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SQL Assignment_Part1 - SET 1

Starts Here :- P.T.O.



SQL

Structured Query Language



SET 1

1. create a database called '**assignment**' (Note please do the assignment tasks in this database)

Answer :-

The screenshot shows the MySQL Workbench interface. In the top navigation bar, the title is "MySQL Workbench" and the instance is "Local instance MySQL80". The menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. Below the menu is a toolbar with various icons. The left sidebar is titled "Navigator" and shows "SCHEMAS". Under "SCHEMAS", there is a tree view with "adv_sql", "assignment" (which is expanded to show "Tables", "Views", "Stored Procedures", and "Functions"), "education", "llb", and "pralay". The "assignment" schema is selected. The main workspace has tabs "ConsolidatedTables_(que)" and "Assignment_Part1_(pk)". The "Assignment_Part1_(pk)" tab is active and contains the following SQL script:

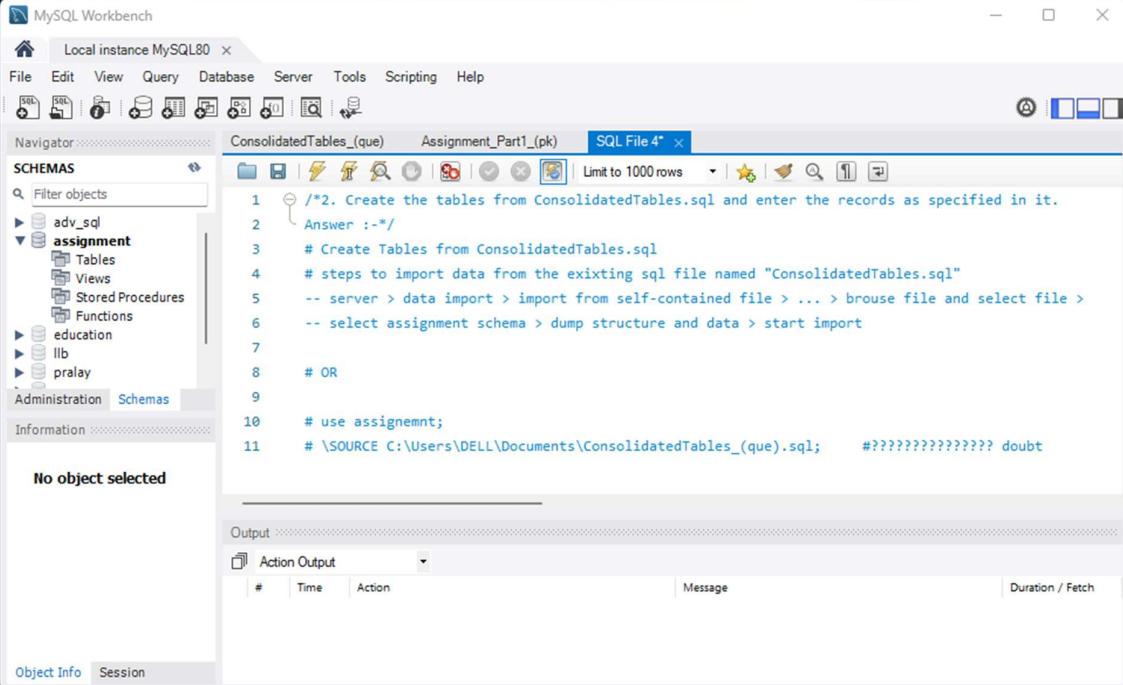
```
1 /*1. create a database called 'assignment' (Note please do the assignment tasks in this database)
2 Answer :*/
3 # Create a Database
4 • CREATE DATABASE assignment;
5 • USE assignment;
```

Below the script, the "Output" pane shows the results of the execution:

#	Time	Action	Message	Duration / Fetch
1	17:52:05	CREATE DATABASE assignment	1 row(s) affected	0.000 sec
2	17:52:05	USE assignment	0 row(s) affected	0.000 sec

2. Create the tables from ConsolidatedTables.sql and enter the records as specified in it.

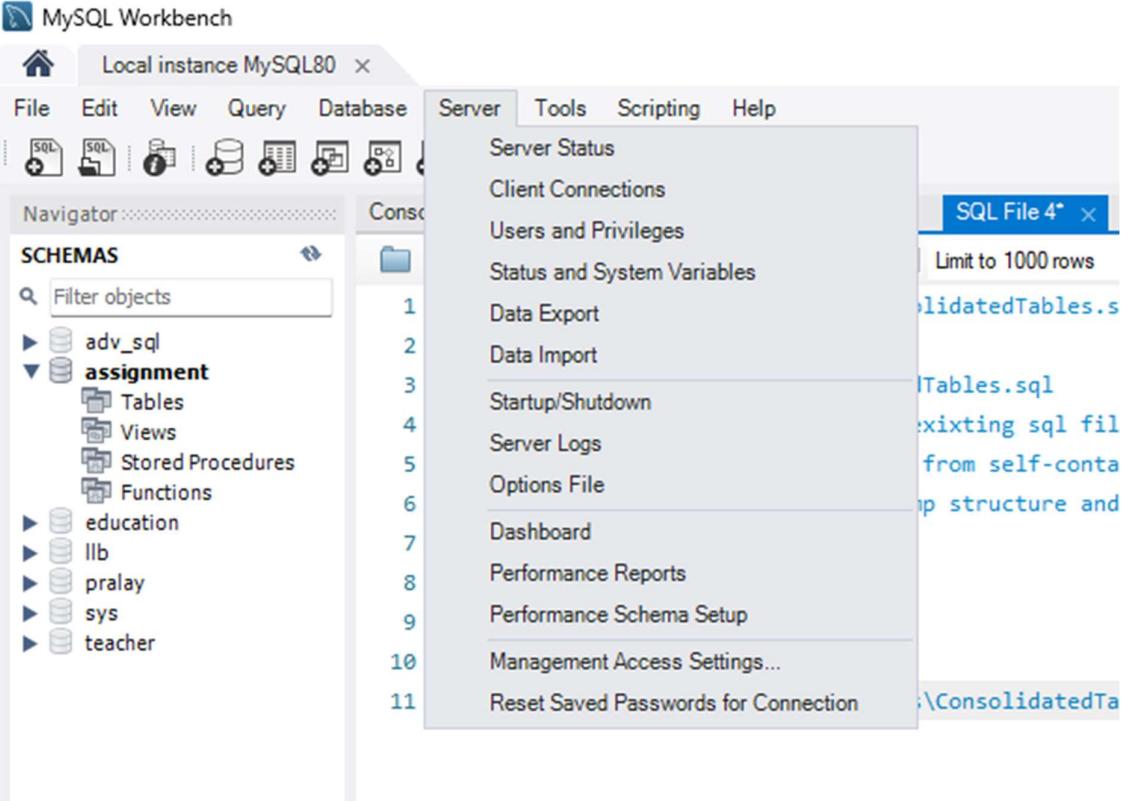
Answer :-



The screenshot shows the MySQL Workbench interface with the following details:

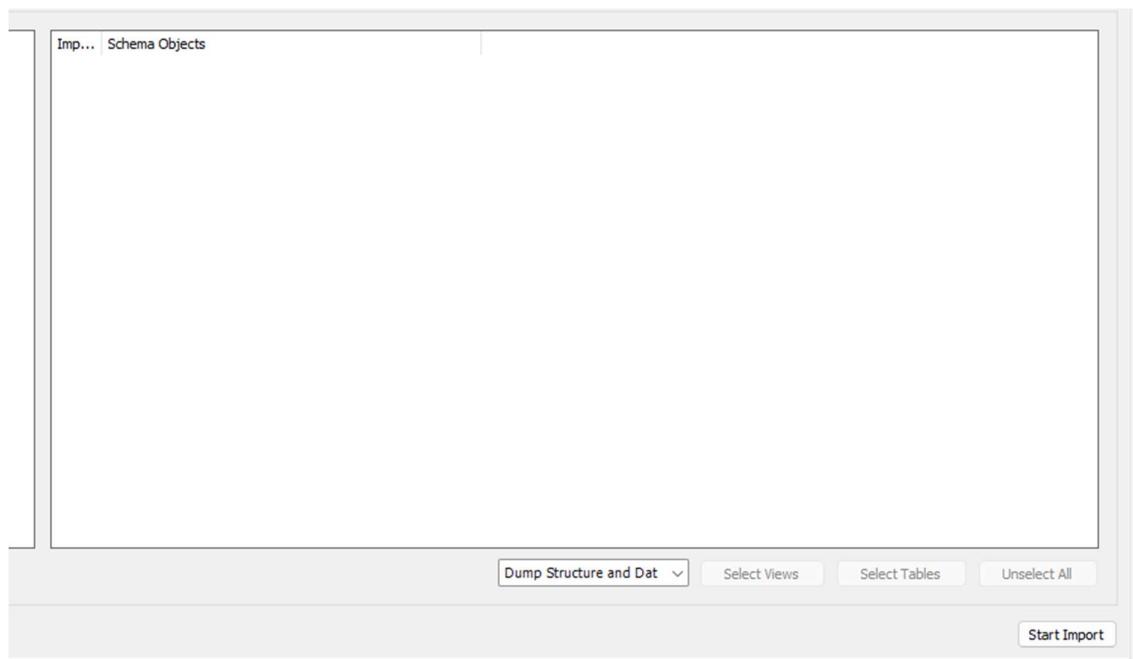
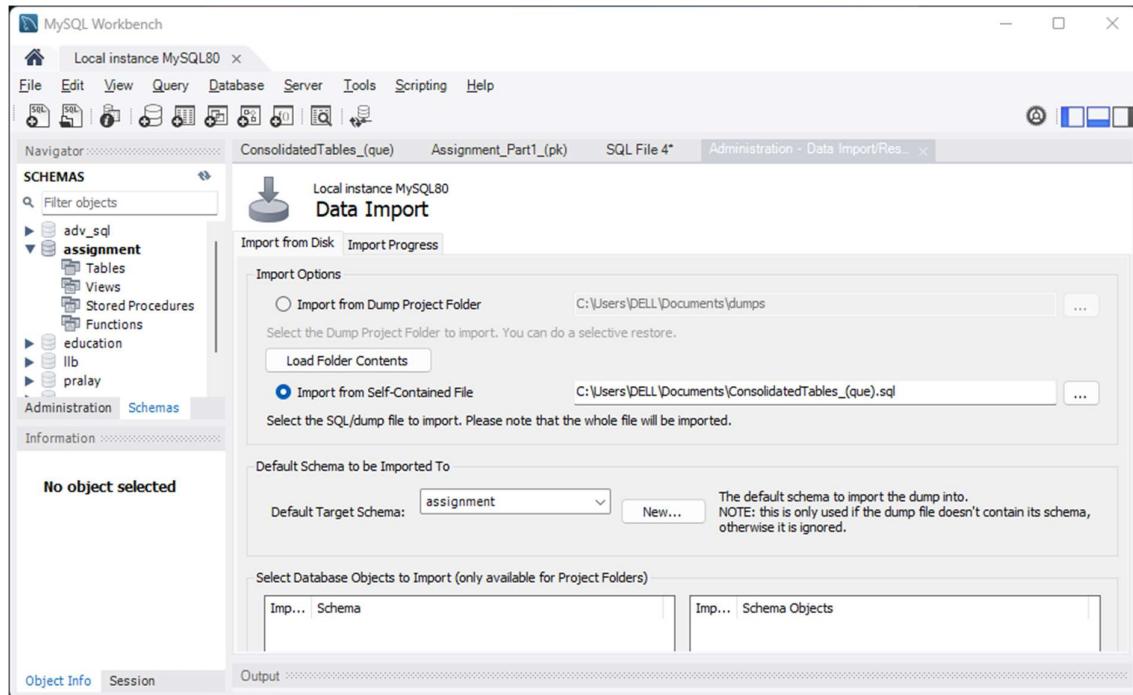
- Title Bar:** MySQL Workbench, Local instance MySQL80
- Menu Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help
- Toolbar:** Includes icons for Home, New, Open, Save, Print, Find, Copy, Paste, etc.
- Navigator:** Shows the database schema with the 'assignment' schema expanded, displaying Tables, Views, Stored Procedures, and Functions.
- SQL Editor:** Tab titled 'SQL File 4*' contains the following text:

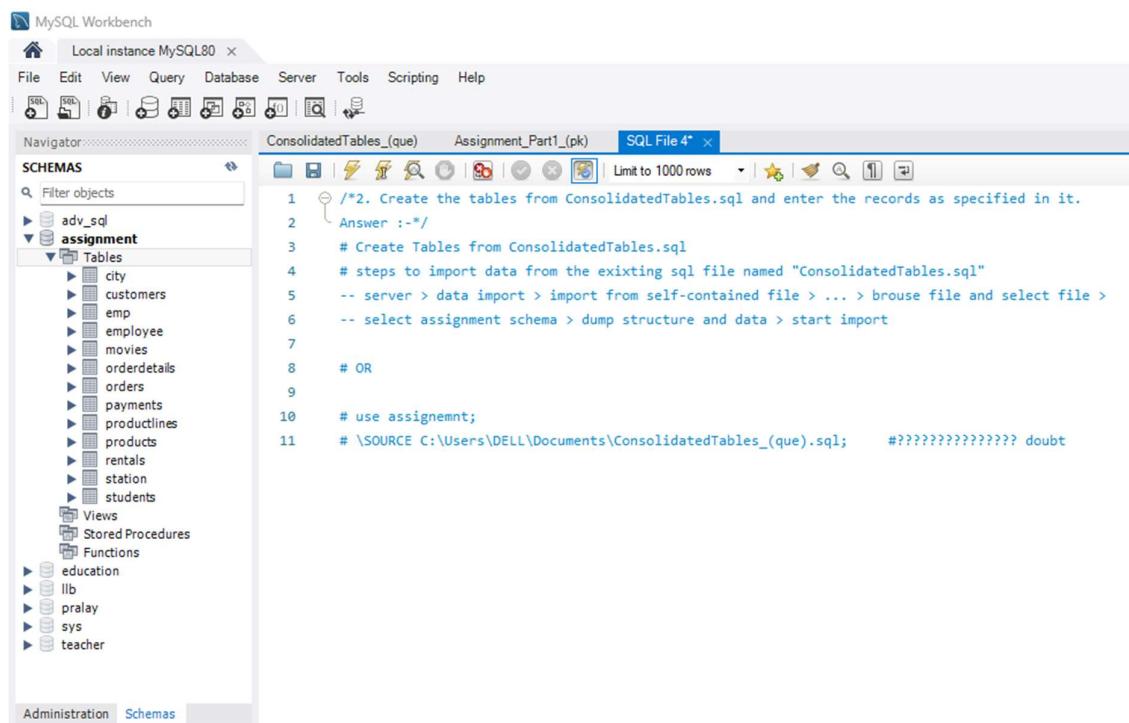
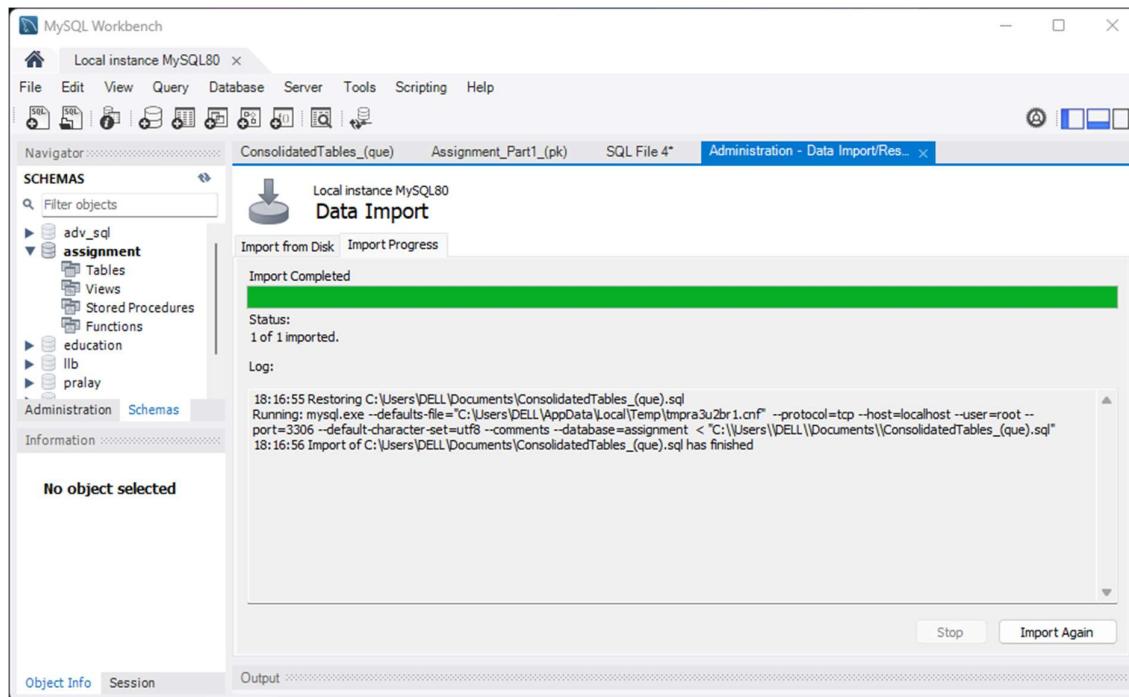
```
1  /*2. Create the tables from ConsolidatedTables.sql and enter the records as specified in it.
2  Answer :-/
3  # Create Tables from ConsolidatedTables.sql
4  # steps to import data from the existing sql file named "ConsolidatedTables.sql"
5  -- server > data import > import from self-contained file > ... > browse file and select file >
6  -- select assignment schema > dump structure and data > start import
7
8  # OR
9
10 # use assignment;
11 # \SOURCE C:\Users\DELL\Documents\ConsolidatedTables_(que).sql;      ##### doubt
```
- Output:** Tab titled 'Action Output' shows a table with columns: #, Time, Action, Message, Duration / Fetch.
- Status Bar:** Object Info, Session



The screenshot shows the MySQL Workbench interface with the following details:

- Title Bar:** MySQL Workbench, Local instance MySQL80
- Menu Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help
- Toolbar:** Includes icons for SQL, Schemas, Tables, Views, Procedures, Functions, etc.
- Navigator:** Shows the database schema with the 'assignment' schema expanded, displaying Tables, Views, Stored Procedures, and Functions.
- Server Tab:** Active tab, showing a list of management options:
 - Server Status
 - Client Connections
 - Users and Privileges
 - Status and System Variables
 - Data Export
 - Data Import
 - Startup/Shutdown
 - Server Logs
 - Options File
 - Dashboard
 - Performance Reports
 - Performance Schema Setup
 - Management Access Settings...
 - Reset Saved Passwords for Connection
- SQL Editor:** Tab titled 'SQL File 4*' contains the same script as the previous screenshot.
- Output:** Tab titled 'Action Output' shows a table with columns: #, Time, Action, Message, Duration / Fetch.
- Status Bar:** Object Info, Session





3. Create a table called **countries** with the following columns
name, population, capital

- choose appropriate datatypes for the columns

a) Insert the following data into the table

China	1382	Beijing
India	1326	Delhi
United States	324	Washington D.C.
Indonesia	260	Jakarta
Brazil	209	Brasilia
Pakistan	193	Islamabad
Nigeria	187	Abuja
Bangladesh	163	Dhaka
Russia	143	Moscow
Mexico	128	Mexico City
Japan	126	Tokyo
Philippines	102	Manila
Ethiopia	101	Addis Ababa
Vietnam	94	Hanoi
Egypt	93	Cairo
Germany	81	Berlin
Iran	80	Tehran
Turkey	79	Ankara
Congo	79	Kinshasa
France	64	Paris
United Kingdom	65	London
Italy	60	Rome
South Africa	55	Pretoria
Myanmar	54	Naypyidaw

b) Add a couple of countries of your choice

c) Change 'Delhi' to 'New Delhi'

Answer :-

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* x

SCHEMAS

assignment

Tables

city
customers
emp
employee
movies
orderdetails
orders
payments
productlines

Administration Schemas

Information

Schema: assignment

Object Info Session Output

SQL Additions

Limit to 1000 rows | Jump to

1 /*3. Create a table called countries with the following columns
2 name, population, capital
3 - choose appropriate datatypes for the columns
4
5 a) Insert the following data into the table
6 China 1382 Beijing
7 India 1326 Delhi
8 United States 324 Washington D.C.
9 Indonesia 260 Jakarta
10 Brazil 209 Brasilia
11 Pakistan 193 Islamabad
12 Nigeria 187 Abuja
13 Bangladesh 163 Dhaka
14 Russia 143 Moscow
15 Mexico 128 Mexico City
16 Japan 126 Tokyo
17 Philippines 102 Manila
18 Ethiopia 101 Addis Ababa

Context Help Snippets

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* x

SCHEMAS

assignment

Tables

city
customers
emp
employee
movies
orderdetails
orders
payments
productlines

Administration Schemas

Information

Schema: assignment

Object Info Session Output

SQL Additions

Limit to 1000 rows | Jump to

19 Vietnam 94 Hanoi
20 Egypt 93 Cairo
21 Germany 81 Berlin
22 Iran 80 Tehran
23 Turkey 79 Ankara
24 Congo 79 Kinshasa
25 France 64 Paris
26 United Kingdom 65 London
27 Italy 60 Rome
28 South Africa 55 Pretoria
29 Myanmar 54 Naypyidaw
30
31 b) Add a couple of countries of your choice
32
33 c) Change 'Delhi' to 'New Delhi'
34 Answer :--/
35 -- Create a table and inserting entries in it
36 • CREATE TABLE countries (

Context Help Snippets

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* | Limit to 1000 rows | SQL Additions | Jump to

SCHEMAS
assignment
Tables: city, customers, emp, employee, movies, orderdetails, orders, payments, productlines

Information Schema: assignment

Object Info Session Output

```
37     name VARCHAR(50),
38     population INT,
39     capital VARCHAR(50));
40
41 •   INSERT INTO countries (name, population, capital) VALUES
42 ('China', 1382, 'Beijing'),
43 ('India', 1326, 'Delhi'),
44 ('United States', 324, 'Washington D.C.'),
45 ('Indonesia', 260, 'Jakarta'),
46 ('Brazil', 209, 'Brasilia'),
47 ('Pakistan', 193, 'Islamabad'),
48 ('Nigeria', 187, 'Abuja'),
49 ('Bangladesh', 163, 'Dhaka'),
50 ('Russia', 143, 'Moscow'),
51 ('Mexico', 128, 'Mexico City'),
52 ('Japan', 126, 'Tokyo'),
53 ('Philippines', 102, 'Manila'),
54 ('Ethiopia', 101, 'Addis Ababa'),
```

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* | Limit to 1000 rows | SQL Additions | Jump to

SCHEMAS
assignment
Tables: city, customers, emp, employee, movies, orderdetails, orders, payments, productlines

Information Schema: assignment

Object Info Session Output

```
55     ('Vietnam', 94, 'Hanoi'),
56     ('Egypt', 93, 'Cairo'),
57     ('Germany', 81, 'Berlin'),
58     ('Iran', 80, 'Tehran'),
59     ('Turkey', 79, 'Ankara'),
60     ('Congo', 79, 'Kinshasa'),
61     ('France', 64, 'Paris'),
62     ('United Kingdom', 65, 'London'),
63     ('Italy', 60, 'Rome'),
64     ('South Africa', 55, 'Pretoria'),
65     ('Myanmar', 54, 'Naypyidaw');
66
67     -- Adding a couple of countries of your choice
68 •   INSERT INTO countries (name, population, capital) VALUES
69 ('Australia', 25, 'Canberra'),
70 ('Canada', 38, 'Ottawa');
71
72 •   SET SQL_SAFE_UPDATES =0 ;
```

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* | Limit to 1000 rows | SQL Additions | Jump to

SCHEMAS
assignment
Tables
city
customers
emp
employee
movies
orderdetails
orders
payments
productlines

Administration Schemas

Information

Schema: assignment

```
61 ('France', 64, 'Paris'),  
62 ('United Kingdom', 65, 'London'),  
63 ('Italy', 60, 'Rome'),  
64 ('South Africa', 55, 'Pretoria'),  
65 ('Myanmar', 54, 'Naypyidaw');  
66  
-- Adding a couple of countries of your choice  
67 • INSERT INTO countries (name, population, capital) VALUES  
68 ('Australia', 25, 'Canberra'),  
69 ('Canada', 38, 'Ottawa');  
70  
71 • SET SQL_SAFE_UPDATES =0 ;  
72 # SET GLOBAL log_bin_trust_function_creators = 1;  
73 -- Update Delhi to New Delhi  
74 • UPDATE countries  
75 SET capital = 'New Delhi'  
76 WHERE capital = 'Delhi';
```

Object Info Session Output Context Help Snippets

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* | Limit to 1000 rows | SQL Additions | Jump to

SCHEMAS
adv_sql
assignment
Tables
city
customers
emp
employee
movies
orderdetails
orders
payments

Administration Schemas

Information

Schema: assignment

```
31 b) Add a couple of countries of your choice  
32  
33 c) Change 'Delhi' to 'New Delhi'  
34 Answer :-/  
35 -- Create a table and inserting entries in it  
36 • CREATE TABLE countries (  
37     name VARCHAR(50),  
38     population INT,  
39     capital VARCHAR(50));  
40  
41 • INSERT INTO countries (name, population, capital) VALUES  
42 ('China', 1382, 'Beijing'),
```

Action Output

#	Time	Action	Message	Duration / Fetch
1	18:29:17	CREATE TABLE countries (name VARCHAR(50). ...	0 row(s) affected	0.031 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* ×

SCHEMAS

Filter objects

adv_sql assignment

Tables

- city
- customers
- emp
- employee
- movies
- orderdetails
- orders
- payments

Administration Schemas

Information

Schema: assignment

Object Info Session

```
40
41 • INSERT INTO countries (name, population, capital) VALUES
42 ('China', 1382, 'Beijing'),('India', 1326, 'Delhi'),('United States', 324, 'Washington D.C.'),
43 ('Indonesia', 260, 'Jakarta'),('Brazil', 209, 'Brasilia'),('Pakistan', 193, 'Islamabad'),
44 ('Nigeria', 187, 'Abuja'),('Bangladesh', 163, 'Dhaka'),('Russia', 143, 'Moscow'),
45 ('Mexico', 128, 'Mexico City'),('Japan', 126, 'Tokyo'),('Philippines', 102, 'Manila'),
46 ('Ethiopia', 101, 'Addis Ababa'),('Vietnam', 94, 'Hanoi'),('Egypt', 93, 'Cairo'),
47 ('Germany', 81, 'Berlin'),('Iran', 80, 'Tehran'),('Turkey', 79, 'Ankara'),
48 ('Congo', 79, 'Kinshasa'),('France', 64, 'Paris'),('United Kingdom', 65, 'London'),
49 ('Italy', 60, 'Rome'),('South Africa', 55, 'Pretoria'),('Myanmar', 54, 'Naypyidaw');
50
51 -- Adding a couple of countries of your choice
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	18:29:17	CREATE TABLE countries (name VARCHAR(50), ...	0 row(s) affected	0.031 sec
2	18:34:27	INSERT INTO countries (name, population, capital) V...	24 row(s) affected Records: 24 Duplicates: 0 Warnings: 0	0.015 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* ×

SCHEMAS

Filter objects

adv_sql assignment

Tables

- city
- customers
- emp
- employee
- movies
- orderdetails
- orders
- payments

Administration Schemas

Information

Schema: assignment

Object Info Session

```
49 ('Italy', 60, 'Rome'),('South Africa', 55, 'Pretoria'),('Myanmar', 54, 'Naypyidaw');

50
51 -- Adding a couple of countries of your choice
52 • INSERT INTO countries (name, population, capital) VALUES
53 ('Australia', 25, 'Canberra'),
54 ('Canada', 38, 'Ottawa');

55
56 • SET SQL_SAFE_UPDATES = 0 ;
57 # SET GLOBAL log_bin_trust_function_creators = 1;
58 -- Update Delhi to New Delhi
59 • UPDATE countries
60 SET capital = 'New Delhi'
```

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	18:29:17	CREATE TABLE countries (name VARCHAR(50), ...	0 row(s) affected	0.031 sec
2	18:34:27	INSERT INTO countries (name, population, capital) V...	24 row(s) affected Records: 24 Duplicates: 0 Warnings: 0	0.015 sec
3	18:35:40	INSERT INTO countries (name, population, capital) V...	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.015 sec

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4*

SCHEMAS

Filter objects

adv_sql assignment

Tables

city customers emp employee movies orderdetails orders payments

Administration Schemas

Information

Schema: assignment

Action Output

#	Time	Action	Message	Duration / Fetch
1	18:29:17	CREATE TABLE countries (name VARCHAR(50), ...	0 row(s) affected	0.031 sec
2	18:34:27	INSERT INTO countries (name, population, capital) V...	24 row(s) affected Records: 24 Duplicates: 0 Warnings: 0	0.015 sec
3	18:35:40	INSERT INTO countries (name, population, capital) V...	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.015 sec
4	18:36:18	SET SQL_SAFE_UPDATES =0	0 row(s) affected	0.000 sec
5	18:36:18	UPDATE countries SET capital = 'New Delhi' WHERE...	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec

Object Info Session

```
52 •    INSERT INTO countries (name, population, capital) VALUES
53     ('Australia', 25, 'Canberra'),
54     ('Canada', 38, 'Ottawa');
55
56 •    SET SQL_SAFE_UPDATES =0 ;
57     # SET GLOBAL log_bin_trust_function_creators = 1;
58     -- Update Delhi to New Delhi
59 •    UPDATE countries
60     SET capital = 'New Delhi'
61     WHERE capital = 'Delhi';
62
```

4. Rename the table countries to big_countries .

Answer :-

The screenshot shows the MySQL Workbench interface. In the SQL editor tab, there is a single line of code:

```
1 • /*4. Rename the table countries to big_countries .
```

In the object info panel on the left, under the Schemas section, the assignment schema is selected. Inside the assignment schema, the tables section shows the table "countries". Below the table, its definition is shown:

Table: countries

Columns:

name	varchar(50)
population	int
capital	varchar(50)

The screenshot shows the MySQL Workbench interface after the RENAME TABLE command has been executed. The SQL editor tab now displays the result of the command:

```
1 • /*4. Rename the table countries to big_countries .
```

In the object info panel on the left, under the Schemas section, the assignment schema is selected. Inside the assignment schema, the tables section shows the table "big_countries". Below the table, its definition is shown:

Table: big_countries

Columns:

name	varchar(50)
population	int
capital	varchar(50)

In the output panel at the bottom, the log shows the execution details:

#	Time	Action	Message	Duration / Fetch
1	18:42:57	RENAME TABLE countries TO big_countries	0 row(s) affected	0.016 sec

5. Create the following tables. Use auto increment wherever applicable

a. Product

product_id - primary key

product_name - cannot be null and only unique values are allowed

description

supplier_id - foreign key of supplier table

b. Suppliers

supplier_id - primary key

supplier_name

location

c. Stock

id - primary key

product_id - foreign key of product table

balance_stock

Answer :-

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** The current schema is "assignment".
- Tables:** Inside the "assignment" schema, there are ten tables: adv_sql, big_countries, city, customers, emp, employee, movies, orderdetails, and orders.
- SQL Editor:** The SQL editor tab is titled "SQL File 4*". It contains the following code:

```
1 /*5. Create the following tables. Use auto increment wherever applicable
2
3     a. Product
4     product_id - primary key
5     product_name - cannot be null and only unique values are allowed
6     description
7     supplier_id - foreign key of supplier table
8
9     b. Suppliers
10    supplier_id - primary key
11    supplier_name
12    location
13
14     c. Stock
15     id - primary key
16     product_id - foreign key of product table
17     balance_stock
18 */
```

The code defines three tables: Product, Suppliers, and Stock, with their respective columns and constraints. The Product table has columns for product_id (primary key), product_name (unique, non-null), description, and supplier_id (foreign key). The Suppliers table has columns for supplier_id (primary key), supplier_name, and location. The Stock table has columns for id (primary key), product_id (foreign key), and balance_stock.

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* ×

SCHEMAS

Filter objects

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

Administration Schemas

Information

Schema: assignment

Object Info Session Output

```
18   Answer :-*/
19   -- Product Table
20  • CREATE TABLE Product (
21      product_id INT AUTO_INCREMENT PRIMARY KEY,
22      product_name VARCHAR(100) NOT NULL UNIQUE,
23      description TEXT,
24      supplier_id INT,
25      FOREIGN KEY (supplier_id) REFERENCES Suppliers(supplier_id));
26
27   -- Suppliers Table
28  • CREATE TABLE Suppliers (
29      supplier_id INT AUTO_INCREMENT PRIMARY KEY,
30      supplier_name VARCHAR(100) NOT NULL UNIQUE,
31      location VARCHAR(100));
32
33   -- Stock Table
34  • CREATE TABLE Stock (
35      id INT AUTO_INCREMENT PRIMARY KEY,
```

run this 2nd

run this 1st

run this 3rd

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* ×

SCHEMAS

Filter objects

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

Administration Schemas

Information

Schema: assignment

Object Info Session Output

```
32
33   -- Stock Table
34  • CREATE TABLE Stock (
35      id INT AUTO_INCREMENT PRIMARY KEY,
36      product_id INT,
37      balance_stock INT,
38      FOREIGN KEY (product_id) REFERENCES Product(product_id));
39
40
41
42
43
44
45
46
47
48
49
```

run this 3rd

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* ×

SCHEMAS

Filter objects

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

Administration Schemas

Information

Schema: assignment

Object Info Session

SQL File 4* ×

```
27 -- Suppliers Table
28 • CREATE TABLE Suppliers (
29     supplier_id INT AUTO_INCREMENT PRIMARY KEY,
30     supplier_name VARCHAR(100) NOT NULL UNIQUE,
31     location VARCHAR(100);
32 • SHOW FULL COLUMNS FROM suppliers;
```

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

Field	Type	Collation	Null	Key	Default	Extra	Privileges
supplier_id	int	HULL	NO	PRI	HULL	auto_increment	select,insert,update,references
supplier_name	varchar(100)	utf8mb4_0900_ai_ci	NO	UNI	HULL		select,insert,update,references
location	varchar(100)	utf8mb4_0900_ai_ci	YES		HULL		select,insert,update,references

Result 3 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	18:52:31	CREATE TABLE Suppliers (supplier_id INT AUT...	0 row(s) affected	0.031 sec
2	18:57:20	SHOW FULL COLUMNS FROM suppliers	3 row(s) returned	0.000 sec / 0.000 sec

Read Only

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* ×

SCHEMAS

Filter objects

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

Administration Schemas

Information

Schema: assignment

Object Info Session

SQL File 4* ×

```
19 -- Product Table
20 • CREATE TABLE Product (
21     product_id INT AUTO_INCREMENT PRIMARY KEY, product_name VARCHAR(100) NOT NULL UNIQUE,
22     description TEXT, supplier_id INT,
23     FOREIGN KEY (supplier_id) REFERENCES Suppliers(supplier_id));
24 • SHOW FULL COLUMNS FROM product;
```

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

Field	Type	Collation	Null	Key	Default	Extra	Privileges
product_id	int	HULL	NO	PRI	HULL	auto_increment	select,insert,update,references
product_name	varchar(100)	utf8mb4_0900_ai_ci	NO	UNI	HULL		select,insert,update,references
description	text	utf8mb4_0900_ai_ci	YES		HULL		select,insert,update,references
supplier_id	int	HULL	YES	MUL	HULL		select,insert,update,references

Result 4 ×

Output

Action Output

#	Time	Action	Message	Duration / Fetch
3	19:02:23	CREATE TABLE Product (product_id INT AUT...	0 row(s) affected	0.031 sec
4	19:02:23	SHOW FULL COLUMNS FROM product	4 row(s) returned	0.000 sec / 0.000 sec

Read Only

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4* x

SCHEMAS

Filter objects

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

Administration Schemas

Information

Schema: assignment

Object Info Session

SQL:

```
32
33 -- Stock Table
34 CREATE TABLE Stock (
35     id INT AUTO_INCREMENT PRIMARY KEY, product_id INT, balance_stock INT,
36     FOREIGN KEY (product_id) REFERENCES Product(product_id));
37 SHOW FULL COLUMNS FROM stock;
```

run this 3rd

Result Grid Filter Rows: Export: Wrap Cell Content: Result Grid Read Only

Field	Type	Collation	Null	Key	Default	Extra	Privileges	Comment
id	int	NULL	NO	PRI	NULL	auto_increment	select,insert,update,references	
product_id	int	NULL	YES	MUL	NULL		select,insert,update,references	
balance_stock	int	NULL	YES		NULL		select,insert,update,references	

Result 5 x

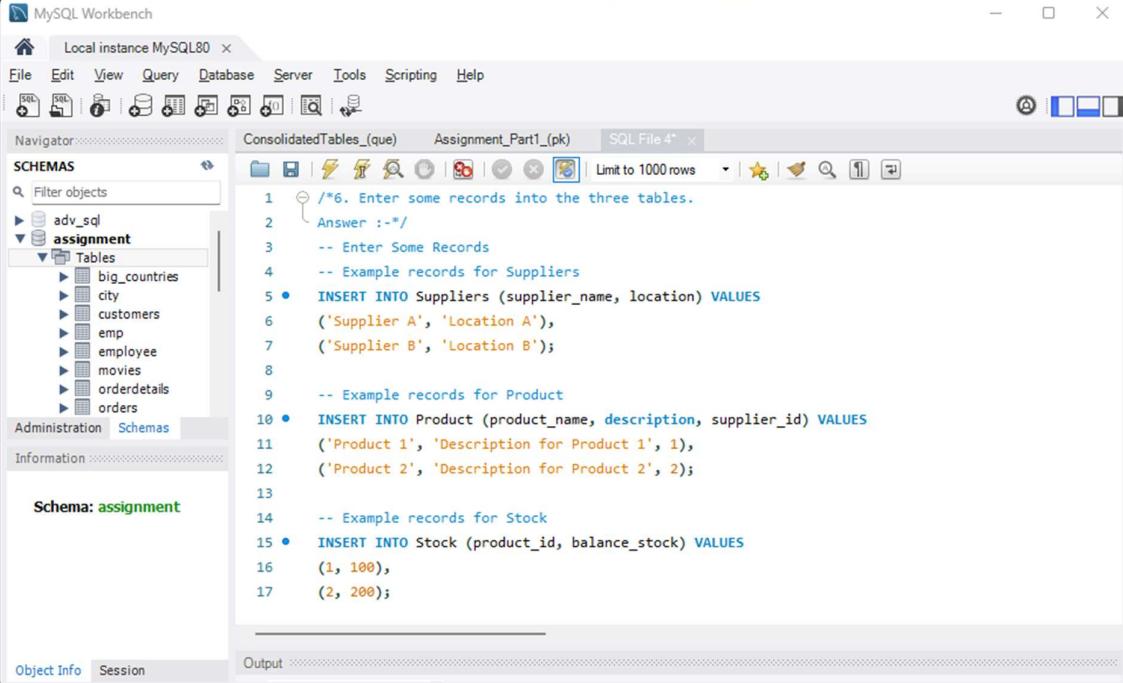
Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	19:04:21	CREATE TABLE Stock (id INT AUTO_INCREME...	0 row(s) affected	0.015 sec
2	19:04:21	SHOW FULL COLUMNS FROM stock	3 row(s) returned	0.016 sec / 0.000 sec

6. Enter some records into the three tables.

Answer :-



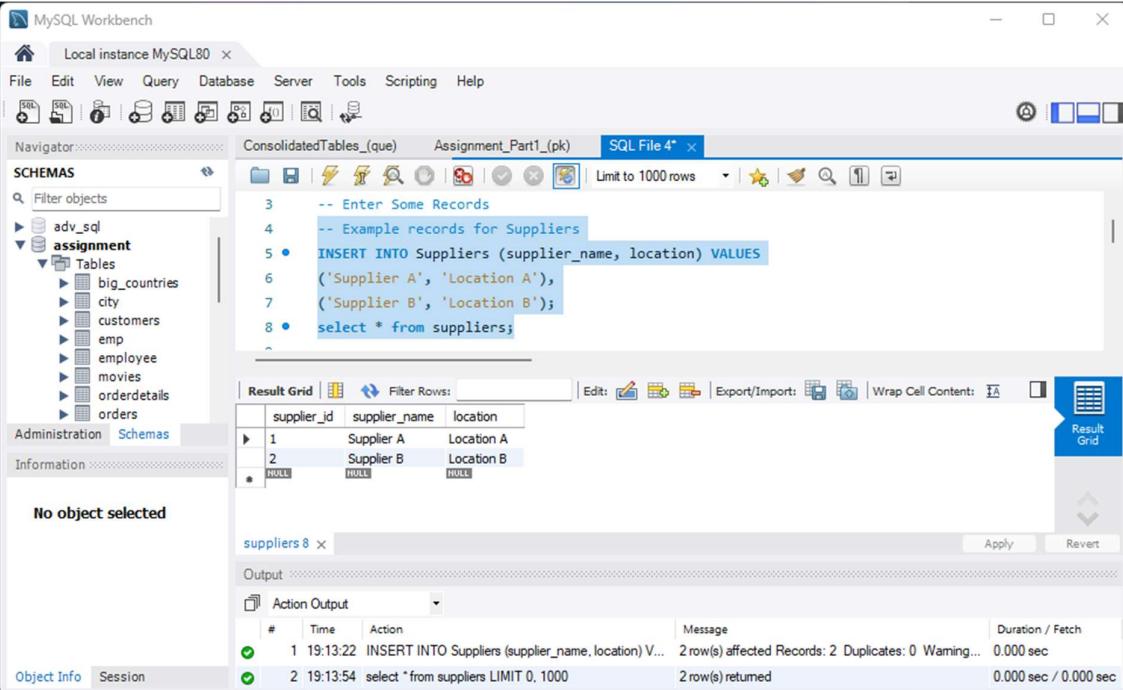
The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema `assignment` with its tables: `big_countries`, `city`, `customers`, `emp`, `employee`, `movies`, `orderdetails`, and `orders`.
- SQL Editor:** Contains the following SQL script:

```
/*6. Enter some records into the three tables.
Answer :-/
-- Enter Some Records
-- Example records for Suppliers
INSERT INTO Suppliers (supplier_name, location) VALUES
('Supplier A', 'Location A'),
('Supplier B', 'Location B');

-- Example records for Product
INSERT INTO Product (product_name, description, supplier_id) VALUES
('Product 1', 'Description for Product 1', 1),
('Product 2', 'Description for Product 2', 2);

-- Example records for Stock
INSERT INTO Stock (product_id, balance_stock) VALUES
(1, 100),
(2, 200);
```



The screenshot shows the MySQL Workbench interface after executing the SQL script from the previous screenshot:

- Navigator:** Shows the schema `assignment` with its tables.
- Result Grid:** Displays the results of the `SELECT * FROM suppliers;` query:

supplier_id	supplier_name	location
1	Supplier A	Location A
2	Supplier B	Location B
*	NULL	NULL

Action Output: Shows the following log entries:

#	Time	Action	Message	Duration / Fetch
1	19:13:22	INSERT INTO Suppliers (supplier_name,location) V...	2 row(s) affected Records: 2 Duplicates: 0 Warning... 0.000 sec	
2	19:13:54	select *from suppliers LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4*

SCHEMAS

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

No object selected

SQL:

```
9
10  -- Example records for Product
11 • INSERT INTO Product (product_name, description, supplier_id) VALUES
12 ('Product 1', 'Description for Product 1', 1),
13 ('Product 2', 'Description for Product 2', 2);
14 • select * from product;
15
```

Result Grid

product_id	product_name	description	supplier_id
1	Product 1	Description for Product 1	1
2	Product 2	Description for Product 2	2
*	NULL	NULL	NULL

product 9 x

Output

#	Time	Action	Message	Duration / Fetch
1	19:15:22	INSERT INTO Product (product_name, description, ...	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.000 sec
2	19:15:27	select * from product LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4*

SCHEMAS

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

No object selected

SQL:

```
15
16  -- Example records for Stock
17 • INSERT INTO Stock (product_id, balance_stock) VALUES
18 (1, 100),
19 (2, 200);
20 • select * from stock;
21
```

Result Grid

id	product_id	balance_stock
1	1	100
2	2	200
*	NULL	NULL

stock 10 x

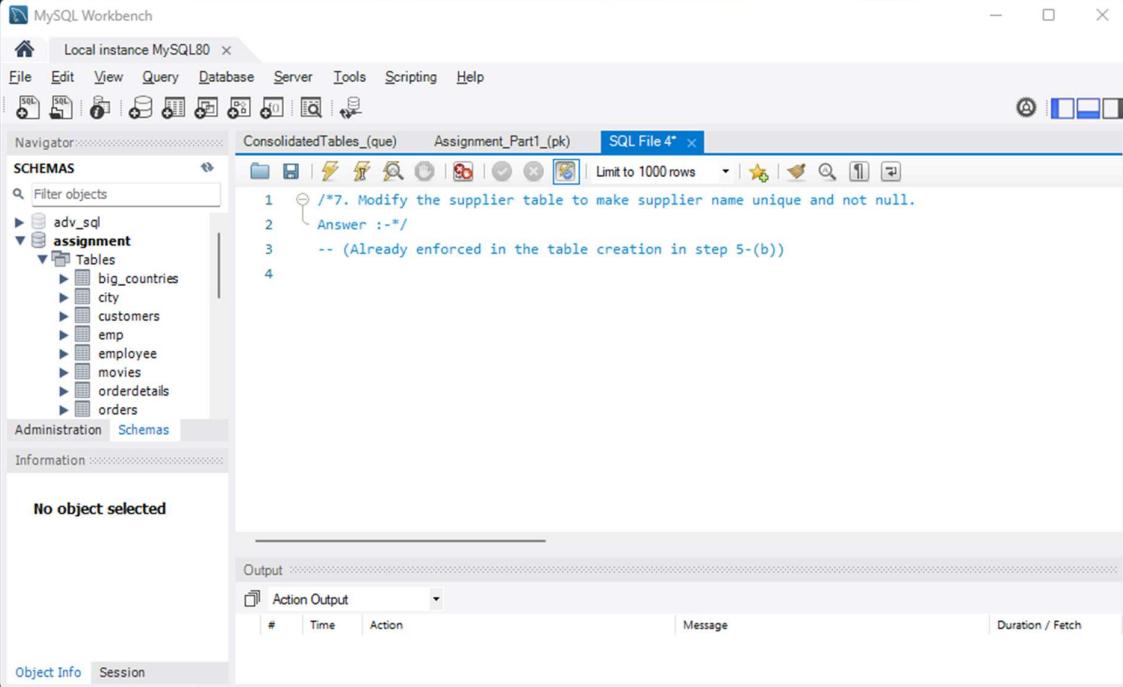
Output

#	Time	Action	Message	Duration / Fetch
1	19:17:00	INSERT INTO Stock (product_id, balance_stock) V...	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.000 sec
2	19:17:04	select * from stock LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

7. Modify the supplier table to make supplier name unique and not null.

Answer :-



The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Toolbars:** Standard toolbar icons.
- Navigator:** Shows the database structure under the schema "assignment".
- SQL Editor Tab:** Labeled "SQL File 4*". It contains the following SQL code:

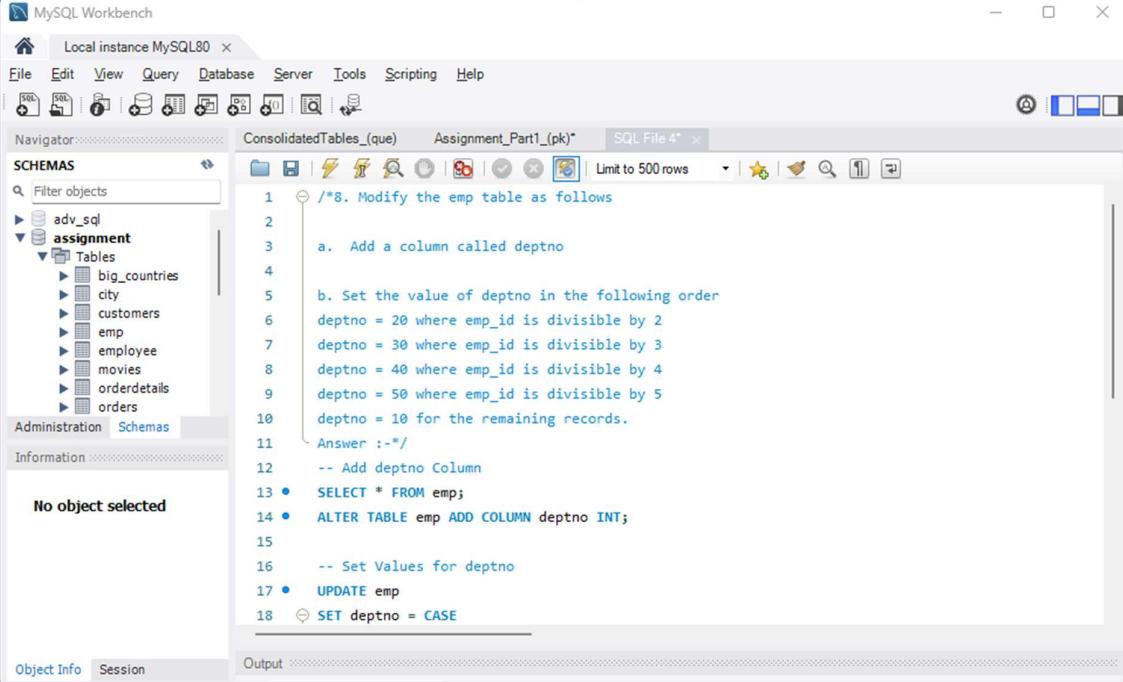
```
1 /*7. Modify the supplier table to make supplier name unique and not null.
2 Answer :-/
3 -- (Already enforced in the table creation in step 5-(b))
4
```
- Output Tab:** Shows the "Action Output" section with columns: #, Time, Action, Message, Duration / Fetch.
- Status Bar:** Shows "No object selected".
- Bottom Navigation:** Object Info, Session.

8. Modify the emp table as follows

- a. Add a column called deptno
- b. Set the value of deptno in the following order

deptno = 20 where emp_id is divisible by 2
deptno = 30 where emp_id is divisible by 3
deptno = 40 where emp_id is divisible by 4
deptno = 50 where emp_id is divisible by 5
deptno = 10 for the remaining records.

Answer :-



The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the database structure under the schema **assignment**, which contains tables: **big_countries**, **city**, **customers**, **emp**, **employee**, **movies**, **orderdetails**, and **orders**.
- SQL Editor:** Contains the following SQL code:

```
1 /*8. Modify the emp table as follows
2
3     a. Add a column called deptno
4
5     b. Set the value of deptno in the following order
6     deptno = 20 where emp_id is divisible by 2
7     deptno = 30 where emp_id is divisible by 3
8     deptno = 40 where emp_id is divisible by 4
9     deptno = 50 where emp_id is divisible by 5
10    deptno = 10 for the remaining records.
11
12    -- Add deptno Column
13    •   SELECT * FROM emp;
14    •   ALTER TABLE emp ADD COLUMN deptno INT;
15
16    -- Set Values for deptno
17    •   UPDATE emp
18    •   SET deptno = CASE
```
- Object Info:** Shows "No object selected".
- Output:** Shows the results of the executed SQL statements.

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk)* SQL File 4*

SCHEMAS

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

No object selected

Object Info Session Output

```
19 WHEN emp_no % 2 = 0 THEN 20
20 WHEN emp_no % 3 = 0 THEN 30
21 WHEN emp_no % 4 = 0 THEN 40
22 WHEN emp_no % 5 = 0 THEN 50
23 ELSE 10;
24 END;
```

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk)* SQL File 4*

SCHEMAS

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

No object selected

Object Info Session Output

```
10 deptno = 10 for the remaining records.
11 Answer :=*/
12 -- Add deptno Column
13 • SELECT * FROM emp;
14 • ALTER TABLE emp ADD COLUMN deptno INT;
15
16 -- Set Values for deptno
```

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

emp_no	birth_date	first_name	last_name	gender	hire_date	salary
10001	1953-09-02	Georgi	Facello	M	2020-02-23	7850.00
10002	1964-06-02	Bezalel	Simmel	F	2020-02-23	1756.50
10003	1959-12-03	Paro	Banford	M	2020-02-23	7850.00
10004	1954-05-01	Christian	Koblick	M	2020-04-15	3475.00
10005	1955-01-21	Kyochi	Maliniak	M	2019-12-27	1756.50

Action Output

#	Time	Action	Message	Duration / Fetch
1	19:23:12	SELECT * FROM emp LIMIT 0, 500	100 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk)* SQL File 4*

SCHEMAS: adv_sql assignment

Tables: big_countries city customers emp employee movies orderdetails orders

No object selected

SQL:

```
11 Answer :--/
12 -- Add deptno Column
13 • SELECT * FROM emp;
14 • ALTER TABLE emp ADD COLUMN deptno INT;
15 • SELECT * FROM emp;
```

Result Grid:

emp_no	birth_date	first_name	last_name	gender	hire_date	salary	deptno
10001	1953-09-02	Georgi	Facello	M	2020-02-23	7850.00	NULL
10002	1964-06-02	Bezalel	Simmel	F	2020-02-23	1756.50	NULL
10003	1959-12-03	Parto	Bamford	M	2020-02-23	7850.00	NULL
10004	1954-05-01	Christian	Koblick	M	2020-04-15	3475.00	NULL
10005	1955-01-21	Kyoko	Malinak	M	2019-12-27	1756.50	NULL

Output:

#	Time	Action	Message	Duration / Fetch
1	19:23:12	SELECT * FROM emp LIMIT 0, 500	100 row(s) returned	0.000 sec / 0.000 sec
2	19:24:43	ALTER TABLE emp ADD COLUMN deptno INT	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.016 sec
3	19:25:08	SELECT * FROM emp LIMIT 0, 500	100 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk)* SQL File 4*

SCHEMAS: adv_sql assignment

Tables: big_countries city customers emp employee movies orderdetails orders

No object selected

SQL:

```
16
17 -- Set Values for deptno
18 • UPDATE emp
19 SET deptno = CASE
20 WHEN emp_no % 2 = 0 THEN 20
21 WHEN emp_no % 3 = 0 THEN 30
22 WHEN emp_no % 4 = 0 THEN 40
23 WHEN emp_no % 5 = 0 THEN 50
24 ELSE 10
25 END;
26
27
28
```

Output:

#	Time	Action	Message	Duration / Fetch
1	19:26:50	UPDATE emp SET deptno = CASE WHEN emp_n... WHEN emp_n...	100 row(s) affected Rows matched: 100 Changed: 10...	0.016 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk)* SQL File 4*

SCHEMAS

adv_sql assignment

Tables

- big_countries
- city
- customers
- emp
- employee
- movies
- orderdetails
- orders

No object selected

Information

Object Info Session

SQL Editor:

```
22 WHEN emp_no % 4 = 0 THEN 40
23 WHEN emp_no % 5 = 0 THEN 50
24 ELSE 10
25 END;
26 • SELECT * FROM emp;
27
```

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

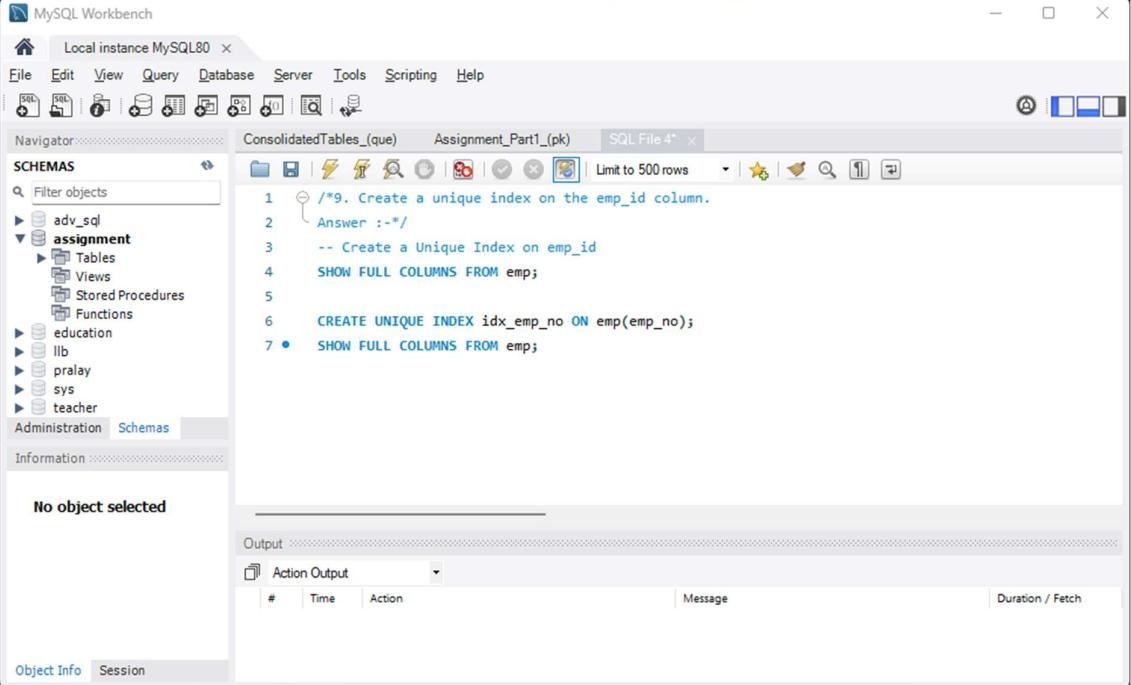
emp_no	birth_date	first_name	last_name	gender	hire_date	salary	deptno
10001	1953-09-02	Georgi	Facello	M	2020-02-23	7850.00	10
10002	1964-06-02	Bezalel	Simmel	F	2020-02-23	1756.50	20
10003	1959-12-03	Parto	Banford	M	2020-02-23	7850.00	10
10004	1954-05-01	Chirstian	Koblick	M	2020-04-15	3475.00	20
10005	1955-01-21	Kyochi	Maliniak	M	2019-12-27	1756.50	30

Action Output

#	Time	Action	Message	Duration / Fetch
1	19:26:50	UPDATE emp SET deptno = CASE WHEN emp_no % 4 = 0 THEN 40 WHEN emp_no % 5 = 0 THEN 50 ELSE 10 END;	100 row(s) affected Rows matched: 100 Changed: 1...	0.016 sec
2	19:28:10	SELECT * FROM emp LIMIT 0, 500	100 row(s) returned	0.000 sec / 0.000 sec

9. Create a unique index on the emp_id column.

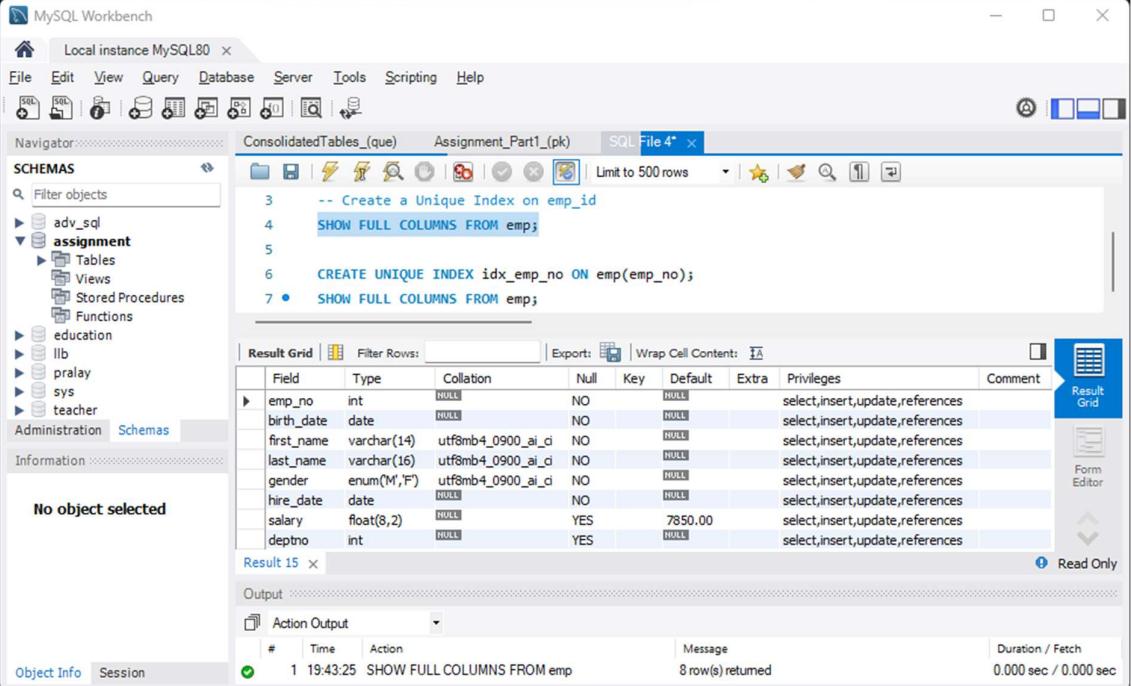
Answer :-



The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas (adv_sql, assignment, education, lib, pralay, sys, teacher), Administration, Schemas.
- SQL Editor:** SQL File 4* tab, containing the following SQL code:

```
1 /*9. Create a unique index on the emp_id column.
2 Answer :-/
3 -- Create a Unique Index on emp_id
4 SHOW FULL COLUMNS FROM emp;
5
6 CREATE UNIQUE INDEX idx_emp_no ON emp(emp_no);
7 SHOW FULL COLUMNS FROM emp;
```
- Output:** Action Output pane showing the execution of the SQL code.
- Status Bar:** Object Info, Session.



The screenshot shows the MySQL Workbench interface with the following details:

- File Bar:** File, Edit, View, Query, Database, Server, Tools, Scripting, Help.
- Navigator:** Schemas (adv_sql, assignment, education, lib, pralay, sys, teacher), Administration, Schemas.
- SQL Editor:** SQL File 4* tab, containing the following SQL code:

```
3 -- Create a Unique Index on emp_id
4 SHOW FULL COLUMNS FROM emp;
5
6 CREATE UNIQUE INDEX idx_emp_no ON emp(emp_no);
7 SHOW FULL COLUMNS FROM emp;
```
- Result Grid:** Shows the structure of the emp table with 15 columns and their properties.
- Output:** Action Output pane showing the execution of the SQL code and the result of the SHOW FULL COLUMNS FROM emp; query.
- Status Bar:** Object Info, Session.

Field	Type	Collation	Null	Key	Default	Extra	Privileges	Comment
emp_no	int	HULL	NO	HULL			select,insert,update,references	
birth_date	date	HULL	NO	HULL			select,insert,update,references	
first_name	varchar(14)	utf8mb4_0900_ai_ci	NO	HULL			select,insert,update,references	
last_name	varchar(16)	utf8mb4_0900_ai_ci	NO	HULL			select,insert,update,references	
gender	enum('M','F')	utf8mb4_0900_ai_ci	NO	HULL			select,insert,update,references	
hire_date	date	HULL	NO	HULL			select,insert,update,references	
salary	float(8,2)	HULL	YES	7850.00			select,insert,update,references	
deptno	int	HULL	YES	HULL			select,insert,update,references	

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4*

SCHEMAS

adv_sql assignment education llb pralay sys teacher

No object selected

Result Grid

Field	Type	Collation	Null	Key	Default	Extra	Privileges	Comments
emp_no	int	NULL	NO	PRI	NULL		select,insert,update,references	
birth_date	date	NULL	NO		NULL		select,insert,update,references	
first_name	varchar(14)	utf8mb4_0900_ai_ci	NO		NULL		select,insert,update,references	
last_name	varchar(16)	utf8mb4_0900_ai_ci	NO		NULL		select,insert,update,references	
gender	enum('M','F')	utf8mb4_0900_ai_ci	NO		NULL		select,insert,update,references	
hire_date	date	NULL	NO		NULL		select,insert,update,references	

Result 16 x

Action Output

#	Time	Action	Message	Duration / Fetch
1	19:45:08	CREATE UNIQUE INDEX idx_emp_no ON emp(emp_no);	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.062 sec
2	19:45:15	SHOW FULL COLUMNS FROM emp;	8 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Result Grid Form Editor

Read Only

The screenshot shows the MySQL Workbench interface. In the top navigation bar, 'Local instance MySQL80' is selected. The main area displays a SQL editor with two statements: 'CREATE UNIQUE INDEX idx_emp_no ON emp(emp_no);' and 'SHOW FULL COLUMNS FROM emp;'. Below the editor is a 'Result Grid' showing the columns of the 'emp' table with their respective data types, collations, and privileges. At the bottom, the 'Action Output' pane shows the execution log with two entries: the creation of the index and the execution of the SHOW command.

10. Create a view called ***emp_sal*** on the ***emp*** table by selecting the following fields in the order of highest salary to the lowest salary.

emp_no, first_name, last_name, salary

Answer :-

The screenshot shows the MySQL Workbench interface with the SQL editor tab open. The code in the editor is:

```
1 /*10. Create a view called emp_sal on the emp table
2 by selecting the following fields in the order of highest salary to the lowest salary.
3 emp_no, first_name, last_name, salary
4 Answer :*/
5 -- Create a View emp_sal
6 • CREATE VIEW emp_sal AS
7 SELECT emp_no, first_name, last_name, salary
8 FROM emp
9 ORDER BY salary DESC;
10
11 • SELECT * FROM emp_sal;
12
13 • DROP VIEW emp_sal;
```

The screenshot shows the MySQL Workbench interface with the Output tab open, displaying the results of the executed SQL statement. The message in the output window is:

#	Time	Action	Message	Duration / Fetch
1	19:54:43	CREATE VIEW emp_sal AS SELECT emp_no,first_n...	0 row(s) affected	0.016 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4*

```

8   FROM emp
9   ORDER BY salary DESC;
10
11 •   SELECT * FROM emp_sal;
12
13 •   DROP VIEW emp_sal;

```

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

emp_no	first_name	last_name	salary
10001	Georgi	Facello	7850.00
10087	Xinglin	Eugenio	7850.00
10003	Parto	Bamford	7850.00
10042	Magy	Stamatou	7850.00
10043	Yishay	Tzvieli	7850.00

Output

#	Time	Action	Message	Duration / Fetch
1	19:54:43	CREATE VIEW emp_sal AS SELECT emp_no, first_name, last_name, salary	0 row(s) affected	0.016 sec
2	19:55:12	SELECT * FROM emp_sal LIMIT 0, 500	100 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator: ConsolidatedTables_(que) Assignment_Part1_(pk) SQL File 4*

```

2 by selecting the following fields in the order of highest salary to the lowest salary.
3 emp_no, first_name, last_name, salary
4 Answer :=*/
5 -- Create a View emp_sal
6 • CREATE VIEW emp_sal AS
7   SELECT emp_no, first_name, last_name, salary
8   FROM emp
9   ORDER BY salary DESC;
10
11 •   SELECT * FROM emp_sal;
12
13 •   DROP VIEW emp_sal;

```

Output

#	Time	Action	Message	Duration / Fetch
1	19:54:43	CREATE VIEW emp_sal AS SELECT emp_no, first_name, last_name, salary	0 row(s) affected	0.016 sec
2	19:55:12	SELECT * FROM emp_sal LIMIT 0, 500	100 row(s) returned	0.000 sec / 0.000 sec
3	19:55:48	DROP VIEW emp_sal	0 row(s) affected	0.016 sec

END.