

SQL Data Modification Operations

SQL CREATE TABLE

- Creates an empty table, with no data
 - Only the table header
 - No tuples (or rows)
- Similar to a struct declaration in C or class declaration in C++ / Java

SQL Modification Operations

- Add new tuples
 - INSERT INTO ... VALUES
- Delete tuples
 - DELETE FROM ... WHERE
- Update existing tuples with new values
 - UPDATE ... SET ... WHERE

INSERT

```
INSERT INTO Product  
VALUES('A', 1001, 'pc')
```

```
INSERT INTO  
PC(model, speed, ram,  
hd, price)  
  
VALUES  
  
(1001, 2.66, 1024, 250,  
2114)
```

INSERT Examples

- 6.5.1 a)
 - INSERT INTO **Product(model, maker, type)**
VALUES (1100, 'C', 'pc')
 - INSERT INTO **PC**
VALUES (1100, 3.2, 1024, 180, 2499)

Bulk Loading

- Insert all the tuples from a CSV (text) file into a table
 - No INSERT statement for each tuple
- <https://www.sqlite.org/cli.html>
 - `.mode "csv"`
 - `.separator ","`
 - `.import csv_file table_name`

DELETE

- DELETE FROM **Product**
- DELETE FROM **Printer** WHERE **color = false**
- 6.5.1 c)
 - DELETE FROM **PC** WHERE **hd < 100**

UPDATE

- **UPDATE Printer SET color = true**
- 6.5.1 e)
 - **UPDATE Product SET maker = 'A' WHERE maker = 'B'**
- 6.5.1 f)
 - **UPDATE PC SET ram = ram*2, hd = hd+60**

Examples

- California_Cities
- Computers
- TPCH