

Lab 8 Exercise

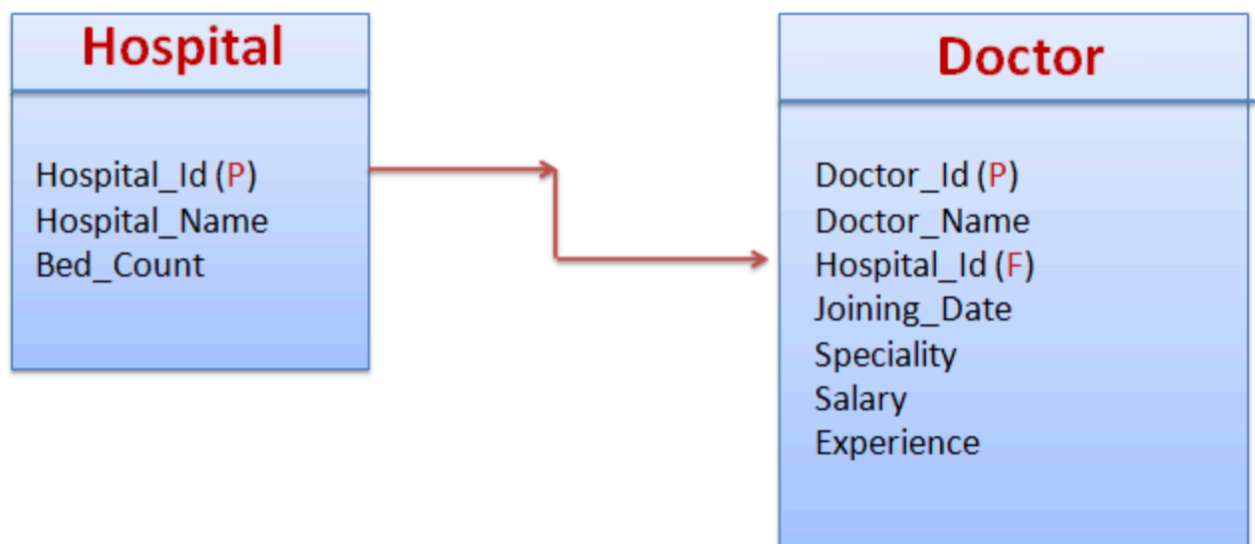
Watch the demo video on how to connect python file with database and answer the following questions:

Python Database Programming Exercise: Hospital Information System

In this exercise, We are implementing the Hospital Information System. We are using two SQL tables Hospital and Doctor. The SQL query to prepare the required tables is below.

Note:

- Use MySQL database
- Also, you can use DB module driver (example MySQL Connector)
- You can add more functions, as needed.
- **Remember to do all this using python file.**
- **Your submission should be in pdf file with all the “source code typed” and output screenshot along with source code. (use sublime text to build python)**
- **File name should be just your enrolment no.**



Please execute the following questions so we can start our exercise.

- Create Database
- Hospital Table
- Doctor Table

The tables should look like this. Which means you need to add data into it.
 Question 1: Connect to the database and print its version
 Implement the functionality to connect to the database and print its version.

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

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

Solution for question 1

```
import mysql.connector
from mysql.connector import Error
from mysql.connector import errorcode

def getDbConnection():
    #Get Database connection
    try:
        connection = mysql.connector.connect(host='localhost',
                                             database='python_db',
                                             user='root',
                                             passwd='')

        return connection
    except mysql.connector.Error as error :
        print("Failed to connect to database {}".format(error))
```

```

def closeDbConnection(connection):
    #Close Database connection
    try:
        connection.close()
    except mysql.connector.Error as error :
        print("Failed to close database connection {}".format(error))

def readDbVersion():
    try:
        connection = getDbConnection()
        db_Info = connection.get_server_info()
        print("Connected to MySQL database... MySQL Server version is ", db_Info)
        cursor = connection.cursor()
        cursor.execute("select database();")
        record = cursor.fetchone()
        print("Your connected to - ", record)

        closeDbConnection(connection)

    except mysql.connector.Error as error :
        print("Failed to read database version {}".format(error))

print("Start of a Python Database Programming Exercise\n")

readDbVersion()

print("End of a Python Database Programming Exercise\n\n")

```

Question 2: Read given Hospital and Doctor Information

Implement the functionality to read the details of a given doctor from doctor table and Hospital from hospital table. i.e., read records from Hospital and Doctor Table as per given hospital Id and Doctor Id and display hospital and doctor information.

```

def readHospitalDetails(hospital_Id):
    #Read data from Hospital table

def readDoctorDetails(doctor_Id):
    # Read data from Doctor table

print("Start of a Python Database Programming Exercise\n\n")

readHospitalDetails(2)
readDoctorDetails(105)

```

```
print("End of a Python Database Programming Exercise\n\n")
```

Questions 3: Get List Of Doctors as per Speciality

Implement the functionality to create a list of doctors as per given Speciality and salary greater than as per the input amount.

```
def getSpecialistDoctorsList(Speciality, Salary):  
    #Fetch doctor's details as per Speciality and Salary  
  
print("Start of a Python Database Programming Exercise\n\n")  
  
getSpecialistDoctorsList("Garnacologist", 30000)  
  
print("End of a Python Database Programming Exercise\n\n")
```