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**

**sql = """SELECT \* FROM employees"""""**

**cursor.execute(sql)**

**row = cursor.fetchone()**

**while row is not None:**

 **print(row)**

 **row = cursor.fetchone()**

**db.close()**

1. **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()**

**mycursor.execute("select \* from Employee where Emp\_ID > '22'")**

**result = mycursor.fetchall()**

**for x in result:**

 **print(x)**

1. **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()**

**sql="insert into Patient(Pateint\_id, Pateint\_Name, age, address) values(%s,%s,%s,%s)"**

**val=[**

 **('37','Farhan','31','Jogeshwari'),**

 **('31', 'Nikita','18','Malad')**

**]**

**mycursor.executemany(sql, val)**

**mydb.commit()**

**print(mycursor.rowcount, "Record was inserted")**

**mycursor.execute("delete from Pateint where age < 22")**

**mydb.commit()**

**print(mycursor.rowcount, "Records deleted")**

**mycursor.execute("update Pateint set Pateint\_id='38' where Pateint\_id='37'")**

**mydb.commit()**

**print(mycursor.rowcount, "records changed")**

1. **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 mysql.connector**

**db = mysql.connector.connect(**

 **user="root",**

 **password="password",**

 **host="** **127.0.0.1",**

 **database="customers"**

**)**

**cursor = db.cursor()**

**sql = """SELECT \* FROM Customer"""**

**cursor.execute(sql)**

**row = cursor.fetchone()**

**while row is not None:**

 **print(row)**

 **row = cursor.fetchone()**

**db.close()**

1. **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:**

**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')**

**]**

**mycursor.executemany(sql, val)**

**mydb.commit()**

**print(mycursor.rowcount, "Record was inserted")**

**mycursor.execute("delete from Customer where age < 20")**

**mydb.commit()**

**print(mycursor.rowcount, "Records deleted")**

**mycursor.execute("update Customer set Custid='34' where Custid='37'")**

**mydb.commit()**

**print(mycursor.rowcount, "records changed")**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database ="bank"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("drop table if exists Customer")**

**print("Customer table drop")**

**mycursor.execute("""create table Customer(Cust\_id int auto\_increment primary key,**

 **Cust\_name varchar(25), address varchar(25), account\_type varchar(5))""")**

**print("table created")**

**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.")**

**print()**

**mycursor.execute("select \* from Customer")**

**myresult = mycursor.fetchall()**

**for x in myresult:**

 **print(x)**

1. **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:**

**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')**

**]**

**mycursor.executemany(sql, val)**

**mydb.commit()**

**print(mycursor.rowcount, "Record was inserted")**

**mycursor.execute("delete from Employee where age < 20")**

**mydb.commit()**

**print(mycursor.rowcount, "Records deleted")**

**mycursor.execute("update Employee set empid='34' where empid='37'")**

**mydb.commit()**

**print(mycursor.rowcount, "records changed")**

1. **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:**

**import MySQLdb**

**db = MySQLdb.connect.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()**

**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"""**

**cursor.execute(sql)**

**row = cursor.fetchone()**

**while row is not None:**

 **print(row)**

 **row = cursor.fetchone()**

**db.close()**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database="products"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("select \* from Product where Pro\_ID > '22'")**

**result = mycursor.fetchall()**

**for x in result:**

 **print(x)**

1. **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:**

**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')**

**]**

**mycursor.executemany(sql, val)**

**mydb.commit()**

**print(mycursor.rowcount, "Record was inserted")**

**mycursor.execute("delete from Login where User\_Password == secretpassword")**

**mydb.commit()**

**print(mycursor.rowcount, "Records deleted")**

**mycursor.execute("update Login set User\_Password='secretpassword' where User\_Password='passwordissecret'")**

**mydb.commit()**

**print(mycursor.rowcount, "records changed")**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database ="login"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("drop table if exists user")**

**print("user table drop")**

**mycursor.execute("""create table user(user\_name varchar(25), User\_id int auto\_increment primary key,**

 **User\_Password varchar(25))""")**

**print("table created")**

**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.")**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database ="pateints"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("drop table if exists Patient")**

**print("Patient table drop")**

**mycursor.execute("""create table Patient(Pateint\_id int auto\_increment primary key,**

 **Pateint\_Name varchar(25), age int, address varchar(25))""")**

**print("table created")**

**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.")**

**print()**

**mycursor.execute("select \* from Patient")**

**myresult = mycursor.fetchall()**

**for x in myresult:**

 **print(x)**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database="students"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("select \* from Student where Stud\_ID > '16'")**

**result = mycursor.fetchall()**

**for x in result:**

 **print(x)**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database ="products"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("drop table if exists Product")**

**print("Product table drop")**

**mycursor.execute("""create table Product(Pro\_id int auto\_increment primary key,**

 **Pro\_Name varchar(25), Quantity int)""")**

**print("table created")**

**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')**

**]**

**mycursor.executemany(sql, val)**

**mydb.commit()**

**print(mycursor.rowcount, "Record was inserted.")**

**print()**

**mycursor.execute("select \* from Product")**

**myresult = mycursor.fetchall()**

**for x in myresult:**

 **print(x)**

1. **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:**

**import mysql.connector**

**mydb = mysql.connector.connect(**

 **host="** **127.0.0.1",**

 **username="root",**

 **password="123456",**

 **database="login"**

 **)**

**mycursor = mydb.cursor()**

**mycursor.execute("delete from students where userid == 123")**

**mydb.commit()**

**print(mycursor.rowcount, "Records Deleted Successfully")**

1. **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:**

**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)**

 **db.commit()**

**except:**

 **db.rollback()**

**db.close()**

**import mysql.connector**

**db = mysql.connector.connect(**

 **user="root",**

 **password="password",**

 **host="** **127.0.0.1",**

 **database="login"**

**)**

**cursor = db.cursor()**

**sql = """SELECT user\_name, user\_id, user\_password FROM Login"""**

**cursor.execute(sql)**

**row = cursor.fetchone()**

**while row is not None:**

 **print(row)**

 **row = cursor.fetchone()**

**db.close()**