1. **Design a database application using Python GUI that receives the following information from an Employee (EMPNO , EMPName , DeptName ,DateofBirth) The application should also display the information of all Employees once the user clicks on submit.**

Program:

```
# insert data
import mysql.connector
db = mysql.connector.connect(
  host="127.0.0.1",
  user="root",
  password="password",
  database="employee"
)
cursor = db.cursor()
sql = """INSERT INTO Employees (EMPNO, EMPName, DeptName, DateofBirth)
VALUES (%s, %s, %s, %s)", (empno, empname, deptname, dob))"""
try:
  cursor.execute(sql)
  print("Data inserted successfully.")
  db.commit()
except:
  db.rollback()

# select data
import mysql.connector
db = mysql.connector.connect(
  host="127.0.0.1",
  user="root",
  password="password",
  database="employee"
)
cursor = db.cursor()
try:
        sql = """SELECT * FROM employees"""""
        cursor.execute(sql)
        row = cursor.fetchone()
        while row is not None:
          print(row)
          row = cursor.fetchone()
except: db.rollback()
db.close()
```

2. **Design a database application using Python GUI to search the specified record of an employee using Emp_ID from the database and display the same. Employee table(Emp_id, emp_name, emp_age, dept_name).**

Program:

```
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="employee"
        )

mycursor = mydb.cursor()

try:
        mycursor.execute("select * from Employee where Emp_ID > '22'")
        result = mycursor.fetchall()

        for x in result:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

3. **Design a database application using Python GUI that allows the user to add, delete and modify the Patient records Patient table (Patient_id , Patient_Name , age ,address)**

Program:

```
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="pateint"
        )
mycursor = mydb.cursor()
#insert
sql="insert into Patient(Pateint_id, Pateint_Name, age, address) values(%s,%s,%s,%s)"
val=[
        ('37','Farhan','31','Jogeshwari'),
        ('31', 'Nikita','18','Malad')]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted")
except:
        mydb.rollback()
#delete
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="pateint"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("delete from Pateint where age < 22")
        mydb.commit()
        print(mycursor.rowcount, "Records deleted")
except:
        mydb.rollback()
#modify
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="pateint")
mycursor = mydb.cursor()
try:
        mycursor.execute("update Pateint set Pateint_id='38' where Pateint_id='37'")
        mydb.commit()
        print(mycursor.rowcount, "records changed")
except:
        mydb.rollback()
mydb.close()
```

4. **Design a database application using Python GUI to modify a specified record of a Customer using Cust_id from the database and display the modified record. Customer Table(Cust_id, Cust_name , address, account Type)**

Program:

```
#modify
import MySQLdb
db = MySQLdb.connect.connect(
  host=" 127.0.0.1",
  username="user",
  password="123456",
  database="customers"
)
cursor = db.cursor()
sql = """UPDATE Customer SET Cust_id = 37 WHERE Cust_id = 31;"""
try:
  cursor.execute(sql)
  db.commit()
except:
  db.rollback()
db.close()

#display
import MySQLdb
db = MySQLdb.connect.connect(
  host=" 127.0.0.1",
  username="user",
  password="123456",
  database="customers"
)
cursor = db.cursor()

try:
        sql = """SELECT * FROM Customer"""
        cursor.execute(sql)
        row = cursor.fetchone()
        while row is not None:
          print(row)
          row = cursor.fetchone()
except:
        db.rollback()
db.close()
```

5. **Design a database application using Python GUI that allows the user to add, delete and modify the Bank Customer records. Customer Table (Custid,Custname,Age,Address)**

Program:

```
#add
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="bank"
        )
mycursor = mydb.cursor()

sql="insert into Customer(Custid, Custname, Age, Address) values(%s,%s,%s,%s)"
val=[
        ('31','Nikita','19','Malad'),
        ('37', 'Farhan','20','Jogeshwari')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted")
except:
        mydb.rollback()
#delete
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="bank"
        )
mycursor = mydb.cursor()

try:
        mycursor.execute("delete from Customer where age < 20")
        mydb.commit()
        print(mycursor.rowcount, "Records deleted")
except:
        mydb.rollback()
#modify
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="bank"
        )
mycursor = mydb.cursor()

try:
        mycursor.execute("update Customer set Custid='34' where Custid='37'")
        mydb.commit()
        print(mycursor.rowcount, "records changed")
except:
        mydb.rollback()
mydb.close()
```

6. **Design a simple database application using Python GUI that stores the details of a bank Customer (Cust_id, Cust_name , address, account Type) and retrieve the same.**

Program:

```
#store
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="bank"
        )
mycursor = mydb.cursor()

try:
        sql="""insert into Customer(Cust_id, Cust_name, address, account_type) values(%s,
        %s,%s, %s)"""
        val=[
                ('1', 'Bilal', 'Jogeshwari', 'Savings'),
                ('2', 'Bhima', 'Vile Parle', 'Current'),
                ('3', 'Farhan', 'Jogeshwari', 'Savings'),
                ('4', 'Nikita', 'Malad', 'Savings')
        ]
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted.")
except:
        mydb.rollback()
#display
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="bank")
mycursor = mydb.cursor()

try:
        mycursor.execute("select * from Customer")
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

7. **Design a database application using Python GUI that allows the user to add, delete and modify the employee records. Employee Table (Empid,Ename,Age,Address).**

Program:

```
#add
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="employee")
mycursor = mydb.cursor()

sql="insert into Employee(empid, Ename, Age, Address) values(%s,%s,%s,%s)"
val=[
        ('31','Nikita','19','Malad'),
        ('37', 'Farhan','20','Jogeshwari')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted")
except:
        mydb.rollback()
#delete
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="employee")
mycursor = mydb.cursor()
try:
        mycursor.execute("delete from Employee where age < 20")
        mydb.commit()
        print(mycursor.rowcount, "Records deleted")
except:
        mydb.rollback()
#modify
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="employee")
mycursor = mydb.cursor()
try:
        mycursor.execute("update Employee set empid='34' where empid='37'")
        mydb.commit()
        print(mycursor.rowcount, "records changed")
except:
        mydb.rollback()
mydb.close()
```

8. **Design a database application using Python GUI to modify a specified record of a Student using Stud_ID from the database and display the modified record. Student table(Stud_id, Stud_name, Stud_address, Course_name).**

Program:

```
#modify
import MySQLdb
db = MySQLdb.connect(
  host=" 127.0.0.1",
  username="user",
  password="123456",
  database="students"
)
cursor = db.cursor()
sql = """UPDATE Student SET Stud_ID = 37 WHERE Stud_ID = 31;"""
try:
  cursor.execute(sql)
  db.commit()
except:
  db.rollback()
db.close()
#display
import mysql.connector
db = mysql.connector.connect(
  user="root",
  password="password",
  host=" 127.0.0.1",
  database="students"
)
cursor = db.cursor()
sql = """SELECT * FROM Students"""
try:
        cursor.execute(sql)
        row = cursor.fetchone()
        while row is not None:
          print(row)
          row = cursor.fetchone()
except:
        db.rollback()
db.close()
```

9. **Design a database application using Python GUI to search the specified record of a Product using Pro_ID from the database and display the same. Product table (Pro_id, Pro_name, Quantity).**

Program:

```
#search
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="products"
        )

mycursor = mydb.cursor()

try:
        mycursor.execute("select * from Product where Pro_ID > '22'")
        result = mycursor.fetchall()

        for x in result:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

10. **Design a database application using Python GUI that allows the user to add, delete and modify the user login records. Login table(User_name, User_id, User_Password)**

Program:

```
#add
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="login"
        )
mycursor = mydb.cursor()

sql="insert into Login(User_name, User_id, User_Password) values(%s,%s,%s)"
val=[
        ('Nikita Pawar','Nikita31','secretpassword'),
        ('Varsha Pawar', 'varsha37','passwordissecret')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted")
except:
        mydb.rollback()
#delete
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="login"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("delete from Login where User_Password == secretpassword")
        mydb.commit()
        print(mycursor.rowcount, "Records deleted")
except:
        mydb.rollback()
mydb.close()
#modify
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="login"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("update Login set User_Password='secretpassword' where User_Password='passwordissecret'")
        mydb.commit()
        print(mycursor.rowcount, "records changed")
except:
        mydb.rollback()
mydb.close()
```

11. **Design a simple database application using Python GUI that stores the login details of user (User_name,User_id,User_Password) and display the message “Record Inserted Successfully” after record insertion.**

Program:

```
#store
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="login"
        )
mycursor = mydb.cursor()
try:
        sql="insert into user(user_name, User_id, User_Password) values(%s, %s, %s)"
        val=[
                ('Bilal', '123', 'supersecret'),
                ('Bhima', '124', 'secretpassword'),
                ('Farhan', '125', 'idontknow'),
                ('Nikita', '126', 'donttellanyone')
        ]
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted.")
except:
        mydb.rollback()
mydb.close()
#display
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="login"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute(“select * from user”)
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

12. Design a simple database application using Python GUI that stores the records of a Patient and retrieve the same. Patient table (Patient_id , Patient_Name , age ,address)

Program:

```
#store
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="pateints"
        )
mycursor = mydb.cursor()

try:
        sql="insert into Patient(Pateint_id, Pateint_Name, age, address) values(%s, %s, %s,
        %s)"
        val=[
                ('1','Bilal', '20', 'Jogeshwari'),
                ('2','Bhima', '24', 'Vileparle'),
                ('3','Farhan', '19', 'Jogeshwari'),
                ('4','Nikita', '18', 'Malad')
        ]
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted.")
except:
        mydb.rollback()
mydb.close()
#retrieve
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="pateints")
mycursor = mydb.cursor()
try:
        mycursor.execute("select * from Patient")
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

13. **Design a database application using Python GUI to search the specified record of a Student using Stud_ID from the database and display the same. Student table(Stud_id, Stud_name, Stud_address, Course_name).**

Program:

```
#search
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="students"
        )
mycursor = mydb.cursor()

try:
        mycursor.execute("select * from Student where Stud_ID > '16'")
        result = mycursor.fetchall()
        for x in result:
                print(x)
except:
        mydb.rollback()
mydb.close()
#display
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="students"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("select * from Student")
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

14. **Design a simple database application using Python GUI that stores the details of a Product (Pro_id, Pro_name, Quantity) and retrieve the same.**

Program:

```
#store
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="products"
        )
mycursor = mydb.cursor()

sql="insert into Patient(Pro_id, Pro_Name, Quantity) values(%s, %s, %s)"
val=[
        ('1','Pen', '20'),
        ('2','Eraser', '24'),
        ('3','Sharpner', '19'),
        ('4','Paper', '18')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted.")
except:
        mydb.rollback()
mydb.close()
#display
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="products"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("select * from Product")
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)
except:
        mydb.rollback()
mydb.close()
```

15. **Design a simple database application using Python GUI that deletes the login details of a user based on userid and display the message “Record Deleted Successfully” after record deletion. Login table(User_name, User_id, User_Password)**

Program:

```
#deletes
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="login"
        )

mycursor = mydb.cursor()
try:
        mycursor.execute("delete from students where userid == 123")
        mydb.commit()
        print(mycursor.rowcount, "Records Deleted Successfully")
except:
        mydb.rollback()
mydb.close()
```

16. **Design a simple database application using Python GUI that modifies the login details of user for example (username based on userid) and display the message “Record Modified Successfully” after record modification. Login table(User_name, User_id, User_Password)**

Program:

```
#modify
import MySQLdb
db = MySQLdb.connect.connect(
  host=" 127.0.0.1",
  username="user",
  password="123456",
  database="login"
)
cursor = db.cursor()
sql = """UPDATE user SET user_name = bilal WHERE user_id = "bilal02";"""
try:
  cursor.execute(sql)
  print(“Record Modifed Successfully”)
  db.commit()
except:
  db.rollback()
db.close()
```

17. **Design a simple database application using Python GUI that stores the records of an employee (emp_id, emp_name, emp_age, dept_name) and retrieve the same.**

Program:

```
#store
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="employee"
        )
mycursor = mydb.cursor()

sql="insert into employee(emp_id, emp_name, emp_age, dept_name) values(%s, %s, %s, %s)"
val=[
        ('1','Bilal', '20', 'Sales Executive'),
        ('2','Bhima', '24', 'Sales Manager'),
        ('3','Farhan', '19', 'HR'),
        ('4','Nikita', '18', 'Sales Executive')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted.")
except:
        mydb.rollback()
mydb.close()
#display
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="employee"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("select * from employee")
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)

except:
        mydb.rollback()
mydb.close()
```

18. **Design a database application using Python GUI to modify the specified record of a Product using Pro_ID from the database and display the modified record. Product table (Pro_id, Pro_name, Quantity)**

Program:

```
#modify
import MySQLdb
db = MySQLdb.connect.connect(
  host=" 127.0.0.1",
  username="user",
  password="123456",
  database="products"
)
cursor = db.cursor()
sql = """UPDATE Product SET Pro_ID = 12 WHERE Pro_ID = 10;"""
try:
  cursor.execute(sql)
  db.commit()
except:
  db.rollback()
db.close()

#display
import mysql.connector
db = mysql.connector.connect(
  user="root",
  password="password",
  host=" 127.0.0.1",
  database="products"
)
cursor = db.cursor()
sql = """SELECT Pro_ID, Pro_name, Quantity FROM Product"""
cursor.execute(sql)
row = cursor.fetchone()
while row is not None:
  print(row)
  row = cursor.fetchone()
db.close()
```

19. **Design a database application using Python GUI that allows the user to add, delete and modify the Student records. Student Table (Sid,Sname,Age,Address)**

Program:

```
#add
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="students"
        )
mycursor = mydb.cursor()

sql="insert into Student(Sid, Sname, Age, Address) values(%s,%s,%s,%s)"
val=[
        ('31', 'Nikita','19','Malad'),
        ('37', 'Farhan','18','Jogeshwari')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted")
except:
        mydb.rollback()
mydb.close()
#delete
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="students"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("delete from Student where Sname == 'Nikita'")
        mydb.commit()
        print(mycursor.rowcount, "Records deleted")
except:
        mydb.rollback()
mydb.close()
#modify
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="students"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("update Student set Sid=34 where Sid=37")
        mydb.commit()
        print(mycursor.rowcount, "records changed")
except:
        mydb.rollback()
mydb.close()
```

20. **Design a simple database application using Python GUI that deletes the bank customer details of a user based on customer id and display the message “Record Deleted Successfully” after record deletion. Customer Table (Custid,Custname,Age,Address).**

Program:

```
#deletes
import mysql.connector

mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="bank"
        )

mycursor = mydb.cursor()

try:
        mycursor.execute("delete from Custid where Custid == 123")
        mydb.commit()
        print(mycursor.rowcount, "Records Deleted Successfully")
except:
        mydb.rollback()
mydb.close()
```

21. Design a database application using Python GUI that allows the user to add, delete and modify the Inventory records. Product Table (Pro_id,Pro_name,Quantity)

Program:

```
#add
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="products"
        )
mycursor = mydb.cursor()

try:
        sql="insert into Product(Pro_id, Pro_name, Quantity) values(%s,%s,%s)"
        val=[
                (37,'Pencil',12),
                (24,'Eraser',18')
        ]
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted")
except:
        mydb.rollback()
#delete
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="products"
        )
mycursor = mydb.cursor()

try:
        mycursor.execute("delete from Product where Pro_id < 22")
        mydb.commit()
        print(mycursor.rowcount, "Records deleted")
except:
        mydb.rollback()
#modify
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database="products"
        )
mycursor = mydb.cursor()

try:
        mycursor.execute("update Product set Pro_id='38' where Pro_id='37'")
        mydb.commit()
        print(mycursor.rowcount, "records changed")
except:
        mydb.rollback()
mydb.close()
```

22. Design a simple database application using Python GUI that stores the records of a Student (Stud_id, Stud_name, Stud_address, Course_name) and retrieve the same

Program:

```
#store
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="students")
mycursor = mydb.cursor()
sql="insert into Student(Stud_id, Stud_name, Stud_address, Course_name) values(%s, %s, %s,
%s)"
val=[
        ('1','Bilal', 'Jogeshwari', 'BSCIT'),
        ('2','Bhima', 'Vile Parle', 'BCOM'),
        ('3','Farhan', 'Jogeshwari', 'BScCS'),
        ('4','Nikita', 'Malad', 'BMS')
]
try:
        mycursor.executemany(sql, val)
        mydb.commit()
        print(mycursor.rowcount, "Record was inserted.")
except:
        mydb.rollback()
mydb.close()
#display
import mysql.connector
mydb = mysql.connector.connect(
        host=" 127.0.0.1",
        username="root",
        password="123456",
        database ="students"
        )
mycursor = mydb.cursor()
try:
        mycursor.execute("select * from Student")
        myresult = mycursor.fetchall()
        for x in myresult:
                print(x)
except:
        mydb.rollback()
mydb.close()
```