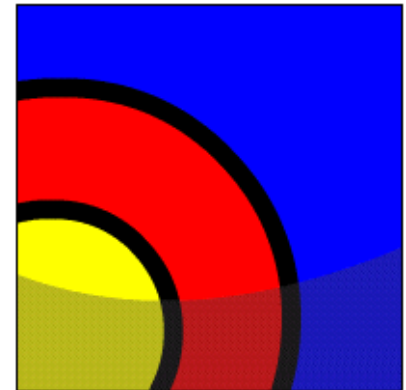


# Limit Rows Selected

## What Will I Learn?

**In this lesson, you will learn to:**

- Apply SQL syntax to restrict the rows returned from a query
- Demonstrate application of the WHERE clause syntax
- Explain why it is important, from a business perspective, to be able to easily limit data retrieved from a table
- Construct and produce output using a SQL query containing character strings and date values





## Why Learn It?

Have you ever had "information overload"? The television is on, your Mom is asking you how school went today, the phone rings, and the dog is barking. Wouldn't it be nice to be able to restrict the amount of information you have to process at one time? In SQL, this is the job of the WHERE clause.



It is important to be able to choose the information you need to see from a table. Tables can have millions of rows of data, and it is a waste of resources to search and return data you don't need or want.

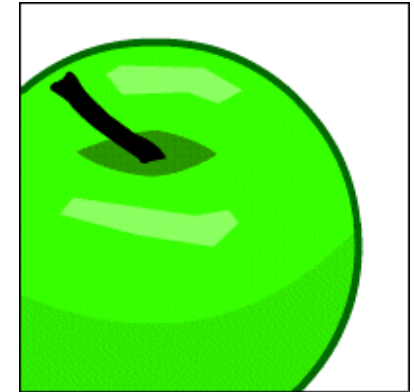
## Tell Me / Show Me

The **SELECT** statement general syntax can be written:

```
SELECT*|{[DISTINCT] column | expression alias}..  
FROM table  
[WHERE condition(s)];
```

As you will see in the next examples the = sign will be used in the WHERE clause. In addition to the equal to sign (=) other comparison operators are used to compare one expression to a value or expression:

- = equal to
- > greater than
- >= greater than or equal to
- < less than
- <= less than or equal to
- <> not equal to (or != or ^=)



## Tell Me / Show Me

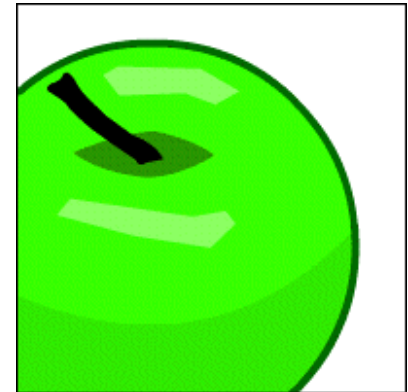
### WHERE

When retrieving data from the database, you may need to limit the rows of data that are displayed. You can accomplish this using the WHERE clause. A WHERE clause contains a condition that must be met, and it directly follows the FROM clause in a SQL statement.

**One important note:** An alias cannot be used in the WHERE clause!

The syntax for the WHERE clause is:

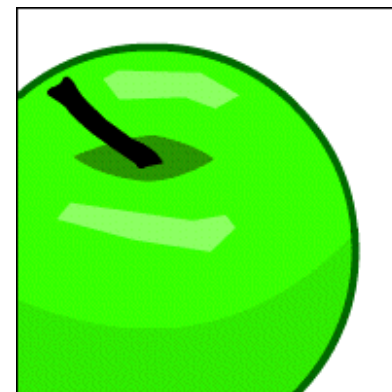
WHERE column\_name comparison\_condition  
column\_names, constants, or list of values



## Tell Me / Show Me

Note how the WHERE is written in the example from the DJ on Demand database:

```
SELECT id, last_name, manager_id  
FROM   d_partners  
WHERE  manager_id = 33;
```



In the example below, which column name is used in the WHERE clause? What comparison operator is used? Is "90" a column name or a constant?

```
SELECT employee_id, last_name, job_id, department_id  
FROM   employees  
WHERE  department_id = 90 ;
```

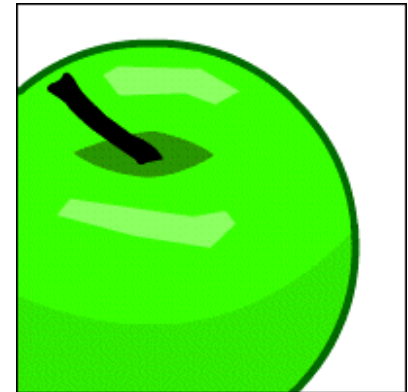
## Tell Me / Show Me

Recall when we used single quotation marks to denote literal values. Character strings and dates in the WHERE clause must also be enclosed in single quotation marks ' '. But this does NOT make them literal strings. They are still just character and date strings.

Numbers, however, should not be enclosed in single quotation marks.

Look at the example from the DJ on Demand database. The WHERE clause contains a literal string and is enclosed in single quotation marks.

```
SELECT first_name, last_name  
FROM   d_clients  
WHERE  last_name = 'Jones';
```



## Tell Me / Show Me

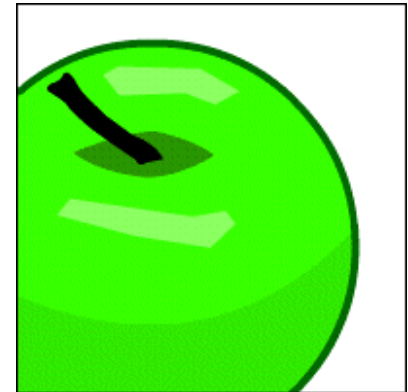
What do you think will happen if the WHERE clause is written as:

```
WHERE last_name = ' jones ';
```

All character searches are case-sensitive.

Because the D\_CLIENTS table stores all the last names in the proper case, no rows are returned.

This is an important point to remember. In another lesson, you will learn to use other SQL keywords UPPER, LOWER and INITCAP that will make it easier to avoid a case-sensitive mistake.





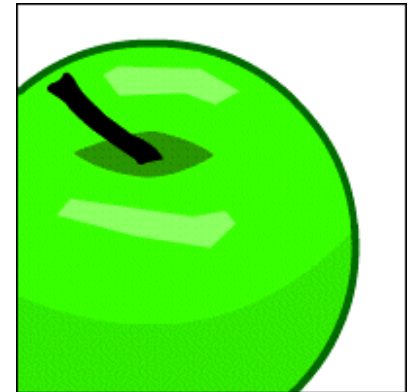
## Tell Me / Show Me

Comparison operators can be used in all of the following ways:

```
WHERE event_date = '01-JAN-04'
```

```
WHERE rental_fee >= 2000
```

```
WHERE cd_title = 'White Rose'
```



In the example shown from the DJ on Demand database, which rows will be selected? Will salaries of 3000 be included in the results set?

```
SELECT last_name, salary
```

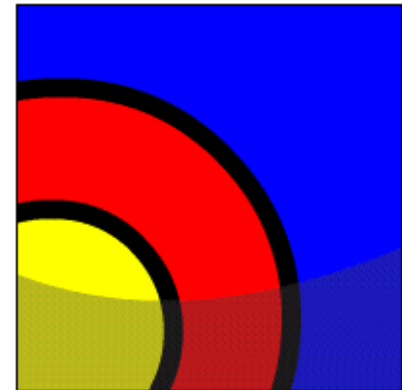
```
FROM employees
```

```
WHERE salary <= 3000;
```

## Summary

**In this lesson, you have learned to:**

- Restrict the number of rows returned by a query
- Use the WHERE clause syntax
- Recognize Comparison Operators



# Summary

## Practice Guide

The link for the lesson practice guide can be found in the course outline.

