# SQL Basic CRUD Commands - Intro

*CRUD = Create Read Update Delete*

Database Code Playground: <https://sqliteonline.com/> (Use SQLite)

Reference: <https://www.w3schools.com/sql/>

## Create

**CREATE** **TABLE** products (

id INT **NOT** NULL,

name STRING,

price MONEY,

**PRIMARY** **KEY** (id)

)

**INSERT** **INTO** products

**VALUES** (1, "Pen", 1.20)

**INSERT** **INTO** products (id, name)

**VALUES** (2, "Pencil")

## Read

**SELECT** \* **FROM** products

**SELECT** name, price **FROM** 'products'

**SELECT** name, price **FROM** 'products' **WHERE** id=1

## Update

**UPDATE** products

**SET** price = 0.8

**WHERE** id=2

**ALTER** **TABLE** products

**ADD** stock INT

**UPDATE** products

**SET** stock = 10

**WHERE** id=1

**UPDATE** products

**SET** stock = 20

**WHERE** id=2

## Delete

**DELETE** **FROM** products

**WHERE** id=2

# Foreign Key Associations

**CREATE** **TABLE** customers (

id INT **NOT** NULL,

name STRING

)

**CREATE** **TABLE** orders (

id INT **NOT** NULL,

order\_number INT,

customer\_id INT,

product\_id INT,

**PRIMARY KEY** (id),

**FOREIGN KEY** (customer\_id) **REFERENCES** customers(id),

**FOREIGN KEY** (product\_id) **REFERENCES** products(id)

)

**INSERT** **INTO** customers

**VALUES** (1, "Michael")

**INSERT** **INTO** customers

**VALUES** (2, "Ali")

**INSERT** **INTO** orders

**VALUES** (1, 1234, 1, 2)

SELECT \* FROM orders

**INSERT** **INTO** orders

**VALUES** (2, 5678, 2, 2)

SELECT \* FROM orders

# Joining Tables

*// display all customers with orders*

**SELECT** orders.order\_number, customers.name

**FROM** orders

**INNER** **JOIN** customers

**ON** orders.customer\_id = customers.id

*// display all products associated with each order*

**SELECT** orders.order\_number, products.name

**FROM** orders

**INNER** **JOIN** products

**ON** orders.product\_id = products.id