

# LAB 1

CS-254

*Abhiraj Mengade*

*Roll no: 201CS102*

## Q 1. Write SQL statements for:

Create a table flights with following information:

FLIGHT(flno, fromplace, toplace, distance, departs, arrives)

- a. Inserting data into the flight with five entries.

```
INSERT INTO FLIGHT VALUES (1, 'India', 'UAE', 2000, '8:00', '16:00');
INSERT INTO FLIGHT VALUES (2, 'Sri-Lanka', 'India', 600, '7:00', '10:00');
INSERT INTO FLIGHT
VALUES (3, 'Frankfurt', 'Saudi', 2000, '8:00', '21:00');
INSERT INTO FLIGHT
VALUES (4, 'Sydney', 'Los-Angeles', 3000, '10:00', '22:00');
INSERT INTO FLIGHT VALUES (5, 'India', 'Laos', 2300, '11:00', '13:00');
COMMIT;
```

- b. Altering table by adding new column price.

```
ALTER TABLE FLIGHT
ADD price int;
```

- c. Deleting a row from the table.

```
DELETE FROM FLIGHT WHERE flno = 4;
```

```
Execute | > Share main.sql STDIN Result
1 BEGIN TRANSACTION;
2
3 /* Create a table called FLIGHT */
4 CREATE TABLE FLIGHT(flno integer PRIMARY KEY, fromplace varchar(255),
   topplace varchar(255), distance int, departs varchar(255), arrives
   varchar(255) );
5
6 /* a.) Create few records in this table */
7 INSERT INTO FLIGHT VALUES(1,'India','UAE',2000,'8:00','16:00');
8 INSERT INTO FLIGHT VALUES(2,'Sri-Lanka','India',600,'7:00','10:00');
9 INSERT INTO FLIGHT VALUES(3,'Frankfurt','Saudi',2000,'8:00','21:00');
10 INSERT INTO FLIGHT VALUES(4,'Sydney','Los-Angeles',3000,'10:00','22:00');
11 INSERT INTO FLIGHT VALUES(5,'India','Laos',2300,'11:00','13:00');
12 COMMIT;
13
14 /* Display all the records from the table */
15 SELECT * FROM FLIGHT;
16
17 /* b.) Altering table */
18 ALTER TABLE FLIGHT
19 ADD price int;
20
21
22 /* c.) Dropping a row */
23 DELETE FROM FLIGHT WHERE flno = 4;
24 SELECT * FROM FLIGHT;
```

```
$sqlite3 database.sdb < main.sql
1|India|UAE|2000|8:00|16:00
2|Sri-Lanka|India|600|7:00|10:00
3|Frankfurt|Saudi|2000|8:00|21:00
4|Sydney|Los-Angeles|3000|10:00|22:00
5|India|Laos|2300|11:00|13:00
1|India|UAE|2000|8:00|16:00
2|Sri-Lanka|India|600|7:00|10:00
3|Frankfurt|Saudi|2000|8:00|21:00
5|India|Laos|2300|11:00|13:00
```

- d. Drop column distance.

```
ALTER TABLE FLIGHT
DROP COLUMN distance;
SELECT * FROM FLIGHT;
```

- e. Enter any one row with a price value accepting the Null value and then update it to a particular price.

```
UPDATE FLIGHT
SET price = 1000
WHERE flno = 1;
SELECT * FROM FLIGHT;
```

- f. Delete all the data from the table.

```
DELETE FROM FLIGHT;
SELECT * FROM FLIGHT;
```

- g. Rename a column price to journey\_price.

```
ALTER TABLE FLIGHT
RENAME COLUMN price TO journey_price;
```

```

queries.sql 3xs3nge3m
25 /*d.) Dropping a column */
26 ALTER TABLE FLIGHT
27 DROP COLUMN distance;
28 SELECT * FROM FLIGHT;
29
30 /*e.) Updating a row */
31 UPDATE FLIGHT
32 SET price = 1000
33 WHERE flno = 1;
34 SELECT * FROM FLIGHT;
35
36 /*f.) Delete data from */
37 DELETE FROM FLIGHT;
38 SELECT * FROM FLIGHT;
39
40 /*g.) Rename column price to journey_price*/
41 ALTER TABLE FLIGHT
42 RENAME COLUMN price TO journey_price;
43 INSERT INTO FLIGHT VALUES(1,'India','UAE','8:00','16:00',2000);
44 SELECT * FROM FLIGHT;
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59

```

STDIN

Input for the program ( Optional )

---

Output:

flno	fromplace	toplace	departs	arrives	price
1	India	UAE	8:00	16:00	NULL
2	Sri-Lanka	India	7:00	10:00	NULL
3	Frankfurt	Saudi	8:00	21:00	NULL
5	India	Laos	11:00	13:00	NULL

flno	fromplace	toplace	departs	arrives	price
1	India	UAE	8:00	16:00	1000
2	Sri-Lanka	India	7:00	10:00	NULL
3	Frankfurt	Saudi	8:00	21:00	NULL
5	India	Laos	11:00	13:00	NULL

flno	fromplace	toplace	departs	arrives	journey_price
1	India	UAE	8:00	16:00	2000

## Q2.Consider the following schema for a Library Database:

BOOK (Book\_id, Title, Publisher\_Name

Pub\_Year)

BOOK\_AUTHORS (Book\_id, Author\_Name)

PUBLISHER (Book\_id, Name, Address, Phone)

- a. Enter at least five tuples for the given relation.

```

INSERT INTO BOOK VALUES
(1, 'DBMS', 'MCGRAW-HILL', 2017),
(2, 'ADBMS', 'MCGRAW-HILL', 2016),
(3, 'CN', 'PEARSON', 2016),
(4, 'CG', 'PLANETA', 2015),
(5, 'OS', 'PEARSON', 2016);

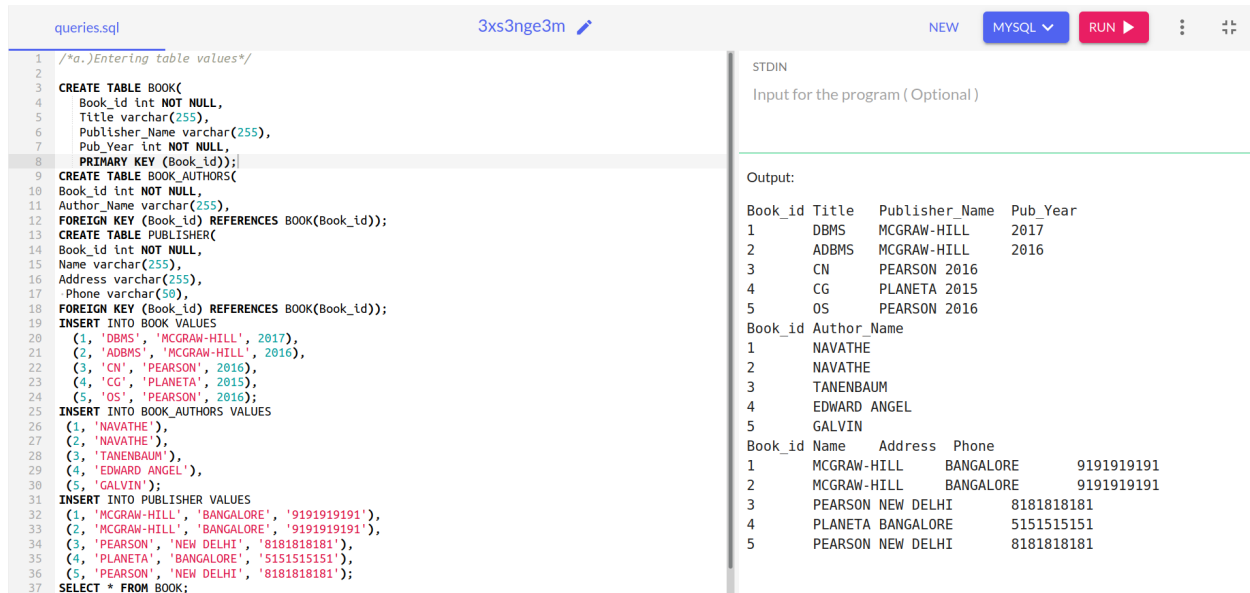
INSERT INTO BOOK_AUTHORS VALUES
(1, 'NAVATHE'),
(2, 'NAVATHE'),
(3, 'TANENBAUM'),
(4, 'EDWARD ANGEL'),
(5, 'GALVIN');

INSERT INTO PUBLISHER VALUES
(1, 'MCGRAW-HILL', 'BANGALORE', '9191919191'),
(2, 'MCGRAW-HILL', 'BANGALORE', '9191919191'),
(3, 'PEARSON', 'NEW DELHI', '8181818181'),
(4, 'PLANETA', 'BANGALORE', '5151515151'),
(5, 'PEARSON', 'NEW DELHI', '8181818181');

```

- b. Retrieve details of all books in the library – id, title, name of publisher, authors, etc.

```
SELECT * FROM BOOK;  
SELECT * FROM BOOK_AUTHORS;  
SELECT * FROM PUBLISHER;
```



The screenshot shows a SQL query editor with the following queries:

```
1 /*a.)Entering table values*/  
2  
3 CREATE TABLE BOOK(  
4     Book_id int NOT NULL,  
5     Title varchar(255),  
6     Publisher_Name varchar(255),  
7     Pub_Year int NOT NULL,  
8     PRIMARY KEY (Book_id));  
9  
10 CREATE TABLE BOOK_AUTHORS(  
11     Book_id int NOT NULL,  
12     Author_Name varchar(255),  
13     FOREIGN KEY (Book_id) REFERENCES BOOK(Book_id));  
14  
15 CREATE TABLE PUBLISHER(  
16     Book_id int NOT NULL,  
17     Name varchar(255),  
18     Address varchar(255),  
19     Phone varchar(50),  
20     FOREIGN KEY (Book_id) REFERENCES BOOK(Book_id));  
21  
22 INSERT INTO BOOK VALUES  
23     (1, 'DBMS', 'MCGRAW-HILL', 2017),  
24     (2, 'ADBMS', 'MCGRAW-HILL', 2016),  
25     (3, 'CN', 'PEARSON', 2016),  
26     (4, 'CG', 'PLANETA', 2015),  
27     (5, 'OS', 'PEARSON', 2016);  
28  
29 INSERT INTO BOOK_AUTHORS VALUES  
30     (1, 'NAVATHE'),  
31     (2, 'NAVATHE'),  
32     (3, 'TANENBAUM'),  
33     (4, 'EDWARD ANGEL'),  
34     (5, 'GALVIN');  
35  
36 INSERT INTO PUBLISHER VALUES  
37     (1, 'MCGRAW-HILL', 'BANGALORE', '9191919191'),  
38     (2, 'MCGRAW-HILL', 'BANGALORE', '9191919191'),  
39     (3, 'PEARSON', 'NEW DELHI', '8181818181'),  
40     (4, 'PLANETA', 'BANGALORE', '5151515151'),  
41     (5, 'PEARSON', 'NEW DELHI', '8181818181');  
42  
43 SELECT * FROM BOOK;
```

The output shows the data inserted into the tables:

Output:

Book_id	Title	Publisher_Name	Pub_Year
1	DBMS	MCGRAW-HILL	2017
2	ADBMS	MCGRAW-HILL	2016
3	CN	PEARSON	2016
4	CG	PLANETA	2015
5	OS	PEARSON	2016

Book_id	Author_Name
1	NAVATHE
2	NAVATHE
3	TANENBAUM
4	EDWARD ANGEL
5	GALVIN

Book_id	Name	Address	Phone
1	MCGRAW-HILL	BANGALORE	9191919191
2	MCGRAW-HILL	BANGALORE	9191919191
3	PEARSON	NEW DELHI	8181818181
4	PLANETA	BANGALORE	5151515151
5	PEARSON	NEW DELHI	8181818181

- c. Get the books written by a particular author.

```
SELECT  
B.Book_id,  
B.Title,  
A.Author_Name,  
B.Publisher_Name,  
B.Pub_Year  
FROM  
BOOK B,  
BOOK_AUTHORS A  
WHERE  
B.Book_id = A.Book_id  
AND  
A.Author_Name = 'NAVATHE';
```

- d. Delete a book in the BOOK table.

```
DELETE FROM PUBLISHER WHERE Book_id = 5;  
DELETE FROM BOOK_AUTHORS WHERE Book_id = 5;
```

```
DELETE FROM BOOK WHERE Book_id = 5;
```

- e. Update the phone number of a publisher.

```
UPDATE PUBLISHER
SET Phone = '7171717171'
WHERE Name = 'PLANETA';
```

queries.sql

3xs3nge3m

NEW

MYSQL

RUN

```

41 /*c.) Details of a author*/
42 SELECT
43 B.Book_id,
44 B.Title,
45 A.Author_Name,
46 B.Publisher_Name,
47 B.Pub_Year
48 FROM
49 BOOK B,
50 BOOK_AUTHORS A
51 WHERE
52 B.Book_id = A.Book_id
53 AND
54 A.Author_Name = 'NAVATHE';
55
56 /*d.)Delete a book*/
57 DELETE FROM PUBLISHER WHERE Book_id = 5;
58 DELETE FROM BOOK_AUTHORS WHERE Book_id = 5;
59 DELETE FROM BOOK WHERE Book_id = 5;
60 SELECT * FROM BOOK;
61
62 /*e.) update phone number */
63 UPDATE PUBLISHER
64 SET Phone = '7171717171'
65 WHERE Name = 'PLANETA';
66 SELECT * FROM PUBLISHER;
67
68
69
70
71
72

```

STDIN

Input for the program ( Optional )

Output:

Book_id	Title	Author_Name	Publisher_Name	Pub_Year
1	DBMS	NAVATHE	MCGRRAW-HILL	2017
2	ADBMS	NAVATHE	MCGRRAW-HILL	2016

Book_id	Title	Publisher_Name	Pub_Year
1	DBMS	MCGRRAW-HILL	2017
2	ADBMS	MCGRRAW-HILL	2016
3	CN	PEARSON	2016
4	CG	PLANETA	2015

Book_id	Name	Address	Phone
1	MCGRRAW-HILL	BANGALORE	9191919191
2	MCGRRAW-HILL	BANGALORE	9191919191
3	PEARSON	NEW DELHI	8181818181
4	PLANETA	BANGALORE	7171717171

- f. Through book\_id retrieve the details of author name and publisher details.

```
SELECT A.Book_id,
A.Author_Name,
P.Name,
P.Address,
P.Phone
FROM BOOK_AUTHORS A, PUBLISHER P
WHERE A.Book_id=P.Book_id;
```

- g. Drop Author\_Name column from BOOK\_AUTHORS.

```
ALTER TABLE BOOK_AUTHORS DROP COLUMN Author_Name;
SELECT * FROM BOOK_AUTHORS;
```

- h. Rename Name (from Publisher) to Publisher\_name

```
ALTER TABLE PUBLISHER RENAME COLUMN Name TO Publisher_Name;
SELECT * FROM PUBLISHER;
```

queries.sql3xs3nge3m

NEWMySQLRUN

```

67
68 /*f.) retrieve the details of author name and publisher details*/
69 SELECT A.Book_id,
70 A.Author_Name,
71 P.Name,
72 P.Address,
73 P.Phone
74 FROM BOOK_AUTHORS A, PUBLISHER P
75 WHERE A.Book_id=P.Book_id;
76
77 /*g.)Drop Author_Name column from BOOK_AUTHORS.*/
78 ALTER TABLE BOOK_AUTHORS DROP COLUMN Author_Name;
79 SELECT * FROM BOOK_AUTHORS;
80
81 /*h.)Rename Name (from Publisher) to Publisher_name.*/
82 ALTER TABLE PUBLISHER RENAME COLUMN Name TO Publisher_Name;
83 SELECT * FROM PUBLISHER;
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98

```

STDIN

Input for the program ( Optional )

---

Output:

Book_id	Author_Name	Name	Address	Phone
1	NAVATHE	MCGRW-HILL	BANGALORE	9191919191
2	NAVATHE	MCGRW-HILL	BANGALORE	9191919191
3	TANENBAUM	PEARSON	NEW DELHI	8181818181
4	EDWARD ANGEL	PLANETA	BANGALORE	7171717171

Book_id	Publisher_Name	Address	Phone
1	MCGRW-HILL	BANGALORE	9191919191
2	MCGRW-HILL	BANGALORE	9191919191
3	PEARSON	NEW DELHI	8181818181
4	PLANETA	BANGALORE	7171717171

### Q3. Consider the following schema for OrderDatabase:

SALESMAN (Salesman\_id, Name, City, Salary)

CUSTOMER (Customer\_id, Cust\_Name, City, Salesman\_id)

ORDERS (Ord\_No, Purchase\_Amt, Ord\_Date, Customer\_id, Salesman\_id)

- a. Insert 5-10 entries.

```

INSERT INTO SALESMAN VALUES
(1, 'VICTOR', 'BANGALORE', 2000),
(2, 'SAM', 'MANGALORE', 3000),
(3, 'BEN', 'DELHI', 2500),
(4, 'ROSS', 'MUMBAI', 3000),
(5, 'JOHN', 'BANGALORE', 3500),
(6, 'RACHEL', 'MUMBAI', 3500);

```

```

INSERT INTO CUSTOMER VALUES
(1, 'JACOB', 'BANGALORE', 5),
(2, 'GWEN', 'MUMBAI', 4),
(3, 'TIM', 'DELHI', 3),
(4, 'HECTOR', 'BANGALORE', 5),
(5, 'JIM', 'DELHI', 3),
(6, 'LANCE', 'DELHI', 3),
(7, 'VINNY', 'MUMBAI', 6),
(8, 'DUSTIN', 'MUMBAI', 6);

```

```

INSERT INTO ORDERS VALUES
(1, 200, '2022-01-01', 1, 5),

```

```
(2, 150, '2022-01-01', 2, 4),
(3, 300, '2022-01-03', 2, 6),
(4, 250, '2022-01-03', 3, 3),
(5, 250, '2022-01-03', 4, 5),
(6, 200, '2022-01-03', 5, 3),
(7, 100, '2022-01-04', 6, 3),
(8, 120, '2022-01-06', 7, 6),
(9, 210, '2022-01-06', 8, 6),
(10, 320, '2022-01-06', 2, 6);
```

queries.sql

3xs3nge3m

NEW

MYSQL

RUN

```

26 /*9. Insert Entries/
27 INSERT INTO SALESMAN VALUES
28 (1, 'VICTOR', 'BANGALORE', 2000),
29 (2, 'SAM', 'MANGALORE', 3000),
30 (3, 'BEN', 'DELHI', 2500),
31 (4, 'ROSS', 'MUMBAI', 3000),
32 (5, 'JOHN', 'BANGALORE', 3500),
33 (6, 'RACHEL', 'MUMBAI', 3500);
34
35 INSERT INTO CUSTOMER VALUES
36 (1, 'JACOB', 'BANGALORE', 5),
37 (2, 'GWEN', 'MUMBAI', 4),
38 (3, 'TIM', 'DELHI', 3),
39 (4, 'HECTOR', 'BANGALORE', 5),
40 (5, 'JIM', 'DELHI', 3),
41 (6, 'LANCE', 'DELHI', 3),
42 (7, 'VINNY', 'MUMBAI', 6),
43 (8, 'DUSTIN', 'MUMBAI', 6);
44
45 INSERT INTO ORDERS VALUES
46 (1, 200, '2022-01-01', 1, 5),
47 (2, 150, '2022-01-01', 2, 4),
48 (3, 300, '2022-01-03', 2, 6),
49 (4, 250, '2022-01-03', 3, 3),
50 (5, 250, '2022-01-03', 4, 5),
51 (6, 200, '2022-01-03', 5, 3),
52 (7, 100, '2022-01-04', 6, 3),
53 (8, 120, '2022-01-06', 7, 6),
54 (9, 210, '2022-01-06', 8, 6),
55 (10, 320, '2022-01-06', 2, 6);
56
57 SELECT * from ORDERS;
58 SELECT * from CUSTOMER;
59 SELECT * from SALESMAN;
60
61
62
63
64
65

```

STDIN

Input for the program ( Optional )

Ord_No	Purchase_Amt	Ord_Date	Customer_id	Salesman_id
1	200	2022-01-01	1	5
2	150	2022-01-01	2	4
3	300	2022-01-03	2	6
4	250	2022-01-03	3	3
5	250	2022-01-03	4	5
6	200	2022-01-03	5	3
7	100	2022-01-04	6	3
8	120	2022-01-06	7	6
9	210	2022-01-06	8	6
10	320	2022-01-06	2	6

Customer_id	Cust_Name	City	Salesman_id
1	JACOB	BANGALORE	5
2	GWEN	MUMBAI	4
3	TIM	DELHI	3
4	HECTOR	BANGALORE	5
5	JIM	DELHI	3
6	LANCE	DELHI	3
7	VINNY	MUMBAI	6
8	DUSTIN	MUMBAI	6

Salesman_id	Name	City	Salary
1	VICTOR	BANGALORE	2000
2	SAM	MANGALORE	3000
3	BEN	DELHI	2500
4	ROSS	MUMBAI	3000
5	JOHN	BANGALORE	3500
6	RACHEL	MUMBAI	3500

b. Retrieve the details of all the customers and orders.

```

SELECT O.Ord_No,
       O.Purchase_Amt,
       O.Ord_Date,
       O.Customer_id,
       C.Cust_Name,
       C.City,
       O.Salesman_id,
       S.Name,
       S.City,
       S.Salary
FROM ORDERS O
LEFT JOIN CUSTOMER C ON O.Customer_id = C.Customer_id
LEFT JOIN SALESMAN S ON O.Salesman_id = S.Salesman_id;

```

- c. Get the customers handled by a particular salesman.

```
SELECT C.Customer_id,  
       C.Cust_Name,  
       C.City,  
       S.Salesman_id,  
       S.Name,  
       S.City,  
       S.Salary  
FROM CUSTOMER C  
     LEFT JOIN SALESMAN S ON C.Salesman_id = S.Salesman_id  
WHERE S.Salesman_id = 3;
```

The screenshot shows a MySQL query editor with a file named 'queries.sql'. The editor contains two SQL queries. The first query is a comment: `/*b.)Retrieve the details of all the customers and orders.*/`. The second query is: `SELECT O.Ord_No, O.Purchase_Amt, O.Ord_Date, O.Customer_id, C.Cust_Name, C.City, S.Salesman_id, S.Name, S.City, S.Salary FROM ORDERS O LEFT JOIN CUSTOMER C ON O.Customer_id = C.Customer_id LEFT JOIN SALESMAN S ON O.Salesman_id = S.Salesman_id; /*c.)Get the customers handled by a particular salesman.*/`. The output of the second query is displayed on the right side of the editor. The output is a table with 10 rows and 5 columns: Ord\_No, Purchase\_Amt, Ord\_Date, Customer\_id, and Cust\_Name. The data is as follows:

Ord_No	Purchase_Amt	Ord_Date	Customer_id	Cust_Name
1	200	2022-01-01	1	JACOB BANGALORE
2	150	2022-01-01	2	GWEN MUMBAI
3	300	2022-01-03	2	GWEN MUMBAI
4	250	2022-01-03	3	TIM DELHI
5	250	2022-01-03	4	HECTOR BANGALORE
6	200	2022-01-03	5	JIM DELHI
7	100	2022-01-04	6	LANCE DELHI
8	120	2022-01-06	7	VINNY MUMBAI
9	210	2022-01-06	8	DUSTIN MUMBAI
10	320	2022-01-06	2	GWEN MUMBAI

- d. Get the details of orders purchased by customers.

```
SELECT O.Ord_No,  
       O.Purchase_Amt,  
       O.Ord_Date,  
       O.Customer_id,  
       C.Cust_name,  
       C.City  
FROM ORDERS O  
     INNER JOIN CUSTOMER C ON O.Customer_id = C.Customer_id  
WHERE O.Customer_id = 2;
```

- e. Through salesman\_id retrieve the details of his sold orders.

```
SELECT O.Ord_No,
```



```

O.Purchase_Amt,
O.Ord_Date,
O.Salesman_id,
S.Name,
S.City,
S.Salary
FROM ORDERS O
    INNER JOIN SALESMAN S ON O.Salesman_id = S.Salesman_id
WHERE O.Salesman_id = 6;

```

- f. One of the salesmen is getting a raise of 2000 and is getting relocated to Delhi. update his data.

```

UPDATE SALESMAN
SET Salary = Salary + 2000,
    City = 'DELHI'
WHERE Salesman_id = 1;

```

- g. Delete an order and its details as the customer placed an order and canceled it.

```

DELETE FROM ORDERS
WHERE Ord_No = 8;

```

queries.sql3xs3nge3mNEWMySQLRUN

```

89
90 /*d.) Get the details of orders purchased by customers.*/
91 SELECT
92 O.Ord_No,
93 O.Purchase_Amt,
94 O.Ord_Date,
95 O.Customer_id,
96 C.Cust_name,
97 C.City
98 FROM ORDERS O
99 INNER JOIN CUSTOMER C ON O.Customer_id = C.Customer_id
100 WHERE O.Customer_id = 2;
101
102 /*e.)Through salesman_id retrieve the details of his sold orders.*/
103 SELECT
104 O.Ord_No,
105 O.Purchase_Amt,
106 O.Ord_Date,
107 O.Salesman_id,
108 S.Name,
109 S.City,
110 S.Salary
111 FROM ORDERS O
112 INNER JOIN SALESMAN S ON O.Salesman_id = S.Salesman_id
113 WHERE O.Salesman_id = 6;
114
115 /*f.)update SALESMAN*/
116 UPDATE SALESMAN SET Salary = Salary + 2000, City = 'DELHI' WHERE Salesman_id = 1;
117 SELECT * FROM SALESMAN WHERE Salesman_id = 1;
118
119 /*g.DELETE order*/
120 DELETE FROM ORDERS WHERE Ord_No = 8;
121 SELECT * FROM ORDERS;
122
123
124
125

```

STDIN

Input for the program ( Optional )

Output:

Ord_No	Purchase_Amt	Ord_Date	Customer_id	Cust
2	150	2022-01-01	2	GWEN MUMBAI
3	300	2022-01-03	2	GWEN MUMBAI
10	320	2022-01-06	2	GWEN MUMBAI

Ord_No	Purchase_Amt	Ord_Date	Salesman_id	Name
3	300	2022-01-03	6	RACHEL MUMBAI 3500
8	120	2022-01-06	6	RACHEL MUMBAI 3500
9	210	2022-01-06	6	RACHEL MUMBAI 3500
10	320	2022-01-06	6	RACHEL MUMBAI 3500

Salesman_id	Name	City	Salary
1	VICTOR	DELHI	4000

Ord_No	Purchase_Amt	Ord_Date	Customer_id	Sale
1	200	2022-01-01	1	5
2	150	2022-01-01	2	4
3	300	2022-01-03	2	6
4	250	2022-01-03	3	3
5	250	2022-01-03	4	5
6	200	2022-01-03	5	3
7	100	2022-01-04	6	3
9	210	2022-01-06	8	6

- h. Rename the City column to Place.

```

ALTER TABLE SALESMAN
    RENAME COLUMN City TO Place;

```

- i. Drop purchase\_amt column from the table orders.

```
ALTER TABLE ORDERS DROP COLUMN Purchase_Amt;

SELECT *

FROM ORDERS;
```

- j. Drop the table salesman.

```
SET FOREIGN_KEY_CHECKS = 0;

DROP TABLE SALESMAN;

SET FOREIGN_KEY_CHECKS = 1;
```

The screenshot shows a MySQL query editor with a list of queries on the left and their results on the right. The queries include renaming a table, dropping a column, and dropping a table. The results show the output of these queries, including a list of tables and the structure of the ORDERS table.

```
queries.sql 3xs3nge3m NEW MySQL RUN
```

```
123 /*h.) RENAME city to place*/
124 ALTER TABLE SALESMAN RENAME COLUMN City TO Place;
125 SELECT * FROM SALESMAN;
126
127 /*i.) Drop Purchase Amt*/
128 ALTER TABLE ORDERS DROP COLUMN Purchase_Amt;
129 SELECT * FROM ORDERS;
130
131 /*j.) Drop the table salesman.*/
132 SET FOREIGN_KEY_CHECKS=0;
133 DROP TABLE SALESMAN;
134 SET FOREIGN_KEY_CHECKS=1;
135 SHOW TABLES;
```

STDIN

Input for the program ( Optional )

Ord_No	Purchase_Amt	Ord_Date	Customer_id	Cust_name
2	150	2022-01-01	2	GWEN MUMBAI
3	300	2022-01-03	2	GWEN MUMBAI
10	320	2022-01-06	2	GWEN MUMBAI

Salesman_id	Name	Place	Salary
1	VICTOR	DELHI	4000
2	SAM	MANGALORE	3000
3	BEN	DELHI	2500
4	ROSS	MUMBAI	3000
5	JOHN	BANGALORE	3500
6	RACHEL	MUMBAI	3500

Ord_No	Ord_Date	Customer_id	Salesman_id
1	2022-01-01	1	5
2	2022-01-01	2	4
3	2022-01-03	2	6
4	2022-01-03	3	3
5	2022-01-03	4	5
6	2022-01-03	5	3
7	2022-01-04	6	3
9	2022-01-06	8	6
10	2022-01-06	2	6

Tables\_in\_db\_3xs3z5bn9

CUSTOMER

ORDERS

#### Q4. Write SQL statements for the following:

Create a table sub with following information: columns and data types: name varchar(8), age number(5), mark1 number(4), mark2 number(4), mark3 number(4);

- a. Enter at least five tuples for the given relation.

```
INSERT INTO SUB VALUES
('Ross', 21, 90, 95, 92),
('John', 20, 89, 92, 91),
('Jacob', 21, 83, 81, 90),
('Ron', 21, 96, 98, 93),
('Harry', 20, 99, 97, 92),
('Ginny', 20, 98, 92, 95);
```

- b. Add one more column with field name as total with data type as number(5).

```
ALTER TABLE SUB ADD total int CHECK (total BETWEEN 0 AND 99999);
```

- c. Update the age of sub for a particular student.

```
UPDATE SUB SET age = 21 WHERE name = 'John';
```

- d. Deleting a row from the table.

```
DELETE FROM SUB WHERE name = 'Ross';
```

- e. Drop column mark3.

```
ALTER TABLE SUB DROP COLUMN mark3;  
SELECT * FROM SUB;
```

The screenshot shows a MySQL query editor with a file named 'queries.sql'. The queries are as follows:

```
1 CREATE TABLE SUB (  
2   name varchar(8),  
3   age int CHECK (age BETWEEN 0 AND 99999),  
4   mark1 int CHECK (mark1 BETWEEN 0 AND 9999),  
5   mark2 int CHECK (mark2 BETWEEN 0 AND 9999),  
6   mark3 int CHECK (mark3 BETWEEN 0 AND 9999));  
7  
8 /*a.)Enter at least five tuples for the given relation.*/  
9  
10 INSERT INTO SUB VALUES  
11 ('Ross', 21, 90, 95, 92),  
12 ('John', 20, 89, 92, 91),  
13 ('Jacob', 21, 83, 81, 90),  
14 ('Ron', 21, 96, 98, 93),  
15 ('Harry', 20, 99, 97, 92),  
16 ('Ginny', 20, 98, 92, 95);  
17 SELECT * FROM SUB;  
18  
19 /*b.)Add one more column with field name as total with data type as number(5).*/  
20 ALTER TABLE SUB ADD total int CHECK (total BETWEEN 0 AND 99999);  
21 SELECT * FROM SUB;  
22  
23 /*c.)Update the age of sub for a particular student.*/  
24 UPDATE SUB SET age = 21 WHERE name = 'John';  
25 SELECT * FROM SUB WHERE name = 'John';  
26  
27 /*d.) DELETE entry */  
28 DELETE FROM SUB WHERE name = 'Ross';  
29  
30 /*e.) DROP COLUMN*/  
31 ALTER TABLE SUB DROP COLUMN mark3;  
32 SELECT * FROM SUB;
```

The output of the queries is shown on the right side of the editor:

STDIN  
Input for the program ( Optional )

Output:

name	age	mark1	mark2	mark3
Ross	21	90	95	92
John	20	89	92	91
Jacob	21	83	81	90
Ron	21	96	98	93
Harry	20	99	97	92
Ginny	20	98	92	95

name	age	mark1	mark2	mark3	total
Ross	21	90	95	92	NULL
John	20	89	92	91	NULL
Jacob	21	83	81	90	NULL
Ron	21	96	98	93	NULL
Harry	20	99	97	92	NULL
Ginny	20	98	92	95	NULL

name	age	mark1	mark2	mark3	total
John	21	89	92	91	NULL
John	21	89	92	NULL	NULL
Jacob	21	83	81	NULL	NULL
Ron	21	96	98	NULL	NULL
Harry	20	99	97	NULL	NULL
Ginny	20	98	92	NULL	NULL

- f. Modify the table by changing the data type of ,mark3 to number(6)

```
ALTER TABLE SUB MODIFY COLUMN mark3 int CHECK (mark3 BETWEEN 0 AND 999999);
```

- g. Delete all the data from the sub table.

```
DELETE FROM SUB;
```

- h. Delete the table.

```
DROP TABLE SUB;
```

queries.sql

3xs3nge3m

NEW

MYSQL

RUN

:

55

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

```
/*f.)Modify the table by changing the data type of ,mark3 to number(6)*/
ALTER TABLE SUB MODIFY COLUMN mark3 int CHECK (mark3 BETWEEN 0 AND 999999);
SELECT * FROM SUB;

/*p.) Delete all the data from the sub table.*/
DELETE FROM SUB;
SELECT * FROM SUB;

/*h.)Delete the table.*/
DROP TABLE SUB;
SHOW TABLES;
```

STDIN

Input for the program ( Optional )

Output:

name	age	mark1	mark2	mark3	total
John	21	89	92	91	NULL
Jacob	21	83	81	90	NULL
Ron	21	96	98	93	NULL
Harry	20	99	97	92	NULL
Ginny	20	98	92	95	NULL