**Indexing in SQL**

It increases the speed of retrieval of data.

Note: - Automatically when the table is created, a clustered index will be created with primary key.

There are 2 types of indexing

1. Clustered Indexing
2. Non Clustered Indexing

**Clustered Indexing: -**

A table can only one clustered index

Clustered index is responsible for how the data will be stored in the table.

By default, when the table is created, a clustered index will be created for primary key in ascending order

If we want to create our own clustered index, then first we have to delete the default index that is create and then we can create our own clustered index.

Clustered index can be created with multiple columns

Ex: - If it is created with name and phone number. The record will be stored in ascending order of name. If the name is same, it will be sorted in ascending order of phone number.

**NON Clustered Indexing: -**

A table can have n number of non-clustered index

The column with specified order will be stored separately with its address

**Tigger**

1. create TRIGGER before\_insert\_contacts BEFORE INSERT ON contacts FOR EACH ROW

SET new.name = upper(new.name);

1. create TRIGGER before\_update\_name BEFORE UPDATE ON contacts FOR EACH ROW

SET new.name = upper(new.name);

1. create TRIGGER before\_delete\_contact BEFORE DELETE ON contacts FOR EACH ROW

INSERT INTO contacts\_log VALUES (old.contact\_id, old.name, old.mobile\_no);

Note: - ‘new’ is for new value, ‘old’ is for previously present value in the db.