SQL ASSIGNMENT-4

Firstly, we have to create tables for given database

```
import sqlite3

order_db=sqlite3.connect("my_database.order_db")

cur = order_db.cursor()
```

Create table '**products**'

```
s = "CREATE TABLE products (productCode INT,productName
VARCHAR,productLine VARCHAR,productScale VARCHAR,productVendor
VARCHAR(20),productDescription VARCHAR(50),productInStock
VARCHAR(10),buyPrice FLOAT(5,2),MSRP FLOAT(5,2))"
cur.execute(s)
```

Create table '**orderdetails**'

```
a = "CREATE TABLE orderdetails(orderNumber INT(10),productCode
INT, quantityOrdered INT, priceEach FLOAT(5,2),orderLineNumber
INT)"
cur.execute(a)
```

Create table '**customers**'

```
p="CREATE TABLE customers(customerNumber INT(10) NOT
NULL,customerName TEXT(10),contactLastName
TEXT(10),contactFirstName TEXT(10),phone INT(10),addressLine1
VARCHAR(20),addressLine2 VARCHAR(20),city TEXT(15),state
TEXT(15),postalCode INT(6),country TEXT(15),salesRepEmployeeNumber
INT(10),creditLimit INT(6))"
cur.execute(p)
```

Create table '**orders**'

```
s = "CREATE TABLE orders(orderNumber INT(10),orderDate
DATE,requiredDate DATE,shippedDate DATE,status
VARCHAR(10),comments VARCHAR(50),customerNumber INT(10))"
cur.execute(s)
```

Create table ‘**payments’**

```
p="CREATE TABLE payment(customerNumber INT(10) NOT
NULL,checkNumber VARCHAR(6),paymentDate DATE,amount INT(5))"
cur.execute(p)
```

Q.1. Write a SQL query to show average number of orders shipped in a day (use Orders table).

Ans.:

```
s = "SELECT AVG(orderNumber) FROM 'orders' GROUP By 'shippedDate'"

cur.execute(s)

result=cur.fetchall()

for r in result:

   print(r)
```

Q. 2. Write a SQL query to show average number of orders placed in a day.

Ans.

```
s = "SELECT AVG(orderNumber) FROM 'orders' GROUP By 'orderDate'"

cur.execute(s)

result = cur.fetchall()

for rec in result:

   print(rec)
```

Q. 3. Write a SQL query to show the product name with minimum MSRP (use Productstable).

Ans.

```
p = "SELECT productName FROM 'products' WHERE MSRP==(SELECT
MIN(MSRP) FROM 'products')"

cur.execute(p)

result = cur.fetchall()
```

```
for rec in result:
    print(rec)
```

Q. 4. Write a SQL query to show the product name with maximum value of stockQuantity.

Ans.

```
p = "SELECT productName FROM 'products' WHERE
productInStock==(SELECT MAX(productInStock) FROM 'products')"
cur.execute(p)
result = cur.fetchall()
for rec in result:
    print(rec)
```

Q. 5. Write a query to show the most ordered product Name (the product with maximum number of orders)

Ans.

```
sql="SELECT productCode,productName FROM 'products' WHERE
productCode IN (SELECT productCode FROM 'orderdetails' WHERE
quantityOrdered==(SELECT MAX(quantityOrdered)FROM
'orderdetails'))"
cur.execute(sql)
result=cur.fetchall()
for r in result:
    print(r)
```

Q. 6. Write a SQL query to show the highest paying customer Name.

Ans.

```
sql = "SELECT customerNumber,customerName FROM 'customers'
WHERE customerNumber IN (SELECT customerNumber FROM
'payments' WHERE amount==(SELECT max(amount) FROM 'payments'))"
```

```
cur.execute(sql)
result=cur.fetchall()
for r in result:
   print(r)
```

Q. 7. Write a SQL query to show cutomerNumber, customerName of all the customers who are from Melbourne city.

Ans.

```
sql="SELECT customerNumber,customerName FROM 'customers'
WHERE city=='Melbourne'"
cur.execute(sql)
result=cur.fetchall()
for r in result:
   print(r)
```

Q. 8. Write a SQL query to show name of all the customers whose name start with “N”.

Ans.

```
sql = "select customerName FROM 'customers' WHERE
contactFirstName LIKE 'N'"
cur.execute(sql)
result=cur.fetchall()
for r in result:
   print(r)
```

Q. 9. Write a SQL query to show name of all the customers whose phone start with ‘7’ and are from city ‘LasVegas’.

Ans.

```
sql = "SELECT customerName FROM 'customers' WHERE phone LIKE '7'
AND city=='LasVegas'"
```

```
cur.execute(sql)
result=cur.fetchall()
for r in result:
   print(r)
```

Q. 10. Write a SQL query to show name of all the customers whose creditLimit < 1000 and city is either “Las Vegas” or ”Nantes” or “Stavern”.

Ans.

```
sql = "SELECT customerName FROM 'customers' WHERE creditLimit <1000 AND city=='Las Vegas' OR city=='Nantes' OR city=='Stavern'"
cur.execute(sql)
result=cur.fetchall()
for r in result:
   print(r)
```

Q.11. Write a SQL query to show all the orderNumber in which quantity ordered

Ans.

```
sql="SELECT orderNumber FROM 'orderdetails' WHERE quantityOrdered < 10"
cur.execute(sql)
result=cur.fetchall()
for r in result:
   print(r)
```

Q.12. Write a SQL query to show all the orderNumber whose customer Name start with letter ‘N’.

Ans.

```
sql = "SELECT orderNumber FROM 'orders' WHERE customerNumber IN
(SELECT customerNumber FROM 'customers' WHERE contactFirstName
LIKE 'N')"

cur.execute(sql)

result=cur.fetchall()

for r in result:

   print(r)
```

Q.13. Write a SQL query to show all the customerName whose orders are “Disputed” in status.

Ans.

```
sql="SELECT customerName FROM 'customers' WHERE
customerNumber IN (SELECT customerNumber FROM 'orders' WHERE
status='Disputed')"

cur.execute(sql)

result=cur.fetchall()

for r in result:

   print(r)
```

Q. 14. Write a SQL query to show the customerName who made payment through cheque with checkNumber starting with H and made payment on “2004-10-19”.

Ans.

```
sql="SELECT customerName FROM 'customers' WHERE
customerNumber IN (SELECT customerNumber FROM
'payments' WHERE checkNumber LIKE 'H' AND
paymentDate=='2004-10-19')"

cur.execute(sql)

result=cur.fetchall()

for r in result:
```

```
    print(r)
```

Q.15. Write a SQL query to show all the checkNumber whose amount > 1000.

Ans.

```
sql="SELECT checkNumber FROM 'payments' WHERE amount > 1000"
cur.execute(sql)
result=cur.fetchall()
for r in result:
    print(r)
```