As explained in this video, indexing is necessary for querying extremely large data sets with the help of an example of a book and an airline database. You also learnt that indexes are not only required for the unique columns but also for the non-unique columns.

**Note:** A primary key is an index because it helps in identifying each record in a table uniquely. **Note:** You cannot actually see an index, as it is an internal construct used in database engines to speed up queries.

So, as you learnt in this video, you are not supposed to create an index on each and every non-unique attribute present in the 'where' clause. You have to carefully choose the columns which require an index.

Generally, you would not have permission to create such indices on a database. In such cases, you can ask the Database Administrator (DBA) to create the index for you.

**The command for creating an index is as follows:**

* **CREATE** **INDEX** index\_name
* **ON** **table\_name** (column\_1, column\_2, ...);

**The command for adding an index is as follows:**

* **ALTER** **TABLE** **table\_name**
* **ADD** **INDEX** index\_name(column\_1, column\_2, ...);

**The command for dropping an index is as follows:**

* **ALTER** **TABLE** **table\_name**
* **DROP** **INDEX** index\_name;

Reading

<https://dev.mysql.com/doc/refman/8.0/en/mysql-indexes.html>

Clustered vs Non-Clustered Indexing:

In this video, you learnt that there are two types of indices: clustered and non-clustered. The major differences between these are summarised in the table given below.

| **Clustered Index** | **Non-Clustered Index** |
| --- | --- |
| 1. This is mostly the primary key of the table. | 1. This is a combination of one or more columns of the table. |
| 2. It is present within the table. | 2. The unique list of keys is present outside the table. |
| 3. It does not require a separate mapping. | 3. The external table points to different sections of the main table. |
| 4. It is relatively faster. | 4. It is relatively slower. |