Experiment No. 12

Aim: To implement programs based on Python and MySql Database connectivity.

Questions:

Write a python program to implement following problem statements.

1. Create database customer_db.

```
import mysql.connector as mc
```

```
mydb = mc.connect(host="localhost", user="root", passwd="[redacted]")
d = mydb.cursor()
d.execute("create database customer_db")
```

```
mydb = mc.connect(host="localhost", user="root", passwd="[redacted]", database="customer_db")
d = mydb.cursor()
```

2. Create Customer table and Invoice table and insert below mentioned values in both the tables.

Customer Table:

id	fname	lname	area	Ph_no
A01	Allan	Border	SA	723622
A02	Tina	Shields	MO	23784
A03	Ravi	Kumar	BI	545621
A04	Sunita	Rai	CH	983724
A05	James	Smith	WA	634672

Invoice Table:

Inv_no	Cust_id
I01	A01
I02	A02
I03	A03
I04	A04
I05	A05

```
d.execute("create table Customer(id varchar(10), fname varchar(20), Iname varchar(20), " + \
          "area varchar(10), Ph_no int)")
d.execute("create table Invoice(Inv_no varchar(10), Cust_id varchar(10))")
```

```
d.execute("insert into Customer values('A01', 'Allan', 'Border', 'SA', 723622)")
d.execute("insert into Customer values('A02', 'Tina', 'Shields', 'MO', 23784)")
d.execute("insert into Customer values('A03', 'Ravi', 'Kumar', 'BI', 545621)")
d.execute("insert into Customer values('A04', 'Sunita', 'Rai', 'CH', 983724)")
d.execute("insert into Customer values('A05', 'James', 'Smith', 'WA', 634672)")
```

```
d.execute("insert into Invoice values('I01', 'A01')")
d.execute("insert into Invoice values('I02', 'A02')")
d.execute("insert into Invoice values('I03', 'A03')")
d.execute("insert into Invoice values('I04', 'A04')")
d.execute("insert into Invoice values('I05', 'A05')")
```

3. Print entire Customer table.

```
d.execute("select * from Customer")
for i in d:
    print(i)
```

```
('A01', 'Allan', 'Border', 'SA', 723622)
('A02', 'Tina', 'Shields', 'MO', 23784)
('A03', 'Ravi', 'Kumar', 'BI', 545621)
('A04', 'Sunita', 'Rai', 'CH', 983724)
('A05', 'James', 'Smith', 'WA', 634672)
```

4. Find the list of fname and area of all the customers.

```
d.execute("select fname, area from Customer")
for i in d:
    print(i)
```

```
('Allan', 'SA')
('Tina', 'MO')
('Ravi', 'BI')
('Sunita', 'CH')
('James', 'WA')
```

5. Find name of all the customers having ‘a’ as second letter in fname

```
d.execute("select fname from Customer where fname LIKE '_a%'")
for i in d:
    print(i)
```

```
('Ravi',)
('James',)
```

6. Find customers who stay in area SA or BI or CH.

```
d.execute("select * from Customer where area='SA' or area='BI' or area='CH'")
for i in d:
    print(i)
```

```
('A01', 'Allan', 'Border', 'SA', 723622)
('A03', 'Ravi', 'Kumar', 'BI', 545621)
('A04', 'Sunita', 'Rai', 'CH', 983724)
```

7. Count total number of customers.

```
d.execute("select count(id) from Customer")
for i in d:
    print(i)
```

```
(5,)
```

8. Find the customer name and area with invoice no I04.

```
d.execute("select fname, area from Customer where id=(select Cust_id from Invoice where Inv_no='I04')")
for i in d:
    print(i)
```

```
('Sunita', 'CH')
```

9. Change the phone no of Ravi to 546120.

```
d.execute("update Customer set Ph_no=546120 where fname='Ravi'")
d.execute("select Ph_no from Customer where fname='Ravi'")
for i in d:
    print(i)
```

```
(546120,)
```

10. Delete the record with invoice no. I05.

```
d.execute("delete from Customer where id=(select Cust_id from Invoice where Inv_no='I05')")
d.execute("select * from Customer")
for i in d:
    print(i)
```

```
('A01', 'Allan', 'Border', 'SA', 723622)
('A02', 'Tina', 'Shields', 'MO', 23784)
('A03', 'Ravi', 'Kumar', 'BI', 546120)
('A04', 'Sunita', 'Rai', 'CH', 983724)
```

11. Delete table Customer and Invoice.

```
d.execute("drop table Customer, Invoice")
```