CSEP 514 Data Management for Data Science

Section 2: More SQL
Importing Files

First, make the table.

Then, import the data.

.mode csv
.import ./population.csv Population
.import ./gdp.csv GDP
.import ./airport.csv Airport
SQL 3-valued logic

• SQL has 3-valued logic

  FALSE = 0 (ex. price<25 is FALSE when price = 99)
  UNKNOWN = 0.5 (ex. price <25 is UNKNOWN when price=NULL)
  TRUE = 1 (ex. price<25 is TRUE when price = 19)
SQL 3-valued logic

C1 AND C2 means min(C1,C2)
C1 OR C2 means max(C1,C2)
not C means 1-C

The rule for SELECT ... FROM ... WHERE C is the following:
  if C = TRUE then include the row in the output
  if C = FALSE or C = unknown then do not include it
A brief example

CREATE TABLE
product(pname text, price float, category text, manufacturer text);

INSERT INTO
product(pname, price, category, manufacturer)
VALUES ('NullProduct', 19.00, null, null);

What’s the result?
SELECT *
FROM product
WHERE (price < 25) AND (category = 'gadget') OR (manufacturer = 'Apple');
Review: Order BY

ORDER BY column_name DESC
GROUP BY

1. Compute the **FROM** and **WHERE** clauses.

2. Group by the attributes in the **GROUPBY**

3. Compute the **SELECT** clause:
   - grouped attributes and aggregates.
Don’t forget!

LIMIT
COUNT(*)
DISTINCT
AS
SUM
MAX/MIN