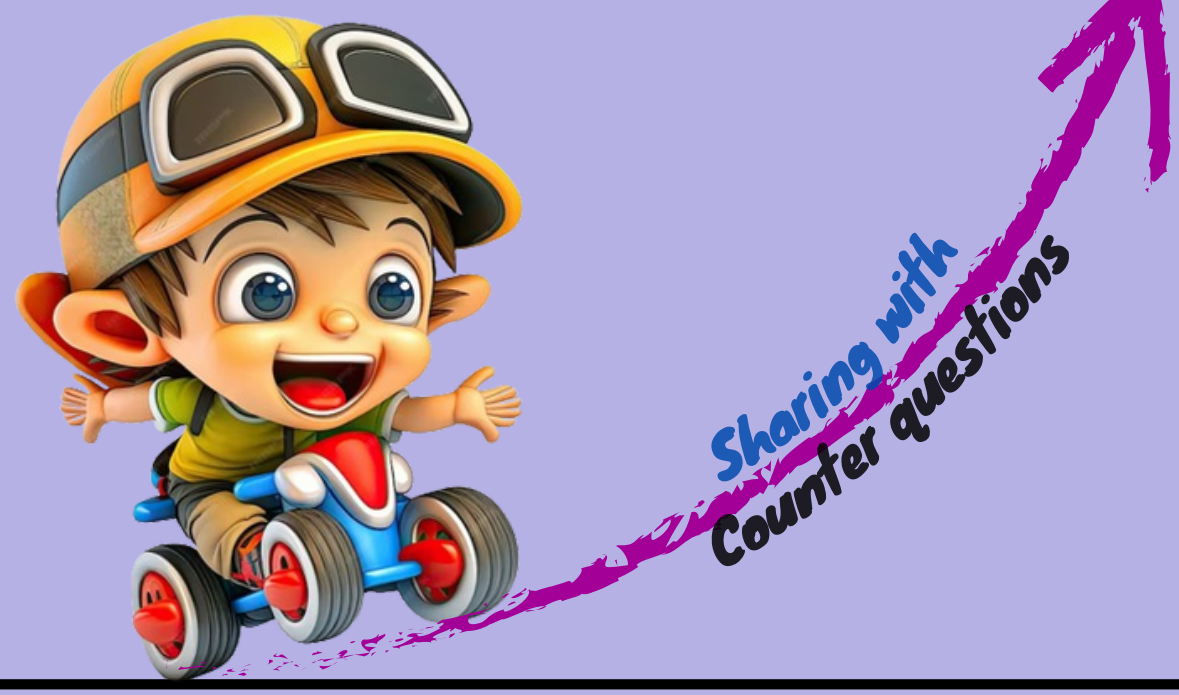
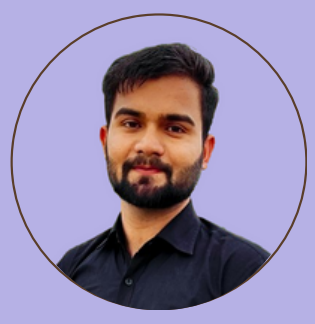
Part - 3

Data Retrieval Interview Questions and Answers..!





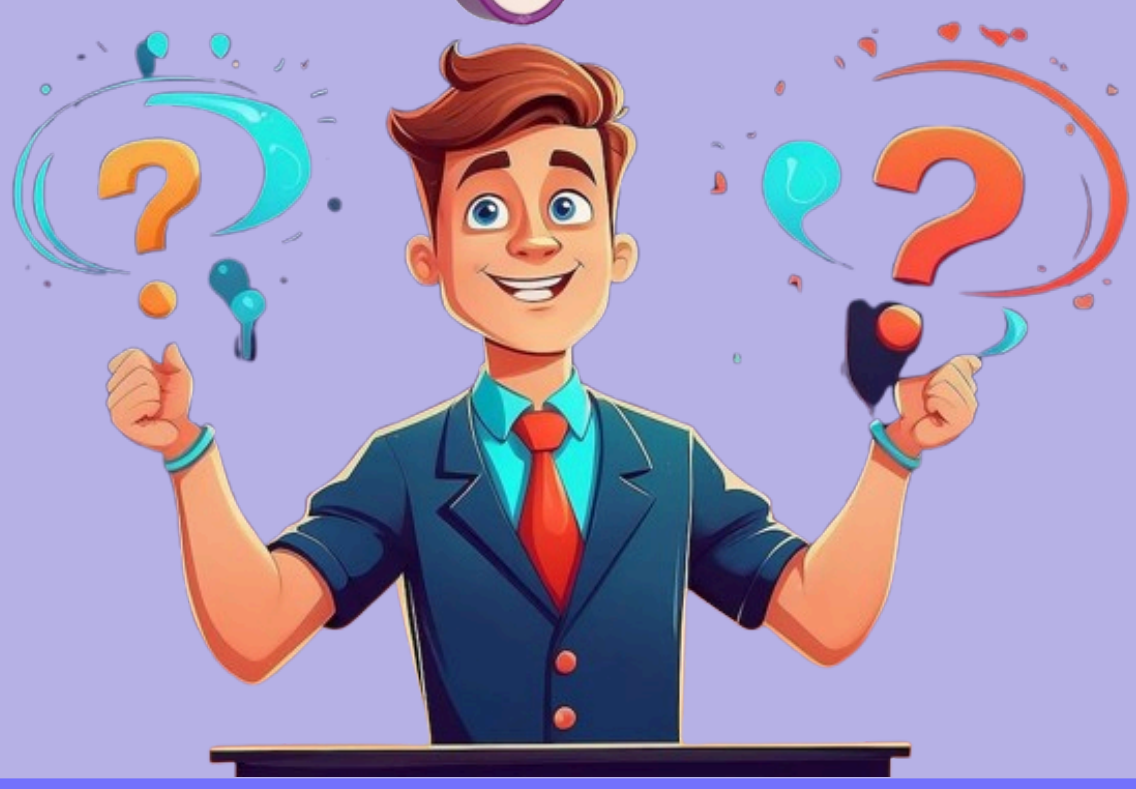
krishna kumar

@Krishan kumar

Tell me about the use case of self-join

Q. Can a Self-Join result in duplicate data?

I Challenge you to give this answer in comment 😎

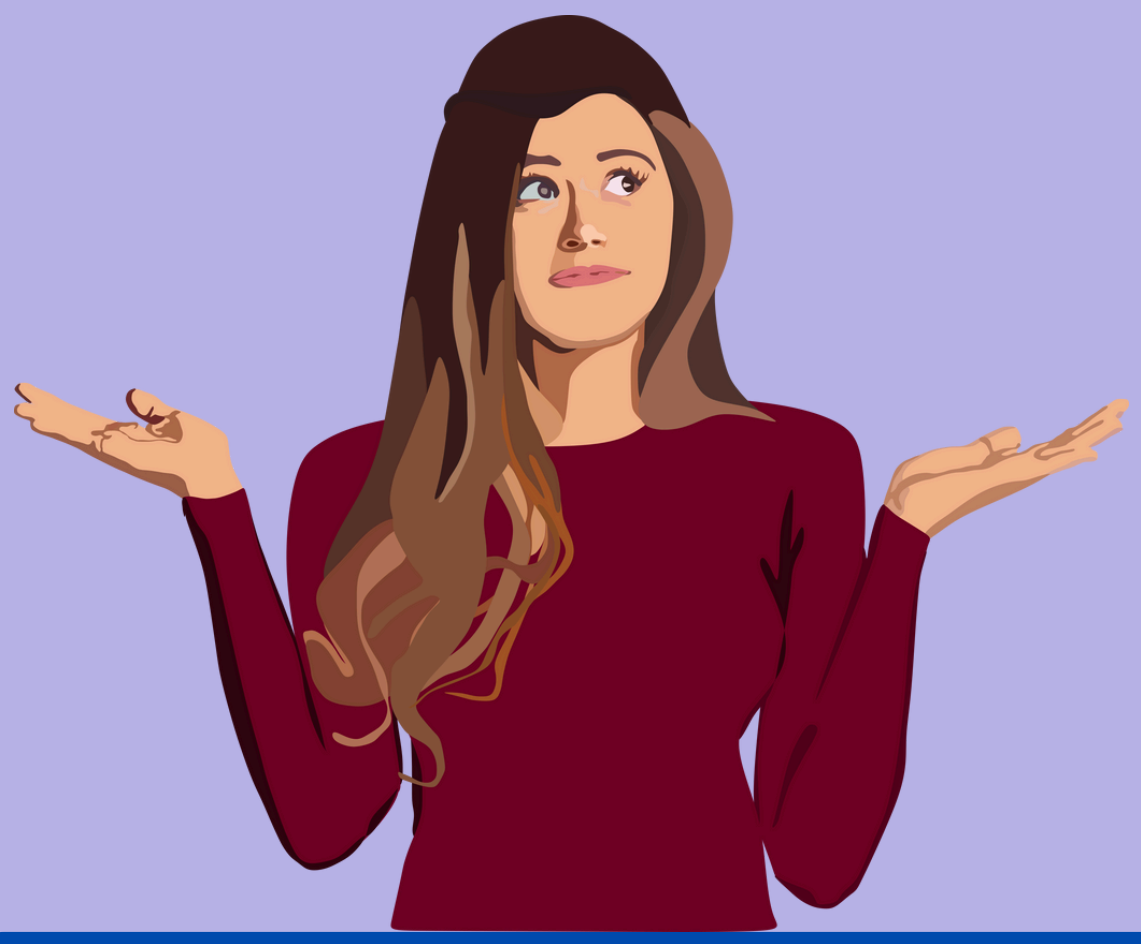


What is a SELF-JOIN?

➡ **A self-join is a regular SQL join where a table is joined with itself.**

This is used when comparing rows within the same table,

such as showing hierarchical relationships or pairing related data.



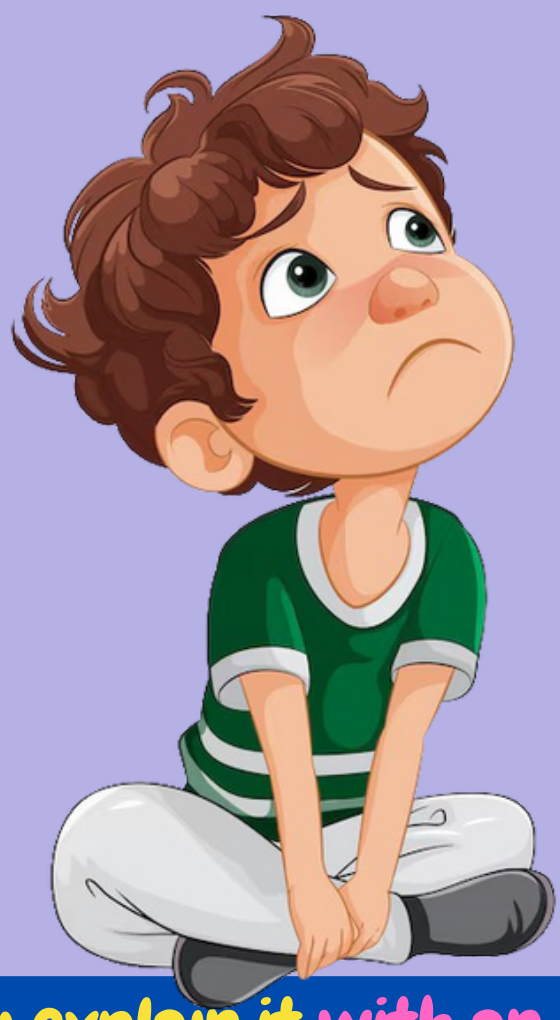
When should you use a SELF JOIN?

Use of SELF-JOIN;

- **You should use a self-join when you need to compare rows in the same table.**

A typical use case is finding relationships within the data,

- **like employees and**
- **their managers.**



Can you explain it with an example ?

A real-world example

Suppose you work in an organization where each employee reports to a manager,

and you want to create a list showing each employee along with their respective manager.

EmployeeID	EmployeeName	ManagerID
1	John	3
2	Sarah	5
3	Michael	NULL
4	Tom	1

What should be the result for this

Result;

Query:

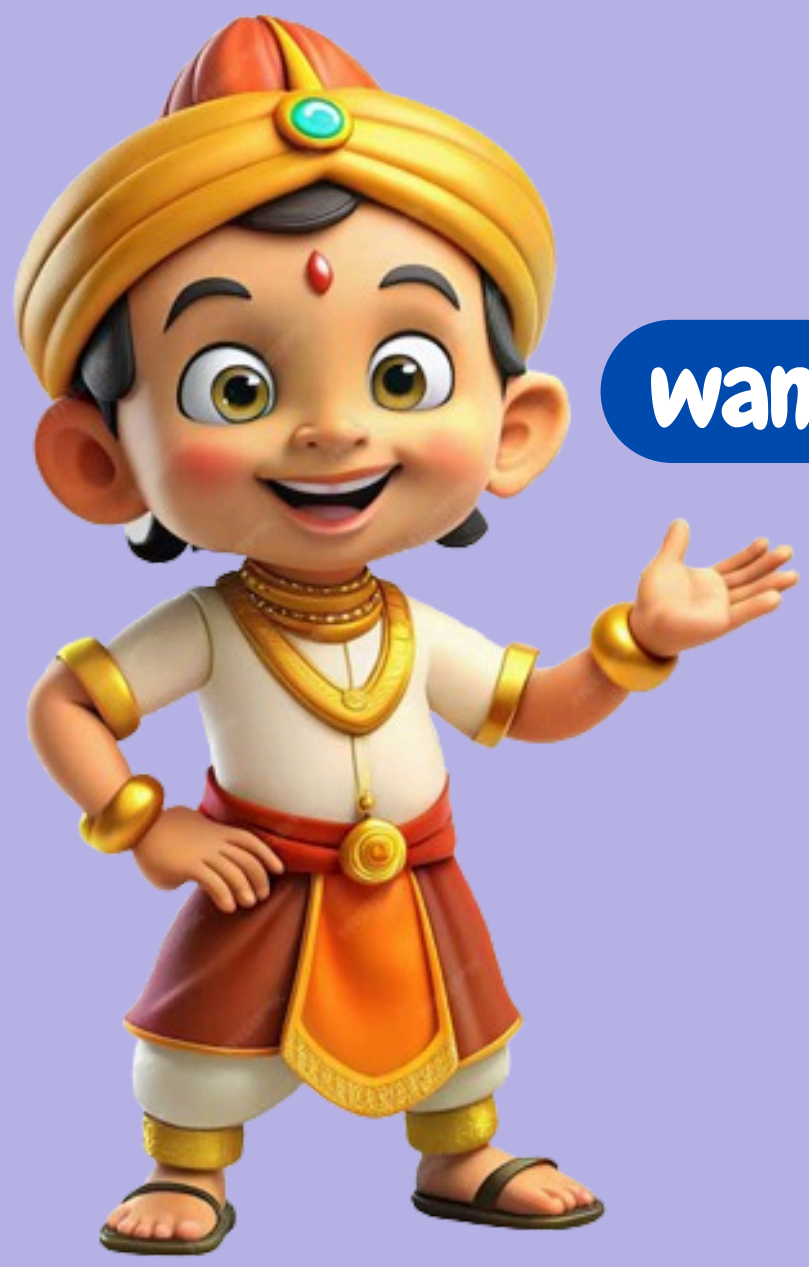
```
SELECT e1.EmployeeName AS Employee,
e2.EmployeeName AS Manager
FROM  Employees e1
LEFTJOIN Employees e2
      ON e1.ManagerID = e2.EmployeeID;
```

Result:

Employee	Manager
John	Michael
Sarah	Michael
Michael	NULL
Tom	John

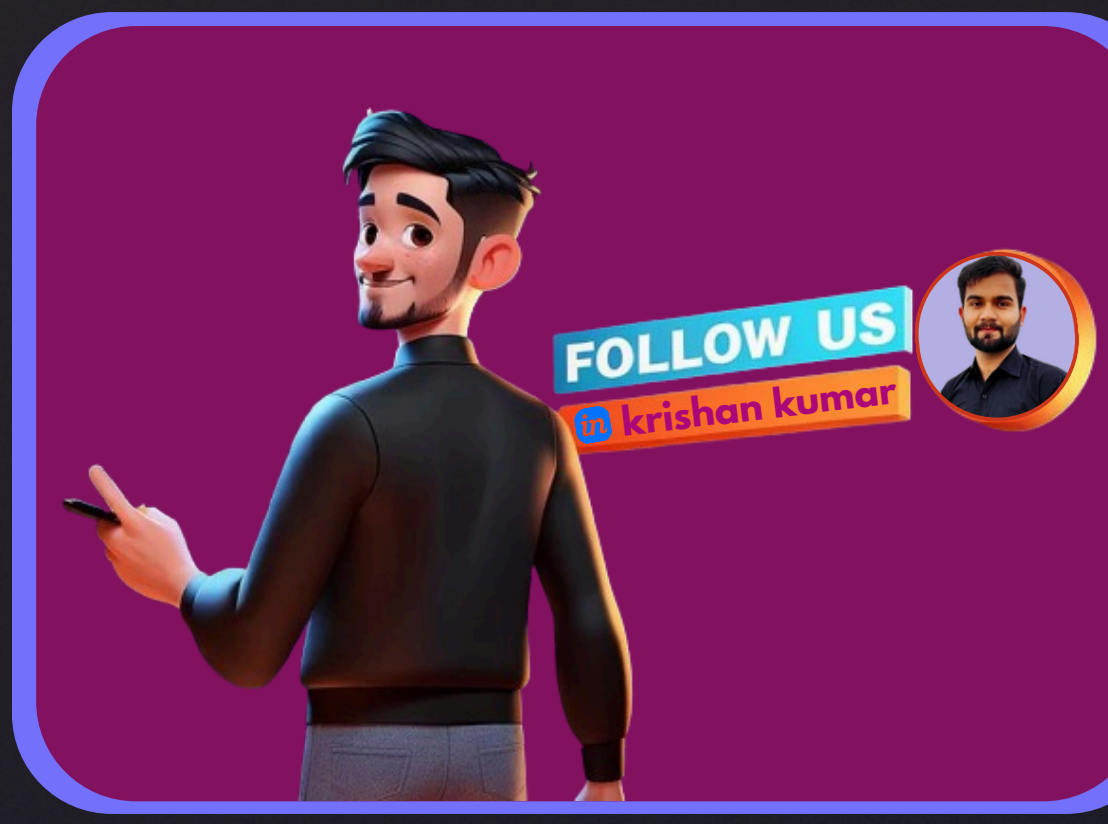
Explanation:

- John and Sarah report to Michael.
- Michael has no manager (NULL).
- Tom reports to John.



wanna see some

Counter Questions

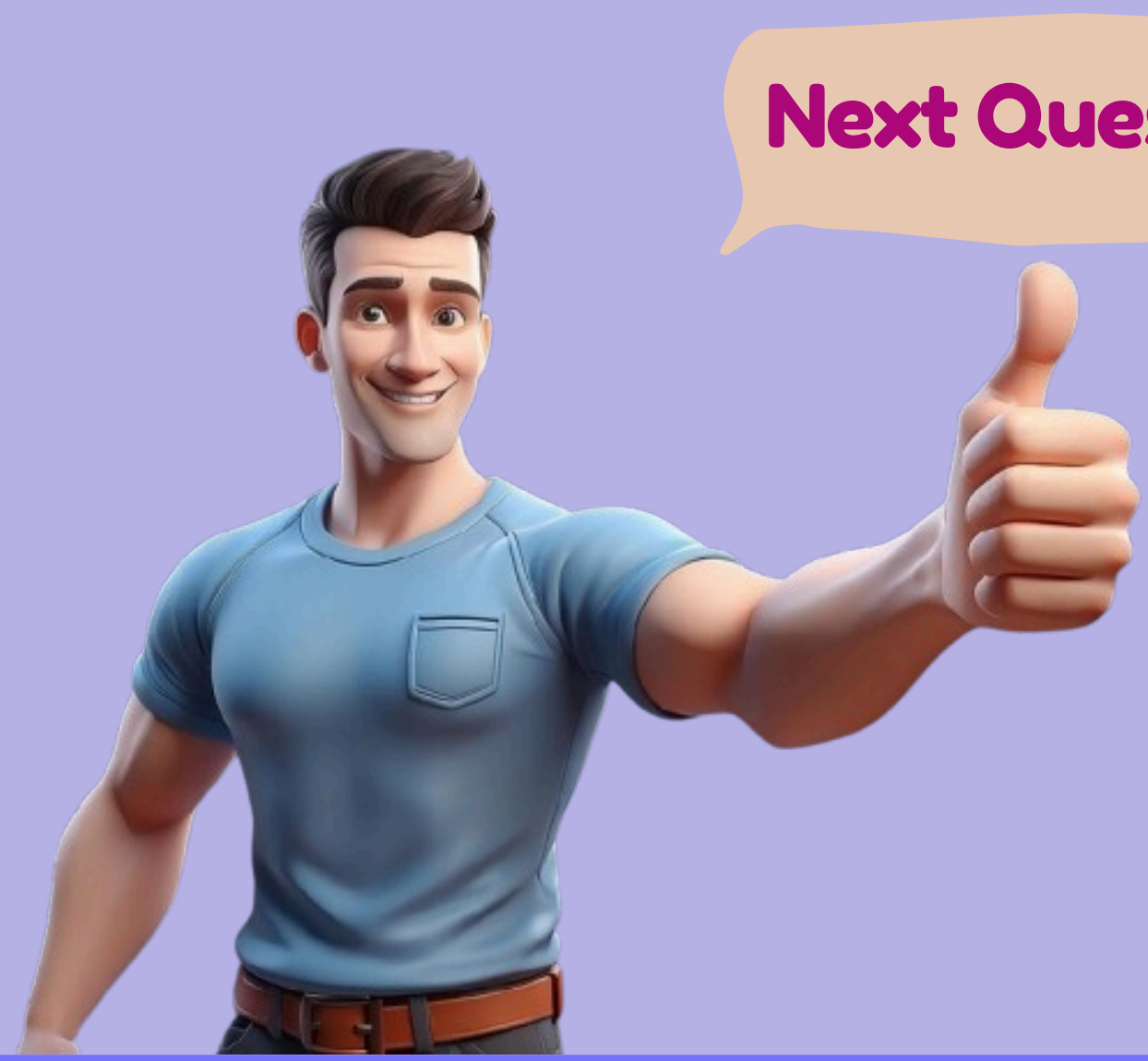


1. Why is Self-Join useful?

➡ **Self-joins are useful when dealing with hierarchical data,**

like organizational structures or comparing data within the same table.

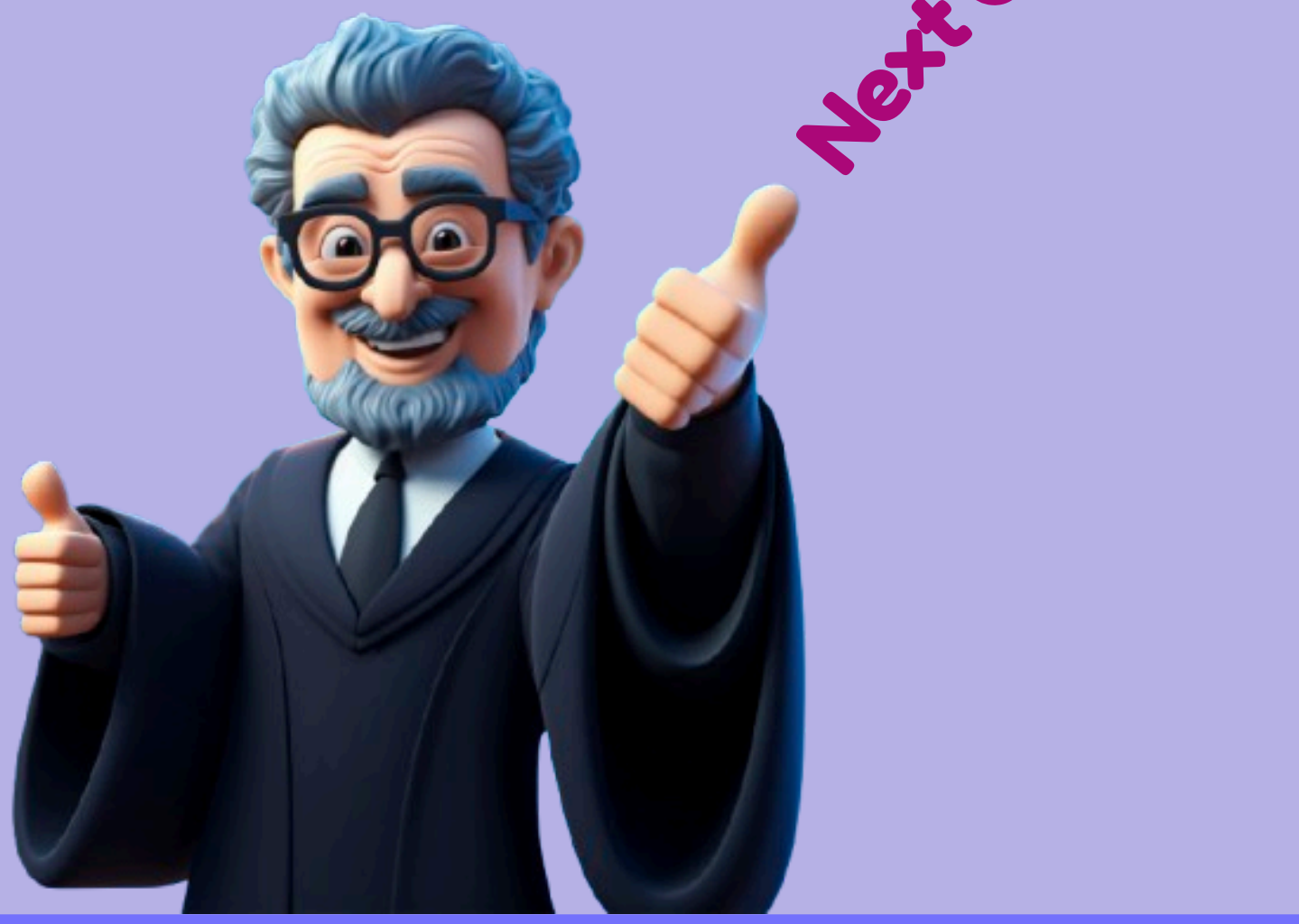
It allows you to connect related rows, such as finding managers and employees or comparing similar records.



2. What is the difference between Self-Join and INNER JOIN?

➡ **A self-join is when a table joins with itself, whereas an INNER JOIN connects two different tables based on matching values.**

Self-join is useful for comparing rows within a single table, while INNER JOIN compares rows between tables.

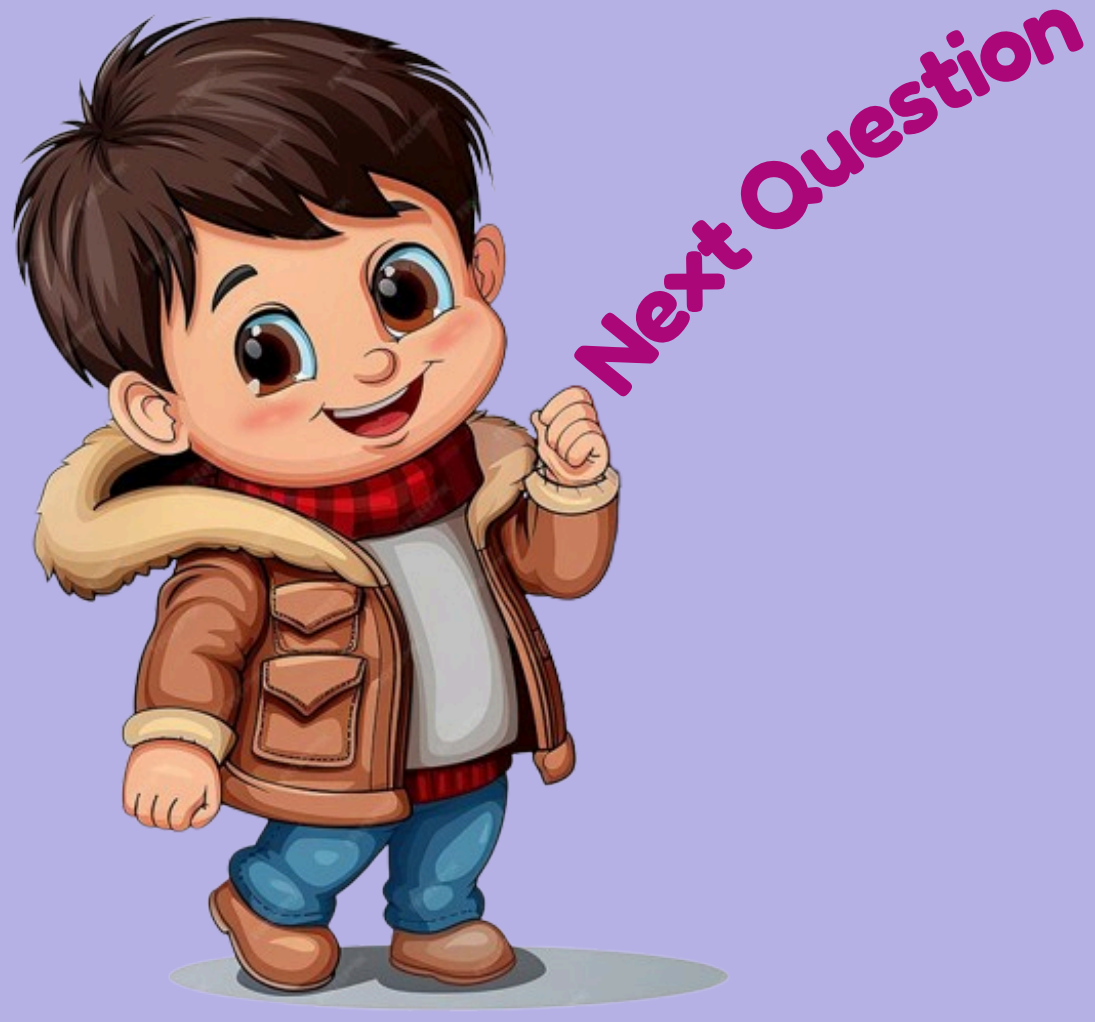


3. Can Self-Joins be used with multiple tables?

➡ **No, a self-join is strictly used to join a table with itself.**

If you need to join more than one table,

you'd use other joins like INNER JOIN or OUTER JOIN

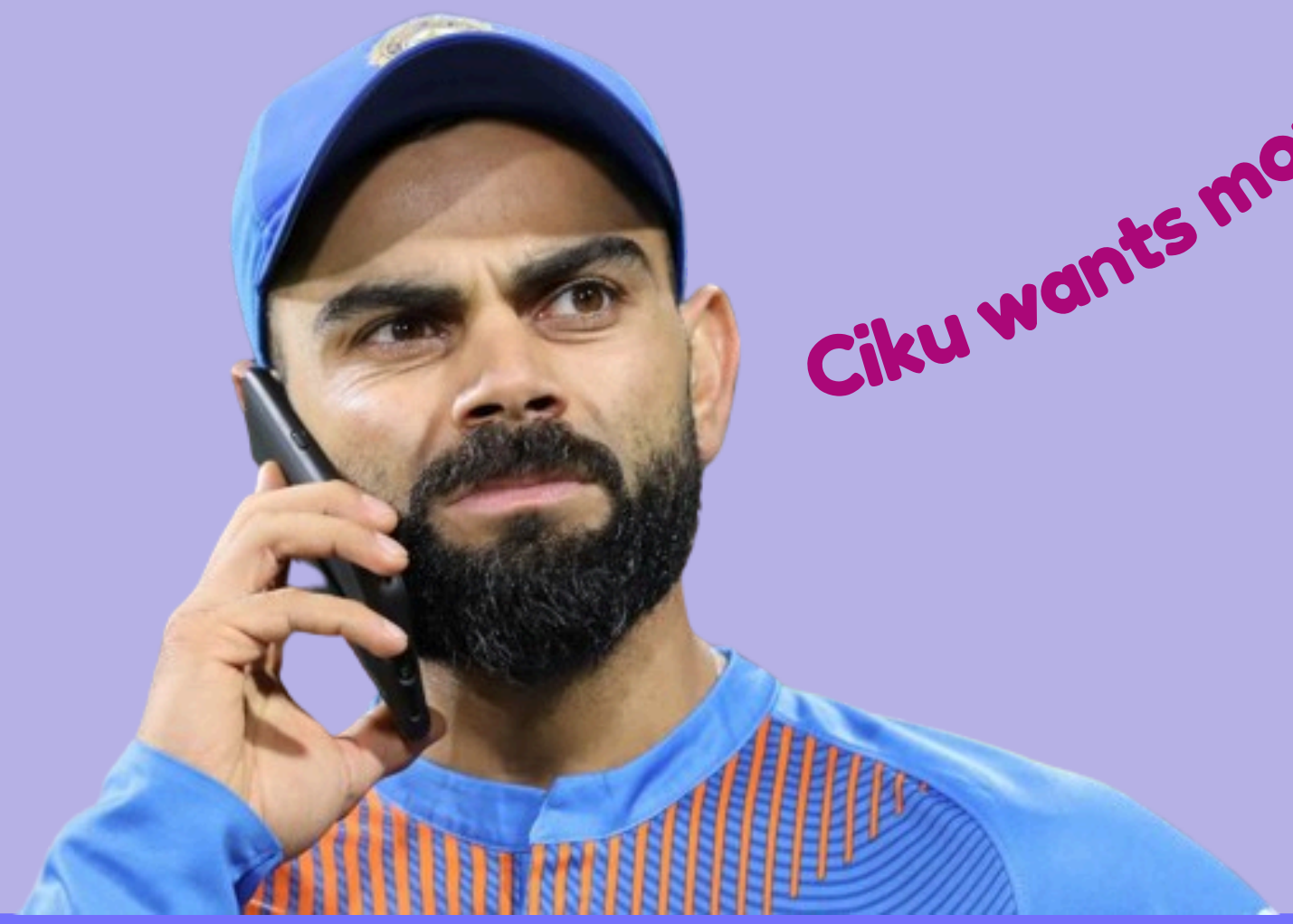


4. How do you avoid performance issues with Self-Joins?

➡ **To avoid performance issues, ensure that the columns you're joining on,**

such as EmployeeID and ManagerID, are properly indexed.

This speeds up the query execution by making lookups more efficient.

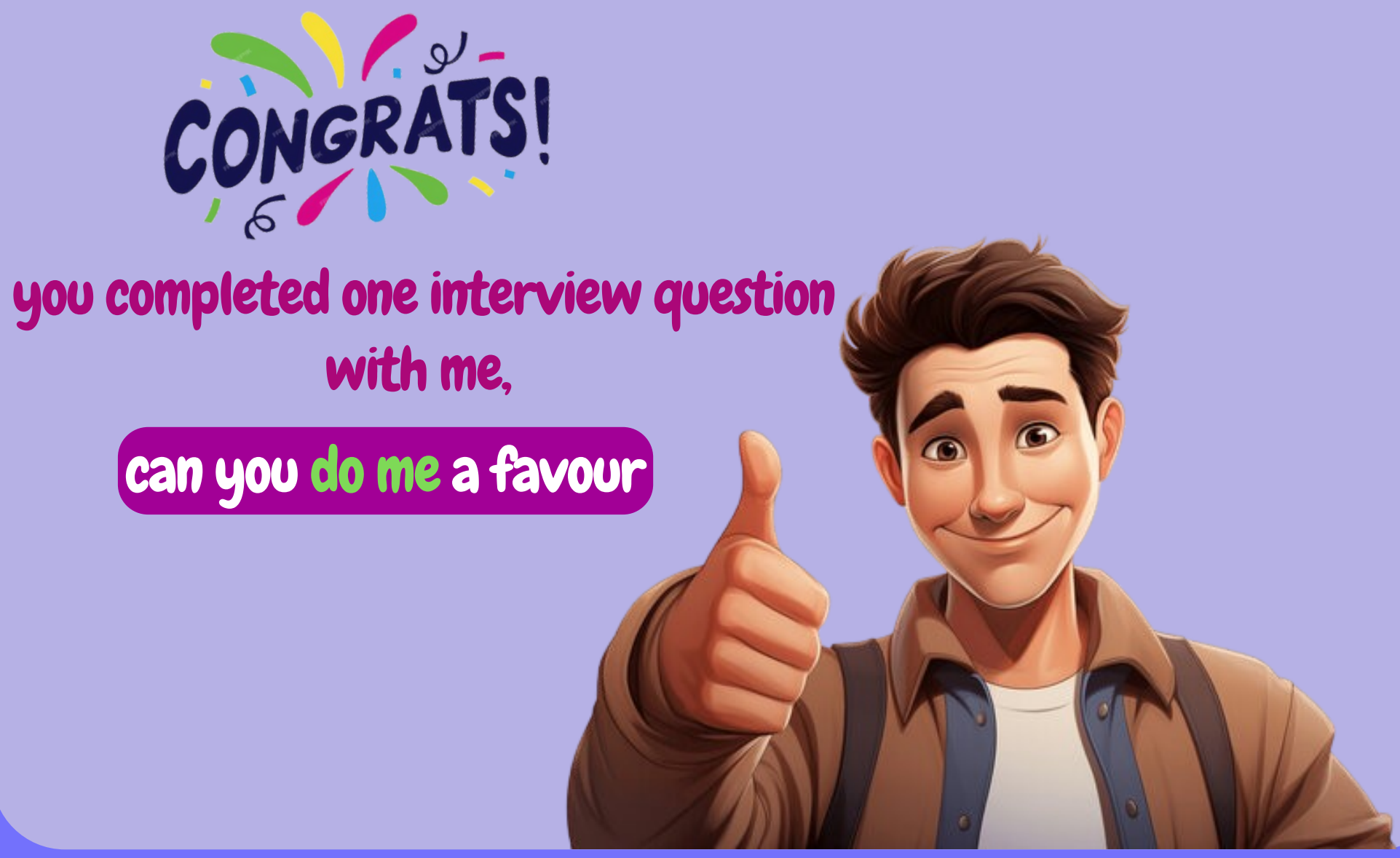


5. Is it possible to use other types of joins (e.g., LEFT JOIN) in a Self-Join?

➡ **Yes, you can use any type of join, like**

- **LEFT JOIN or**
- **RIGHT JOIN, in a self-join.**

For example, using LEFT JOIN ensures that all employees are listed, even if they don't have a manager.



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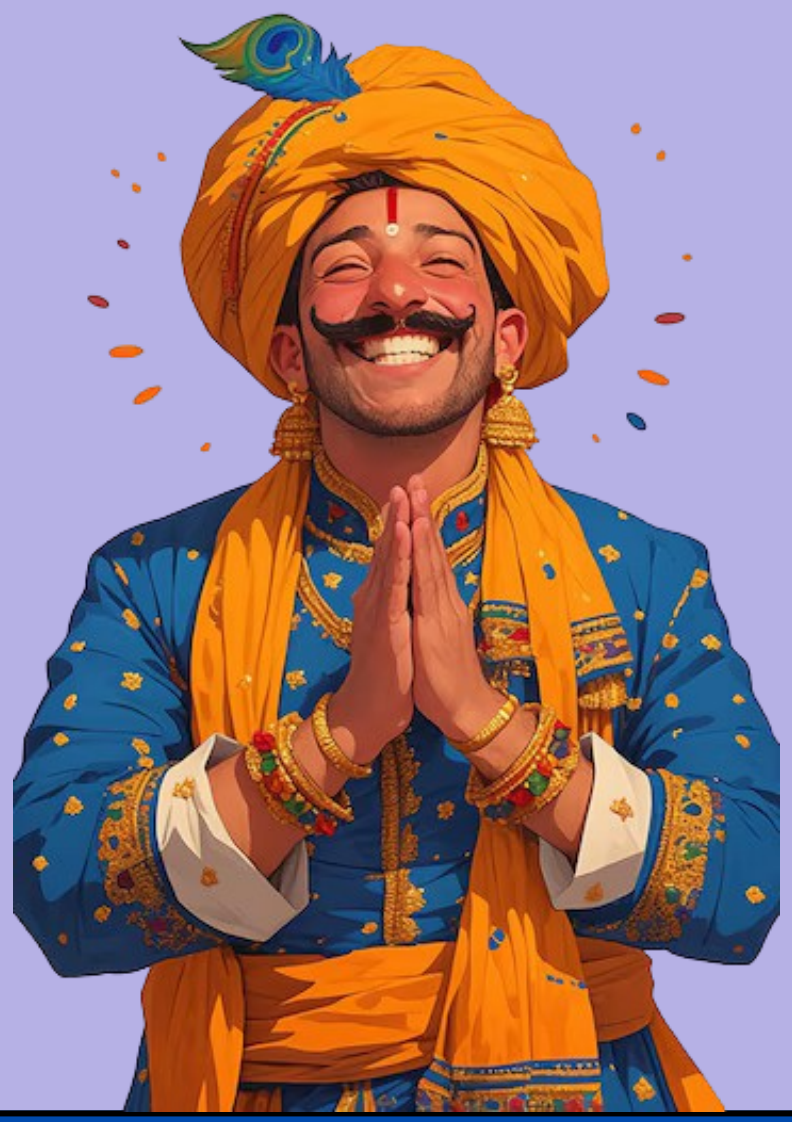

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in krishan kumar