# Knowledge Organiser :: SQL

**SQL – Structured Query Language** can be used t search database tables for specific data

## SELECT AND FROM

The SELECT keyword is used to search for and display specific data
The FROM keyword is used to identify the tables that need to be searched

```
SELECT hotel_name FROM hotels;
```

RETURN THE HOTEL_NAME FIELD FROM THE HOTELS TABLE

```
SELECT hotel_name, address, telephone, email, rating
FROM hotels;
```

```
SELECT * FROM hotels;
```

RETURN ALL THE FIELDS FROM THE HOTELS TABLE

## WHERE

The **WHERE** statement is used to filter results – to apply a condition

```
SELECT hotel_name FROM hotels WHERE bathroom="En-Suite";
```

```
SELECT hotel_name FROM hotels WHERE hotel_rating >=4.5;
```

## ORDER BY

Data can be ordered in **ascending (ASC)** or **descending (DESC)** order

```
SELECT hotel_name, price FROM hotels WHERE rooms >100
AND hotel_rating < 4 ORDER BY price DESC;
```

```
SELECT hotel_name, price FROM hotels WHERE rooms >100
AND hotel_rating < 4 ORDER BY price ASC;
```

## MODEL EXAM ANSWER

**Table : hotels**

| ID | hotel_name | hotel_rating | rooms | bathroom | price |
|----|------------|--------------|-------|----------|-------|
| 1 | Water Lodge | 2.3 | 50 | En-suite | 42.00 |
| 2 | Fire Inn | 4.2 | 60 | Shared | 42.00 |
| 3 | Earthen House | 4.4 | 251 | En-Suite | 39.00 |
| 4 | Windy Inn | 3.5 | 150 | Shared & Ensuite | 57.00 |
| 5 | River View | 3.8 | 180 | En-Suite | 46.00 |

What data would be found by the SQL statement `SELECT hotel_name FROM hotels WHERE rooms > 150`?

*River View and Earthen House*

Write the SQL statement to find the hotel name and rating for all hotels with en-suite bathrooms

*Select hote_name, hotel_rating FROM hotels WHERE bathroom = "En-sute";*

Write the SQL statement to find all the hotel data sorted in ascending order by rating

*SELECT * FROM hotels ORDER BY rating ASC;*

## OPERATORS

| | |
|----|----|
| == | The Same As |
| != | Not Equals To |
| > | Greater Than |
| < | Less Than |
| >= | Greater Than or Equals To |
| <= | Less Than or Equals To |

## LIKE AND %

**LIKE** can be used with **WHERE** to search for a pattern
```
WHERE hotel_name LIKE "%Hotel"
```
will search for any name contains the word hotel