

Slide 1: Advanced Filtering: IN, OR, and NOT

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Slide 2: Learning Objectives

Learning Objectives

Use the IN and OR operators to filter your data and get results you want

Differentiate between use of the IN and BETWEEN operators

Discuss importance of order of operations

Explain how and when to use the NOT operator

Slide 3: IN Operator

IN Operator

Specifies a range of conditions

Comma delimited list of values

Enclosed in ()

Slide 4: IN Operator Example

IN Operator Example

```
SELECT
ProductID
,UnitPrice
,SupplierID
From Products
WHERE SupplierID IN (9, 10,
11);
```

	ProductID	UnitPrice	SupplierID
1	22	21	9
2	23	9	9
3	24	4.5	10
4	25	14	11
5	26	31.23	11
6	27	43.9	11

Slide 5: OR Operator

OR Operator

DBMS will not evaluate the second conditions in a WHERE clause if the first condition is met

Use for any rows matching the specific conditions

	ProductID	UnitPrice	SupplierID	ProductName
1	14	23.25	6	Tofu

```
ProductName
,ProductID
,UnitPrice
,SupplierID
,ProductName
From Products
Where ProductName = 'Tofu' OR
'Konbu';
```

Slide 6: IN vs. OR

IN vs. OR

IN works the same as OR

Benefits of IN

- Long list of options

- IN executes faster than OR

- Don't have to think about the order with IN

- Can contain another SELECT

Slide 7: OR with AND

OR with AND

	ProductID	UnitPrice	SupplierID
1	22	21	9
2	23	9	9
3	26	31.23	11
4	27	43.9	11

```
SELECT
ProductID
,UnitPrice
,SupplierID
FROM Products
WHERE SupplierID = 9 OR
SupplierID = 11
AND UnitPrice > 15;
```

	ProductID	UnitPrice	SupplierID
1	22	21	9
2	26	31.23	11
3	27	43.9	11

```
SELECT
ProductID
,UnitPrice
,SupplierID
FROM Products
WHERE (SupplierID = 9 OR
SupplierID = 11)
AND UnitPrice > 15;
```

Slide 8: Order of Operations

Order of Operations

Can contain AND and OR Operators

SQL processes AND **before** OR

Use ()

Don't rely on the default order of operations. You are better being specific and getting in the habit of using the ()

Slide 9: NOT Operator

NOT Operator

	EmployeeID	LastName	FirstName	Title	TitleOfCourtesy	BirthDate	HireDate	Address	City	Region
1	2	Fuller	Andrew	Vice President, Sales	Dr.	2/19/1952 12:00:00 AM	8/14/1992 12:00:00 AM	908 W. Capital Way	Tacoma	WA
2	3	Leverling	Janet	Sales Representative	Ms.	8/30/1963 12:00:00 AM	4/1/1992 12:00:00 AM	722 Moss Bay Blvd.	Kirkland	WA
3	4	Peacock	Margaret	Sales Representative	Mrs.	9/19/1937 12:00:00 AM	5/3/1993 12:00:00 AM	4110 Old Redmond Rd.	Redmond	WA

```
SELECT *  
FROM Employees  
WHERE NOT City='London' AND  
NOT City='Seattle';
```