INDEXES

A SQL index is used to retrieve data from a database very fast, a quick lookup table for finding records users need to search frequently.

**Columnstore index:**

Use a clustered columnstore index to store fact tables and large dimension tables for data warehousing workloads

Ex. Fact\_flight

column (discount)

**B-tree index:**

 B-tree is the default index type

B-tree indexes are mostly used on unique or near-unique columns

Used for high cardinality such as: primary keys

**Bitmap index (Oracle):**

Bitmap indexes have traditionally been considered to work well for *low cardinality columns***.**

**Ex. Fact\_Customer\_Care (Rating)**

**Clustered index:**

A Clustered index is a type of index in which table records are physically reordered to match the index.

A table can have only one clustered index.

Primary Keys of the table by default are clustered index.

**Non-clustered index:**

A Non-Clustered index is a special type of index in which logical order of index does not match physical stored order of the rows on disk.

Used in customer dimension for columns (FirstName , LastName)

# **Composite Index:**

A composite index is a statistical tool that groups together many different securities, or indexes in order to create a representation of overall market or sector performance.

**single-column index:**

A single-column index is **an index based on the values in one column of a table.**