

Database Design

SQL Introduction: Querying the Database

Objectives

This lesson covers the following objectives:

- Apply the rules of SQL to display all columns and a subset of columns specified by criteria
- Add new data with a different value in the “type” column
- Refine the SQL query to display only those rows that have data with the new type

Purpose

What if you had to take out all of your clothes from every dresser and closet in your whole house every time you looked for clothes to wear that day? You might be late for school and you would certainly have a lot to clean up! Accessing data in a database is a similar process if you don't limit what you're looking for.

When retrieving information from a database, you will often have to find a subset of the data based on specific search criteria. Becoming familiar with SQL will help you more quickly find the information that you need.

DESCRIBE Command

The DESCRIBE command displays the structure of the table. The syntax is:

```
DESCRIBE <table name>;
```

Basic SELECT Statement

The SELECT * command returns all the rows in a table.
The syntax is:

```
SELECT *  
FROM <table name>;
```

Select Statement with a Condition

To return a subset of the data, modify the SELECT statement. The syntax is:

```
SELECT <column name 1, column name 2, etc.>  
FROM <table name>  
WHERE <condition>;
```

Inserting Data

Using the INSERT command, you can add a row of data to the table. The syntax is:

```
INSERT INTO <table name>  
VALUES (value 1, value 2, value 3, etc);
```

Terminology

Key terms used in this lesson included:

- Modification
- Subset
- Syntax

Summary

In this lesson, you should have learned how to:

- Apply the rules of SQL to display all columns and a subset of columns specified by criteria
- Add new data with a different value in the “type” column
- Refine the SQL query to display only those rows that have data with the new type