SQL - INDEX CONSTRAINT

The INDEX is used to create and retrieve data from the database very quickly. Index can be created by using single or group of columns in a table. When index is created, it is assigned a ROWID for each row before it sorts out the data.

Proper indexes are good for performance in large databases, but you need to be careful while creating index. Selection of fields depends on what you are using in your SQL queries.

Example:

For example, the following SQL creates a new table called CUSTOMERS and adds five columns:

```
CREATE TABLE CUSTOMERS(
       ID   INT             NOT NULL,
       NAME VARCHAR (20)    NOT NULL,
       AGE  INT             NOT NULL,
       ADDRESS  CHAR (25) ,
       SALARY   DECIMAL (18, 2),
       PRIMARY KEY (ID)
);
```

Now, you can create index on single or multiple columns using the following syntax:

```
CREATE INDEX index_name
    ON table_name ( column1, column2.....);
```

To create an INDEX on AGE column, to optimize the search on customers for a particular age, following is the SQL syntax:

```
CREATE INDEX idx_age
    ON CUSTOMERS ( AGE );
```

DROP an INDEX Constraint:

To drop an INDEX constraint, use the following SQL:

```
ALTER TABLE CUSTOMERS
    DROP INDEX idx_age;
```