⇨ What are keys and its usage?

Keys are the unique tags which help us to organize and connect data in a database. They ensure that each piece of information is stored correctly and can be retrieved efficiently.

Usage of different keys are:

1. Primary Key -> A unique identifier for each row in a table and prevents duplicate records and helps us to find quickly.
2. Foreign Key -> A link between two tables and maintain relationships between tables and ensured data consistency.
3. Candidate Key -> A column or combination of column that could be a primary key but only one is chosen.
4. Unique Key -> Ensure that all values in a column are unique and can contain null value.
5. Composite Key -> A combination of two or more columns used together to create a unique identifier.
6. Super Key -> Any key that can uniquely identify a row.

⇨ types of relationship in sql?

1. One-to-One Relationship -> Each row in table A is linked to only one row in table B and vice versa.
   Use a Primary key in one table and a foreign key in another.

2. One-to-Many Relationship -> One row in table is linked to multiple rows in table B
   Use a foreign key in the child table pointing to the primary key in the parent table.

3. Many-to-Many Relationship -> Multiple rows in table A relate to multiple rows in table B.
   Create the junction table (contain the primary key) with two foreign key which reference to both the tables.

4. Self-Referencing (Recursive) Relationship -> A table relate to itself.
   Use a foreign key referencing the same table.

⇨ primary key, candidate, super, foreign key

1. Primary key -> A unique identifier for each row in a table and prevents duplicate records and helps us to find quickly.
   No duplicate values and cannot be null.
   Example: EmployeeID is the Primary key.

2. Candidate key -> A column or combination of column that could be a primary key but only one is chosen.
   Example: UserID, Email, PhoneNumber are uniquely identify a user.

3. Super key -> Any key that can uniquely identify a row and it may have extra unnecessary columns.
   Example: In the users table userID, Email is a super key.

4. Foreign Key -> A link between two tables and maintain relationships between tables and ensured data consistency.
   Example: CustomerID in Orders