SQL Query

SELECT	What columns to return
SELECT *	[*] returns all columns in a table
FROM	Which table to query
ORDER BY	Organizes the data
;	Placed at the end to finish a query

>SELECT *
>FROM [table_id]
>ORDER BY [column_id] ;

Note: Commands are not case-sensitive, titles of columns are

Filtering

WHERE	Indicates the condition for a filter
BETWEEN	Filters for numbers or dates within a range
AND	Filter with two conditions, both must be met
OR	Connects two conditioins, either can be met
LIKE	Search for a pattern in a column (LIKE 'IT%' ;)
NOT	Negates a condition
=	Operator to set a condition ([column_title] = 'the title' ;)
_	Wildcard, substitutes for one other character
%	Wildcard, substitutes for any number of other characters

>SELECT *
>FROM [table_id]
>WHERE [column_id] [=/>/<] 'Title' [AND/LIKE/OR] 'Title' [Titl_ or Til%] ;

>WHERE [column_id] BETWEEN 'Title' AND 'Title' ;

>WHERE NOT [column_id] = 'Title' ;

'Title' = department name, date, or time

Numeric Operators

<	Less than
>	Greater than
=	Equal to
<=	Less than or equal to
>=	Greater than or equal to
<>	Not equal to

Examples

SELECT * FROM log_in_attempts WHERE login_time > 'X' AND success = Y;

SELECT * FROM log_in_attempts WHERE login_date = 'X' OR login_date = 'Y';

SELECT * FROM log_in_attempts WHERE X country LIKE 'Y';

SELECT * FROM employees WHERE department = 'Marketing' AND office LIKE 'East%';

SELECT * FROM employees WHERE department = 'Finance' OR department = 'Sales';

SELECT * FROM employees WHERE NOT department = 'Information Technology';

SELECT * FROM log_in_attempts WHERE login_date X '2022-05-09';

SELECT * FROM log_in_attempts WHERE login_date BETWEEN '2022-05-09' AND '2022-05-11';

JOINS

INNER JOIN	Returns the rows where there is a match, returns all specified columns
LEFT JOIN	Returns all records of first table, but only rows of the second that matched a specified column
RIGHT JOIN	Returns all records of second table, only returns rows from first table that matches specified column
FULL OUTER JOIN	Returns all records from both tables, completely merges two tables

>SELECT *
>FROM [table_id #1]
>[TYPE_of_JOIN] [table_id #2] ON [table1.column] = [table2.column] ;

Aggregate Functions

COUNT	returns a single number that represents the number of rows returned from your query
AVG	returns a single number that represents the average of the numerical data in a column
SUM	returns a single number that represents the sum of the numerical data in a column

>SELECT COUNT/AV/SUM