**Index in SQL**

An index is a key built from one or more columns in the database that speeds up fetching rows from the table or view

SQL indexes are used to retrieve data from database more quickly. Simply put indexes are pointers to data in a table or View. An index in SQL works just like index behind a book. An index helps to speed up select queries and where clauses

A disadvantage of index is it slows down data input with the update and insert statement

A poorly planned index can be ineffective and increase the time it takes for your query to run

Indexes are created with create index statement which allows you to name the index, to specify the table and which column or columns to index and whether ascending or descending order. Index can be removed with the Drop Index statement and can also be Altered

**Types of indexes**

**Clustered indexes**

Aclustered index is a type of index which sorts the data rows in the table on their key values

In relational database the primary key allows you to create a clustered index based on that specific column

A clustered index is unique for any given table. You can only have one clustered index per table

**Non-clustered indexes**

Non-clustered index stores the data at one location and indices at another location. The index contains pointer to the location of the data. A table or view can have many non-clustered indexes

An example of a non-clustered index is, a book can have more than one index, one at the beginning which displays the contents of a book unit wise while the second index shows the index of terms in alphabetical order. A non-clustered index allows you to add a unique key for a table.