

Slide 1: Basics of Filtering with SQL

Basics of Filtering with SQL

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EXTENSION

Slide 2: Learning Objectives

Learning Objectives

Describe the basics of filtering your data

Use the WHERE clause with common operators

Use the BETWEEN clause

Explain the concept of a NULL value

Slide 3: Why Filter?

Why Filter?

Be specific about the data you want to retrieve

Reduce the number of records you retrieve

Increase query performance

Reduce the strain on the client application

Governance limitations

Slide 4: WHERE Clause Operators

WHERE Clause Operators

```
SELECT column_name, column_name  
FROM table_name  
WHERE column_name operator value;
```

Slide 5: WHERE Clause Operators

WHERE Clause Operators

```
SELECT column_name, column_name  
FROM table_name  
WHERE column_name operator value;
```

Operator	Description
=	Equal
<>	Not equal. Note: In some versions of SQL this operator may be written as !=
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less than or equal
BETWEEN	Between an inclusive range
IS NULL	Is a null value

Slide 6: Filtering on a Single Condition

Filtering on a Single Condition

	ProductName	UnitPrice	SupplierID
1	Tofu	23.25	6

```
SELECT ProductName
,UnitPrice
,SupplierID
FROM Products
WHERE ProductName = 'Tofu';
```

Slide 7: Filtering on a Single Value

Filtering on a Single Value

	ProductName	UnitPrice	SupplierID
1	Mishi Kobe Niku	97	4
2	Sir Rodney's Marmalade	81	8
3	Thüringer Rostbratwurst	123.79	12
4	Côte de Blaye	263.5	18

```
SELECT ProductName
,UnitPrice
,SupplierID
FROM Products
WHERE UnitPrice >= 75;
```

Slide 8: Checking for Non-Matches

Checking for Non-Matches

```
SELECT ProductName
,UnitPrice
,SupplierID
FROM Products
WHERE ProductName <>'Alice
Mutton';
```

	ProductName	UnitPrice	SupplierID
1	Chai	18	1
2	Chang	19	1
3	Aniseed Syrup	10	1
4	Chef Anton's Cajun Seasoning	22	2
5	Chef Anton's Gumbo Mix	21.35	2
6	Grandma's Boysenberry Spread	25	3
7	Uncle Bob's Organic Dried Pears	30	3
8	Northwoods Cranberry Sauce	40	3
9	Mishi Kobe Niku	97	4
10	Ikura	31	4
11	Queso Cabrales	21	5
12	Queso Manchego La Pastora	38	5
13	Konbu	6	6

Slide 9: Filtering with a Range of Values

Filtering with a Range of Values

```
SELECT ProductName
,UnitPrice
,SupplierID
,UnitsInStock
FROM Products
WHERE UnitsInStock BETWEEN 15
AND 80;
```

	ProductName	UnitPrice	SupplierID	UnitsInStock
1	Chai	18	1	39
2	Chang	19	1	17
3	Chef Anton's Cajun Seasoning	22	2	53
4	Uncle Bob's Organic Dried Pears	30	3	15
5	Mishi Kobe Niku	97	4	29
6	Ikura	31	4	31
7	Queso Cabrales	21	5	22
8	Konbu	6	6	24
9	Tofu	23.25	6	35
10	Genen Shouyu	15.5	6	39
11	Pavlova	17.45	7	29
12	Carnarvon Tigers	62.5	7	42
13	Teatime Chocolate Biscuits	9.2	8	25

Slide 10: Filtering No Value

Filtering No Value

No value returned because there are no null values in the product name

```
SELECT ProductName  
      ,UnitPrice  
      ,SupplierID  
      ,UnitsInStock  
FROM Products  
WHERE ProductName IS NULL;
```

Slide 11: Summary

Summary

Operator	Description
=	Equal
<>	Not equal. Note: In some versions of SQL this operator may be written as !=
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less than or equal
BETWEEN	Between an inclusive range
IS NULL	Is a null value

Source: http://www.w3schools.com/sql/sql_where.asp