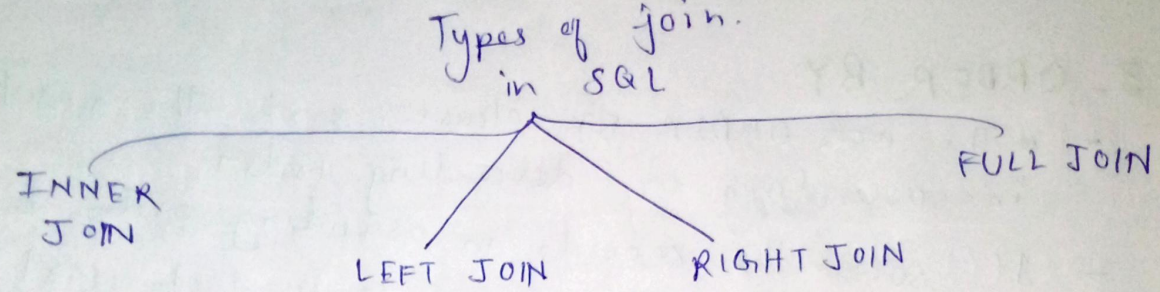
02 Nov 2024

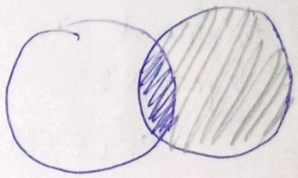
SQL JOINS

SQL join operation combines data or rows from two or more tables based on common field between them.



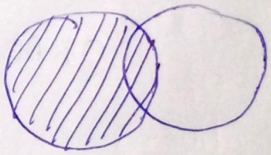
(i) SQL INNER JOIN:

The INNER JOIN keyword selects all rows from both the tables as long as the condition is satisfied.



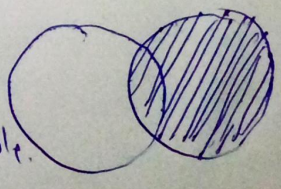
(ii) SQL LEFT JOIN

- left join returns all the rows of the table on the left side of the join and matches rows for the table on the right side of the join.
- for the rows for which there is no matching row on the right side, the result-set will contain null.
- it is also known as Left outer join.



(iii) SQL RIGHT JOIN

- RIGHT JOIN returns all the rows of the table on the right side of the join and matching rows for the table on the left side of the join.



(iv) SQL FULL JOIN:

- FULL JOIN creates the result-set by combining results of both LEFT JOIN and RIGHT JOIN.
- The result-set will contain all the rows from both table.
- for the rows for which there is no matching, the result-set will contain NULL values.

CROSS JOIN: (cartesian Products)

In SQL, a cross join (also known as a cartesian product) is a type of join that returns the cartesian product of the two tables being joined. in other words, it returns all possible combinations of rows from the two tables.

SELF JOIN:

- A self join is a type of join in which a table is joined with itself. This means that the table is treated as two separate tables, with each row in the table being compared to every other row in the same table.
- Self joins are used when you want to compare the values of two different rows within the same table. for example, we might use a self join to compare the salaries of two employees who work in the same department, or to find all pairs of customers who have the same billing address.

SQL Set operations:

1. UNION:

The union operator is used to combine the result of two or more SELECT statements into a single result set. The UNION operator removes duplicate rows between the various SELECT statements.

2. UNION ALL:

The UNION ALL operator is similar to the UNION operator, but it does not remove duplicate rows from the result set.

3. INTERSECT:

The INTERSECT operator returns only the rows that appear in both result set of two SELECT statements.

4. EXCEPT:

The EXCEPT or MINUS operator returns only the distinct row that appear in the first result set but not in the second result set of two SELECT statements.