**BETWEEN (Range Query) in SQL**

Retrieves values within a specified range.

*SELECT column1 FROM table\_name WHERE column2 BETWEEN value1 AND value2;*

**NB:** *SELECT \* FROM Course WHERE Cost >= 150 AND Cost <= 250;* can also be written as:

*SELECT \* FROM Course WHERE CourseCode BETWEEN ‘C001’ AND ‘C004’;*

**NB:** We can also use BETWEEN in comparison with other datatypes.

A diagram of a course code

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**IN (Match Multiple Values) in SQL**

It checks if a value is in a list.

*SELECT column1 FROM table\_name WHERE column2 IN (value1, value2, value3);*

**NB:**

*SELECT \* FROM Course WHERE Type = ‘Word Proc’ OR Type = ‘Web’ OR Type = ‘Database’;* can also be written as: *SELECT \* FROM Course WHERE Type IN (Word Proc’, ‘Web’, ‘Database’);*

**LIKE (Pattern Matching with Wildcards)**

* % → Matches any number of characters
* **\_** → Matches a single character

**Example:** Get students whose names **start with "J"**:

*SELECT FirstName FROM Students WHERE FirstName LIKE 'J%';*

**Example:** Get students whose names **end with "son"**:

*SELECT FirstName FROM Students WHERE FirstName LIKE ' %son ';*

**Example:** Get students whose second letter is **"a"**:

*SELECT FirstName FROM Students WHERE FirstName LIKE ' \_a% ';*

**NB:** We must think carefully about where we place the wildcard

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A screenshot of a computer program

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**Column Aliases**

You can change a column heading by using an Alias. A column alias gives the column an alternative heading on output.

**Syntax:**

*SELECT columnname, columnname AS aliasname, … FROM tablename*

A table with numbers and numbers

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**Duplicate Rows**

Unless specified, the results of a query will be returned with duplicate rows. To eliminate duplicate values, we must include the DISTINCT clause in the SELECT command.

**Example**:

A table of workflows with a person in front of the other

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**Using Distinct**

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**Ordering Outputs**

Usually, the order of rows returned in a query result is undefined. The ORDER BY clause sets the sequence for outputting selected information.

This can either be:

* Ascending order ASC (default)
* Descending order DESC.

If used the **ORDER BY** must always be the last clause in the **SELECT** command.

**Example**

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We can use the WHERE statement to select rows before we order them.

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A diagram of a number of numbers

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**NB:** We don’t have to output the column we are ordering on.

A table with numbers and a number of numbers

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**NB**: We can order on more than one column

A table with numbers and a number

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