SQL CHEAT SHEET

DATABASE & TABLE

CREATE DATABASE
CREATE DATABASE databasename;

DROP DATABASE
DROP DATABASE databasename;

CREATE TABLE
CREATE TABLE tablename (
column1 datatype,
column2 datatype, …);

DROP TABLE
DROP TABLE tablename;

ALTER TABLE
Add column
ALTER TABLE tablename
ADD columnname datatype;
drop column
ALTER TABLE tablename
DROP COLUMN columnname;
alter column
ALTER TABLE tablename
MODIFY COLUMN columnname datatype;

BASIC QUERIES

SELECT...WHERE
extracts data from a database
SELECT column1 AS alias1, column2 AS alias 2
FROM table;
SELECT * FROM tablename
WHERE condition1 AND/OR condition2;

SELECT DISTINCT
SELECT DISTINCT column1, column2 FROM tablename
WHERE condition1 AND/OR condition2;

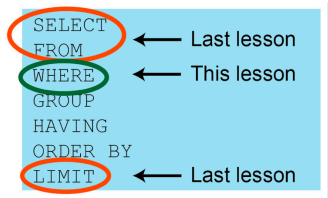
IS (NOT) NULL
SELECT columnname
FROM tablename
WHERE columnN IS (NOT) NULL;

ORDER BY
SELECT column1, column2
FROM tablename
WHERE condition1 AND/OR condition2
ORDER BY columnN ASC/DESC;

GROUP BY
SELECT aggregate (columnname), columnN
FROM tablename
GROUP BY columnN
ORDER BY columnM ASC/DESC;
Note: aggregate function: AVG, MIN, MAX, COUNT, SUM

HAVING
SELECT columnname(s)
FROM tablename
WHERE condition
GROUP BY columnname(s)
HAVING condition
ORDER BY columnname(s);

SELECT TOP(LIMIT)
In SQL Server
SELECT TOP number/percent columnname/*
FROM tablename
WHERE condition1 AND/OR condition2;
In MySQL
SELECT columnname
FROM tablename
WHERE condition1 AND/OR condition2
LIMIT number;



LIKE
SELECT column1, column2
FROM tablename
WHERE column LIKE pattern;

LIKE Operator	Description
WHERE CustomerName LIKE 'a%'	Finds any values that start with "a"
WHERE CustomerName LIKE '%a'	Finds any values that end with "a"
WHERE CustomerName LIKE '%or%'	Finds any values that have "or" in any position
WHERE CustomerName LIKE '_r%'	Finds any values that have "r" in the second position
WHERE CustomerName LIKE 'a_%_%'	Finds any values that start with "a" and are at least 3 characters in length
WHERE ContactName LIKE 'a%o'	Finds any values that start with "a" and ends with "o"

BETWEEN
SELECT column1, column2
FROM tablename
WHERE columnname BETWEEN value1 AND value2;

IN
SELECT column1, column2
FROM tablename
WHERE columnname IN (value1, value2, …);
SELECT column1, column2
FROM tablename
WHERE columnname IN (SELECT statement);

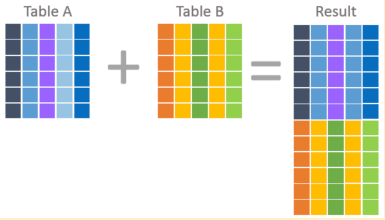
UPDATE
updates data from a database
UPDATE tablename
SET column1 = value1, column2 = value2, ...
WHERE condition1 AND/OR condition2;

INSERT INTO
Insert new row data into a database
INSERT INTO tablename (column1, column2, …)
VALUE (value1, value2, …);
NOTE: can insert data only in specified columns

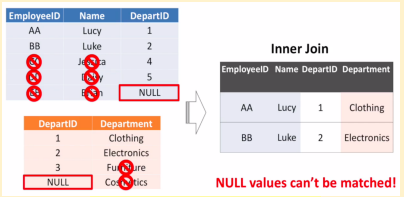
DELETE
Delete existing records in a table
DELETE FROM tablename
WHERE condition;

MERGE TABLES

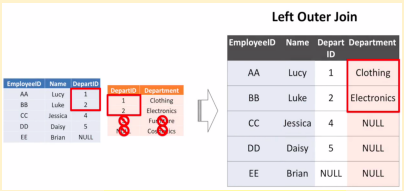
Union
combine the result-set of two or more select statements
union only distinct rows
SELECT columnname FROM table1
UNION
SELECT columnname FROM table2;
union all rows (duplicate allowed)
SELECT columnname FROM table1
UNION ALL
SELECT columnname FROM table2;



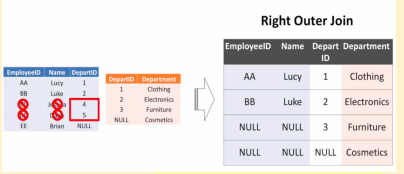
JOIN
INNER JOIN: keep everything that's common to two tables, not including null values
SELECT columnname(s)
FROM table1
INNER JOIN table2
ON table1.columnN=table2.columnM;



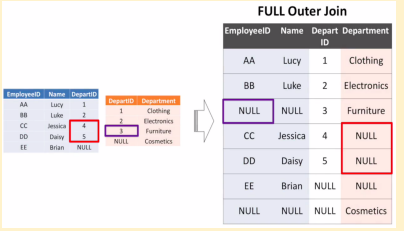
LEFT JOIN: keep everything in left table, including nulls, and include only matching information from right table
SELECT columnname(s)
FROM table1
LEFT JOIN table2
ON table1.columnN=table2.columnM;



RIGHT JOIN: keep everything in right table, including nulls, and include only matching information from left table
SELECT columnname(s)
FROM table1
RIGHT JOIN table2
ON table1.columnN=table2.columnM;



FULL OUTER JOIN: include every row from both tables and match them up whenever possible
SELECT columnname(s)
FROM table1
FULL OUTER JOIN table2
ON table1.columnN=table2.columnM;



SELF JOIN
SELECT columnname(s)
FROM table1 T1, table2 T2
WHERE condition;