

SQL

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

<https://sqliteonline.com/> (A playground environment)

Database => you are always Create, Read, Update, Destroy the data. Also know as CRUD

Basic Example make product table:

```
CREATE TABLE products(  
  id INT NOT NULL,  
  name STRING,  
  price MONEY,  
  PRIMARY KEY(id)  
)
```

```
INSERT INTO products  
VALUES(1, "pen", 1.2);
```

```
INSERT INTO products (id,name)  
VALUES(2, "pencil" );
```

SQL select (read data) : https://www.w3schools.com/sql/sql_select.asp

```
SELECT name, price FROM products
```

SQL where (the search condition): https://www.w3schools.com/sql/sql_where.asp

```
SELECT * FROM products WHERE id=1
```

SQL Update : https://www.w3schools.com/sql/sql_update.asp

```
UPDATE products  
SET price=0.8  
WHERE id=2
```

SQL alter table (ex: add new column): https://www.w3schools.com/sql/sql_alter.asp

```
ALTER TABLE products  
ADD stocks INT
```

SQL delete: https://www.w3schools.com/sql/sql_delete.asp

```
DELETE FROM products WHERE name="pencil"  
(if not specify where, the entire table will be deleted)
```

SQL relationship : https://www.w3schools.com/sql/sql_foreignkey.asp

```
CREATE TABLE orders(  
  id INT NOT NULL,  
  order_number INT,  
  customers_ID INT,  
  products_ID INT,  
  PRIMARY KEY(id)  
  FOREIGN KEY(customers_ID) REFERENCES customers(id)  
  FOREIGN KEY (products_ID) REFERENCES products(id)  
)
```

```
INSERT INTO orders(id,order_number,customers_id,products_id)
```

VALUES(2,3254,1,1)

INSERT INTO orders(id,order_number,customers_id,products_id)
VALUES(1,4362,2,1)

SQL join : https://www.w3schools.com/sql/sql_join_inner.asp

SELECT orders.order_number, customers.first_name, customers.last_name, customers.address
FROM orders
INNER JOIN customers ON orders.customers_id = customers.id

SELECT orders.order_number, products.name, products.price , products.stocks
FROM orders
INNER JOIN products ON orders.products_ID = products.id