SQL - RESTRINGINDO E CLASSIFICANDO DADOS

SIMONE DOMINICO - AULA 2

LIMITANDO LINHAS USANDO SELEÇÃO

r regionkey	<u>r name</u>	r_comment	
	AFRICA	lar deposits, blithely final packages cajole, regular waters are final requests, regular accounts are according to	
	AMERICA	hs use ironic, even requests, s	
	ASIA	ges, thinly even pinto beans ca	
:	EUROPE	E ly final courts cajole furiously final excuse	
	MIDDLE EAST	uickly special accounts cajole carefully blithely close requests, carefully final asymptotes haggle furiousl	

n nationkey	n name	n regionkey	n comment
0	ALGERIA	0	haggle, carefully final deposits detect slyly agai
1	ARGENTINA	1	al foxes promise slyly according to the regular accounts, bold requests alon
2	BRAZIL	1	y alongside of the pending deposits, carefully special packages are about the ironic forges, slyly special
3	CANADA	1	eas hang ironic, silent packages, slyly regular packages are furiously over the tithes, fluffily bold
4	EGYPT	4	y above the carefully unusual theodolites. final dugouts are quickly across the furiously regular d
5	ETHIOPIA	0	ven packages wake quickly, regu
6	FRANCE	3	refully final requests, regular, ironi
7	GERMANY	3	l platelets, regular accounts x-ray: unusual, regular acco
8	INDIA	2	ss excuses cajole slyly across the packages, deposits print aroun
9	INDONESIA	2	slyly express asymptotes, regular deposits haggle slyly, carefully ironic hockey players sleep blithely, carefull
10	IRAN	4	efully alongside of the slyly final dependencies.
•			•

LIMITANDO LINHAS USANDO SELEÇÃO

r regionkey	r_name	r_comment
0	AFRICA	lar deposits, blithely final packages cajole, regular waters are final requests, regular accounts are according to
1	AMERICA	hs use ironic, even requests, s
2	ASIA	ges. thinly even pinto beans ca
3	EUROPE	ly final courts cajole furiously final excuse
4	MIDDLE EAST	uickly special accounts cajole carefully blithely close requests, carefully final asymptotes happle furiousl

SELECIONAR TODOS OS PAÍSES DA REGIÃO O

n_nationkey	n_name	n_regionkey	n_comment
0	ALGERIA	0	haggle. carefully final deposits detect slyly agai
5	ETHIOPIA	0	ven packages wake quickly. regu
14	KENYA	0	pending excuses haggle furiously deposits. pending, express pinto beans wake fluffily past t
15	MOROCCO	0	rns. blithely bold courts among the closely regular packages use furiously bold platelets?
16	MOZAMBIQUE	0	s. ironic, unusual asymptotes wake blithely r

LIMITANDO LINHAS SELECIONADAS

Cláusula WHERE

SELECT coluna1, coluna2
FROM tabela
WHERE condição;

USANDO A CLÁUSULA WHERE

tpch=> <u>s</u>elect * from nation where n_regionkey=0;

USANDO A CLÁUSULA WHERE

tpch=> select * from nation where n_regionkey=0;

```
n nationkey |
                                         n regionkey
                       n name
                           n comment
          0 | ALGERIA
                                                     0 | haggle. carefu
lly final deposits detect slyly agai
          5 | ETHIOPIA
                                                     0 | ven packages wa
ke quickly. regu
                                                          pending excuse
         14 | KENYA
haggle furiously deposits. pending, express pinto beans wake fluffily
oast t
         15 | MOROCCO
                                                     0 | rns. blithely b
old courts among the closely regular packages use furiously bold platele
ts?
         16 | MOZAMBIQUE
                                                     0 | s. ironic, unus
ual asymptotes wake blithely r
(5 rows)
```

```
tpch=> select * from nation where n_name='BRAZIL';
ASPAS SIMPLES
```

```
tpch=> select * from nation where n name='BRAZIL';
n nationkey |
                                    | n regionkey |
                     n name
                              n comment
                               1 | y alongside of
            BRAZIL
the pending deposits. carefully special packages are about the ironic fo
rges. slyly special
```

```
tpch=> select * from nation where n_name='BRAZIL';

ASPAS SIMPLES

DISTINÇÃO ENTRE

MAIÚSCULA E

MINÚSCULA
```

tpch=> select * from nation where n_name='Brazil';

```
tpch=> select l_quantity,l_shipdate from lineitem where l_shipdate='1996
-03-13';
```

```
tpch=> select l_quantity,l_shipdate from lineitem where l_shipdate='1996
-03-13';
```

2582 rows

```
| l shipdate
l quantity
             1996-03-13
     17.00
     10.00
             1996-03-13
      6.00
             1996-03-13
    39.00
             1996-03-13
             1996-03-13
    29.00
             1996-03-13
    28.00
             1996-03-13
    50.00
             1996-03-13
    15.00
    27.00
             1996-03-13
```

OPERADORES DE COMPARAÇÃO

- = igual a.
- > maior do que
- >= maior do que ou igual a
- < menor que</p>
- <=menor ou igual a</p>
- <> diferente de

USANDO OPERADORES DE COMPARAÇÃO

```
tpch=> select l_linestatus, l_comment, l
_shipdate from lineitem where l_shipdate
='1998-11-30';
```

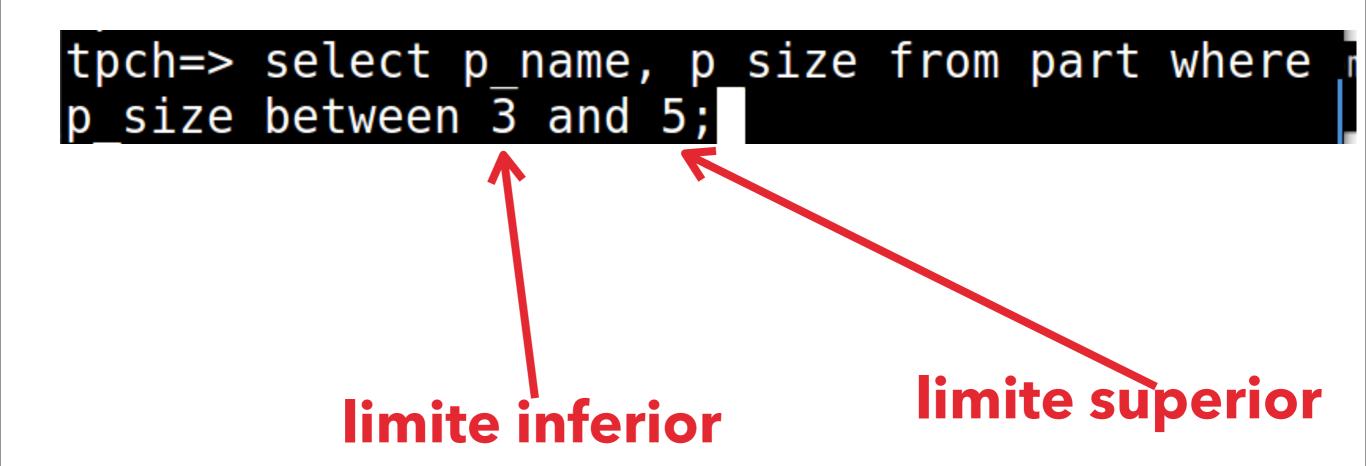
187 ROWS

```
l shipdate
l linestatus
                                l comment
               ngside of the silen
                                                              1998-11-30
               pending requests along the caref
                                                               1998-11-30
               ter the quickly even deposits. car
                                                               1998-11-30
0
               pinto beans-- pin
                                                               1998-11-30
               lyly unusual, bold packages. bold package
                                                              1998-11-30
               s! furiously bold deposits ac
                                                               1998-11-30
               r, unusual packages cajole fur
                                                               1998-11-30
0
               equests affix furiously even excuses. r
0
                                                              1998-11-30
               tes cajole. express foxes wake above the ev
                                                              1998-11-30
                                                               1998-11-30
               otes nag c
```

Between: exibir linhas em uma faixa de valores.

```
tpch=> select p_name, p_size from part where
p size between 3 and 5;
```

Between: exibir linhas em uma faixa de valores.



Between: exibir linhas em uma faixa de valores.

```
tpch=> select p_name, p size from part where p_size between 3 and 5;
```

12191 ROWS

```
p_name | p_size |
bisque cornflower lawn forest magenta | 4 |
aquamarine steel firebrick light turquoise | 3 |
chiffon tan forest moccasin dark | 3 |
medium lace midnight royal chartreuse | 5 |
slate drab medium puff gainsboro | 3 |
cyan orchid indian cornflower saddle | 4
```

IN: filtrar o valor de um de seus campos a partir de uma lista e possibilidades.

```
tpch=> select p_name,p_size from part where
p_size in (2,9,11);
```

N: filtrar o valor de um de seus campos a partir de uma lista e possibilidades.

```
tpch=> select p_name,p_size from part where
p_size in (2,9,11);
```

12100 ROWS

```
p_name p_size

deep sky turquoise drab peach 2
seashell papaya white mint brown 11
lawn peru ghost khaki maroon 9
sky cream deep tomato rosy 9
misty brown medium mint salmon 2
lace burnished rosy antique metallic 2
rosy light lime puff sandy 9
```

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

tpch=> select p name,p type from part where p type like 'PROMO':

TEXTO: EXATAMENTE O TEXTO

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

```
tpch=> select p_name,p_type from part where p_type like 'PROMO':
```

TEXTO: EXATAMENTE O TEXTO

```
p_name | p_type
-----
(0 rows)
```

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

tpch=> select p name,p type from part where p type like '%PROMO';

%TEXTO: TERMINA COM O TEXTO

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

```
tpch=> select p_name,p_type from part where p_type like '%PROMO';
```

%TEXTO: TERMINA COM O TEXTO

```
p_name | p_type
-----
(0 rows)
```

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

tpch=> select p_name,p_type from part where p_type like 'PROMO%';

TEXTO%:COMEÇA COM O TEXTO

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

tpch=> select p_name,p_type from part where p_type like 'PROMO%';

TEXTO%:COMEÇA COM O TEXTO

p_name | p_type |

p_type |

p_type |

p_type |

p_type |

p_type |

p_type |

p_type |

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p_type |

p_t

deep sky turquoise drab peach | PROMO PLATED TIN

PROMO PLATED STEEL

PROMO BURNISHED TI

bisque cornflower lawn forest magenta

misty lace thistle snow royal

PPER

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

```
tpch=> select p name,p type from part where
p_type like '%PROMO%;
```

%TEXTO%: CONTÊM O TEXTO

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

```
tpch=> select p name,p type from part where
p type like '%PROMO%';
```

p name

%TEXTO%: CONTÊM O TEXTO

```
p_type
goldenrod lavender spring chocolate lace
                                                       PROMO BURNISHED CO
PPER
bisque cornflower lawn forest magenta
                                                       PROMO PLATED STEEL
misty lace thistle snow royal
                                                       PROMO BURNISHED TI
deep sky turquoise drab peach
```

PROMO PLATED TIN

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

```
tpch=> select r_name from region where r_name like '_M%';
```

COMECE COM UM CARACTERE QUALQUER, EM SEGUIDA CONTENHA UMA LETRA "M", E DEPOIS QUALQUER VALOR. 1 ROW

LIKE: utilizado para buscar por uma determinada string dentro de um campo com valores textuais

```
tpch=> select r_name from region where r_name like '_M%';
```

COMECE COM UM CARACTERE QUALQUER, EM SEGUIDA CONTENHA UMA LETRA "M", E DEPOIS QUALQUER VALOR. 1 ROW

```
r_name

AMERICA
(1 row)
```

IS NULL: verifica os valores que são nulos, valor não disponível

```
tpch=> select r_name from region where r_name
is null;
```

IS NULL: verifica os valores que são nulos, valor não disponível

```
tpch=> select r_name from region where r_name
is null;
```

```
r_name
(0 rows)
```

AND: retorna verdadeiro se as condições de componentes forem verdadeiras.

```
tpch=> select l_shipmode, l_shipinstruct from
lineitem where l_shipmode='MAIL' and
l_shipinstruct= 'DELIVER IN PERSON';
```

AMBAS VERDADEIRAS

AND: retorna verdadeiro se as condições de componentes forem verdadeiras.

```
tpch=> select l_shipmode, l_shipinstruct from
lineitem where l_shipmode='MAIL' and
l_shipinstruct= 'DELIVER IN PERSON';
```

AMBAS VERDADEIRAS

RETORNA 213782 rows

```
l_shipmode | l_shipinstruct

MAIL | DELIVER IN PERSON

MAIL | DELIVER IN PERSON

MAIL | DELIVER IN PERSON
```

AND: retorna verdadeiro se as condições de componentes forem verdadeiras.

AND	TRUE	FALSE	NULL
TRUE	TRUE	FALSE	NULL
FALSE	FALSE	FALSE	FALSE
NULL	NULL	FALSE	NULL

 OR: uma condição ou a outra podem ser verdadeiras.

```
tpch=> select l_shipmode, l_shipinstruct from
lineitem where l_shipmode='MAIL' or
l_shipinstruct= 'NONE';
VERDADEIRO
```

 OR: uma condição ou a outra podem ser verdadeiras.

```
tpch=> select l_shipmode, l_shipinstruct from
lineitem where l_shipmode='MAIL' or
l_shipinstruct= 'NONE';

VERDADEIRO

RETORNA 2143661 rows

VERDADEIRO
```

```
l_shipmode | l_shipinstruct

MAIL | COLLECT COD

MAIL | COLLECT COD

RAIL | NONE

MAIL | DELIVER IN PERSON
```

• OR: uma condição ou a outra podem ser verdadeiras.

OR	TRUE	FALSE	NULL
TRUE	TRUE	TRUE	TRUE
FALSE	TRUE	FALSE	NULL
NULL	TRUE	NULL	NULL

NOT: retorna os campos sem a condição.

```
tpch=> select n_name from nation where not
n_name='BRAZIL';
```

NOT: retorna os campos sem a condição.

```
tpch=> select n_name from nation where not
n_name='BRAZIL';
```

```
n_name
ALGERIA
ARGENTINA
CANADA
EGYPT
ETHIOPIA
FRANCE
GERMANY
```

NOT: retorna os campos sem a condição.

```
tpch=> select p_name,p_type from part where
p_type not like '%ECONOMY%';
```

166529 rows

NOT: retorna os campos sem a condição.

```
tpch=> select p_name,p_type from part where
p_type not like '%ECONOMY%';
```

Ordem de avaliação	Operador
1	Operadores de comparação
2	NOT
3	AND
4	OR

```
tpch=> select l_shipmode, l_shipinstruct, l_quant
ity from lineitem where l_shipmode='MAIL'or l_shi
pinstruct= 'NONE' and l_quantity>45;
```

PRIMEIRA CONDIÇÃO: SE L_SHIPINSTRUCT É NONE E L_QUANTITY > 45

```
tpch=> select l_shipmode, l_shipinstruct, l_quant
ity from lineitem where l_shipmode='MAIL'or l_shi
pinstruct= 'NONE' and l_quantity>45;
```

SEGUNDA CONDIÇÃO: SE L_SHIPMODE É MAIL

```
tpch=> select l_shipmode, l_shipinstruct, l_quant
ity from lineitem where l_shipmode='MAIL'or l_shi
pinstruct= 'NONE' and l_quantity>45;
```

l_shipmode	l_shipinstruct +	l_quantity
MAIL	COLLECT COD	9.00
MAIL	COLLECT COD	45.00
MAIL	DELIVER IN PERSON	50.00
MAIL	NONE	1.00
MAIL	TAKE BACK RETURN	1.00

F0B	NONE	48.00
F0B	NONE	47.00

```
tpch=> select l_shipmode, l_quantity from lineitem
  where l_shipmode='MAIL' or l_shipmode='TRUCK' and
l_quantity>45;
```

SELECIONE A LINHA SE L_SHIPMODE FOR 'TRUCK' E L_QUANTITY MAIOR QUE 45 OU SE L_SHIPMODE FOR 'MAIL;'

```
tpch=> select l_shipmode, l_quantity from lineitem
  where l_shipmode='MAIL' or l_shipmode='TRUCK' and
l_quantity>45;
```

$l_shipmode$	l_quantity
MAIL	9.00
MAIL	45.00
MAIL	50.00
MAIL	1.00

TRUCK	47.00
MAIL	3.00

SELECIONE A LINHA SE
L_SHIPMODE FOR
'TRUCK' E L_QUANTITY
MAIOR
QUE 45 OU SE
L_SHIPMODE FOR
'MAIL:'

```
tpch=> select l_shipmode, l_quantity from lineitem
  where (l_shipmode='MAIL' or l_shipmode='TRUCK') a
nd l_quantity>45;
```

l_shipmode	l_quantity
MAIL	50.00
MAIL MAIL	48.00 46.00
MAIL	50.00
MAIL TRUCK	46.00 47.00
TRUCK	49.00

SELECIONE A LINHA SE
L_SHIPMODE FOR 'TRUCK' OU
SE L_SHIPMODE FOR 'MAIL E
SE L_QUANTITY MAIOR
QUE 45;'

CLAUSULA - ORDER BY

- Classifica as linhas:
 - ASC: crescente (PADRÃO).
 - DESC: decrescente

CLAUSULA - ORDER BY

tpch=> select n_name from nation order by n_name;

```
n_name
ALGERIA
ARGENTINA
BRAZIL
CANADA
CHINA
EGYPT
ETHIOPIA
FRANCE
```

CLAUSULA - ORDER BY

tpch=> select n_name from nation order by n_name
desc;

```
n_name
VIETNAM
UNITED STATES
UNITED KINGDOM
SAUDI ARABIA
RUSSIA
ROMANIA
PERU
```

CLASSIFICANDO POR APELIDO DE COLUNA

```
tpch=> select p_name, p_size, 2*p_size as calc
from part order by calc desc;
```

CLASSIFICANDO POR APELIDO DE COLUNA

tpch=> select p_name, p_size, 2*p_size as calc from part order by calc desc;

p_name	p_size	calc
ivory peru lavender orange dark	50	100
sandy purple maroon ivory midnight	50	100
pink white sky burnished coral	50	100
brown thistle sky dodger lavender	50	100
deep turquoise light pale saddle	50	100
almond lawn sky steel pale	50	100
pink beige orange pale powder	50	100
dodger honeydew turquoise cornsilk olive	50	100
steel deep firebrick chartreuse royal	50	100
hot lavender cornsilk medium smoke	50	100

Crie uma consulta para exibir o nome (p_name) e o preço de varejo (p_retailprice) dos itens de compra (part) em que o preço de varejo seja maior que R\$ 2097.10.

p_name	p_retailprice
forest azure almond antique violet pink wheat powder burlywood snow goldenrod drab brown salmon mint (3 rows)	2097.99 2097.99 2098.99

Crie uma consulta para exibir os comentários da tabela nation em que o nome seja ARGENTINA.

n_comment

al foxes promise slyly according to the regular accounts. bold requests alon (1 row)

3. Crie uma consulta para exibir o nome (p_name) e o preço de varejo (p_retailprice) dos itens de compra (part) em que o preço de varejo esteja entre R\$ 2095.10 e R\$ 2097.90

p_name	p_retailprice
wheat olive antique pale aquamarine	2095.99
frosted chiffon lawn cornsilk rosy	2095.99
cornflower almond powder forest slate	2096.99
deep mint violet almond dodger	2095.99
thistle lavender linen azure sandy	2096.99
cream navajo saddle dodger navy	2095.99
peru maroon snow grey chartreuse	2096.99
(7 rows)	

4. Exibir o desconto da tabela lineitem com data de recibo entre 27 de dezembro de 1998 e 31 de dezembro de 1998.

```
discount
       0.09
       0.02
       0.00
       0.08
       0.08
       0.06
       0.03
       0.04
       0.10
(24 rows)
```

4. Crie uma consulta para exibir o nome (c_name) e o endereço (c_address) do cliente (customer) do país (c_nationkey) 24 e com conta (c_acctbal) maior que R\$ 9990

c_name	c_address
Customer#000002487 Customer#000010494 Customer#000015607 Customer#000027412 Customer#000089748 Customer#000104503 Customer#000119437 Customer#000119509 Customer#000121762 Customer#000129387 Customer#000148533 (11 rows)	sSe2DBAYdy4 uktWOyUEg3PfFaKd7vD2MGvNgArujNmmtwkMUp C79Zv4hHcT9uNXctx5FKRxhglekdG b ACEDOcco9TVfBKBfhoAtfLi83hRRPRfkyKNYjKsx GcqG39MMHXJGv1jMwgCIRV9xw1S QpAlfu9whI WjhfZ6Y8bmnKCsy6o78Mkna9 rosqLbSejLw9VzaT4jWrP0yeMpU26vrdFyHz5FV JBDnrAGcDrXR6qp6P1meXjQ1HYB7 um60DkwV8nz6ZWL KFMSrrOfmyIEaFeiQfNk56 bvJAPG5imObMiDtdgNoWBUZP3RpaNtM8aT4gz0 DUFKWFJ2GzbqCpXlS9XFjY

5. Crie uma consulta para exibir o nome (c_name) e o endereço (c_address) do cliente (customer) do país (c_nationkey) 24 e com conta (c_acctbal) maior que R\$ 9990 e que a coluna c_mktsegment tenha o texto 'AUTO'. dica: 3 rows.

6. Crie uma consulta para exibir o nome (c_name) e o endereço (c_address) do cliente (customer) do país (c_nationkey) 24 e com conta (c_acctbal) maior que R\$ 9990 e que a coluna c_mktsegment tenha o texto 'AUTO' OU inicie com 'MAC'.

c_name	ļ	c_address
Customer#000015607 Customer#000089748 Customer#000104503 Customer#000119437 Customer#000119509 Customer#000148533 (6 rows)	 - -	C79Zv4hHcT9uNXctx5FKRxhglekdG b GcqG39MMHXJGv1jMwgCIRV9xw1S QpAlfu9whI WjhfZ6Y8bmnKCsy6o78Mkna9 rosqLbSejLw9VzaT4jWrP0yeMpU26vrdFyHz5FV JBDnrAGcDrXR6qp6P1meXjQ1HYB7 DUFKWFJ2GzbqCpXlS9XFjY

7. Criar uma consulta para exibir todas as informações da tabela nation em que o campo n_name não possua a letra A.

n_nationkey	n_name	n_regionkey	n_comment
4 EGYPT		4	y above the carefully unusual theodolites. final dugouts are quickly across the furious
ly regular d 15 MOROCCO		0	rns. blithely bold courts among the closely regular packages use furiously bold platele
ts? 17 PERU		1	platelets. blithely pending dependencies use fluffily across the even pinto beans. care
fully silent accoun 23 UNITED KI	INGDOM	3	eans boost carefully special requests. accounts are. carefull
(4 rows)			

8. Criar uma consulta para exibir todas as informações da tabela nation em que o segundo caractere seja A.

n_nationkey	n_name	n_regionke	y n_comment
3 fluffily bold	CANADA	1	1 eas hang ironic, silent packages. slyly regular packages are furiously over the tithes.
	JAPAN SAUDI ARABIA		2 ously. final, express gifts cajole a 4 ts. silent requests haggle. closely express packages sleep across the blithely