

Name- Jayant Jhunja

SQL Assignment Hands on

SQL- DDL & DML COMMANDS

DDL- Data Definition Commands are used to define and manage the structure of a database . Some DDL commands are -

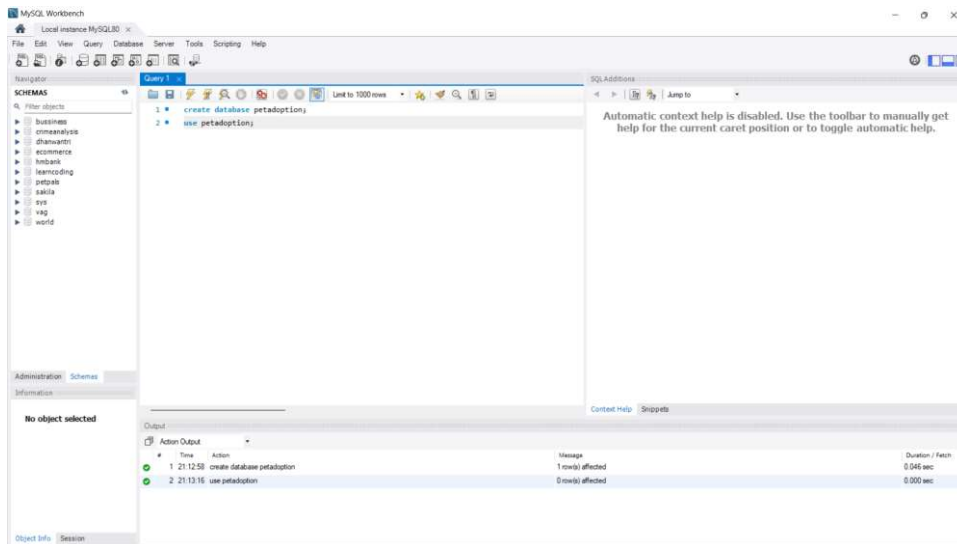
- 1.create
- 2.Alter
- 3.Drop
- 4.Truncate
- 5.comment
- 6.Rename

DML- Data Manipulation Command are used to interact with and manipulate the data stored in a database .

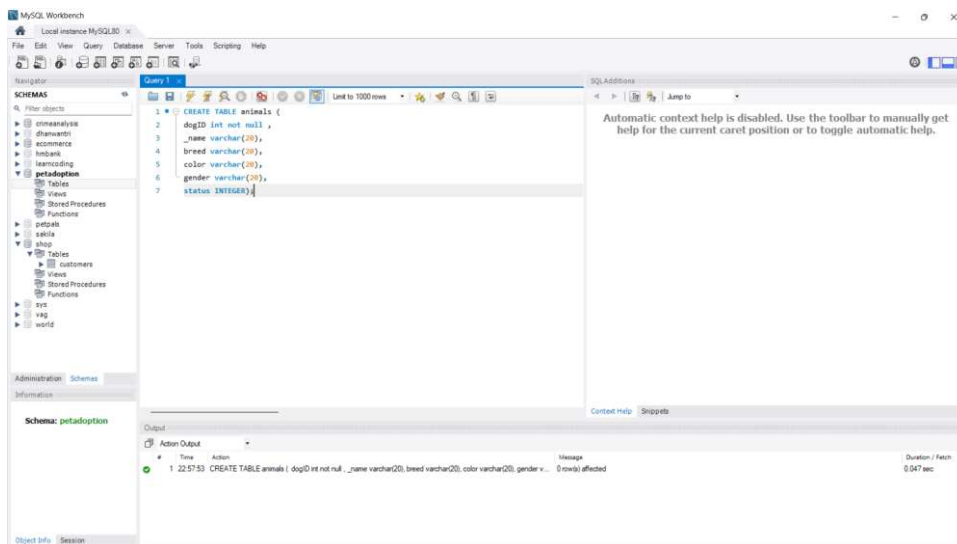
Some common DML command are -

- 1.Insert
- 2.Select
- 3.Update
- 4.Delete
- 5.Call

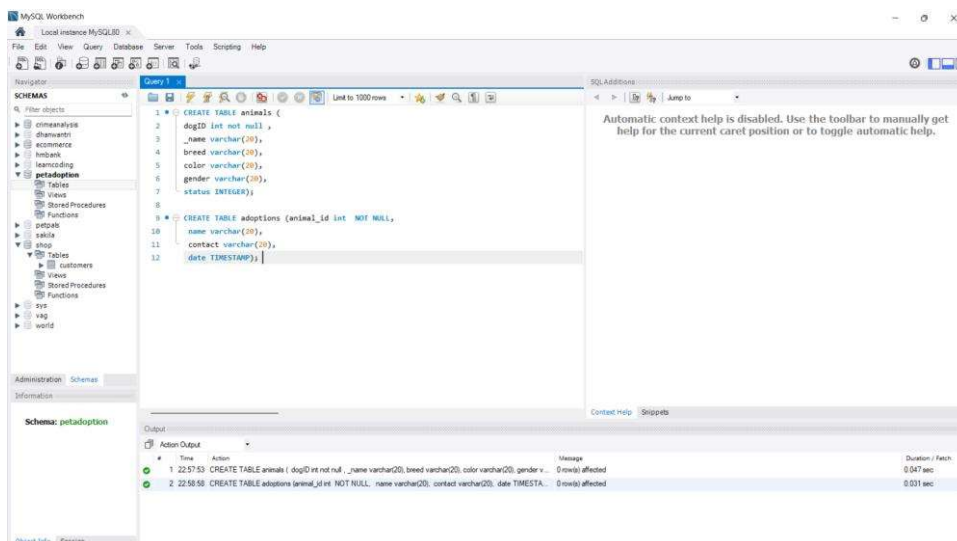
*Questions- create and use command--



2.create Table-



3.create Table adoptions-



4. Show Table-

MySQL Workbench interface showing the 'petadoption' schema. The 'animals' table structure is displayed in the 'Result Grid' pane. The table has the following columns:

Field	Type	Null	Key	Default	Extra
dogID	int	NO			
_name	varchar(20)	YES			
breed	varchar(20)	YES			
color	varchar(20)	YES			
gender	varchar(20)	YES			
status	int	YES			

The 'Output' pane shows the execution of the following SQL statements:

- 1 22:57:53 CREATE TABLE animals (dogID int not null, _name varchar(20), breed varchar(20), color varchar(20), gender ... 0 rows affected 0.047 sec
- 2 22:58:58 CREATE TABLE adoptions (animal_id int NOT NULL, name varchar(20), contact varchar(20), date TIMESTA... 0 rows affected 0.031 sec
- 3 22:59:25 SHOW COLUMNS FROM animals 6 rows returned 0.016 sec / 0.000 sec

MySQL Workbench interface showing the 'petadoption' schema. The 'adoptions' table structure is displayed in the 'Result Grid' pane. The table has the following columns:

Field	Type	Null	Key	Default	Extra
animal_id	int	NO			
name	varchar(20)	YES			
contact	varchar(20)	YES			
date	timestamp	YES			

The 'Output' pane shows the execution of the following SQL statements:

- 1 22:57:53 CREATE TABLE animals (dogID int not null, _name varchar(20), breed varchar(20), color varchar(20), gender ... 0 rows affected 0.047 sec
- 2 22:58:58 CREATE TABLE adoptions (animal_id int NOT NULL, name varchar(20), contact varchar(20), date TIMESTA... 0 rows affected 0.031 sec
- 3 22:59:25 SHOW COLUMNS FROM animals 6 rows returned 0.016 sec / 0.000 sec
- 4 22:59:57 SHOW COLUMNS FROM adoptions 4 rows returned 0.000 sec / 0.000 sec

5. Insert Command-

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following SQL commands:

```
1 * INSERT INTO animals (dogID, name, breed, color, gender, status) VALUES
2 (1, 'Snowy', 'husky', 'white', 'Female', 0),
3 (2, 'Princess', 'Pomeranian', 'Black', 'Female', 0),
4 (4, 'Spot', 'Dalmatian', 'Black and white', 'Male', 0);
5
6 * select * from animals;
```

The SQL editor toolbar shows the 'Limit to 1000 rows' button. The SQL editor output pane shows the results of the SQL commands:

dogID	name	breed	color	gender	status
1	Bell-Roo	Beagle	Brown	Male	0
2	Snowy	Husky	White	Female	0
3	Princess	Pomeranian	Black	Female	0
4	Spot	Dalmatian	Black and white	Male	0

The SQL editor output pane also shows the results of the SQL commands:

Time	Action	Message	Duration / Feat.
1 23:05:18	INSERT INTO animals (dogID, name, breed, color, gender, status) VALUES (2, 'Snowy', 'Husky', 'White', 'Female', 0)	3 rows affected Records: 3 Duplicates: 0 Warnings: 0	0.016 sec
2 23:05:31	select * from animals LIMIT 0, 1000	4 rows returned	0.000 sec / 0.000 sec

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following SQL commands:

```
4
5
6 * insert into adoptions (animal_id, name, contact_date)
7 values (1, 'honey', 'shardapun', '2023-3-4'),
8 (2, 'kajal', 'defence', '2023-11-04');
9
10 * select * from adoptions;
```

The SQL editor output pane shows the results of the SQL commands:

animal_id	name	contact_date
1	honey	shardapun 2023-03-04
2	kajal	defence 2023-11-04

The SQL editor output pane also shows the results of the SQL commands:

Time	Action	Message	Duration / Feat.
1 01:14:20	select * from animals LIMIT 0, 1000	3 rows returned	0.000 sec / 0.000 sec
2 01:17:16	alter table animals change column dogID animal_id int	0 rows affected Records: 0 Duplicates: 0 Warnings: 0	0.140 sec
3 01:17:42	select * from animals LIMIT 0, 1000	3 rows returned	0.000 sec / 0.000 sec
4 01:18:45	alter table adoptions change column date date	0 rows affected Records: 0 Duplicates: 0 Warnings: 0	0.094 sec
5 01:19:58	insert into adoptions (animal_id, name, contact_date) values (1, 'honey', 'shardapun', '2023-3-4'), (2, 'kajal', 'defence', '2023-11-04')	2 rows affected Records: 2 Duplicates: 0 Warnings: 0	0.016 sec
6 01:20:13	select * from adoptions LIMIT 0, 1000	2 rows returned	0.000 sec / 0.000 sec

6. Select Command-

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following SQL commands:

```
1
2
3 * select breed from animals;
```

The SQL editor output pane shows the results of the SQL commands:

breed
Beagle
Husky
Pomeranian
Dalmatian

The SQL editor output pane also shows the results of the SQL commands:

Time	Action	Message	Duration / Feat.
1 23:05:18	INSERT INTO animals (dogID, name, breed, color, gender, status) VALUES (2, 'Snowy', 'Husky', 'White', 'Female', 0)	3 rows affected Records: 3 Duplicates: 0 Warnings: 0	0.016 sec
2 23:05:31	select * from animals LIMIT 0, 1000	4 rows returned	0.000 sec / 0.000 sec
3 23:06:00	select breed from animals LIMIT 0, 1000	4 rows returned	0.016 sec / 0.000 sec
4 23:06:07	select breed from animals LIMIT 0, 1000	4 rows returned	0.016 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Schemas

Filter objects

animals

Columns:

dogID int
name varchar(20)
breed varchar(20)
color varchar(20)
gender varchar(20)
status int

Query 1

```
SELECT name FROM animals WHERE gender = 'Female';
```

Result Grid

name
Sherry
Princess

Output

animals 16

Read Only

Context Help

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Output

Action Output

#	Time	Action	Message	Duration / Feat.
1	23:06:36	SELECT name FROM animals WHERE gender = 'Female' LIMIT 0, 1000	2 rows returned	0.015 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

Schemas

Filter objects

work

Columns:

ID int PK
name varchar(20)
age int
address char(25)
salary decimal(18,2)

Query 1

```
VALUES (101, 'Utkarsh Singh', 'Varanasi', 'India'),
(104, 'Utkarsh Singh', 'Allahabad', 'India'),
(105, 'Sudharshu Yadav', 'Allahabad', 'India');

SELECT * FROM employee WHERE emp_city = 'Allahabad'
AND emp_country = 'India';
```

Result Grid

emp_id	emp_name	emp_city	emp_country
104	Utkarsh Singh	Allahabad	India
105	Sudharshu Yadav	Allahabad	India

Output

employee 41

Apply

Revert

Context Help

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Output

Action Output

#	Time	Action	Message	Duration / Feat.
1	01:54:34	INSERT INTO employee(emp_id,emp_name,emp_city,emp_country) VALUES (101,'Utkarsh Singh','Varanasi', 'India');	5 rows affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
2	01:54:52	select from employee LIMIT 0, 1000	5 rows returned	0.000 sec / 0.000 sec
3	01:55:29	SELECT * FROM employee WHERE emp_city = 'Allahabad' AND emp_country = 'India' LIMIT 0, 1000	2 rows returned	0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

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Navigator

Schemas

Filter objects

work

Columns:

ID int PK
name varchar(20)
age int
address char(25)
salary decimal(18,2)

Query 1

```
VALUES (101, 'Utkarsh Singh', 'Varanasi', 'India'),
(102, 'Ashwin Singh', 'Varanasi', 'India'),
(104, 'Utkarsh Singh', 'Allahabad', 'India'),
(105, 'Sudharshu Yadav', 'Allahabad', 'India');

select * from employee
```

Result Grid

emp_id	emp_name	emp_city	emp_country
101	Utkarsh Singh	Varanasi	India
102	Ashwin Singh	Varanasi	India
104	Utkarsh Singh	Allahabad	India
105	Sudharshu Yadav	Allahabad	India

Output

employee 40

Apply

Revert

Context Help

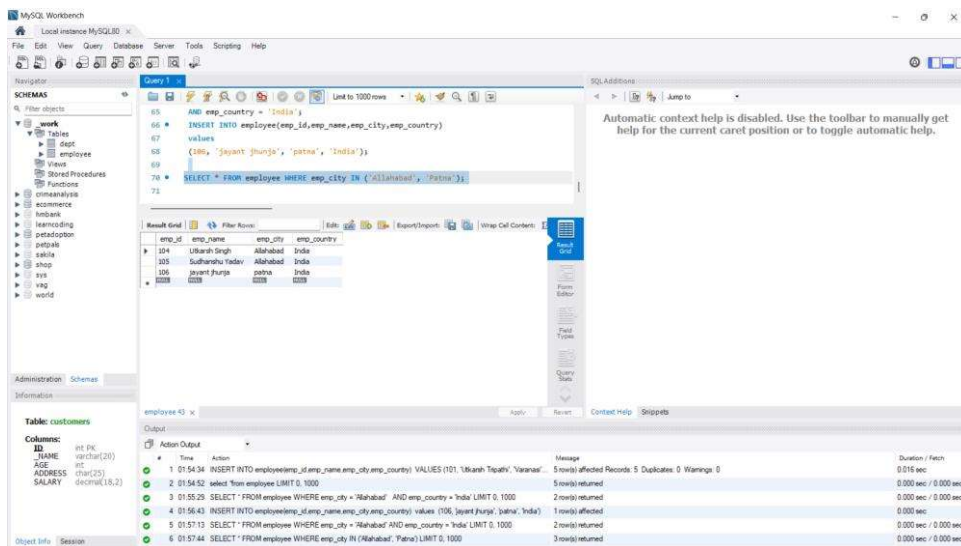
SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Output

Action Output

#	Time	Action	Message	Duration / Feat.
1	01:54:34	INSERT INTO employee(emp_id,emp_name,emp_city,emp_country) VALUES (101,'Utkarsh Singh','Varanasi', 'India');	5 rows affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
2	01:54:52	select from employee LIMIT 0, 1000	5 rows returned	0.000 sec / 0.000 sec



MySQL Workbench

Local instance MySQL80

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hrmoption

hrmrole

hrmshop

hrmsys

hrmvag

hrmworld

Administration Schemas

Information

Table: customers

Columns:

ID int PK

NAME varchar(20)

AGE int

ADDRESS char(25)

SALARY decimal(18,2)

Object Info Session

Query 1

Limit to 1000 rows

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Filter Rows

Export

Wrap Cell Contents

emp_name

Utkarsh Tripathi

Ashwin Singh

Utkarsh Raghuvanshi

Utkarsh Singh

Sudharshu Yadav

Jayant Purja

employees31

Read Only

Context Help Snippets

Action Output

Time Action Message Duration / Fetch

01:58:57 SELECT * FROM employee WHERE emp_city LIKE P% LIMIT 0, 1000 1 row(s) returned 0.000 sec / 0.000 sec

01:59:23 SELECT * FROM employee WHERE emp_id BETWEEN 101 AND 104 LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

01:59:46 SELECT * FROM employee WHERE emp_id = ALL (SELECT emp_id FROM employee WHERE emp_city = ... 0 row(s) returned 0.000 sec / 0.000 sec

02:00:12 SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = ... 3 row(s) returned 0.000 sec / 0.000 sec

02:00:35 SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = ... 3 row(s) returned 0.016 sec / 0.000 sec

02:01:10 SELECT emp_name FROM employee WHERE EXISTS (SELECT emp_id FROM employee WHERE emp_city ... 6 row(s) returned 0.000 sec / 0.000 sec

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hrmworld

Administration Schemas

Information

Table: customers

Columns:

ID int PK

NAME varchar(20)

AGE int

ADDRESS char(25)

SALARY decimal(18,2)

Object Info Session

Query 1

Limit to 1000 rows

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Filter Rows

Export/Import

Wrap Cell Contents

emp_id emp_name emp_city emp_country

101 Utkarsh Tripathi Varanasi India

102 Ashwin Singh Varanasi India

103 Utkarsh Raghuvanshi Varanasi India

104 Utkarsh Singh Allahabad India

105 Sudharshu Yadav Allahabad India

106 Jayant Purja Patna India

employees32

Apply Revert

Context Help Snippets

Action Output

Time Action Message Duration / Fetch

01:59:23 SELECT * FROM employee WHERE emp_id BETWEEN 101 AND 104 LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

01:59:46 SELECT * FROM employee WHERE emp_id = ALL (SELECT emp_id FROM employee WHERE emp_city = ... 0 row(s) returned 0.000 sec / 0.000 sec

02:00:12 SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = ... 3 row(s) returned 0.000 sec / 0.000 sec

02:00:35 SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = ... 3 row(s) returned 0.016 sec / 0.000 sec

02:01:10 SELECT emp_name FROM employee WHERE EXISTS (SELECT emp_id FROM employee WHERE emp_city ... 6 row(s) returned 0.000 sec / 0.000 sec

02:06:25 SELECT * FROM employee WHERE emp_city = 'Varanasi' or emp_country = 'India' LIMIT 0, 1000 6 row(s) returned 0.015 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

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Administration Schemas

Information

Table: customers

Columns:

ID int PK

NAME varchar(20)

AGE int

ADDRESS char(25)

SALARY decimal(18,2)

Object Info Session

Query 1

Limit to 1000 rows

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

Filter Rows

Export/Import

Wrap Cell Contents

emp_id emp_name emp_city emp_country

101 Utkarsh Tripathi Varanasi India

102 Ashwin Singh Varanasi India

103 Utkarsh Raghuvanshi Varanasi India

104 Utkarsh Singh Allahabad India

105 Sudharshu Yadav Allahabad India

employees33

Apply Revert

Context Help Snippets

Action Output

Time Action Message Duration / Fetch

01:59:46 SELECT * FROM employee WHERE emp_id = ALL (SELECT emp_id FROM employee WHERE emp_city = ... 0 row(s) returned 0.000 sec / 0.000 sec

02:00:12 SELECT * FROM employee WHERE emp_id = ALL (SELECT emp_id FROM employee WHERE emp_city = ... 0 row(s) returned 0.000 sec / 0.000 sec

02:00:35 SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = ... 3 row(s) returned 0.016 sec / 0.000 sec

02:01:10 SELECT emp_name FROM employee WHERE EXISTS (SELECT emp_id FROM employee WHERE emp_city ... 6 row(s) returned 0.000 sec / 0.000 sec

02:06:25 SELECT * FROM employee WHERE emp_city = 'Varanasi' or emp_country = 'India' LIMIT 0, 1000 6 row(s) returned 0.015 sec / 0.000 sec

02:07:44 SELECT * FROM employee WHERE emp_id < SOME (SELECT emp_id FROM employee WHERE emp_city ... 5 row(s) returned 0.000 sec / 0.000 sec

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Information

Table: customers

Columns:

ID int PK

NAME varchar(20)

AGE int

ADDRESS char(25)

SALARY decimal(18,2)

Object Info Session

Query 1

Limit to 1000 rows

SQL Editor

```

184 (SELECT emp_id FROM employee WHERE emp_city = 'Varanasi')
185
186 SELECT emp_name FROM employee WHERE EXISTS
187 (SELECT emp_id FROM employee WHERE emp_city = 'Patna') /* exists operator */
188
189 SELECT * FROM employee WHERE emp_id < SOME
190 (SELECT emp_id FROM employee WHERE emp_city = 'Patna') /* some operator */

```

Result Grid

emp_id	emp_name	emp_city	emp_country
101	Utkarsh Tripathi	Varanasi	India
102	Abhinav Singh	Varanasi	India
103	Utkarsh Kishore	Varanasi	India
104	Utkarsh Singh	Aligarh	India
105	Sudhanshu Yadav	Aligarh	India

employees 53 x

Output

Action Output

Time	Action	Message	Duration / Feat
11 01:59:46	SELECT * FROM employee WHERE emp_id = ALL (SELECT emp_id FROM employee WHERE emp_city = 'Varanasi')	0 rows returned	0.000 sec / 0.000 sec
12 02:00:12	SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = 'Varanasi')	3 rows returned	0.016 sec / 0.000 sec
13 02:00:35	SELECT * FROM employee WHERE emp_id = ANY (SELECT emp_id FROM employee WHERE emp_city = 'Varanasi')	3 rows returned	0.016 sec / 0.000 sec
14 02:01:10	SELECT emp_name FROM employee WHERE EXISTS (SELECT emp_id FROM employee WHERE emp_city = 'Patna')	6 rows returned	0.000 sec / 0.000 sec
15 02:06:25	SELECT * FROM employee WHERE emp_city = 'Varanasi' or emp_country = 'India' LIMIT 0, 1000	6 rows returned	0.015 sec / 0.000 sec
16 02:07:44	SELECT * FROM employee WHERE emp_id < SOME (SELECT emp_id FROM employee WHERE emp_city = 'Patna')	5 rows returned	0.000 sec / 0.000 sec

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

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Administration Schemas

Information

Table: customers

Columns:

ID int PK

NAME varchar(20)

AGE int

ADDRESS char(25)

SALARY decimal(18,2)

Object Info Session

Query 1

Limit to 1000 rows

SQL Editor

```

181 (1, 'Shubham Kumar', '123 Main Street, Bangalore', '9876543210', 23),
182 (2, 'Shreya Gupta', '456 Park Road, Mumbai', '9876543211', 23),
183 (3, 'Naveen Singh', '789 Market Lane, Delhi', '9876543212', 26),
184 (4, 'Aman Chandra', '246 Forest Avenue, Kolkata', '9876543213', 22),
185 (5, 'Aditya Patel', '7890 Ocean Drive, Chennai', '9876543214', 27),
186 (6, 'Anshul Desai', '34 River View, Hyderabad', '9876543215', 24),
187 select * from students;

```

Result Grid

ROLL_NO	NAME	ADDRESS	PHONE	AGE
1	Shubham Kumar	123 Main Street, Bangalore	9876543210	23
2	Shreya Gupta	456 Park Road, Mumbai	9876543211	23
3	Naveen Singh	789 Market Lane, Delhi	9876543212	26
4	Aman Chandra	246 Forest Avenue, Kolkata	9876543213	22
5	Aditya Patel	7890 Ocean Drive, Chennai	9876543214	27
6	Anshul Desai	34 River View, Hyderabad	9876543215	24

students 54 x

Output

Action Output

Time	Action	Message	Duration / Feat
14 02:01:10	SELECT emp_name FROM employee WHERE EXISTS (SELECT emp_id FROM employee WHERE emp_city = 'Varanasi')	6 rows returned	0.000 sec / 0.000 sec
15 02:06:25	SELECT * FROM employee WHERE emp_city = 'Varanasi' or emp_country = 'India' LIMIT 0, 1000	6 rows returned	0.015 sec / 0.000 sec
16 02:07:44	SELECT * FROM employee WHERE emp_id < SOME (SELECT emp_id FROM employee WHERE emp_city = 'Patna')	5 rows returned	0.000 sec / 0.000 sec
17 02:08:44	CREATE TABLE students (ROLL_NO INT, NAME VARCHAR(50), ADDRESS VARCHAR(100), PHO...	0 rows affected	0.047 sec
18 02:09:22	INSERT INTO students (ROLL_NO, NAME, ADDRESS, PHONE, AGE) VALUES (1, 'Shubham Kumar', '12...	6 rows affected Records: 6 Duplicates: 0 Warnings: 0	0.016 sec
19 02:09:41	select * from students LIMIT 0, 1000	6 rows returned	0.000 sec / 0.000 sec

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

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Table: customers

Columns:

ID int PK

NAME varchar(20)

AGE int

ADDRESS char(25)

SALARY decimal(18,2)

Object Info Session

Query 1

Limit to 1000 rows

SQL Editor

```

188
189 SELECT DISTINCT NAME FROM Students; /*using distinct keyword we can fetch unique name fr
190
191 SELECT DISTINCT * FROM students;

```

Result Grid

ROLL_NO	NAME	ADDRESS	PHONE	AGE
1	Shubham Kumar	123 Main Street, Bangalore	9876543210	23
2	Shreya Gupta	456 Park Road, Mumbai	9876543211	23
3	Naveen Singh	789 Market Lane, Delhi	9876543212	26
4	Aman Chandra	246 Forest Avenue, Kolkata	9876543213	22
5	Aditya Patel	7890 Ocean Drive, Chennai	9876543214	27
6	Anshul Desai	34 River View, Hyderabad	9876543215	24

students 56 x

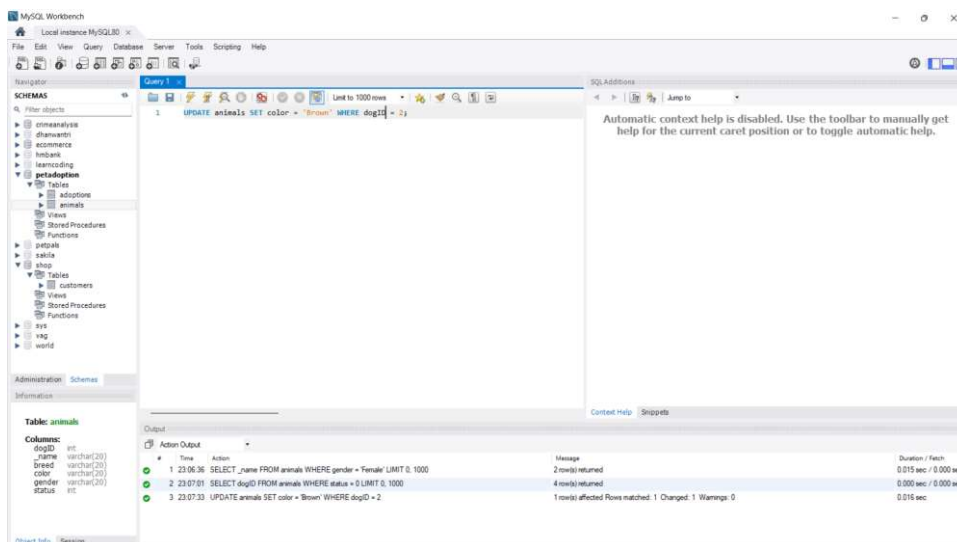
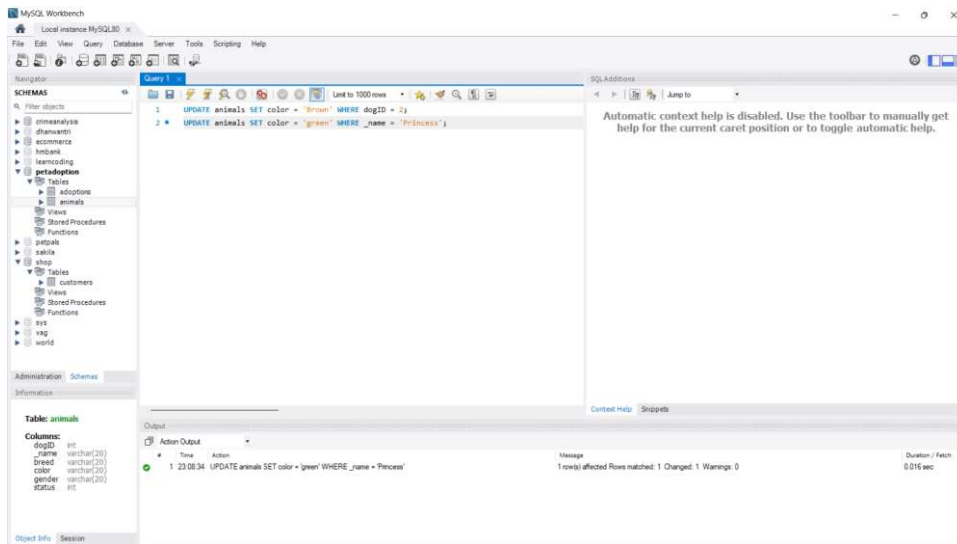
Output

Action Output

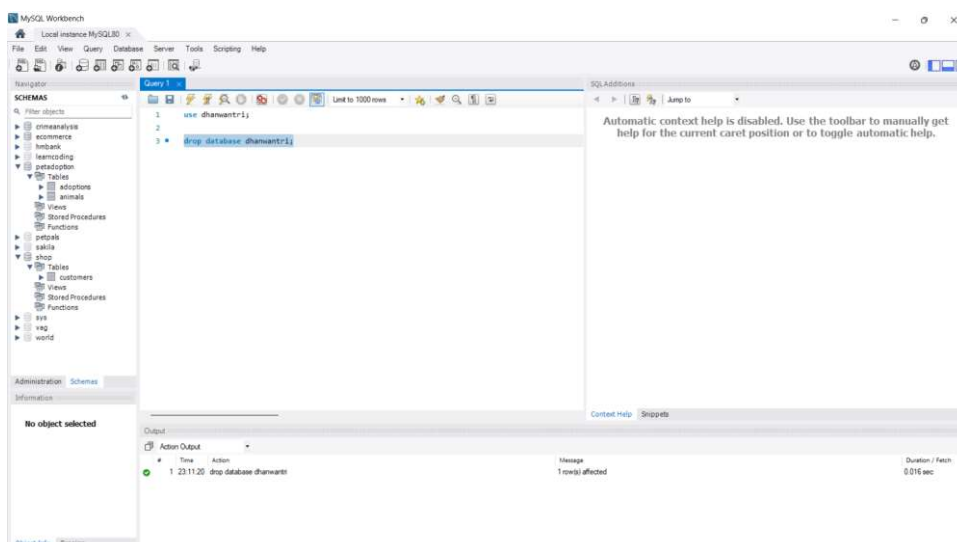
Time	Action	Message	Duration / Feat
1 02:11:27	SELECT DISTINCT NAME FROM Students LIMIT 0, 1000	6 rows returned	0.015 sec / 0.000 sec
2 02:17:03	SELECT DISTINCT * FROM students LIMIT 0, 1000	6 rows returned	0.000 sec / 0.000 sec

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

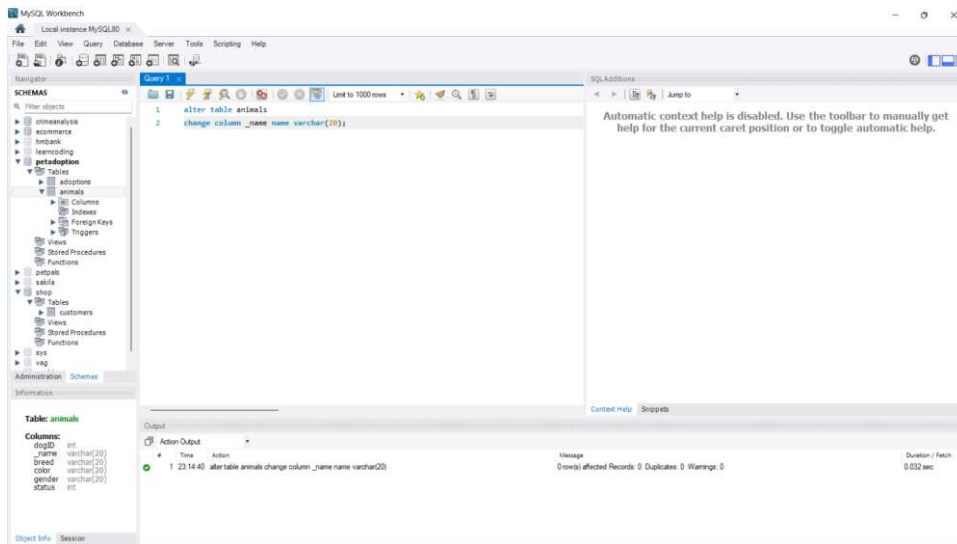
7.Update Command-



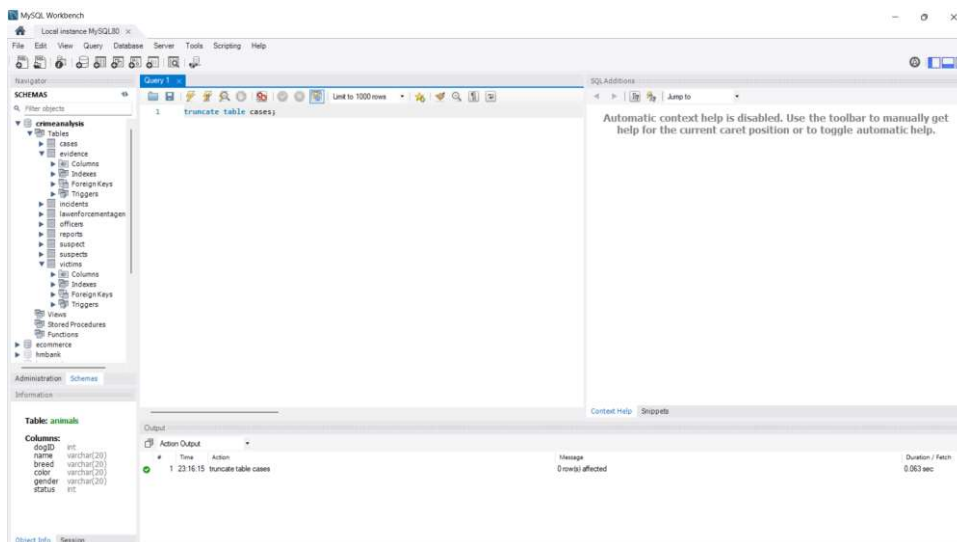
8.Drop Command-



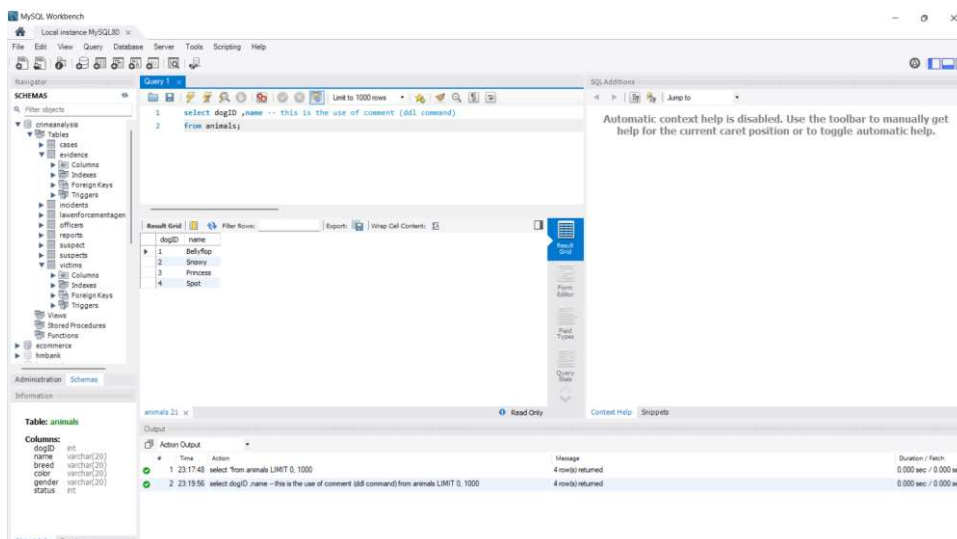
9.Alter Command-

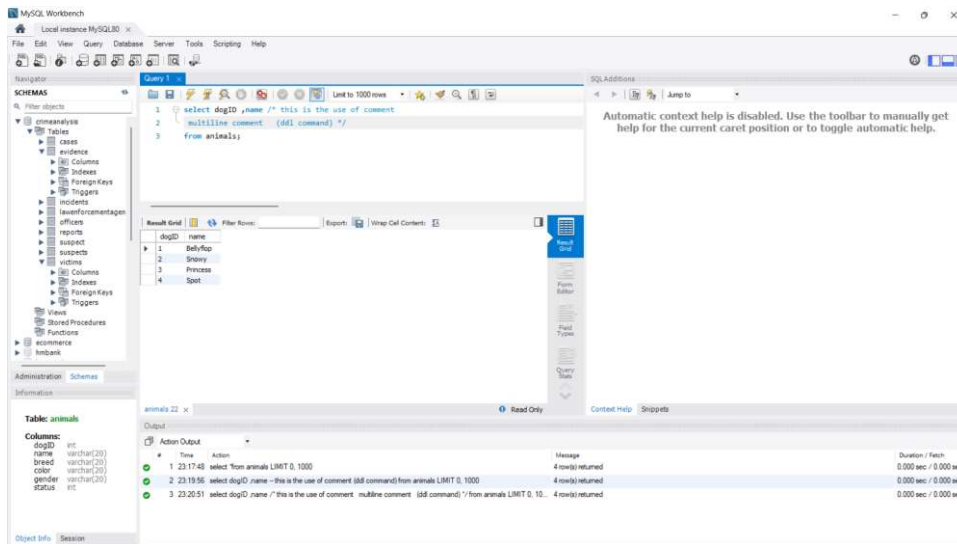


10-Truncate Command-

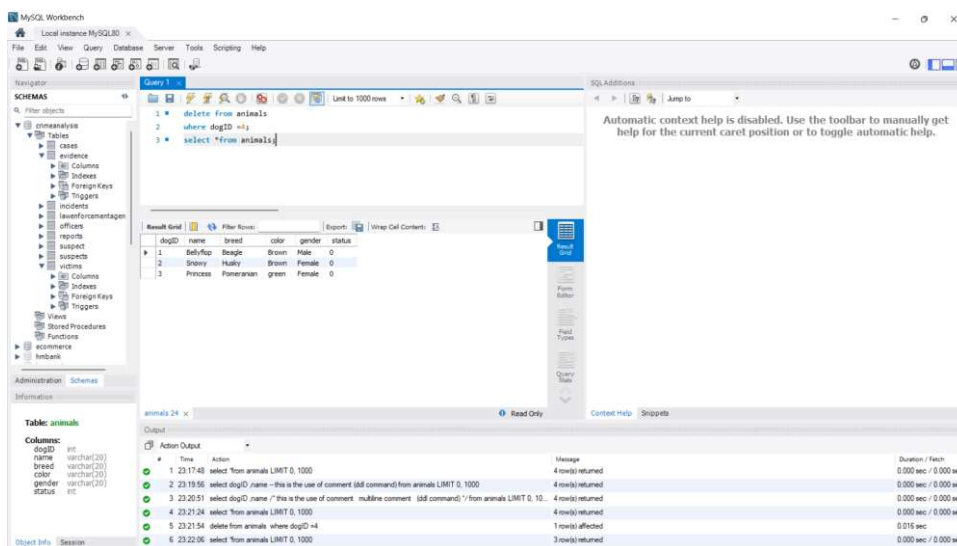


11.Comment Command-

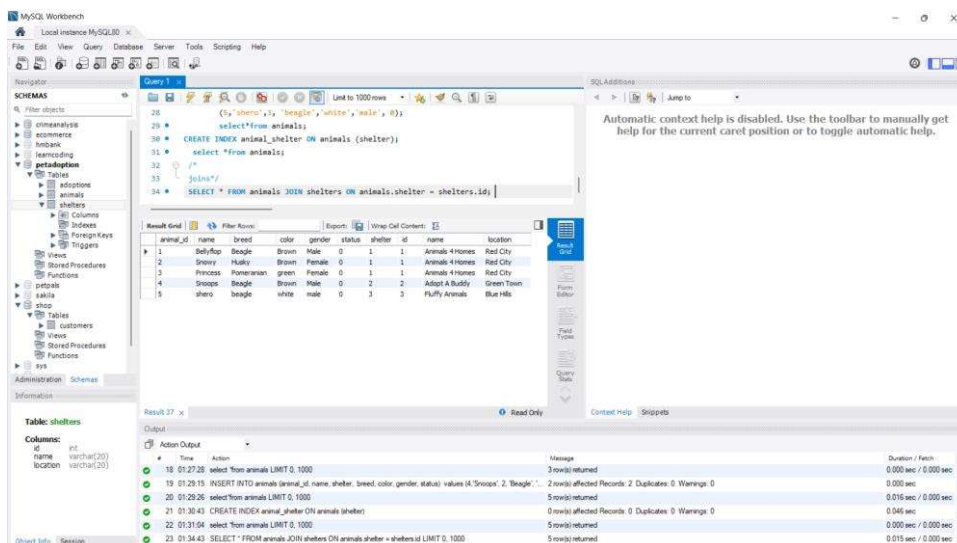


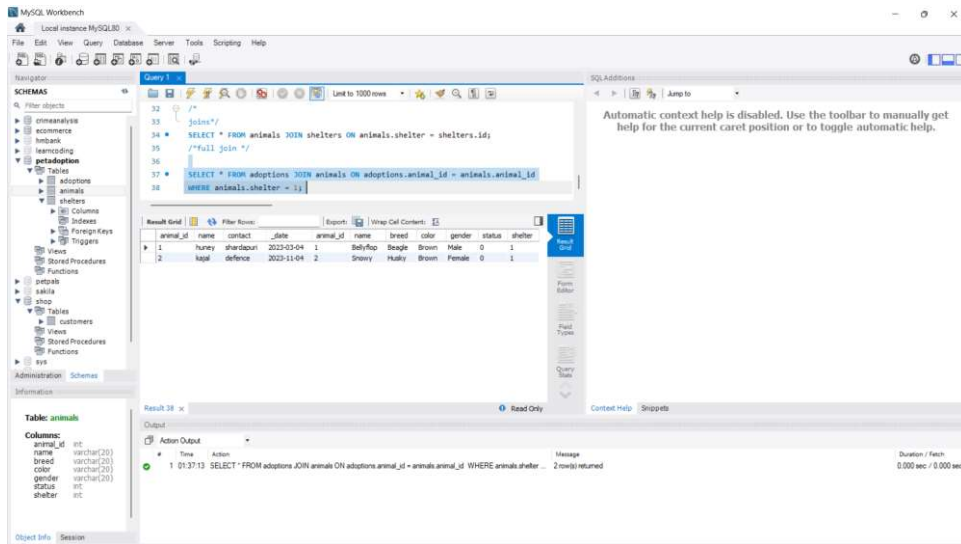


12.Delete Command-



13. Using Joins-





14. Show Command-

