check
1	10	novo
2	20	novo
3	30	novo
6	40	velho
7	50	velho

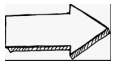
JOIN - 1

```
Select *
From tbl_a
Inner join tbl_b
On a.key = b.key;
```

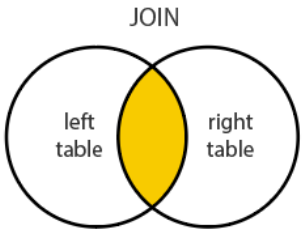


A	Key
A1	1
A2	2
A3	3
A4	4
A5	5

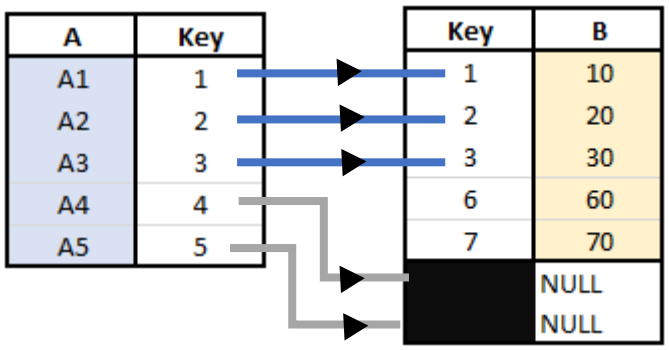
Key	B
1	10
2	20
3	30
6	60
7	70



Key	A	B
1	A1	10
2	A2	20
3	A3	30

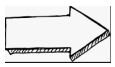



```
Select *
From tbl_a
Left join tbl_b
On a.key = b.key;
```

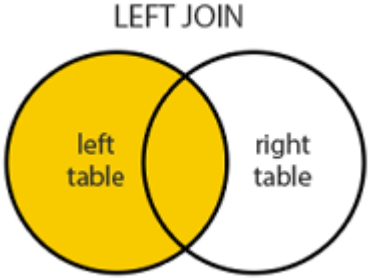


A	Key
A1	1
A2	2
A3	3
A4	4
A5	5

Key	B
1	10
2	20
3	30
6	60
7	70
NULL	NULL



Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	null
5	A5	null



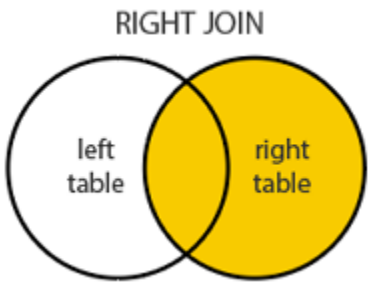
JOIN - 2

```
Select *
From tbl_a
Right join tbl_b
On a.key = b.key;
```

A	Key
A1	1
A2	2
A3	3
A4	4
A5	5
NULL	
NULL	

Key	B
1	10
2	20
3	30
6	60
7	70

Key	A	B
1	A1	10
2	A2	20
3	A3	30
6	null	60
7	null	70

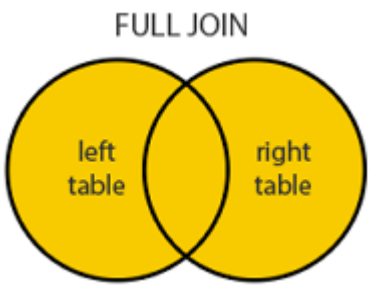



```
Select *
From tbl_a
Full outer tbl_b
On a.key = b.key;
```

A	Key
A1	1
A2	2
A3	3
A4	4
A5	5
NULL	
NULL	

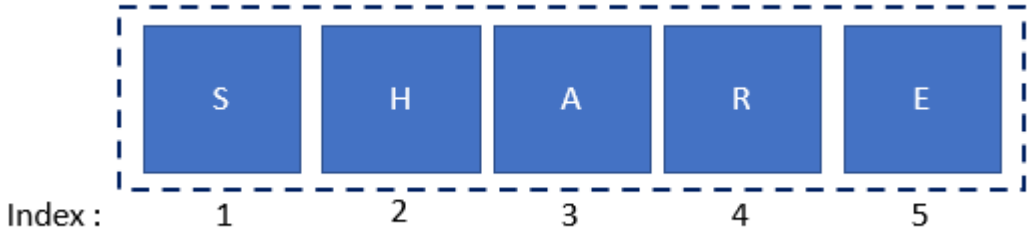
Key	B
1	10
2	20
3	30
6	60
7	70
NULL	
NULL	

Key	A	B
1	A1	10
2	A2	20
3	A3	30
4	A4	Null
5	A5	Null
6	Null	60
7	Null	70



FUNÇÕES : String

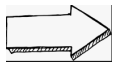
O que são strings afinal? De maneira resumida é um vetor. Mas pode imaginar uma caixa com muitas uma divisória e rotulo(index) para cada letra!



Select lower(a) as a
From tbl_a;

* Tudo minúsculo!

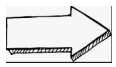
Key	A
1	sOmE_TEXT1
2	another_text2
3	another_text3
4	another_text4
5	another_text5



Key	A
1	some_text1
2	another_text2
3	another_text3
4	another_text4
5	another_text5

Select length(a) as a
From tbl_a;

Key	A
1	sOmE_TEXT1
2	another_text2
3	another_text3
4	another_text4
5	another_text5



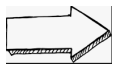
Key	A
1	10
2	13
3	13
4	13
5	13

- Verifica o tamanho da string!

FUNÇÕES : String

Select instr(A, ‘s’) as A
From tbl_a;

Key	A
1	some_text1
2	another_text2
3	another_text3
4	another_text4
5	another_text5



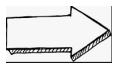
Key	A
1	1
2	0
3	0
4	0
5	0

* Encontra a primeira ocorrência de uma letra é case sensitive! #Retorna 0 caso não encontre

---

Select substr(A, 1, 2) as A
From tbl_a;

Key	A
1	some_text1
2	another_text2
3	another_text3
4	another_text4
5	another_text5

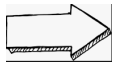


Key	A
1	so
2	an
3	an
4	an
5	an

* Seleciona um range de index

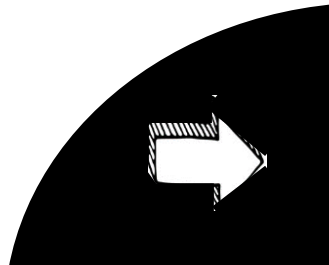
Select replace(A, ‘_’, ’9’) as A
From tbl_a;

Key	A
1	some_text1
2	another_text2
3	another_text3
4	another_text4
5	another_text5



Key	A
1	some9text1
2	another9text2
3	another9text3
4	another9text4
5	another9text5

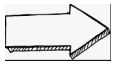
* Modifica uma letra especifica



FUNÇÕES : Number

Select key, abs(b) as b
From tbl_b;

Key	B
1	1.57721
2	1.61803
3	3.14159
6	60.6
7	-70.0001

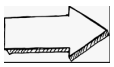


Key	B
1	1.57721
2	1.61803
3	3.14159
6	60.6
7	70.0001

* Torna os valores absolutos

Select key, round(b,0) as b
From tbl_b;

Key	B
1	1.57721
2	1.61803
3	3.14159
6	60.6
7	-70.0001



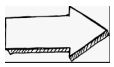
Key	B
1	1
2	1
3	3
6	60
7	-70

* Arredondar casa decimal

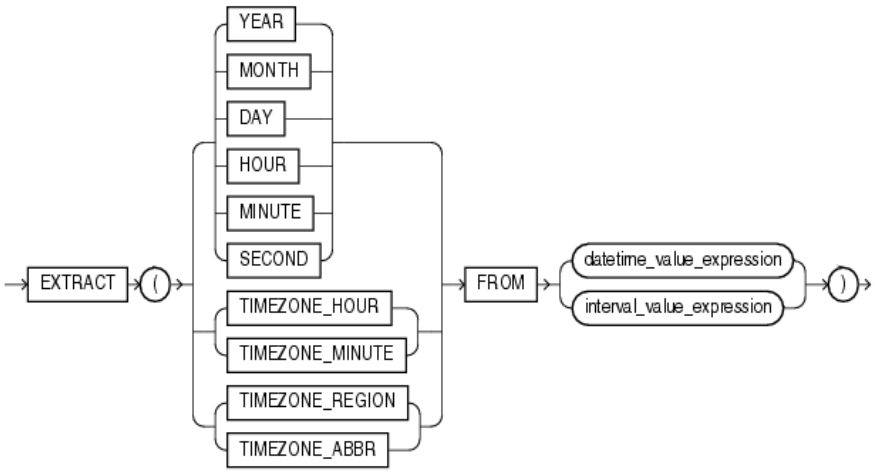
FUNÇÕES : Date

Select extract(month from date)
From tbl_c

date
1/1/2000
1/2/2000
1/3/2000
1/4/2000
1/5/2000



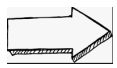
date
1
2
3
4
5



Description of the illustration extract_datetime.gif

Select TO_CHAR(Date, 'YYYY')
From tbl_c;

date
1/1/2000
1/2/2000
1/3/2000
1/4/2000
1/5/2000



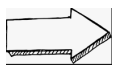
date
2000
2000
2000
2000
2000

*Obs: ~~Euseiñéfunçãotipodate!~~

FUNÇÕES : Outras

Select NVL(B, 1)
From tbl_b;

B
10
20
NULL
NULL
40



B
10
20
1
1
40

Nvl(col, value_to_replace)

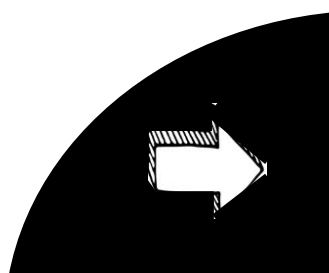
Funções de conversão de tipos são uteis como TO_DATE, TO_CHAR, TO_INT e o famigerado cast...

Bonus : Subqueries (with)

```
With view_a as (
Select *
from table_a ),

View_b as(
Select *
From view_a
Where b >= 40)

Select *
from view_b;
```

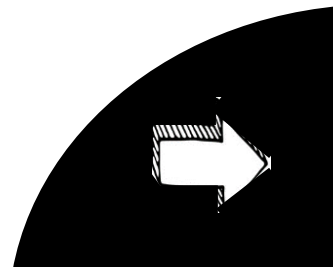


Nota

As funções e statements utilizados foram baseados na engine oracle entretanto as ideias gerais são validas a qualquer engine SQL.
Me desculpe a preguiça de fazer exemplos para outras engines.

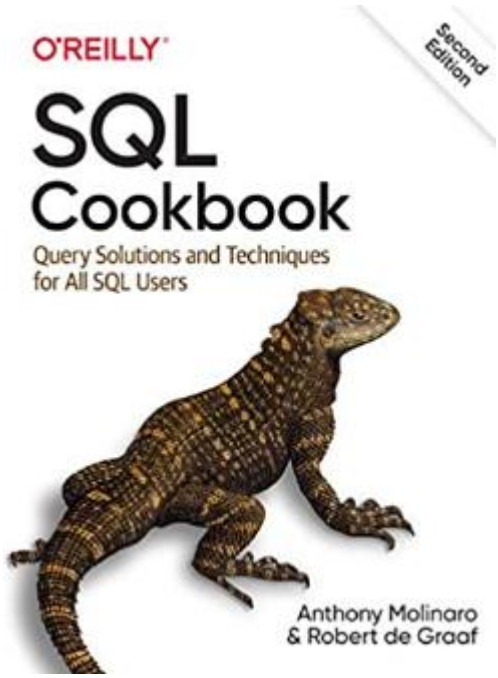
Pensei em abordar funções Windows function e cursores mas acredito que isso vale dois post separado para isso.

Caso possa me ajudar compartilhe esse conteúdo ☺



Book Tips


Putting Oracle SQL to Work
2nd Edition
Mastering Oracle SQL
O'REILLY


O'REILLY
Second Edition
SQL Cookbook
Query Solutions and Techniques for All SQL Users
Anthony Molinaro & Robert de Graaf


O'REILLY
6th Edition
Oracle PL/SQL Programming
COVERS VERSIONS THROUGH ORACLE DATABASE 12C
Steven Feuerstein
with Bill Pribyl

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