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SQL

RELATIONS

DATABASE > SCHEMA > TABLE > COLUMN

SELECT

```
SELECT
    COLUMN_1, COLUMN_2, ..., COLUMN_N
FROM
    TABLE
```

SELECT DISTINCT

```
SELECT
    DISTINCT COLUMN_1, COLUMN_2
FROM
    TABLE
```

WHERE

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    COUNTRY = 'MEXICO'
```

ORDER

```
SELECT
    *
FROM
    PRODUCTS
ORDER BY
    PRICE
```

AND

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    COUNTRY = 'SPAIN'
AND
    CUSTOMERNAME LIKE 'G%'
```

OR

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    COUNTRY = 'GERMANY'
AND
    COUNTRY = 'SPAIN'
```

NOT

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    NOT COUNTRY = 'SPAIN'
```

INSERT

```
INSERT INTO
     CUSTOMERS (CUSTOMERNAME, CONTACTNAME, CITY, COUNTRY)
VALUES
    ('CARDINAL', 'TOM B.', 'STAVANGER', 'NORWAY')
    ('GREASY BURGER', 'PER OLSEN', 'SANDNES', 'NORWAY')
```

MIN/MAX

```
SELECT
    MAX(PRICE)
FROM
    PRODUCTS
```

COUNT

```
SELECT
    COUNT(*)
FROM
    PRODUCTS
```

SUM

```
SELECT
    SUM(QUANTITY)
FROM
    ORDERDETAILS
```

AVG

```
SELECT
    AVG(PRICE)
FROM
    PRODUCTS
```

% OPERATOR

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    CUSTOMERNAME
LIKE
    'A%'
```

WILDCARD

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    CITY
LIKE
    'L_ND__'
```

% WILDCARD

```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    CITY
LIKE
    '%L%'
```

IN
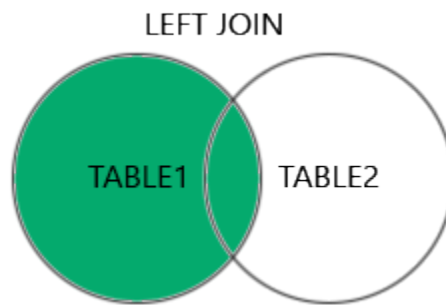
```
SELECT
    *
FROM
    CUSTOMERS
WHERE
    COUNTRY
IN
    ('GERMANY', 'FRANCE', 'UK')
```

BETWEEN

```
SELECT
    *
FROM
    PRODUCTS
WHERE
    PRICE
BETWEEN
    10 AND 20
```
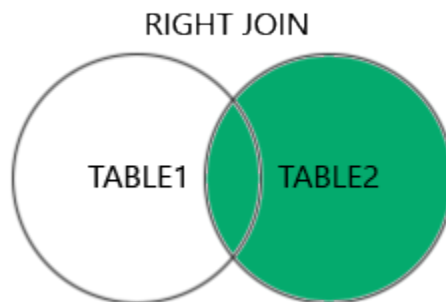
LEFT JOIN

```
SELECT
    COLUMN_NAME(s)
FROM
    TABLE_1
LEFT JOIN
    TABLE_2
ON
    TABLE1.COLUMN_NAME = TABLE2.COLUMN_NAME
```
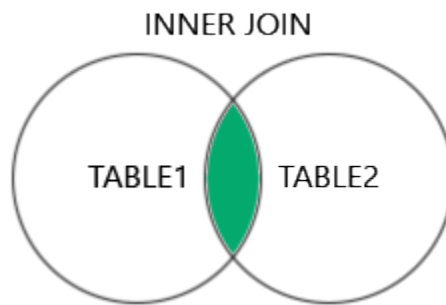
LEFT JOIN

TABLE1 TABLE2

RIGHT JOIN

```
SELECT
    COLUMN_NAME(s)
FROM
    TABLE_1
RIGHT JOIN
    TABLE_2
ON
    TABLE1.COLUMN_NAME = TABLE2.COLUMN_NAME
```

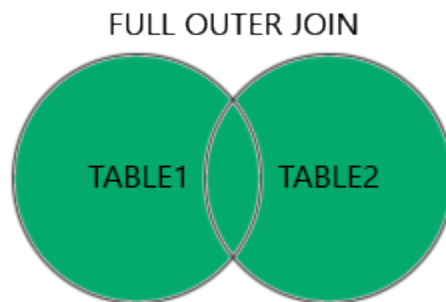RIGHT JOIN

TABLE1 TABLE2

INNER JOIN

```
SELECT
    COLUMN_NAME(s)
FROM
    TABLE_1
INNER JOIN
    TABLE_2
ON
    TABLE1.COLUMN_NAME = TABLE2.COLUMN_NAME
```

INNER JOIN

TABLE1   TABLE2

FULL OUTER JOIN

```
SELECT
    COLUMN_NAME(s)
FROM
    TABLE_1
FULL OUTER JOIN
    TABLE_2
ON
    TABLE1.COLUMN_NAME = TABLE2.COLUMN_NAME
```

FULL OUTER JOIN

TABLE1   TABLE2

SELF JOIN

```
SELECT
    A.CUSTOMERNAME AS CUSTOMERNAME1,
    B.CUSTOMERNAME AS CUSTOMERNAME2,
    A.CITY
FROM
    CUSTOMERS A, CUSTOMERS B
WHERE
    A.CUSTOMERID <> B.CUSTOMERID
ON
    A.CITY = B.CITY
```

UNION

Union of only distinct values.

```
SELECT
    COLUMN_NAME(s)
FROM
    TABLE_1

UNION

SELECT
    COLUMN_NAME(s)
FROM
    TABLE_2
```

UNION ALL

Union allow duplicates.

```
SELECT
    COLUMN_NAME(s)
FROM
    TABLE_1

UNION ALL

SELECT
    COLUMN_NAME(s)
FROM
    TABLE_2
```

GROUP BY

```
SELECT
    COUNT(CUSTOMERID), COUNTRY
FROM
    CUSTOMERS
GROUP BY
    COUNTRY
```

CREATE DATABASE

```
CREATE DATABASE
    DATABASENAME
```

DROP DATABASE

```
DROP DATABASE
    DATABASENAME
```

CREATE TABLE

```
CREATE TABLE
    PERSONS(
        PERSONID INT,
        LASTNAME VARCHAR(255),
        FIRSTNAME VARCHAR(255),
        ADRESS VARCHAR(255),
        CITY VARCHAR(255)
        )
```

DROP TABLE

```
DROP TABLE
    TABLE_NAME
```

RANK

```
SELECT
    PRODUCT_ID,
    PRODUCT_NAME,
    LIST_PRICE,
    RANK() OVER(
        ORDER BY LIST_PRICE DESC
    ) PRICE_RANK
FROM
    PRODUCTS
```