# WORKSHEET 3 SQL

## Q1. Write SQL query to create table **Customers.**

## Ans.

- **import sqlite3**
- **db = sqlite3.connect("my_testbase.db")**
- **cursor=db.cursor()**
- **cursor.execute("CREATE TABLE customer1(customerNumber INT PRIMARY KEY,customerName TEXT,contactLastName TEXT,contactFirstName TEXT,phone INT,addressLine1 TEXT,addressLine2 TEXT,city TEXT,state TEXT,postalCode INT,country TEXT,salesRepEmployeeNumber INT,creditLimit INT)")**
- cursor.execute("INSERT INTO customer1(customerNumber,customerName,contactLastName,contactFirstName,phone,addressLine1,addressLine2,city,state,postalCode,country,salesRepEmployeeNumber,creditLimit)values(01,'Ram','sinha','Ram',0987,'old Delhi','nagar old Delhi','Delhi','DELHI',00001,'INDIA',01,10000)")

  db.commit()

  print(cursor.rowcount,"Record(s) inserted")

- cursor.execute("INSERT INTO customer1(customerNumber,customerName,contactLastName,contactFirstName,phone,addressLine1,addressLine2,city,state,postalCode,country,salesRepEmployeeNumber,creditLimit)values(02,'Shyam','sharma','Shyam',0986,'old jakkanpur','purandarpur','Patna','BIHAR',00002,'INDIA',02,20000)")

  db.commit()

  print(cursor.rowcount,"Record(s) inserted")

- cursor.execute("SELECT * FROM customer1")

Q2. Write SQL query to create table **Orders.**

Ans.

- cursor.execute("CREATE TABLE Orders01(status TEXT,orderNumber INT PRIMARY KEY, comments TEXT,customerNumber INT,orderDate INT,requiredDate INT,shippedDate INT)")

- cursor.execute("INSERT INTO Orders01(status,orderNumber, comments,customerNumber,orderDate,requiredDate,shippedDate )values('receive',01,'good work',0187,06-10-2001,06-10-2001,06-10-2001)")

  db.commit()

  print(cursor.rowcount,"Record(s) inserted")

  - cursor.execute("INSERT INTO Orders01(status,orderNumber, comments,customerNumber,orderDate,requiredDate,shippedDate )values('waiting',02,'nice work',0245,04-11-2002,04-11-2002,04-11-2002)")

    db.commit()

    print(cursor.rowcount,"Record(s) inserted")

  - cursor.execute("SELECT * FROM Orders01")

Q3. Write SQL query to show all the columns data from the **Orders** Table.

Ans. `df.columns`

```
Index(['status', 'orderNumber', 'comments', 'customerNumber', 'orderDat
e','requiredDate', 'shippedDate'],
      dtype='object')
```

Q4. Write SQL query to show all the comments from the **Orders** Table.

Ans. `df.comments`

```
0    good work
1    nice work
Name: comments, dtype: object
```

Q5. Write a SQL query to show orderDate and Total number of orders placed on that date, from **Orders** table.

Ans. `df.orderDate`

```
0   -2005
1   -2009
Name: orderDate, dtype: int64
```

`df.orderNumber`

```
0    1
1    2
Name: orderNumber, dtype: int64
```

Q6. Write a SQL query to show employeeNumber, lastName, firstName of all the employees from **employees** table.

Ans.

```
df.employeeNumber
```

```
0     1245
1    12748
2     1345
3    12082
```

```
Name: employeeNumber, dtype: int64
```

```
df.lastName
```

```
0    George
1      Wake
2    Oliver
3     Jones
Name: lastName, dtype: object
```

```
df.firstName
```

```
0      Lucy
1    Joshua
2     Mason
3      Nick
Name: firstName, dtype: object
```

```
Data=df.iloc[:,[0,1,2]]
Data
```

| | employeeNumber | lastName | firstName |
|---|---|---|---|
| **0** | 1245 | George | Lucy |
| **1** | 12748 | Wake | Joshua |
| **2** | 1345 | Oliver | Mason |
| **3** | 12082 | Jones | Nick |

Q7. Write a SQL query to show all orderNumber, customerName of the person who placed the respective order.

Ans.

```
df.orderNumber
```

```
0    1
1    2
Name: orderNumber, dtype: int64
```

```
df.customerName
```

```
0     Ram
1     Shyam
Name: customerName, dtype: object
```

Q8. Write a SQL query to show name of all the customers in one column and salerepemployee name in another column

Ans.

```
1 data=df.iloc[:,[1,11]]
```

```
1 data
```

| | customerName | salesRepEmployeeNumber |
|---|---|---|
| **0** | Ram | 1 |
| **1** | Shyam | 2 |
| **2** | Gita | 3 |

Q9. Write a SQL query to show Date in one column and total payment amount of the payments made on that date from the **payments** table.

Ans.

```
1 df_new=df.iloc[:,[2,3]]
2 df_new
```

| | paymentDate | amount |
|---|---|---|
| **0** | 10-oct | 30000 |
| **1** | 21-oct | 60000 |

Q10. Write a SQL query to show all the products productName, MSRP, productDescription from the **products** table.

Ans.

```
data_new=df.iloc[:,[1,5,8]]
data_new
```

| | productName | productDescription | MSRP |
|---|---|---|---|
| 0 | Colgate | Colgate Total was created to prevent and reduc... | 110 |
| 1 | Amul Cow Milk | Amul Milk is the most hygienic liquid milk ava... | 63 |

Q11. Write a SQL query to print the productName, productDescription of the most ordered product.

Ans.

```
dataframe_new=df.iloc[:,[1,5]]
dataframe_new
```

| | productName | productDescription |
|---|---|---|
| 0 | Colgate | Colgate Total was created to prevent and reduc... |
| 1 | Amul Cow Milk | Amul Milk is the most hygienic liquid milk ava... |

Q12. Write a SQL query to print the city name where maximum number of orders were placed.

Ans.

```
SELECT customerName, COUNT(customerName) AS CountOfCust
FROM customer1
GROUP BY customerName
```

Q13. Write a SQL query to get the name of the state having maximum number of customers.

Ans.

```
SELECT customerNumber, Count(customerNumber) AS CountOfCust
FROM customer1
GROUP BY number of customer
```

Q14. Write a SQL query to print the employee number in one column and Full name of the employee in the second column for all the employees.

Ans.

```
df
```

| | Unnamed: 0 | employeeNumber | fullName | lastName | firstName | extension | email | officeCode | reportsTo | jobTitle |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 1245 | Lucy George | George | Lucy | Full-time | lucy01@gmail.com | 101 | HRDept | HR |
| 1 | 1 | 12748 | Joshua Wake | Wake | Joshua | Full-time | wake04@gmail.com | 101 | HRDept | HR |
| 2 | 2 | 1345 | Mason Oliver | Oliver | Mason | Full-time | mason08@gmail.com | 101 | HRDept | HR |
| 3 | 3 | 12082 | Nick Jones | Jones | Nick | Full-time | jones04@gmail.com | 101 | HRDept | HR |

```
df_new=df.iloc[:,[1,2]]
df_new
```

| | employeeNumber | fullName |
|---|---|---|
| 0 | 1245 | Lucy George |
| 1 | 12748 | Joshua Wake |
| 2 | 1345 | Mason Oliver |
| 3 | 12082 | Nick Jones |

Q15. Write a SQL query to print the orderNumber, customer Name and total amount paid by the customer for that order (quantityOrdered × priceEach).

Ans.

```
SELECT SUM(price)
FROM orderNumber
GROUP BY totalamount
```

THANK YOU