Inner join - returns only the rows when there is a match in both tables

Left Outer join - returns all rows from the left table & matched rows from the right table. If no match found null value are returned for columns from the right table.

Right Outer join - Returns all rows from the right table & matched rows from the left table. If no match, null will return

Full outer join - Returns all rows when there is match in one of the tables. return null for missing.

Self join - reg. join but the table is joined with itself

Cross join - returns the Cartesian product of the two tables

Anomalies - undesirable conditions, lead to data inconsistency, data manipulation.

Insertion anomalies - occur when you cannot insert valid data due to strict constraints

Deletion anom - occur when deleting a row also deletes unrelated data.

update anom - occur when updating a value in one row requires change in another row

Primary - unique key uniquely identified in each record in table. & cannot contain null value.

Foreign key - Connects the data in one table to another table & reference b/w tables

- Data Integrity, Security, Establishing Relationships

1NF - basic level, enables table structure that minimizes redundancy
- Each cell in tbl is single valued attribute

2NF - * all non key attribute (cols) must depend on entire primary key

3NF - no transitive dependencies should exist.
Every non key attribute depend on primary key, & only the primary key.

BCNF - eliminates some anomalies that can arise from non-trivial functional dependencies. in 3NF relation.

FD: exists when one attribute uniquely determines another attribute

distinct - ensure the result set will only include unique rows
It removes dup rows from result.