Types of Constraints in DBMS

Primary Key Constraint

Ensures that each row in a table has a unique identifier. The primary key column cannot contain NULL values.

Foreign Key Constraint

Ensures referential integrity by linking two tables. The foreign key in a child table points to a primary key in a parent table. Ensures that values in the foreign key column match values in the primary key column of the referenced table or are NULL.

Unique Constraint

Ensures that all values in a column or a set of columns are unique across the table. Unlike the primary key, a table can have multiple unique constraints.

Not Null Constraint

Ensures that a column cannot have NULL values. Often used in conjunction with primary keys or other critical columns.

Check Constraint

Ensures that all values in a column satisfy a specific condition. The condition is defined using an expression that returns a Boolean value.

Default Constraint

Assigns a default value to a column if no value is specified during an insert operation. Helps in maintaining data consistency by providing a predefined value.

Domain Constraint

Ensures that the values in a column are from a specific domain. This can include data types, ranges, and specific sets of

values.