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Lab Task 10

Exercises

Consider the database themepark that we have used throughout the labs.

E 8.1 Create a single-column index using attribute park_name in the themepark table.

```
CREATE INDEX idx_park_name ON THEMEPARK(PARK_NAME);
```

```
(base) tazmeen@afroz:~$ sudo /opt/lampp/bin/mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 9
Server version: 10.4.28-MariaDB-log Source distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> USE THEME_PARK;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [THEME_PARK]> CREATE INDEX idx_park_name ON THEMEPARK(PARK_NAME);
Query OK, 0 rows affected (0.058 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

E 8.2 Create a composite-column index using attributes park_city and park_country.

```
CREATE INDEX idx_park_city_country ON THEMEPARK (PARK_CITY, PARK_COUNTRY);
```

```
MariaDB [THEME_PARK]> CREATE INDEX idx_park_city_country ON THEMEPARK (PARK_CITY, PARK_COUNTRY);
Query OK, 0 rows affected (0.045 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

E 8.3 Display the list of indexes for table themepark.

```
SHOW INDEX FROM THEMEPARK;
```

```

MariaDB [THEME_PARK]> SHOW INDEX FROM THEMEPARK;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | In |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| THEMEPARK | 0 | PRIMARY | 1 | PARK_CODE | A | 9 | NULL | NULL | | BT |
| THEMEPARK | 1 | idx_park_name | 1 | PARK_NAME | A | 9 | NULL | NULL | | BT |
| THEMEPARK | 1 | idx_park_city_country | 1 | PARK_CITY | A | 9 | NULL | NULL | | BT |
| THEMEPARK | 1 | idx_park_city_country | 2 | PARK_COUNTRY | A | 9 | NULL | NULL | | BT |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.003 sec)

```

E 8.4 What is implicit index and unique index? [Define it in 3-4 lines]

Unique Index:

A special type of database index that enforces **data integrity** by ensuring **no duplicate values** exist in the indexed column(s). This not only prevents invalid data but can also **improve query performance** for searches involving those columns.

Implicit Index:

An index created **automatically** by the database system when you define a **primary key constraint** or a **unique constraint** on a table column. Its primary function is to **guarantee uniqueness**, but it can also serve as a performance boost for related queries.

E 8.5

Your task is:

Create a database named **nutec** having table named registrations.

```

4 rows in set (0.003 sec)

MariaDB [THEME_PARK]> CREATE DATABASE nutec;
Query OK, 1 row affected (0.001 sec)

MariaDB [THEME_PARK]> USE nutec;
Database changed
MariaDB [nutec]> CREATE TABLE registrations (
  -> id INT AUTO_INCREMENT,
  -> roll_no VARCHAR(20),
  -> name VARCHAR(50),
  -> email VARCHAR(100),
  -> department VARCHAR(50),
  -> event VARCHAR(50),
  -> PRIMARY KEY (id)
  -> );
Query OK, 0 rows affected (0.047 sec)

MariaDB [nutec]> CREATE INDEX idx_roll_no ON registrations(roll_no);
Query OK, 0 rows affected (0.043 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [nutec]> CREATE INDEX idx_event ON registrations(event);
Query OK, 0 rows affected (0.037 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [nutec]> CREATE INDEX idx_department ON registrations(department);
Query OK, 0 rows affected (0.037 sec)
Records: 0 Duplicates: 0 Warnings: 0

```

Make two pages using php and html

1. Registration event page


This page allow the user to fill the form and on clicking on submit button the record will get inserted into the table registrations you have already defined in database nutec.

The screenshot shows a web browser window with the address bar displaying 'localhost/form/registration_form.html'. The page title is 'Nutec'24 Event Registration for FASTIANS'. The form contains the following elements:

- Roll No:** A text input field.
- Name:** A text input field.
- Email:** A text input field.
- Department:** A dropdown menu with 'Computer Science' selected.
- Choose Event:** A dropdown menu with 'Speed Programming' selected.
- Submit:** A blue button at the bottom of the form.


2. Registration record page

Select the searching option (roll no, event name, department), then make a field to enter data accordingly to search and show the results accordingly.



Nutec'24 Event Registration Search

Search by:

Roll No 

Enter data:

Search