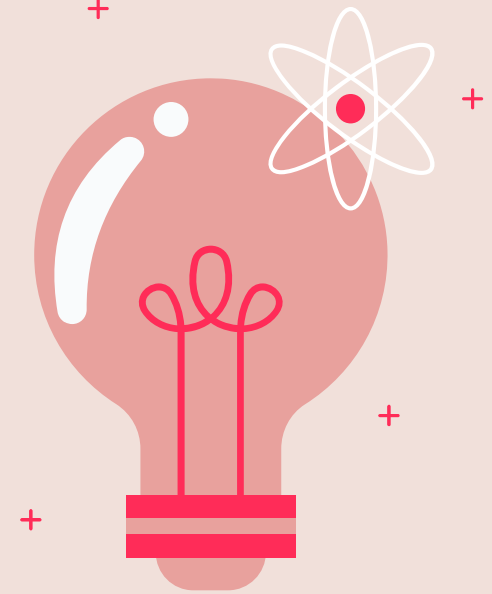# Intro to

# SQL

# Basic Table Structure
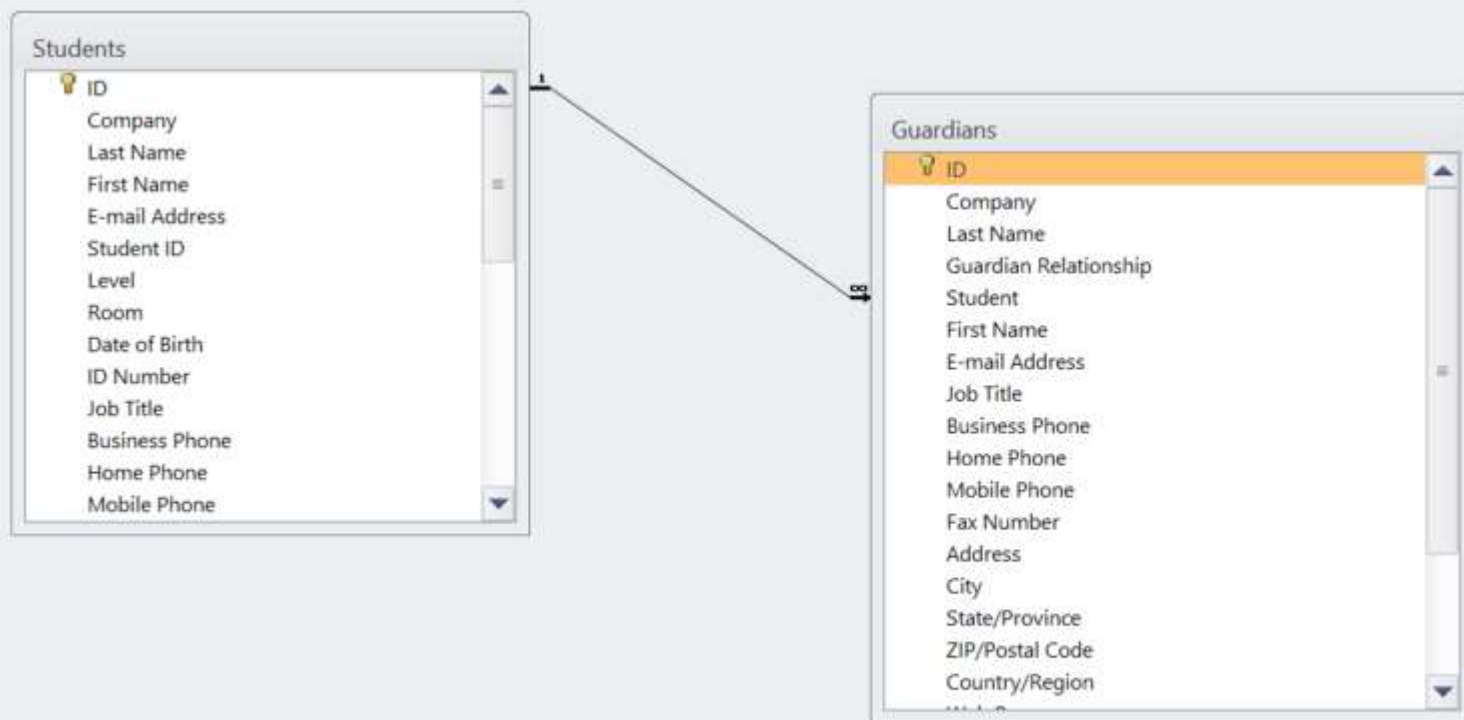
Each table should have ....
- Name
- Columns
- Information related to its category

DOG TABLE

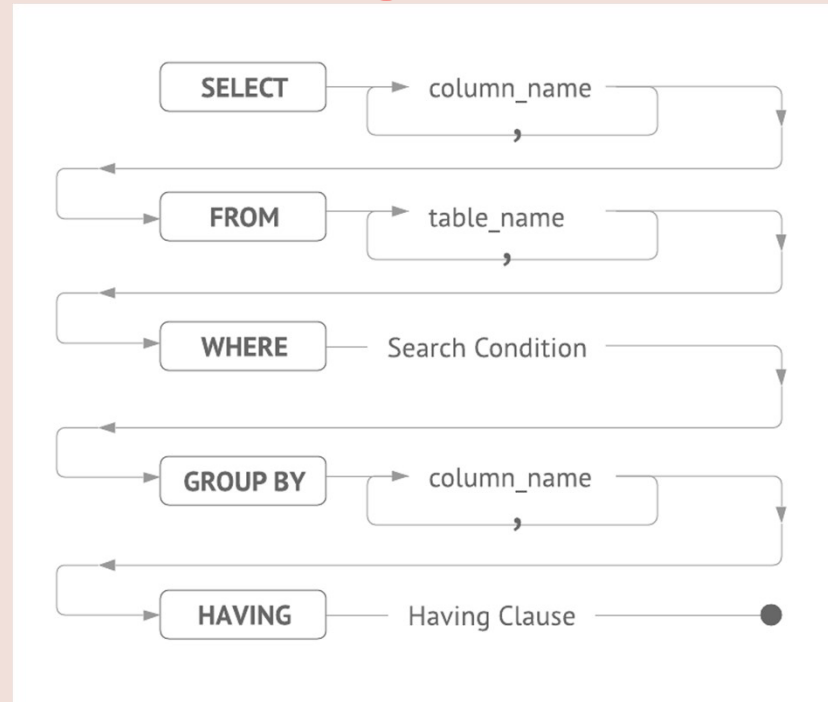| dog_id  (ID, INT) | breed (VARCHAR) | age (INT) |
|---|---|---|
| 1 | Chinese Shar-Pei | 12 |
| 2 | Italian Greyhound | 15 |
| 3 | Irish Water Spaniel | 12 |

# Sample Relational DB

# How do we get data out?

**SQL** is a Data Manipulation Language to retrieve and store information

**Main Types Of SQL Statements:**
- **Select - gets info from table**
- **Insert  - adds info in table**
- **Delete - removes info from table**
- **Update - updates data**

# Selecting Statement



The simplest form of the SELECT statement contains the SELECT clause and the FROM clause.

# Selecting Data

```sql
SELECT * FROM table_name;

SELECT column1, column2, column3
FROM table_name;

SELECT column1, column2, column3
FROM table_name
WHERE conditional_selection;
```

# Creating a Sample Database

- Go to http://sqlfiddle.com/

- Type the Below into the left window
  ```
  CREATE TABLE dogs (dog_id integer PRIMARY KEY, breed varchar(50));
  INSERT INTO dogs (dog_id, breed) VALUES (16, 'Dalmatian');
  ```

- Click Blue Build Schema Button

- Click in the right window.

- Type the below
  Select * from dog;

- Click run sql button

- If any issues, try it with
  https://www.tutorialspoint.com/execute_sql_online.php