

**GANPAT UNIVERSITY**  
**U. V. PATEL COLLEGE OF ENGINEERING**  
**B.Tech CE/IT Semester IV**  
**2CEIT404: Python Programming**

**Practical-9: Python Database Connectivity**

1. Write a python code to establish connection with MySQL and create database demo\_data. Also display list of all the available database.

INPUT:

```
# Question1
import pymysql
print(21012011074)
con=pymysql.connect(host='localhost',user='root',passwd='12345')
query=("create database guru;")
q=("show databases;")
try:
    cursor=con.cursor()
    cursor.execute(query)
    con.commit()
    print("Database is created Successfully")
    cursor.execute(q)
    result=cursor.fetchall()
    for i in result:
        print(i)
except pymysql.DatabaseError as e:
    print("Problem is:",e)
```

OUTPUT:

```
Database is created Successfully
('guru',)
('information_schema',)
('mysql',)
('performance_schema',)
('sys',)
```

2. Write a python code to create below specified two tables 'hospital\_details' and 'doctor\_details' and insert values as mentioned below.

hospital_details		
Hospital_Id	Hospital_Name	Bed_count
1	Janta	200
2	Zydus	500
3	Sal	1000
4	Stirling	1500

doctor_details					
Doctor_Id	Doctor_Name	Hospital_Id	Speciality	Salary	Experienve
101	Karan	1	Pediatric	40000	0
102	Naresh	1	Onchologist	80000	5
103	Hardik	2	Surgen	60000	2
104	Vishal	2	Homeopathy	50000	1
105	Jay	3	Aayurvedic	40000	0
106	Deep	3	Physeotherapist	70000	4
107	Divyesh	4	Pediatric	55000	3
108	Arjun	4	Scin	55000	3

INPUT:

```
# Question2
print(21012011074)
import pymysql
con = pymysql.connect(host='localhost',user='root',password='12345',database='guru')
query=("CREATE TABLE hospital_details(Hospital_Id int,Hospital_Name varchar(30),Bed_Count int);")
query1=("create table doctor_details(Doctor_Id int,Doctor_Name varchar(30),Hospital_Id int,specialist varchar(30),salary int,Experience int);")
try:
    cursor=con.cursor()
    cursor.execute(query)
    print("Created hospital_details table")
    cursor.execute(query1)
    print("Created doctor_details table")
    con.commit()
except pymysql.DatabaseError as e:
    print(e)

# Question2 ->Data Insertion
print(21012011074)
import pymysql
con=pymysql.connect(host='localhost',user='root',passwd='12345',database='guru')
query=("insert into hospital_details
values(1,'Janta',100),(2,'Epic',101),(3,'Zydus',1050),(4,'Satyam',150);")
query1=("insert into doctor_details
values(101,'Karan',1,'Pediatric',40000,0),(102,'Naresh',1,'Onchologist',80000,5)
```

```
,(103,'Hardik',2,'Surgen',60000,2),(104,'Vishal',2,'Homeopathy',50000,1),(105,'Jay',3,'Aayurvedic',40000,0),(106,'Deep',3,'Physiotherapist',70000,4),(107,'Divyesh',4,'Pediatric',55000,3),(108,'Arjun',4,'Scin',55000,3);")
try:
    cursor=con.cursor()
    cursor.execute(query)
    print("Data Inserted Successfully")
    cursor.execute(query1)
    print("Data Inserted Successfully")
    con.commit()
except pymysql.DatabaseError as e:
    print(e)
```

OUTPUT:

21012011074

Created hospital\_details table

Created doctor\_details table

21012011074

Data Inserted Successfully

Data Inserted Successfully

Result Grid						
Filter Rows:						
Export: Wrap Cell Content:						
	Doctor_Id	Doctor_Name	Hospital_Id	specialist	salary	Experience
▶	101	Karan	1	Pediatric	40000	0
	102	Naresh	1	Onchologist	80000	5
	103	Hardik	2	Surgen	60000	2
	104	Vishal	2	Homeopathy	50000	1
	105	Jay	3	Aayurvedic	40000	0
	106	Deep	3	Physiotherapist	70000	4
	107	Divyesh	4	Pediatric	55000	3
	108	Arjun	4	Scin	55000	3

Result Grid			
Filter Rows:			
	Hospital_Id	Hospital_Name	Bed_Count
▶	1	Janta	200
	2	Zydus	500
	3	Sal	1000
	4	Stirling	1500

3. Write a python code to retrieve all the details of doctors.

INPUT:

```
import pymysql

con=pymysql.connect(host='localhost',user='root',passwd='12345',database='guru')

query=("select * from doctor_details")

try:

    cursor=con.cursor()

    cursor.execute(query)

    # print("Data Fetched successfully")

    result=cursor.fetchall()

    for i in result:

        print(i)

except pymysql.DatabaseError as e:

    print("Problem is:",e)
```

OUTPUT:

```
(101, 'Karan', 1, 'Pediatric', 40000, 0)
(102, 'Naresh', 1, 'Onchologist', 80000, 5)
(103, 'Hardik', 2, 'Surgen', 60000, 2)
(104, 'Vishal', 2, 'Homeopathy', 50000, 1)
(105, 'J ay', 3, 'Aayurvedic', 40000, 0)
(106, 'Deep', 3, 'Physeotherapist', 70000, 4)
(107, 'Divye sh', 4, 'Pediatric', 55000, 3)
(108, 'Arjun', 4, 'Scin', 55000, 3)
```

4. Write a python code to retrieve all the doctors who are in Janta hospital.

INPUT:

```
import pymysql

con=pymysql.connect(host='localhost',user='root',passwd='12345',database='guru')

query=("select d.* from doctor_details d, hospital_details h where
        h.Hospital_id=d.Hospital_id and h.Hospital_name='Janta';")

try:

    cursor=con.cursor()

    cursor.execute(query)

    result=cursor.fetchall()

    for i in result:

        print(i)

except pymysql.DatabaseError as e:

    print("Problem is:",e)
```

OUTPUT:

```
(101, 'Karan', 1, 'Pediatric', 40000, 0)
(102, 'Naresh', 1, 'Onchologist', 80000, 5)
```

5. Write a python code to update experience of doctors.

INPUT:

```
import pymysql
con=pymysql.connect(host='localhost',user='root',passwd='12345',database='guru')
query=("update doctor_details set Experience='6' where Doctor_Id='101';")
try:
    cursor=con.cursor()
    cursor.execute(query)
    con.commit()
    print("Updated Successfully")
except pymysql.DatabaseError as e:
    print("Problem is:",e)
```

OUTPUT:

Updated Successfully

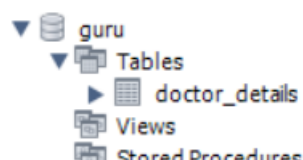
Doctor_Id	Doctor_Name	Hospital_Id	specialist	salary	Experience
101	Karan	1	Pediatric	40000	6
102	Naresh	1	Onchologist	80000	5
103	Hardik	2	Surgen	60000	2
104	Vishal	2	Homeopathy	50000	1
105	J ay	3	Aayurvedic	40000	0
106	Deep	3	Physeotherapist	70000	4
107	Divye sh	4	Pediatric	55000	3
108	Arjun	4	Scin	55000	3

6. Write a python code to drop table 'hospital\_details'.

INPUT:

```
import pymysql
con=pymysql.connect(host='localhost',user='root',passwd='12345',database='guru')
query=("drop table hospital_details;")
try:
    cursor=con.cursor()
    cursor.execute(query)
    con.commit()
    print("Table is Dropped")
except pymysql.DatabaseError as e:
    print("Problem is:",e)
```

OUTPUT:



7. Write a python code to create in memory database and table using sqlite database engine.

INPUT:

```
# Question7
print(21012011074)
import sqlite3
con=sqlite3.connect("memory.db")
create_table="create table memory(user_name varchar(150) not null);"
insert_record="insert into memory values('Keval Vasoya'),('Jainam Modi'),('Jaydip
Patel');"
result="select * from memory;"
try:
    cursor=con.cursor()
    cursor.execute(create_table)
    print("memory Tabel is Created")
    cursor.execute(insert_record)
    print("Record Inserted")
    con.commit()
    cursor.execute(result)
    ans=cursor.fetchall()
    for i in ans:
        print(i)
except Exception as ex:
    print(ex)
```

OUTPUT:

```
21012011074
memory Tabel is Created
Record Inserted
('Keval Vasoya',)
('Jainam Modi',)
('Jaydip Patel',)
```

8. Establish connection with sqlite database engine and create above tables into database demo. Show demonstration of execute script to execute multiple queries at a time.

INPUT:

```
# Question8
print(21012011074)
import sqlite3
con=sqlite3.connect("demo_data")
f=open("C:/Users/gurup/OneDrive/Desktop/python/P9_8.txt",'r')
query=f.read()
try:
    cursor=con.cursor()
    cursor.executescript(query)
```

```
con.commit()
print("hospital_details tabel is Created in Database demo")
print("doctor_details tabel is Created in Database demo")
print("hospital_details Record Inserted")
print("doctor_details Record Inserted")
except Exception as ex:
    print(ex)
```

P9\_8 FILE:

```
create table hospital_details (Hospital_Id int NOT NULL primary
key, Hospital_Name varchar(100) not null, Bed_Count
bigint(20));
create table doctor_details (Doctor_Id int not null primary
key, Doctor_Name varchar(100), Hospital_Id int, Specialite
varchar(100), Salary float, Experience int);
insert into hospital_details
values(1,'Janta',200),(2,'Zydus',500),(3,'Sal',1000),(4,'Stirli
ng',1500);
insert into doctor_details
values(101,'Karan',1,'Pediatric',40000,0),
(102,'Naresh',1,'Onchologist',80000,5),
(103,'Hardik',2,'Surgen',60000,2),
(104,'Vishal',2,'Homeopathy',50000,1),
(105,'Jay',3,'Aayurvedic',40000,0),
(106,'Deep',3,'Physeotherapist',70000,4),
(107,'Divyesh',4,'Pediatric',55000,3),
(108,'Arjun',4,'Scin',55000,3);
```

OUTPUT:

```
21012011074
hospital_details tabel is Created in Database demo
doctor_details tabel is Created in Database demo
hospital_details Record Inserted
doctor_details Record Inserted
```