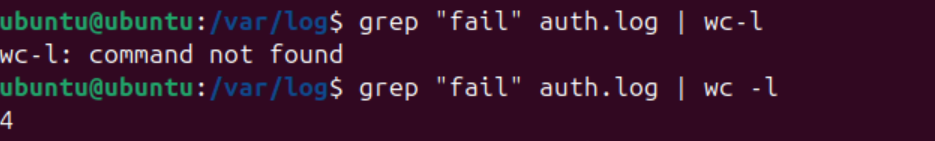
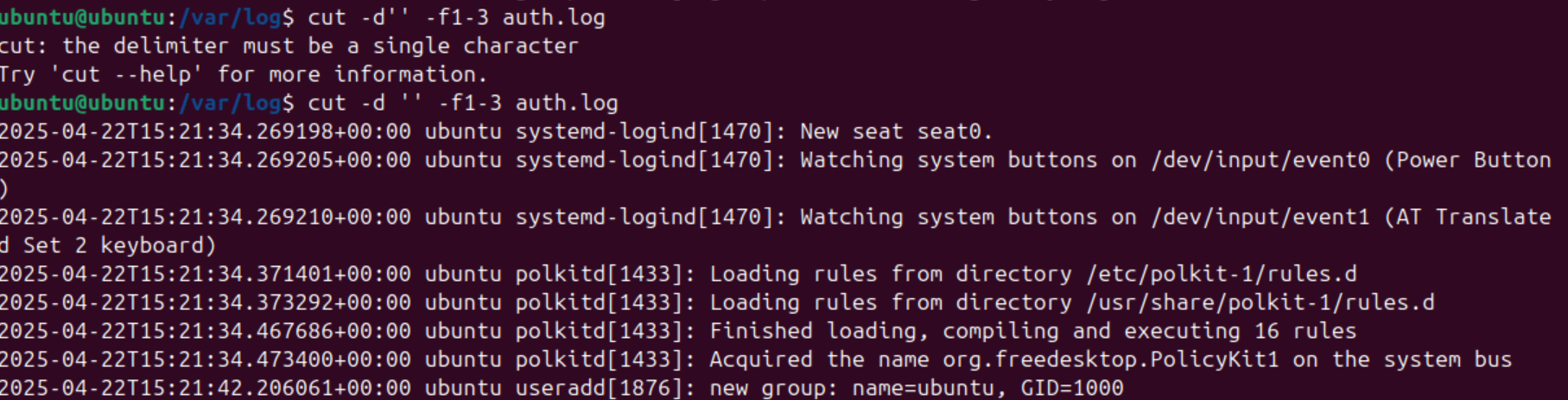
**KEY SHELL COMMANDS**

* **echo- to print something**
* **cat- to show the contents of the file**
* **tail- to show the last line of a file**
* **grep- search for words in a file**
* **systemctl- to start/stop/restart services**
* **chmod- to change permissions**
* **awk- extract specific fields from logs**
* **tail- to view the last part of file**
* **cut- used to cut sections of each line based on delimeters**

**TROUBLE SHOOTING**

Here, error comes due to lack of space between wc and - .  
grep “fail” log file is used to find count of failed entries.  


Here, error comes due to lack of space between d and ‘ ’

cut -d ‘ ’ -f1-3 log file command is used to get first 3 fields from that particular log file.

**MYSQL**

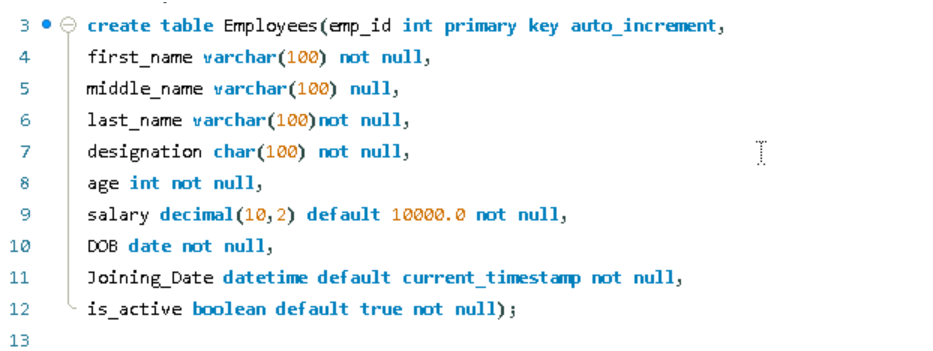
**CREATE DATABASE**

****

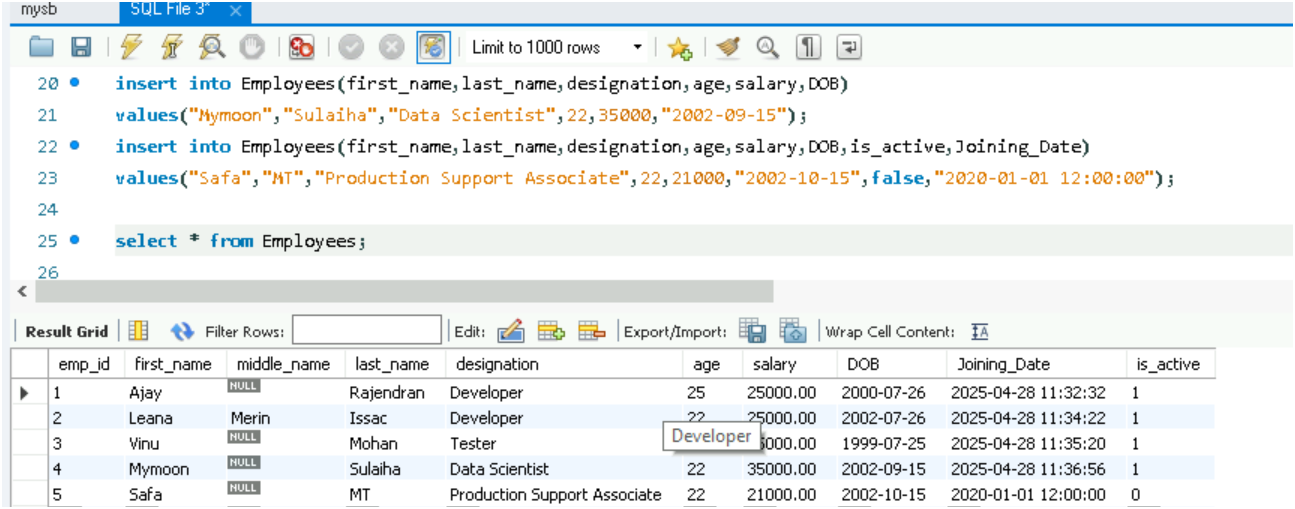
**USE Database\_name**

****

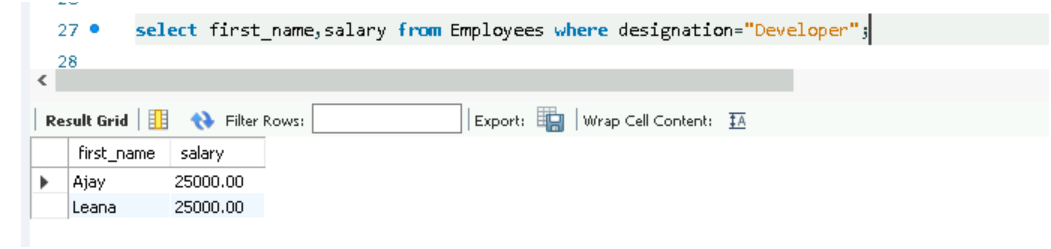
**CREATE TABLE:**

****

**INSERT VALUES:**

****

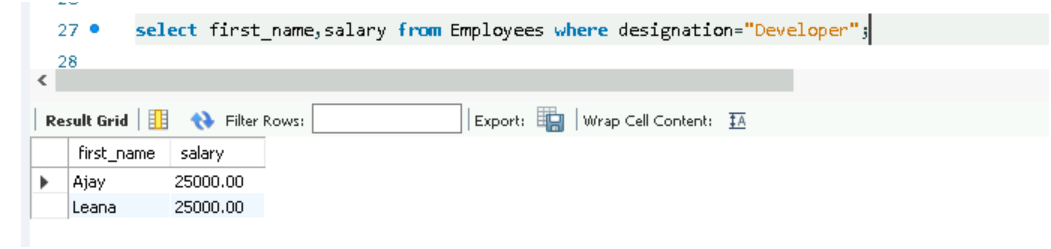
**SELECT:**

****

**CONDITIONS**

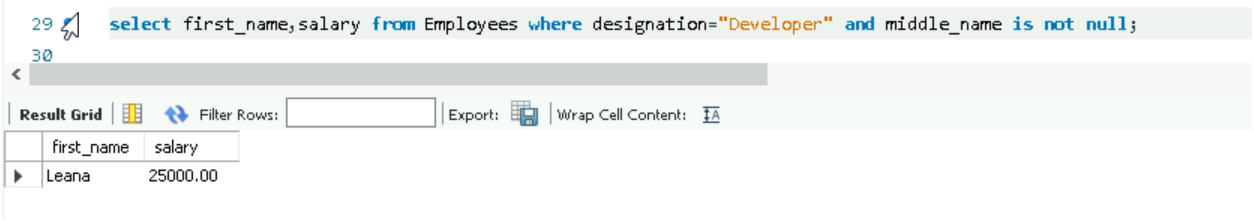
**WHERE:**

The WHERE clause in SQL is used to filter records that meet a certain condition.

****

**AND:**

Show records if all conditions are true.

****

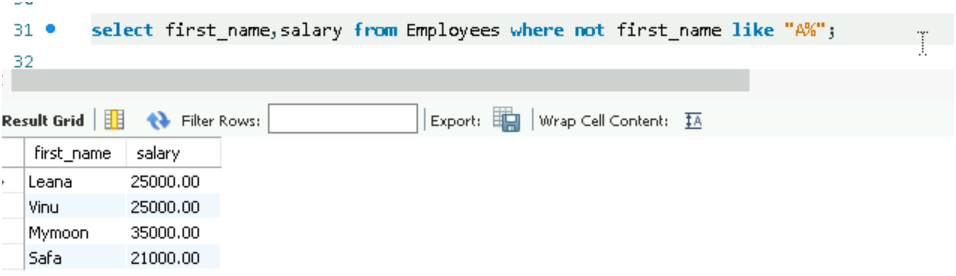
**OR:**

Show records if any one of the condition is true.

****

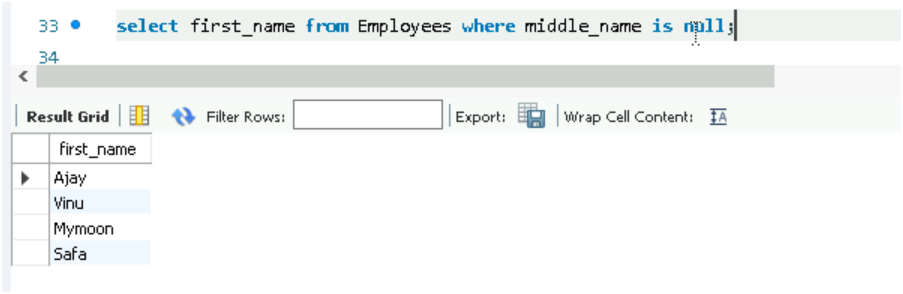
**NOT:**

Show records if conditions are not true.



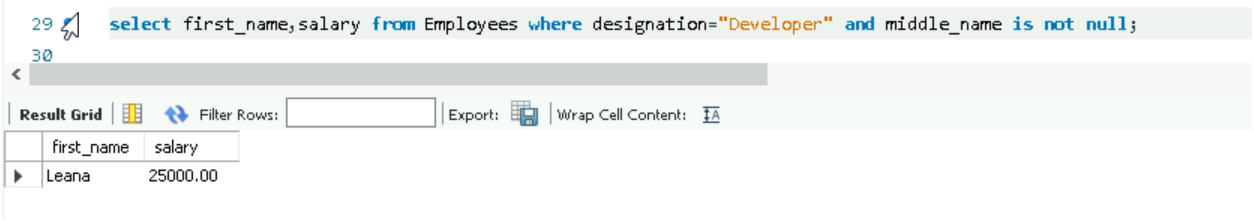
**IS NULL:**

It is used to filter the rows where specific column has null value.



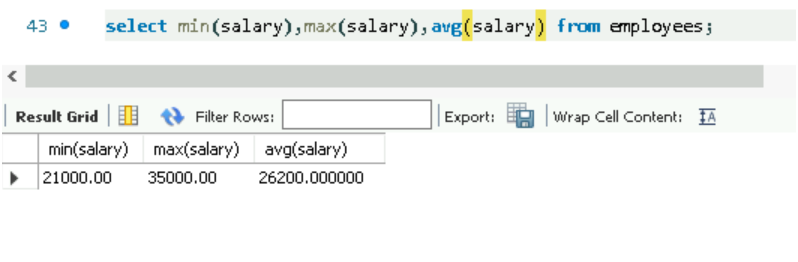
**IS NOT NULL:**

It is used to filter the rows where specific column has non null value.

****

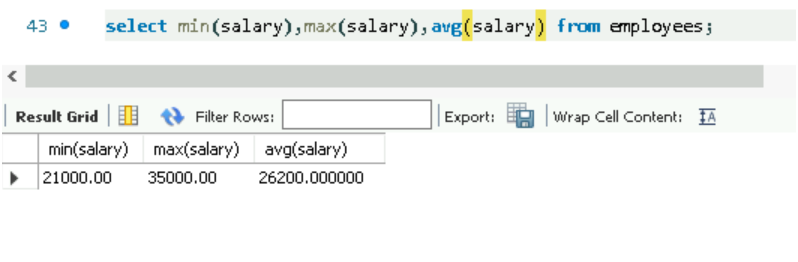
**AGGREGATE FUNCTIONS  
MIN():**

Returns smallest value of selected column.



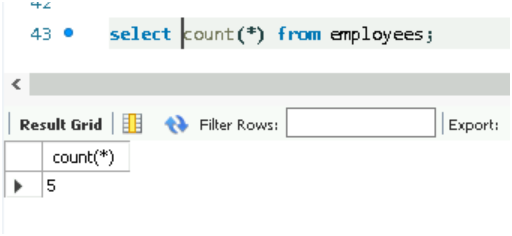
**MAX()**

Returns largest value of selected column.

****

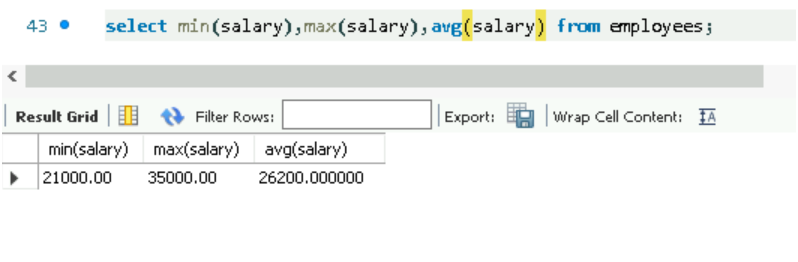
**COUNT()**

To check the number of rows which satisfies a specific condition.



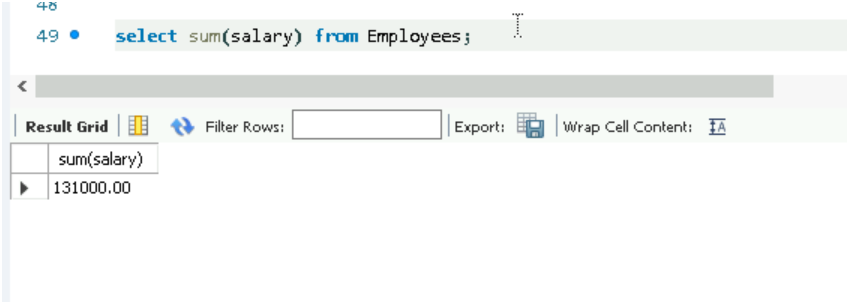
**AVG()**

To get average value of selected column .



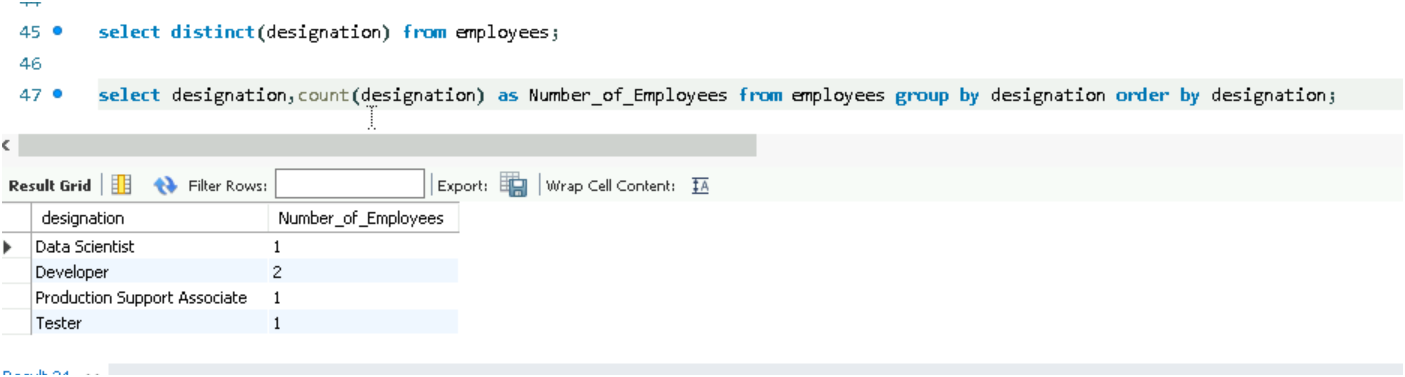
**SUM()**

To get the sum of numeric column.



**DISTINCT()**

To retrieve the unique value from specified column in a table.



**GROUP BY**

Gather and organize your data into groups based on certain characteristics.

**A screenshot of a computer

AI-generated content may be incorrect.**

**ORDER BY**

**A screenshot of a computer

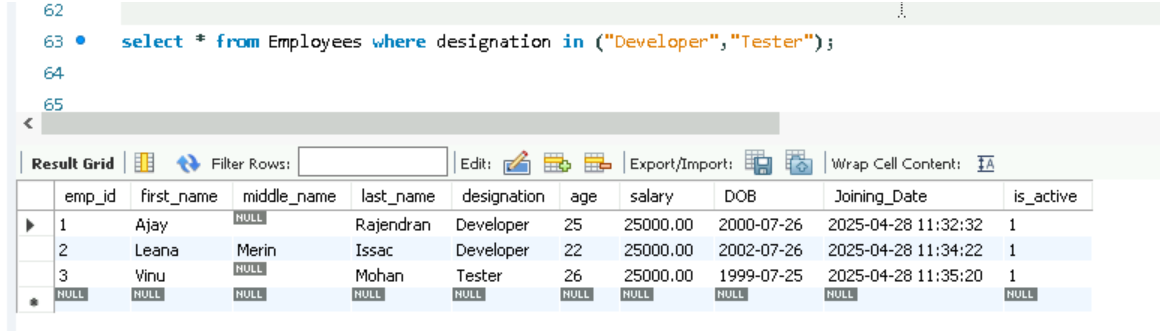
AI-generated content may be incorrect.**

**UNION**

Combine the result sets of 2 or more SELECT statements into single result set.

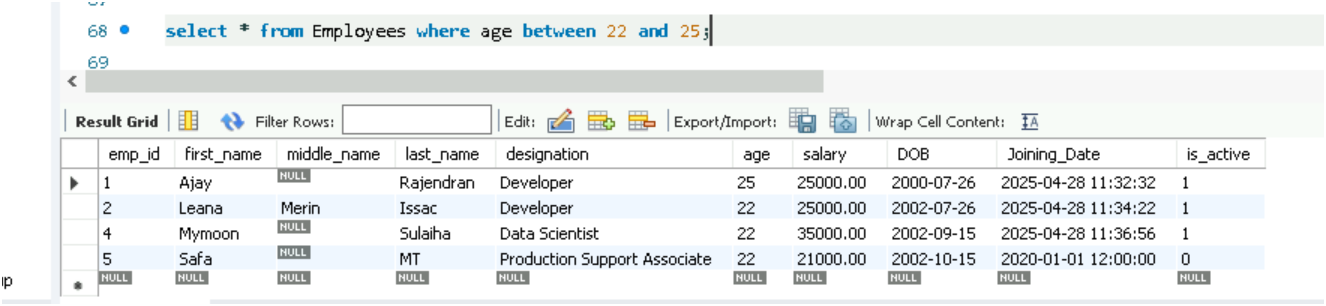
**IN**

Used to check if a specified value matches in your table.



**BETWEEN**

Specify range of values in a table.



**LIKE**

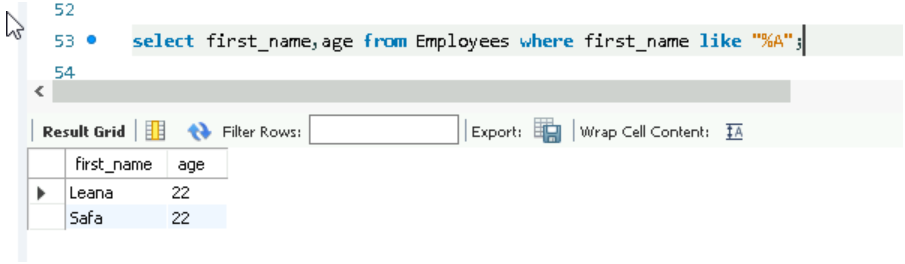
Used to perform pattern matching within string values.

**Wild cards**

Special characters used in conjunction with LIKE to perform pattern matching with string values.

1. **% wild card**

Used to match any sequence of characters in a string.

Image preview

1. **\_ wildcard**

Used to match any single character in a string.

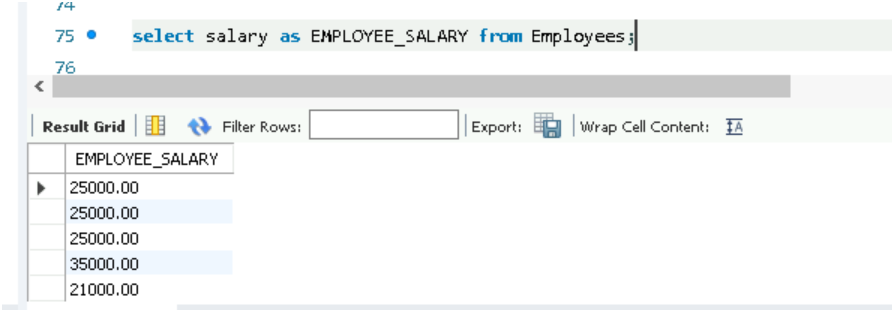
A screenshot of a computer

AI-generated content may be incorrect.

**ALIAS**

**COLUMN ALIAS**

Allows you to assign a temporary name to a column.



**TABLE ALIAS**

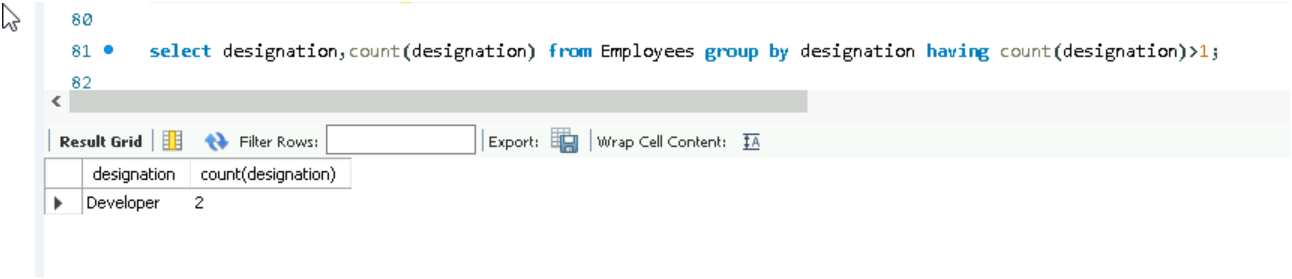
Allows you to assign temporary name to a table or subquery in SQL statement.

A screenshot of a computer

AI-generated content may be incorrect.

**HAVING**

Used to filter the results of a group by query based on aggregate functions.



**EXISTS**

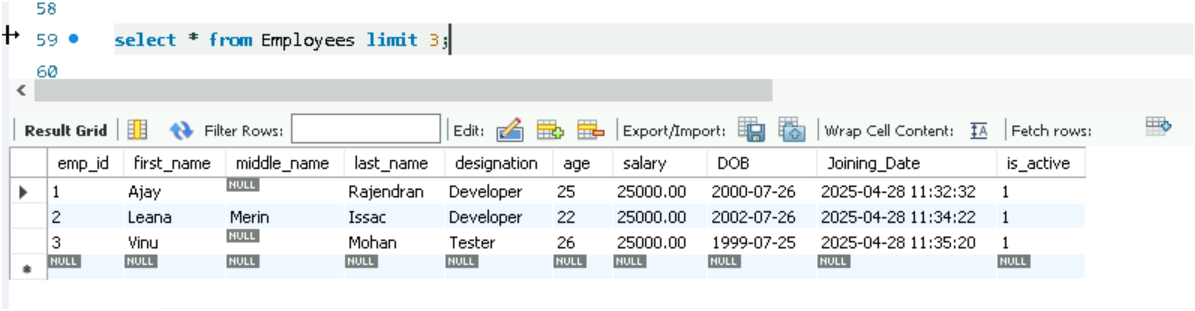
Used in conjunction with subquery to check if a certain condition holds true.

A screenshot of a computer

AI-generated content may be incorrect.

**LIMIT**

Used to restrict the number of rows returned by a query.



**JOINS**

**INNER JOIN**

To fetch matching records of both the tables.

A screenshot of a computer

AI-generated content may be incorrect.

**LEFT JOIN**

To fetch all records from left table and matching records from right table.

A screenshot of a computer

AI-generated content may be incorrect.

**RIGHT JOIN**

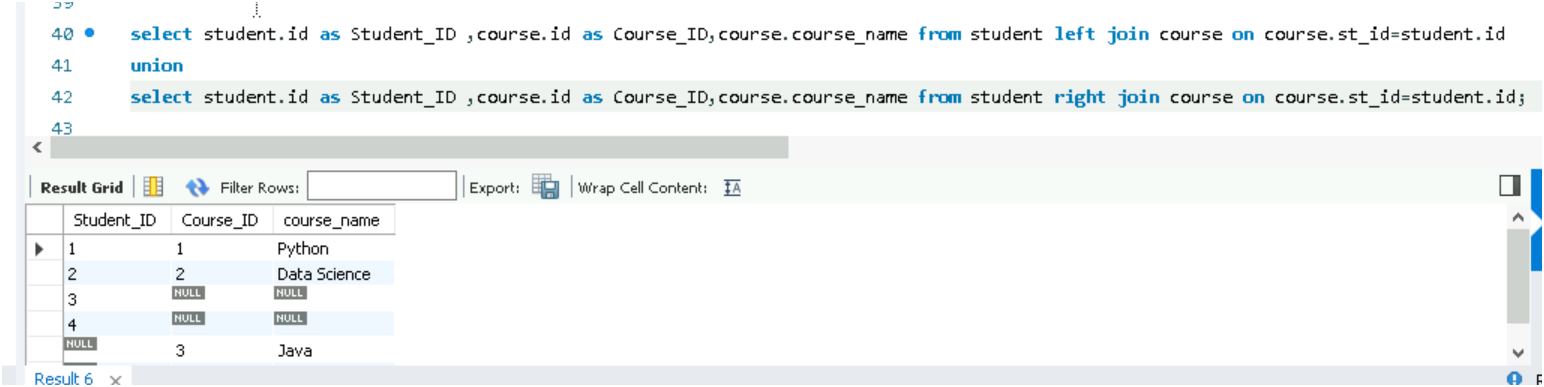
To fetch all records from right table and matching records from left table.

**A screenshot of a computer

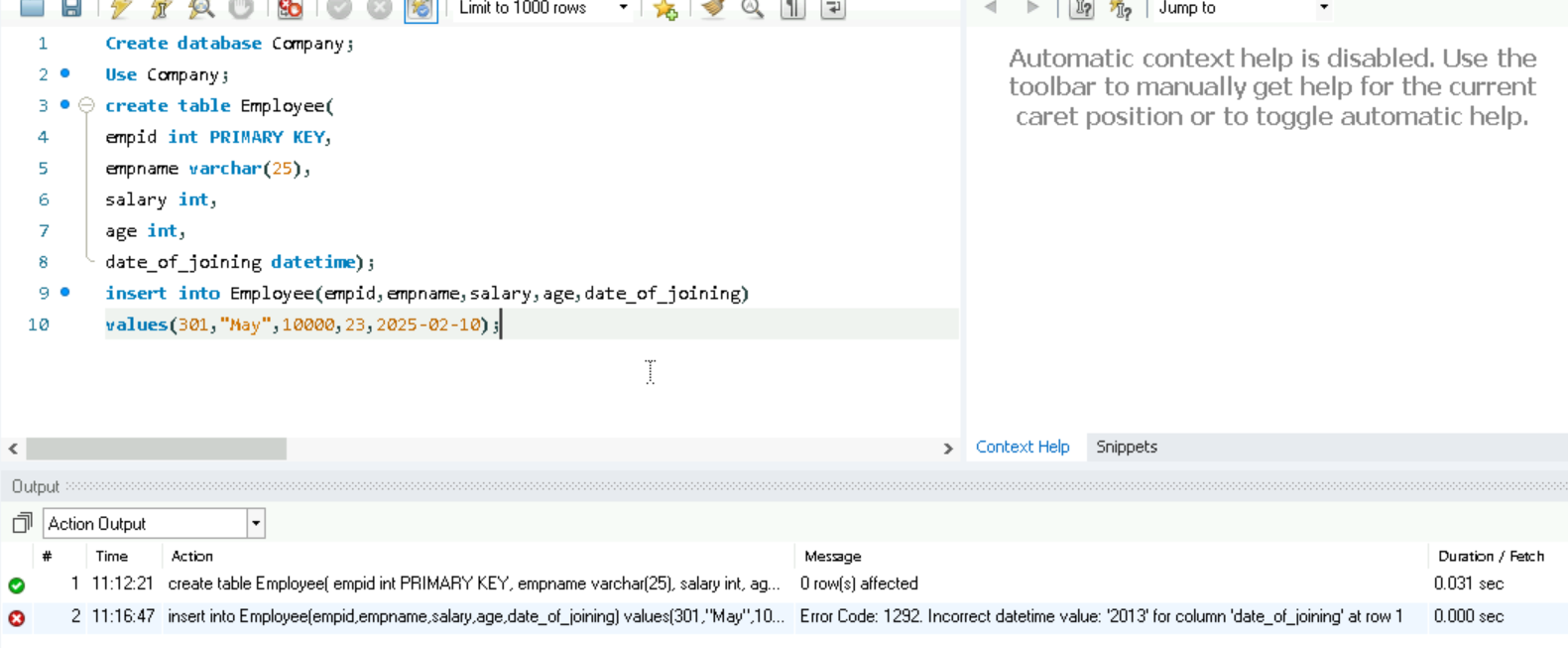
AI-generated content may be incorrect.**

**FULL JOIN**

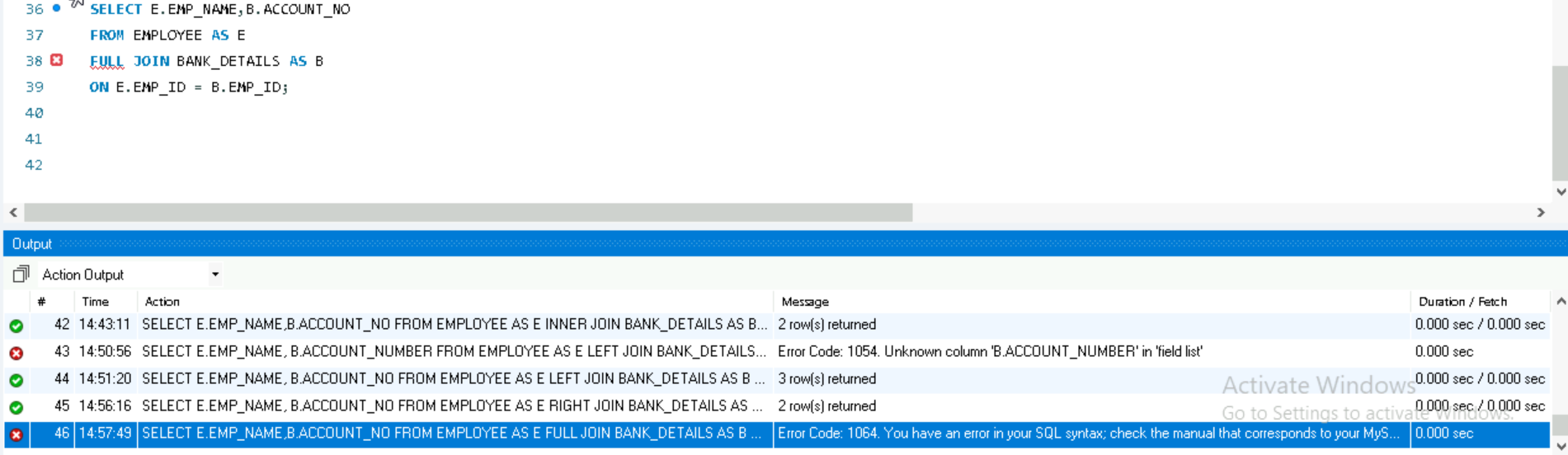
To fetch all records when there is a match in records.

****

**TROUBLE SHOOTING**

****

Here error comes when date is not given inside quotes, so we have to enclose date within quotes.



Here we got error in FULL JOIN as MySQL Workbench interpreter does not support FULL JOIN.