NAME: Muhammad Anas

REG.NO: CS221004

1. Create two tables with at least 6 columns having 4 different data types.

```
CREATE DATABASE LAB_01;
SHOW DATABASES;
USE LAB_01;
SHOW TABLES;
CREATE TABLE table01(
    id INT,
    name VARCHAR(50),
    age INT,
    Address VARCHAR(15),
    City VARCHAR(20),
    DOB DATE
);

CREATE TABLE table02 (
    Last_Name VARCHAR(50),
    Father_Name CHAR(50),
    Siblings INT,
    GPA FLOAT,
    PASSED_HSSC BOOLEAN,
    SALARY NUMERIC
);
```

```
INSERT INTO table01 (id, name, age, Address, City, DOB)
VALUES (1001, 'Faizan', 22, 'Phase 2', 'Karachi', '2001-06-05'),
    (1003, 'Talha', 19, 'Johar', 'Islamabad', '2004-11-01'),
    (1004, 'Anas', 20, 'Garden', 'Lahore', '2003-12-07'),
    (1005, 'Ali', 21, 'Model', 'Hyderabad', '2002-08-01');
```

2. Show the structure of tables created in (1)

```
22
23 •  DESCRIBE table01;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
id	int	YES		NULL	
name	varchar(50)	YES		NULL	
age	int	YES		NULL	
Address	varchar(15)	YES		NULL	
City	varchar(20)	YES		NULL	
DOB	date	YES		NULL	

```
22
23 •  DESCRIBE table02;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
Last_Name	varchar(50)	YES		NULL	
Father_Name	char(50)	YES		NULL	
Siblings	int	YES		NULL	
GPA	float	YES		NULL	
PASSED_HSSC	tinyint(1)	YES		NULL	
SALARY	decimal(10,0)	YES		NULL	

3. Insert at least 4 records into the first table using column names.

```
INSERT INTO table01 (id, name, age, Address, City, DOB)
VALUES (1001, 'Faizan', 22, 'Phase 2', 'Karachi', '2001-06-05'),
    (1003, 'Talha', 19, 'Johar', 'Islamabad', '2004-11-01'),
    (1004, 'Anas', 20, 'Garden', 'Lahore', '2003-12-07'),
    (1005, 'Ali', 21, 'Model', 'Hyderabad', '2002-08-01');
```

4) Insert at least 4 records into the second table without using columns name.

```
INSERT INTO table02 VALUES
    ('KHAN', 'qwe', 3, 3.58, TRUE, 90000),
    ('Nizamani', 'klm', 3, 3.70, FALSE, 60000),
    ('Muhammad', 'abc', 3, 3.00, TRUE, 50000),
    ('Bilal', 'xyz', 1, 3.30, FALSE, 80000);
```

5)With a separate query for each table, show the table data.

```
37 •  SELECT * FROM table01;
38 •  SELECT * FROM table02;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Last_Name	Father_Name	Siblings	GPA	PASSED_HSSC	SALARY
KHAN	qwe	3	3.58	1	90000
Nizamani	klm	3	3.7	0	60000
Muhammad	abc	3	3	1	50000
Bilal	xyz	1	3.3	0	80000

```
36
37 •  SELECT * FROM table01;
38 •  SELECT * FROM table02;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Cor

id	name	age	Address	City	DOB
1001	Faizan	22	Phase 2	Karachi	2001-06-05
1003	Talha	19	Johar	Islamabad	2004-11-01
1004	Anas	20	Garden	Lahore	2003-12-07
1005	Ali	21	Model	Hyderabad	2002-08-01

6. Add two columns into any one table

```
40 •   ALTER TABLE table01
41         ADD COLUMN Phone_number VARCHAR(20),
42         ADD COLUMN Cnic VARCHAR(100);
43
44
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

id	name	age	Address	City	DOB	Phone_number	Cnic
1001	Faizan	22	Phase 2	Karachi	2001-06-05	NULL	NULL
1003	Talha	19	Johar	Islamabad	2004-11-01	NULL	NULL
1004	Anas	20	Garden	Lahore	2003-12-07	NULL	NULL
1005	Ali	21	Model	Hyderabad	2002-08-01	NULL	NULL

7. Alter the data type of any two columns from any table.

```
45
46 •   ALTER TABLE table02
47         MODIFY COLUMN SALARY INT,
48         MODIFY COLUMN Father_name VARCHAR(50);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
Last_Name	varchar(50)	YES		NULL	
Father_name	varchar(50)	YES		NULL	
Siblings	int	YES		NULL	
GPA	float	YES		NULL	
PASSED_HSSC	tinyint(1)	YES		NULL	
SALARY	int	YES		NULL	

8. Truncate the first table data.

```
50 •   TRUNCATE TABLE table01;
51
```

tput

Action Output

#	Time	Action	Message
107	06:49:58	DESCRIBE table02	6 row(s) returned
108	06:52:22	TRUNCATE TABLE table01	0 row(s) affected

9. Delete the third record of the second table

```
52 •   Select * from table02;
53
54 •   DELETE FROM table02 where GPA = 3.00 limit 100;
55
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Last_Name	Father_name	Siblings	GPA	PASSED_HSSC	SALARY
KHAN	qwe	3	3.58	1	90000
Nizamani	klm	3	3.7	0	60000
Bilal	xyz	1	3.3	0	80000

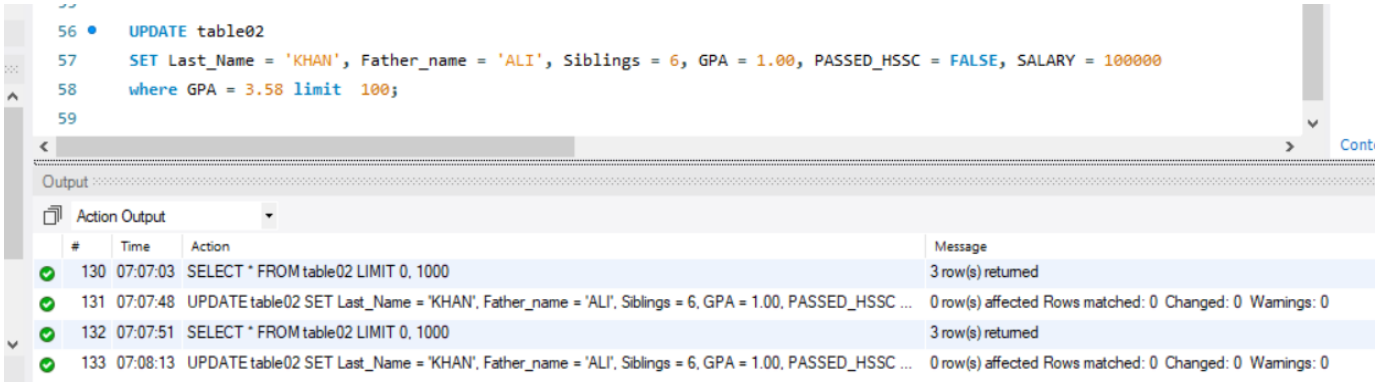
table02 37 ×

Output

Action Output

#	Time	Action	Message
118	07:01:03	DELETE FROM table02 where GPA = 3.00 limit 100	1 row(s) affected
119	07:01:11	Select * from table02 LIMIT 0, 1000	3 row(s) returned

10. Update the first record of the second table



```
56 •  UPDATE table02
57    SET Last_Name = 'KHAN', Father_name = 'ALI', Siblings = 6, GPA = 1.00, PASSED_HSSC = FALSE, SALARY = 100000
58    where GPA = 3.58 limit  100;
59
```

Output

Action Output

#	Time	Action	Message
130	07:07:03	SELECT * FROM table02 LIMIT 0, 1000	3 row(s) returned
131	07:07:48	UPDATE table02 SET Last_Name = 'KHAN', Father_name = 'ALI', Siblings = 6, GPA = 1.00, PASSED_HSSC ...	0 row(s) affected Rows matched: 0 Changed: 0 Warnings: 0
132	07:07:51	SELECT * FROM table02 LIMIT 0, 1000	3 row(s) returned
133	07:08:13	UPDATE table02 SET Last_Name = 'KHAN', Father_name = 'ALI', Siblings = 6, GPA = 1.00, PASSED_HSSC ...	0 row(s) affected Rows matched: 0 Changed: 0 Warnings: 0