Python Database Programming Exercise

This Database exercise Project will help Python developers to learn database programming skills quickly. In this exercise, we will perform database CRUD operations using Python.

Note:

This exercise covers the following three popular database servers. You can choose the database server you are familiar with to solve this exercise.

- MySQL
- PostgreSQL
- SQLite

You can use any driver (DB module) as per your wish, for example, there are more than 5 libraries are available to communicate with MySQL. In this exercise, I am using the following libraries.

- MySQL: mysql connector python
- PostgreSQL: psycopg2
- SQLite: sqlite3

This Python database programming exercise includes: –

Now it has 5 exercise questions, which simulate the real–time queries, and each question contains a specific skill you need to learn. When you complete the exercise, you get more familiar with database operations in Python.
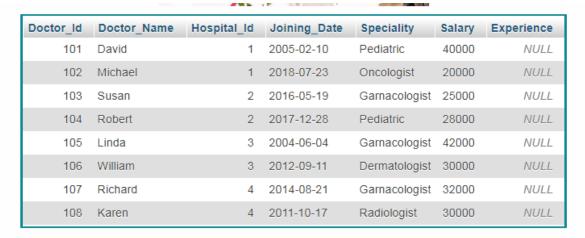
Exercise/mini Project: Hospital Information System

In this exercise, We are implementing the Hospital Information System. In this exercise, I have created two tables, **Hospital** and **Doctor**. You need to create those two tables on your database server before starting the exercise.

These tables should look like this.

Hospital_Id	Hospital_Name	Bed Count
1	Mayo Clinic	200
2	Cleveland Clinic	400
3	Johns Hopkins	1000
4	UCLA Medical Center	1500

hospital table

Doctor_Id	Doctor_Name	Hospital_Id	Joining_Date	Speciality	Salary	Experience
101	David	1	2005-02-10	Pediatric	40000	*NULL*
102	Michael	1	2018-07-23	Oncologist	20000	*NULL*
103	Susan	2	2016-05-19	Garnacologist	25000	*NULL*
104	Robert	2	2017-12-28	Pediatric	28000	*NULL*
105	Linda	3	2004-06-04	Garnacologist	42000	*NULL*
106	William	3	2012-09-11	Dermatologist	30000	*NULL*
107	Richard	4	2014-08-21	Garnacologist	32000	*NULL*
108	Karen	4	2011-10-17	Radiologist	30000	*NULL*

Doctor table

Exercise 1: Connect to your database server and print its version

Exercise 2: Fetch Hospital and Doctor Information using hospital Id and doctor Id

Exercise 3: Get the list Of doctors as per the given specialty and salary

Exercise 4: Get a list of doctors from a given hospital

Exercise 5: Update doctor experience in years