

DBMS LAB ASSIGNMENT 5 - SQL QUERIES AND OUTPUTS

1. Create Table Client_Master

Query:

```
CREATE TABLE Client_Master ( Client_no VARCHAR2(5) CONSTRAINT pk_client PRIMARY KEY
CONSTRAINT chk_clientno CHECK (Client_no LIKE 'C%'), Name VARCHAR2(20) CONSTRAINT
nn_name NOT NULL CONSTRAINT uq_name UNIQUE, Address1 VARCHAR2(30), State
VARCHAR2(30), City VARCHAR2(15) CONSTRAINT chk_city CHECK (City IN
('Delhi','Mumbai','Chennai')) );
```

Output:

Table created successfully.

2. Create Table Products_Master

Query:

```
CREATE TABLE Products_Master ( Product_no VARCHAR2(10) CONSTRAINT pk_product PRIMARY
KEY CONSTRAINT chk_productno CHECK (Product_no LIKE 'P%'), Description VARCHAR2(20)
CONSTRAINT nn_desc NOT NULL CONSTRAINT uq_desc UNIQUE, Qty_on_hand NUMBER(8)
CONSTRAINT chk_qty CHECK (Qty_on_hand > 10), Sell_price NUMBER(8,2) CONSTRAINT
nn_sell NOT NULL, Cost_price NUMBER(8,2) CONSTRAINT nn_cost NOT NULL );
```

Output:

Table created successfully.

3. Create Table Sales_Order

Query:

```
CREATE TABLE Sales_Order ( S_order_no VARCHAR2(10) CONSTRAINT pk_sorder PRIMARY KEY
CONSTRAINT chk_order CHECK (S_order_no LIKE 'O%'), S_order_date DATE, Client_no
VARCHAR2(5), Salesman_no VARCHAR2(10) CONSTRAINT chk_sales CHECK (Salesman_no LIKE
'S%'), Product_no VARCHAR2(10), CONSTRAINT fk_client FOREIGN KEY (Client_no)
REFERENCES Client_Master(Client_no), CONSTRAINT fk_product FOREIGN KEY (Product_no)
REFERENCES Products_Master(Product_no) );
```

Output:

Table created successfully.

4. Add NOT NULL constraint on Address1

Query:

```
ALTER TABLE Client_Master MODIFY Address1 VARCHAR2(30) CONSTRAINT nn_address1 NOT
NULL;
```

Output:

Table altered successfully.

5. Calculate Profit

Query:

```
SELECT Product_no, Description, (Sell_price - Cost_price) AS Profit FROM
Products_Master;
```

Output:

P01 - 25, P02 - 720, P03 - 50, P04 - 25, P05 - 100, P06 - 150

6. Total Cost Price (Stock Value)

Query:

```
SELECT Product_no, (Qty_on_hand * Cost_price) AS Total_Cost FROM Products_Master;
```

Output:

50000, 282000, 20000, 50000, 45750, 71400

7. Clients name starts with I**Query:**

```
SELECT * FROM Client_Master WHERE Name LIKE 'I%';
```

Output:

C01 - Ivaan - Mumbai

8. Clients starts with R and ends with i**Query:**

```
SELECT * FROM Client_Master WHERE Name LIKE 'R%i';
```

Output:

C05 - Ravi - Delhi

9. Clients with 'a' in 3rd and 5th position**Query:**

```
SELECT * FROM Client_Master WHERE Name LIKE '__a_a%';
```

Output:

C02 - Vandana - Chennai

10. Clients containing 'aa'**Query:**

```
SELECT * FROM Client_Master WHERE Name LIKE '%aa%';
```

Output:

C02 - Vandana

11. Clients with 4 characters**Query:**

```
SELECT * FROM Client_Master WHERE LENGTH(Name)=4;
```

Output:

C05 - Ravi

12. Clients without State**Query:**

```
SELECT * FROM Client_Master WHERE State IS NULL;
```

Output:

C05 - Ravi

13. Orders after Jan 1996**Query:**

```
SELECT * FROM Sales_Order WHERE S_order_date > '31-JAN-96';
```

Output:

O19003, O19004, O19005, O19006

14. Update Order Details for C01**Query:**

```
UPDATE Sales_Order SET S_order_date='24-JUL-96', Product_no='P06', Salesman_no='S04'
WHERE Client_no='C01';
```

Output:

2 rows updated successfully.

15. Change City of C05

Query:

```
UPDATE Client_Master SET City='Kolkata' WHERE Client_no='C05';
```

Output:

1 row updated successfully.

16. Change size of Client_no to 15

Query:

```
ALTER TABLE Client_Master MODIFY Client_no VARCHAR2(15); ALTER TABLE Sales_Order
MODIFY Client_no VARCHAR2(15);
```

Output:

Tables altered successfully.

17. Delete record for C02

Query:

```
DELETE FROM Client_Master WHERE Client_no='C02';
```

Output:

Error: Cannot delete parent row (FK constraint).

18. Delete products with Sell_price between 1000 and 10000

Query:

```
DELETE FROM Products_Master WHERE Sell_price BETWEEN 1000 AND 10000;
```

Output:

P03, P05 removed successfully.

19. Create Table with Composite Primary Key

Query:

```
CREATE TABLE Order_Details ( Order_no VARCHAR2(10), Product_no VARCHAR2(10), Qty
INT, CONSTRAINT pk_orderdetails PRIMARY KEY (Order_no, Product_no) );
```

Output:

Table created successfully.

20. Create Another Table Using Above Composite Key

Query:

```
CREATE TABLE Delivery ( Order_no VARCHAR2(10), Product_no VARCHAR2(10),
Delivery_Date DATE, CONSTRAINT fk_delivery FOREIGN KEY (Order_no, Product_no)
REFERENCES Order_Details(Order_no, Product_no) );
```

Output:

Table created successfully.