DATABASES

(
Relational — Tables w/ rows/columns
— Keys (primary, foreign)
— Relationships between tables
} — can be slower if it relies on mult. queries
structured, consistent data

Non-Relational — Document-based
— JSON objects w/ key-value pairs
— flexible schema
} inconsistent records
— can quickly get all info @ once
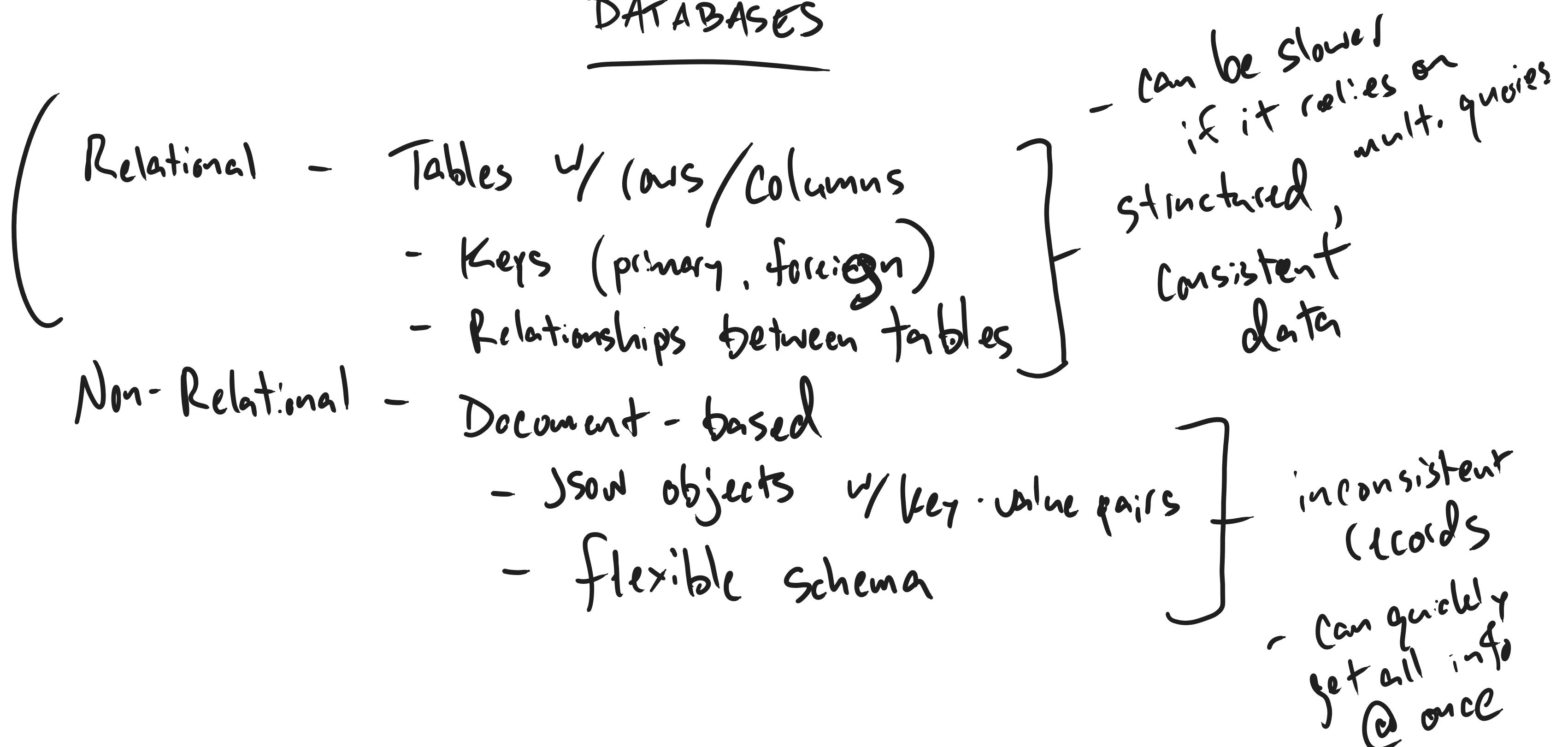
NORMALIZATION (Normal forms)

- breaking data out into multiple tables
  - removes unnecessary info from queries
  - removing redundant data
    - one spot for any given data   - storage!!
  - consistency of output
  - less room for error, etc.

NORMAL FORMS

1 NF — No groups of values in one field, primary key

2 NF — No partial dependencies — dependent on part only of PK

3 NF — No transitive dep's — dependent on non-PK column

KEY TYPES IN SQL

PRIMARY — unique ID for a row in a table
FOREIGN — the PK of another table in our table to refer to a record
NATURAL — some piece of data already there that can serve as a PK
SURROGATE — an artificial key used as a PK
CANDIDATE — some data that COULD be a PK
UNIQUE — anything that's unique per record // if set as UNIQUE, no dupes allowed
COMPOSITE — a PK using 2 or more columns