

SQL Query Commands

❖ Partial Listing of Table Contents

**SELECT <column(s)> FROM <table name>
WHERE <conditions>;**

P_CODE	P_DESCRIPT	P_INDATE	P_ONHAND	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
110ER/31	Power painter, 15 psi., 3-nozzle	02-Dec-1996	8	5	\$109.99	0.00	25595
13-Q2/P2	7.25-in. pwr. saw blade	12-Nov-1996	32	15	\$14.99	0.05	21344
14-Q1/L3	9.00-in. pwr. saw blade	12-Nov-1996	18	12	\$17.49	0.00	21344
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	14-Aug-1996	15	8	\$39.95	0.00	23119
1558-QW1	Hrd. cloth, 1/2-in., 3x50	14-Aug-1996	23	5	\$43.99	0.00	23119
2232-QTY	B&D jigsaw, 12-in. blade	29-Oct-1996	8	5	\$109.92	0.05	24288
2232/QWE	B&D jigsaw, 8-in. blade	23-Sep-1996	6	5	\$99.87	0.05	24288
2238/QPD	B&D cordless drill, 1/2-in.	19-Oct-1996	12	5	\$38.95	0.05	25595
23109-HB	Claw hammer	19-Nov-1996	23	10	\$5.95	0.10	21225
23114-AA	Sledge hammer, 12 lb.	01-Dec-1996	8	5	\$14.40	0.05	
54778-2T	Rat-tail file, 1/8-in. fine	14-Jun-1996	43	20	\$4.99	0.00	21344
89-WRE-Q	Hicut chain saw, 16 in.	06-Jul-1996	11	5	\$256.99	0.05	24288
PVC23DR7	PVC pipe, 3.5-in., 8-ft	19-Dec-1996	188	75	\$5.87	0.00	
SM-18277	1.25-in. metal screw, 25	28-Nov-1996	172	75	\$6.99	0.00	21225
SW-23116	2.5-in. wd. screw, 50	23-Sep-1996	237	100	\$8.45	0.00	21231
WR3/TT3	Steel matting, 4'x8'x1/8", .5" mesh	16-Nov-1996	18	5	\$119.95	0.10	25595
*			0	0	\$0.00	0.00	

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SW-23116	2.5-in. wd. screw, 50	23-Sep-1996	237	100	\$8.45	0.00	21231
WR3/TT3	Steel matting, 4'x8'x1/8", .5" mesh	16-Nov-1996	18	5	\$119.95	0.10	25595
*			0	0	\$0.00	0.00	

**SELECT P_DESCRIPT, P_INDATE, P_PRICE, V_CODE
FROM PRODUCT WHERE V_CODE = 21344;**

P_DESCRIPT	P_INDATE	P_PRICE	V_CODE
7.25-in. pwr. saw blade	Thursday, August 12, 1999	\$14.99	21344
9.00-in. pwr. saw blade	Thursday, August 12, 1999	\$17.49	21344
Rat-tail file, 1/8-in. fine	Saturday, August 14, 1999	\$4.99	21344

Relational & Mathematical Operators

SYMBOL	MEANING
=	Equal to
<	Less than
<=	Less than or equal to
>	Greater than
>=	Greater than or equal to
< >	Not equal to *

*Some SQL versions use != rather than < >

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P_CODE	P_DESCRIPT	P_INDATE	P_ONHAND	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
110ER/31	Power painter, 15 psi., 3-nozzle	02-Dec-1996	8	5	\$109.99	0.00	25595
13-Q2/P2	7.25-in. pwr. saw blade	12-Nov-1996	32	15	\$14.99	0.05	21344
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23109-HB	Claw hammer	19-Nov-1996	23	10	\$5.95	0.10	21225
23114-AA	Sledge hammer, 12 lb.	01-Dec-1996	8	5	\$14.40	0.05	
54778-2T	Rat-tail file, 1/8-in. fine	14-Jun-1996	43	20	\$4.99	0.00	21344
89-WRE-Q	Hicut chain saw, 16 in.	06-Jul-1996	11	5	\$256.99	0.05	24288
PVC23DR7	PVC pipe, 3.5-in., 8-ft	19-Dec-1996	188	75	\$5.87	0.00	
SM-18277	1.25-in. metal screw, 25	28-Nov-1996	172	75	\$6.99	0.00	21225
SW-23116	2.5-in. wd. screw, 50	23-Sep-1996	237	100	\$8.45	0.00	21231
WR3/TT3	Steel matting, 4'x8'x1/8", .5" mesh	16-Nov-1996	18	5	\$119.95	0.10	25595
*			0	0	\$0.00	0.00	

**SELECT P_DESCRIPT, P_ONHAND, P_MIN, P_PRICE
FROM PRODUCT WHERE P_PRICE <= 10;**

P_DESCRIPT	P_ONHAND	P_MIN	P_PRICE
Claw hammer	23	10	\$5.95
Rat-tail file, 1/8-in. fine	43	20	\$4.99
PVC pipe, 3.5-in., 8-ft	188	75	\$5.87
1.25-in. metal screw, 25	172	75	\$6.99
2.5-in. wd. screw, 50	237	100	\$8.45

P_CODE	P_DESCRIPTION	P_INDATE	P_ONHAND	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
11QER/31	Power painter, 15 psi., 3-nozzle	02-Dec-1996	8	5	\$109.99	0.00	25595
13-Q2/P2	7.25-in. pwr. saw blade	12-Nov-1996	32	15	\$14.99	0.05	21344
14-Q1/L3	9.00-in. pwr. saw blade	12-Nov-1996	18	12	\$17.49	0.00	21344
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	14-Aug-1996	15	8	\$39.95	0.00	23119
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23109-HB	Claw hammer	19-Nov-1996	23	10	\$5.95	0.10	21225
23114-AA	Sledge hammer, 12 lb.	01-Dec-1996	8	5	\$14.40	0.05	
54778-2T	Rat-tail file, 1/8-in. fine	14-Jun-1996	43	20	\$4.99	0.00	21344
89-WRE-Q	Hicut chain saw, 16 in.	06-Jul-1996	11	5	\$256.99	0.05	24288
PVC23DR7	PVC pipe, 3.5-in., 8-ft	19-Dec-1996	188	75	\$5.87	0.00	
SM-18277	1.25-in. metal screw, 25	28-Nov-1996	172	75	\$6.99	0.00	21225
SW-23116	2.5-in. wd. screw, 50	23-Sep-1996	237	100	\$8.45	0.00	21231
WR3/TT3	Steel matting, 4'x8'x1/8", .5" mesh	16-Nov-1996	18	5	\$119.95	0.10	25595
*			0	0	\$0.00	0.00	

SELECT P_CODE, P_DESCRIPTION, P_ONHAND, P_MIN,
P_PRICE FROM PRODUCT WHERE P_CODE < '1558-QW1';

P_CODE	P_DESCRIPTION	P_ONHAND	P_MIN	P_PRICE
11QER/31	Power painter, 15 psi., 3-nozzle	8	5	\$109.99
13-Q2/P2	7.25-in. pwr. saw blade	32	15	\$14.99
14-Q1/L3	9.00-in. pwr. saw blade	18	12	\$17.49
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	15	8	\$39.95

Note: ASCII Code Effect

P_CODE	P_DESCRIPTION	P_INDATE	P_ONHAND	P_MIN	P_PRICE	P_DISCOUNT	V_CODE
11QER/31	Power painter, 15 psi., 3-nozzle	02-Dec-1996	8	5	\$109.99	0.00	25595
13-Q2/P2	7.25-in. pwr. saw blade	12-Nov-1996	32	15	\$14.99	0.05	21344
14-Q1/L3	9.00-in. pwr. saw blade	12-Nov-1996	18	12	\$17.49	0.00	21344
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	14-Aug-1996	15	8	\$39.95	0.00	23119
1558-QW1	Hrd. cloth, 1/2-in., 3x50	14-Aug-1996	23	5	\$43.99	0.00	23119
2232/QTY	B&D jigsaw, 12-in. blade	29-Oct-1996	8	5	\$109.92	0.05	24288
2232/QWE	B&D jigsaw, 8-in. blade	23-Sep-1996	6	5	\$99.87	0.05	24288
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23109-HB	Claw hammer	19-Nov-1996	23	10	\$5.95	0.10	21225
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54778-2T	Rat-tail file, 1/8-in. fine	14-Jun-1996	43	20	\$4.99	0.00	21344
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WR3/TT3	Steel matting, 4'x8'x1/8", .5" mesh	16-Nov-1996	18	5	\$119.95	0.10	25595
*			0	0	\$0.00	0.00	

SELECT P_CODE, P_DESCRIPTION, P_INDATE
FROM PRODUCT WHERE P_INDATE >= #11/15/1996#;

P_CODE	P_DESCRIPTION	P_INDATE
11QER/31	Power painter, 15 psi., 3-nozzle	12/2/1996
23109-HB	Claw hammer	11/19/1996
SM-18277	1.25-in. metal screw, 25	11/28/1996
WR3/TT3	Steel matting, 4'x8'x1/8", .5" mesh	11/16/1996

Note: Coding of Dates between # symbols

The Microsoft Access QBE and SQL

PRODUCT1 Select V_Code=21344 : Select Query

Field:	P_DESCRIPTION	P_INDATE	P_PRICE	V_CODE
Table:	PRODUCT1	PRODUCT1	PRODUCT1	PRODUCT1
Sort:				
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:				=21344
or:				

SELECT P_DESCRIPTION, P_INDATE, P_PRICE, V_CODE
FROM PRODUCT WHERE V_CODE = 21344;

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Logical Operators in Query

A	B	A AND B	A OR B	A	NOT A
F	F	F	F	F	T
F	T	F	T	T	F
T	F	F	T		
T	T	T	T		

SELECT P_DESCRIPTION, P_INDATE,
P_PRICE, V_CODE FROM PRODUCT
WHERE (P_PRICE < 50) AND
(P_INDATE > #11/15/1996#);

P_DESCRIPTION	P_INDATE	P_PRICE	V_CODE
Claw hammer	19-Nov-1996	\$5.95	21225
1.25-in. metal s	28-Nov-1996	\$6.99	21225
*			

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SQL Special Operators Summary

- ❖ **Special Operators used with WHERE**
 - ◆ **BETWEEN** - define range limits.
 - ◆ **IS NULL** - check attribute value is null
 - ◆ **LIKE** - check for similar character strings.
 - ◆ **IN** - check if attribute value matches a value contained within a (sub)set of listed values.
 - ◆ **EXISTS** - check whether an attribute has a value. EXISTS is the opposite of IS NULL.
- ❖ **Wild Card Characters**
 - ◆ * Any and All
 - ◆ ? Any 1 Character

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SQL Special Operators

- ❖ **BETWEEN** used to define range limits same as below.


```
SELECT *
FROM PRODUCT
WHERE P_PRICE BETWEEN 50.00 AND
100.00;
```
- ❖ **IN** used to check whether an attribute value matches a value contained within a (sub)set of listed values.


```
SELECT * FROM VENDOR1 WHERE V_CODE
IN (21344, 24288);
```

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SQL Special Operators

- ❖ **IS NULL** is used to check whether an attribute value is null.


```
SELECT P_CODE, P_DESCRIPT
FROM PRODUCT
WHERE P_MIN IS NULL;
```
- ❖ **LIKE** is used to check for similar character strings.


```
SELECT * FROM VENDOR WHERE
V_CONTACT LIKE 'Smith*';
```

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SQL Arithmetic Operators

- ❖ **UPDATE** table using a mathematical expression


```
UPDATE PRODUCT
SET P_PRICE = P_PRICE*1.10
WHERE P_PRICE < 50.00;

UPDATE PRODUCT
SET P_ONHAND = P_ONHAND - 1
WHERE P_CODE = '13-Q2/P2';
```

Multiply	*
Divide	/
Addition	+
Subtraction	-

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