Rupesh Dharme
Roll No. 31124

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Assignement - 8

Title :- Database Connectivity

Problem statement :-

Write a program to implement MySQL / oracle database connectivity with any fronted language to implement database navigations operations (add, delete, edit, etc)

Objective :-

- To insert a record in MySQL database using Java / PhP / python
- To update a record in MySQL database using Java / php / python
- To delete a record in MySQL database using Java / php / python

S/W and H/W requirement :-

MySQL / oracle, Windows - 10, 64 bit
8 GB RAM, 512GB SSD.

Theory :-

The following are the steps to connect python application to MySQL database

1. Import MySQL connector module
2. Create the connection object
3. Create the cursor object
4. Execute the query.

Creating connection :-

Connect ( ) Method of mysql Connector module is used.

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Pass the database details like Hostname, username, password and the database to be used the method returns a Connection object.

Creating cursor object :-

The cursor objection can be defined as an abstraction specified in python db-api 2.0.

It facilitates us to have multiple separate working environments through the same connection to the database. we can create the cursor object by calling the cursor() function of connection object. The cursor object is an important aspect of executing queries to the database.

Executing sql commands of CRUD operations :-

To perform sql commands on a database from python application simply pass the query to execute() function of cursor object

* Note :- Close the database connection to disconnect from database by calling close() function of connection object.

Conclusion :-

Successfully implemented database Connectivity using python and performed CRUD operations on the Mysql database.

Select MySQL 8.0 Command Line Client - Unicode

```
mysql> use assignment08;
Database changed
mysql> create table Student(
    -> Name Varchar(20),
    -> Roll_No int,
    -> Primary key(Roll_No)
    -> );
Query OK, 0 rows affected (0.07 sec)

mysql> desc Student;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| Name    | varchar(20) | YES  |     | NULL    |       |
| Roll_No | int         | NO   | PRI | NULL    |       |
+---------+-------------+------+-----+---------+-------+
2 rows in set (0.03 sec)

mysql> insert into Student values
    ->     ('Rupesh', 31124),
    ->     ('Omkar', 31126),
    ->     ('Gayatri', 31127);
Query OK, 3 rows affected (0.02 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> select * from Student;
+---------+---------+
| Name    | Roll_No |
+---------+---------+
| Rupesh  |   31124 |
| Omkar   |   31126 |
| Gayatri |   31127 |
+---------+---------+
3 rows in set (0.01 sec)
```

Python

```
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\DBS Lab\Assignment 08> python 31124_Rupesh_Dharme_DB
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
Omkar   31126
Gayatri 31127
read!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
1
Enter Roll no: 31129
Enter name: Dheeraj
inserted!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
```

Python

```
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
Omkar   31126
Gayatri 31127
Dheeraj 31129
read!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
3
Enter Roll no: 31129
Enter name: Nikhil
updated!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
```

Python

```
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
Omkar   31126
Gayatri 31127
Nikhil  31129
read!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
4
Enter Roll no: 31129
deleted!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
Omkar   31126
```

Python

```
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
4
Enter Roll no: 31129
deleted!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
2
Roll_No Name
Rupesh  31124
Omkar   31126
Gayatri 31127
read!
What to perform?
1. Create (Insert)
2. Read   (Select)
3. Update (Update)
4. Delete (Delete)
5. Exit
5
PS C:\Users\HP\Rupesh\PICT\TE SEM 1\DBS Lab\Assignment 08>
```