* Basic Queries
  + The SELECT Statement
    - SQL lets you ask specific-but-complicated questions of your data
    - The most common and powerful question or query you will use is the SELECT statement
    - SELECT is a SQL keyword with a simple function: It retrieves information from a database
    - A SELECT statement always starts with the SELECT keyword
    - It is followed by the columns you’d like to return by the query
      * This line is called a **clause**
    - In SQL, clauses are made up of a keyword and a reference to the data
      * SELECT column\_one, column\_two
    - The next clause in a SELECT statement starts with the FROM keyword, followed by the column name

SELECT column\_one, column\_two

FROM table\_name

* + - Finally, every SELECT statement ends with a semicolon:

SELECT column\_one, column\_two

FROM table\_name

;

* + - * It acts like a period at the end of a sentence – your statements won’t be complete without a final semicolon
  + Commenting Code in SQL
    - Headers are a great way to keep a history of why SQL has been built and who requested the changes that have been made

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\*\* NAME: Name of report

\*\* DESC: Description of report

\*\* AUTH: Name of author

\*\* REQ: Name of requester

\*\* DATE: Date report published

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*Change History

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\*\* Version| Date | Author |Description

\*\*------------------------------------------

\*\* 1.1 |10/15/16|Pat Doe| Description of change

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* + Let’s say we have a table called “flights,” but we don’t know enough about this table to SELECT specific columns
    - To see all of the columns in this table, we’d type:

SELECT \*

FROM flights;

* + - In SQL, the star (\*) is shorthand for all columns
  + Queries can be scary if they SELECT hundreds of thousands of rows of data
    - They can slow down or crash you system
    - So, it’s smart to LIMIT the number of results your query returns

SELECT \*

FROM flights LIMIT 3;

* + SQL also has a helpful clause that sorts your data output called ORDER BY
    - When you ORDER BY numerical data, it will automatically arrange the values from smallest to largest
    - When you apply ORDER BY to text, it will automatically sort from A-Z
    - NOTE: you can ORDER BY multiple columns and just like sorting in Excel the sequence of the ORDER BY execution is determines by how the order you write them

SELECT \*

FROM flights

ORDER BY price DESC