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SQL Assignment_Part3 - SET 3

Starts Here :- P.T.O.



SQL

Stuctured Query Language

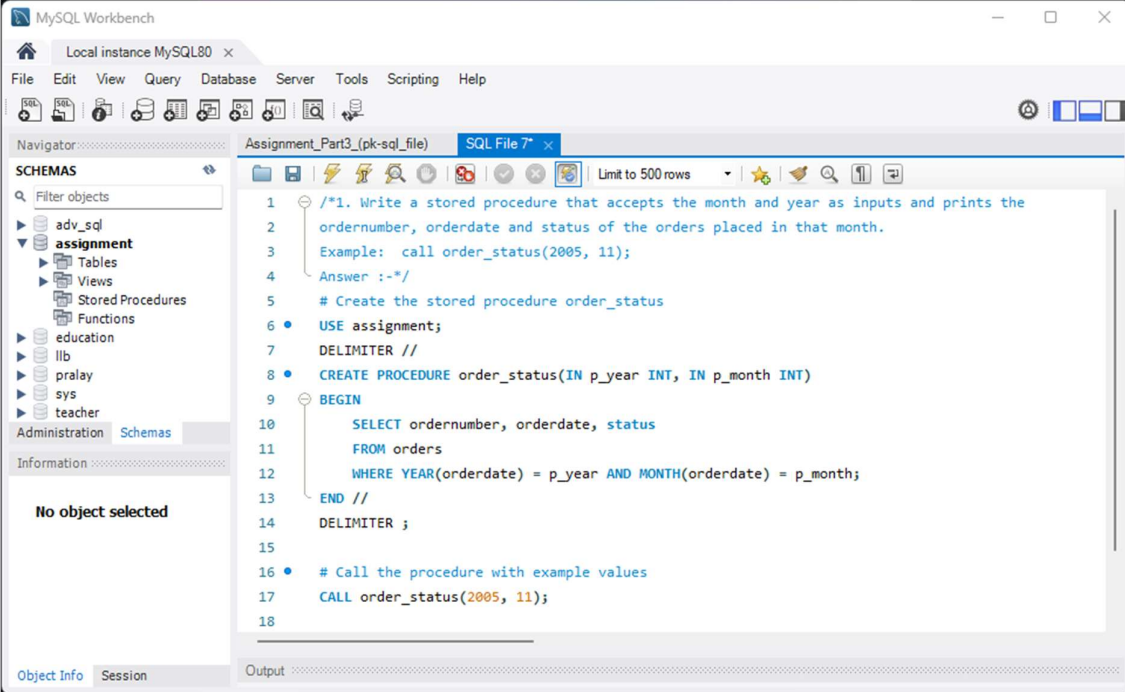


SET 3

1. Write a stored procedure that accepts the month and year as inputs and prints the ordernumber, orderdate and status of the orders placed in that month.

Example: call order_status(2005, 11);

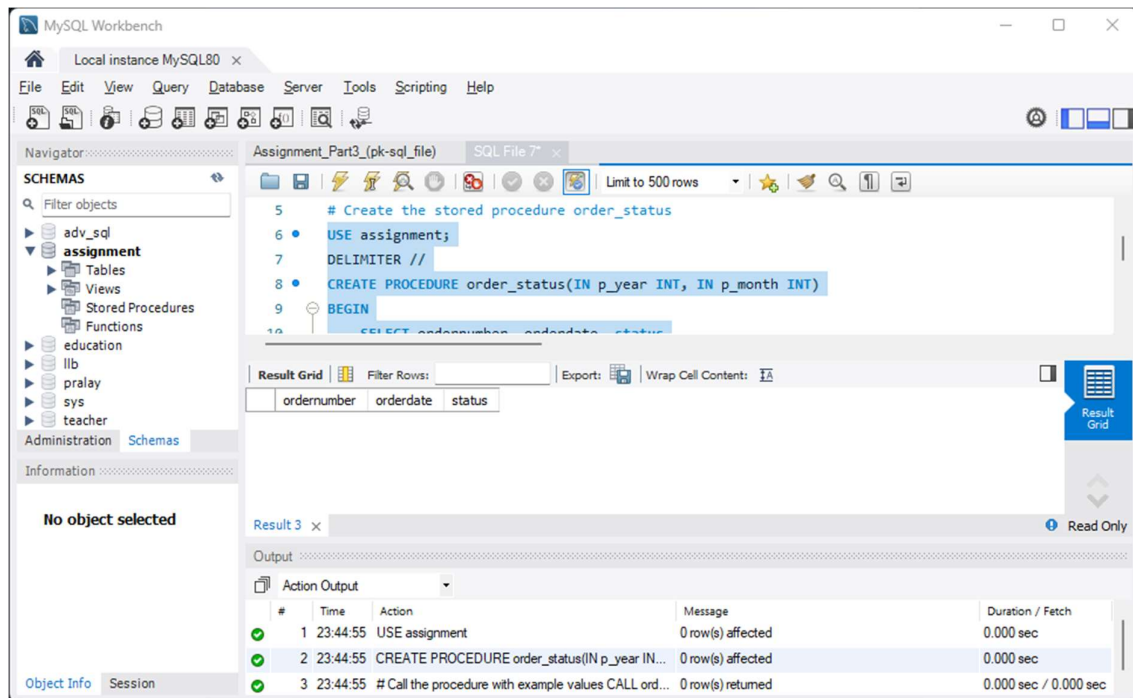
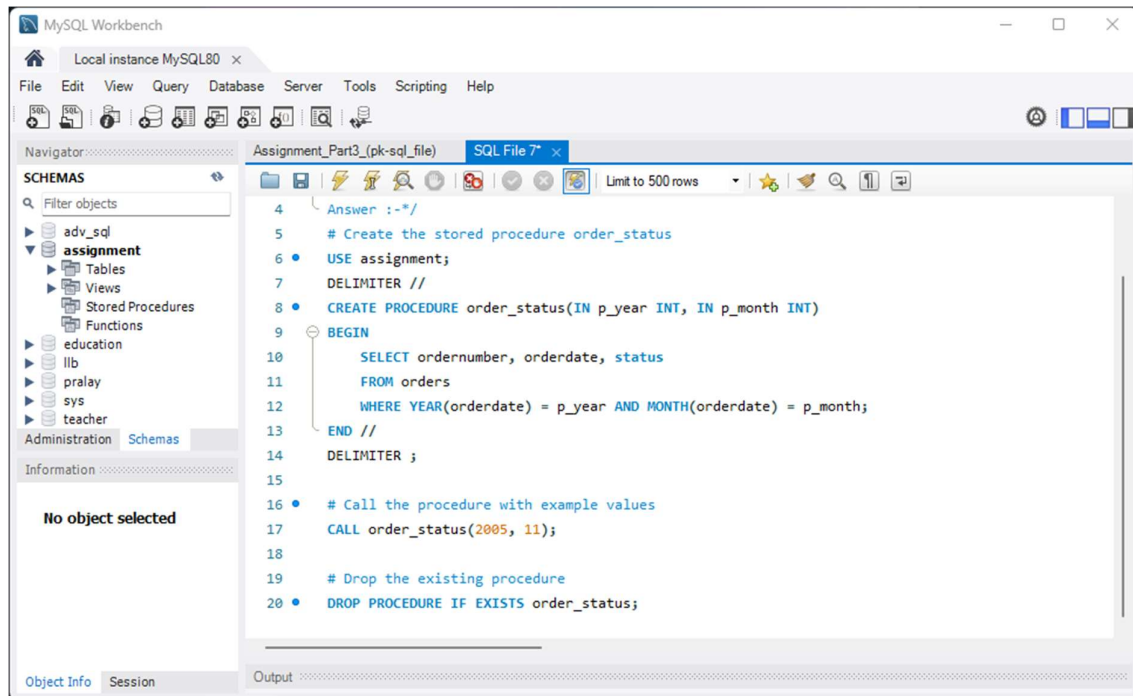
Answer :-



The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a tree view with 'adv_sql' expanded, containing 'assignment', 'Tables', 'Views', 'Stored Procedures', and 'Functions'. The 'assignment' schema is selected. The main editor window, titled 'Assignment_Part3_(pk-sql_file)', contains the following SQL code:

```
1  /*1. Write a stored procedure that accepts the month and year as inputs and prints the
2  ordernumber, orderdate and status of the orders placed in that month.
3  Example: call order_status(2005, 11);
4  Answer :-*/
5  # Create the stored procedure order_status
6  • USE assignment;
7  DELIMITER //
8  • CREATE PROCEDURE order_status(IN p_year INT, IN p_month INT)
9  BEGIN
10     SELECT ordernumber, orderdate, status
11     FROM orders
12     WHERE YEAR(orderdate) = p_year AND MONTH(orderdate) = p_month;
13 END //
14 DELIMITER ;
15
16 • # Call the procedure with example values
17 CALL order_status(2005, 11);
18
```

The bottom of the window shows tabs for 'Object Info', 'Session', and 'Output'.



MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```

9 BEGIN
10 SELECT ordernumber, orderdate, status
11 FROM orders
12 WHERE YEAR(orderdate) = p_year AND MONTH(orderdate) = p_month;
13 END //
14 DELIMITER ;

```

Result Grid Filter Rows: Export: Wrap Cell Content:

Result 3 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	23:44:55	USE assignment	0 row(s) affected	0.000 sec
2	23:44:55	CREATE PROCEDURE order_status(IN p_year IN...	0 row(s) affected	0.000 sec
3	23:44:55	# Call the procedure with example values CALL ord...	0 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```

13 END //
14 DELIMITER ;
15
16 # Call the procedure with example values
17 CALL order_status(2005, 11);
18

```

Result Grid Filter Rows: Export: Wrap Cell Content:

Result 3 x Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	23:44:55	USE assignment	0 row(s) affected	0.000 sec
2	23:44:55	CREATE PROCEDURE order_status(IN p_year IN...	0 row(s) affected	0.000 sec
3	23:44:55	# Call the procedure with example values CALL ord...	0 row(s) returned	0.000 sec / 0.000 sec

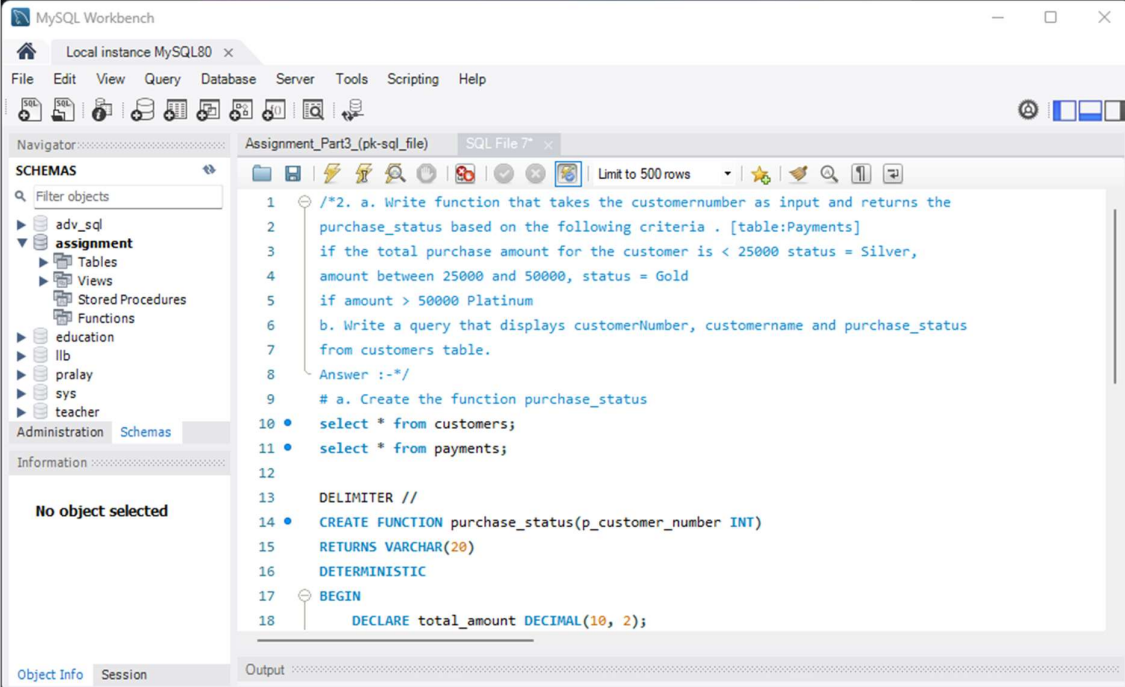
Object Info Session

2. a. Write function that takes the customernumber as input and returns the purchase_status based on the following criteria . [table:Payments]

if the total purchase amount for the customer is < 25000 status = Silver, amount between 25000 and 50000, status = Gold
if amount > 50000 Platinum

b. Write a query that displays customerNumber, customername and purchase_status from customers table.

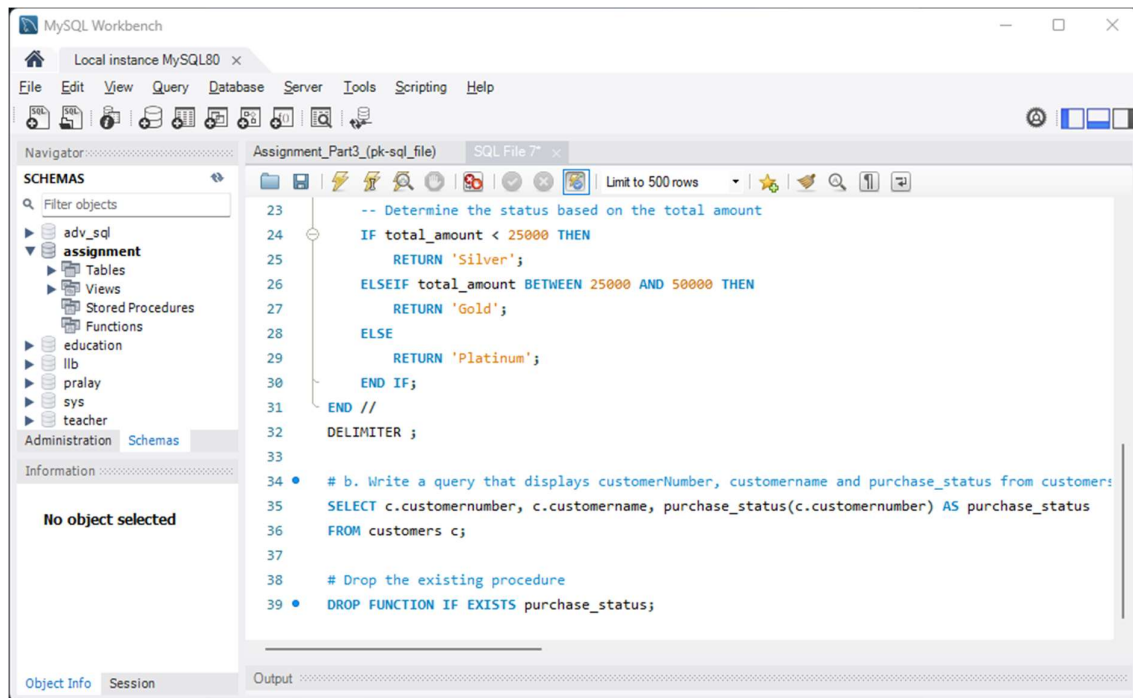
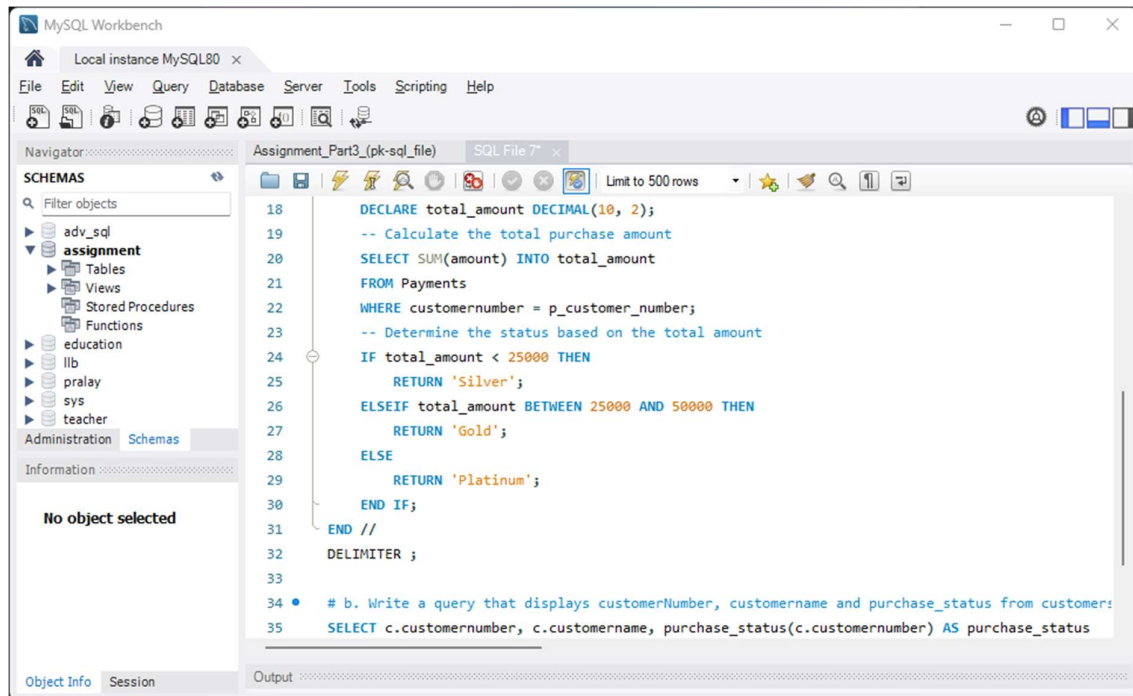
Answer :-



The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' panel with a tree view containing 'adv_sql', 'assignment' (expanded), 'Tables', 'Views', 'Stored Procedures', 'Functions', 'education', 'lib', 'pralay', 'sys', and 'teacher'. The 'assignment' schema is selected. The main editor window shows a SQL file named 'Assignment_Part3_(pk-sql_file)' with the following code:

```
1  /*2. a. Write function that takes the customernumber as input and returns the
2  purchase_status based on the following criteria . [table:Payments]
3  if the total purchase amount for the customer is < 25000 status = Silver,
4  amount between 25000 and 50000, status = Gold
5  if amount > 50000 Platinum
6  b. Write a query that displays customerNumber, customername and purchase_status
7  from customers table.
8  Answer :-*/
9  # a. Create the function purchase_status
10 • select * from customers;
11 • select * from payments;
12
13 DELIMITER //
14 • CREATE FUNCTION purchase_status(p_customer_number INT)
15 RETURNS VARCHAR(20)
16 DETERMINISTIC
17 BEGIN
18     DECLARE total_amount DECIMAL(10, 2);
```

The bottom of the window shows the 'Object Info' and 'Session' tabs, and an 'Output' panel.



MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```

8 Answer :-*/
9 # a. Create the function purchase_status
10 • select * from customers;
11 • select * from payments;
12
13 DELIMITER //

```

Result Grid

	customerNumber	checkNumber	paymentDate	amount
▶	103	HQ336336	2004-10-19	6066.78
	103	JM555205	2003-06-05	14571.44
	103	OM314933	2004-12-18	1676.14
	112	BO864823	2004-12-17	14191.12
	112	HQ55022	2003-06-06	32641.98

customers 15 payments 16 x

Apply Revert

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	00:02:28	select * from customers LIMIT 0, 500	122 row(s) returned	0.000 sec / 0.000 sec
✓ 2	00:02:28	select * from payments LIMIT 0, 500	273 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```

12
13 DELIMITER //
14 • CREATE FUNCTION purchase_status(p_customer_number INT)
15 RETURNS VARCHAR(20)
16 DETERMINISTIC
17 BEGIN

```

Result Grid

	customerNumber	customerName	purchaseStatus
▶	103	Atelier graphique	Silver
	112	Signal Gift Stores	Platinum
	114	Australian Collectors, Co.	Platinum
	119	La Rochelle Gifts	Platinum
	121	Baane Mini Imports	Platinum

Result 18 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	00:05:17	CREATE FUNCTION purchase_status(p_customer_...	0 row(s) affected	0.000 sec
✓ 2	00:05:17	# b. Write a query that displays customerNumber, cu...	122 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```

17 BEGIN
18 DECLARE total_amount DECIMAL(10, 2);
19 -- Calculate the total purchase amount
20 SELECT SUM(amount) INTO total_amount
21 FROM Payments
22 WHERE customernumber = p_customer_number;

```

Result Grid

customernumber	customername	purchase_status
103	Atelier graphique	Silver
112	Signal Gift Stores	Platinum
114	Australian Collectors, Co.	Platinum
119	La Rochelle Gifts	Platinum
121	Baane Mini Imports	Platinum

Result 18 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:05:17	CREATE FUNCTION purchase_status(p_customer_...	0 row(s) affected	0.000 sec
2	00:05:17	# b. Write a query that displays customerNumber, cu...	122 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```

22 WHERE customernumber = p_customer_number;
23 -- Determine the status based on the total amount
24 IF total_amount < 25000 THEN
25 RETURN 'Silver';
26 ELSEIF total_amount BETWEEN 25000 AND 50000 THEN
27 RETURN 'Gold';

```

Result Grid

customernumber	customername	purchase_status
103	Atelier graphique	Silver
112	Signal Gift Stores	Platinum
114	Australian Collectors, Co.	Platinum
119	La Rochelle Gifts	Platinum
121	Baane Mini Imports	Platinum

Result 18 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:05:17	CREATE FUNCTION purchase_status(p_customer_...	0 row(s) affected	0.000 sec
2	00:05:17	# b. Write a query that displays customerNumber, cu...	122 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7

Limit to 500 rows

```

27     RETURN 'Gold';
28 ELSE
29     RETURN 'Platinum';
30 END IF;
31 END //
32 DELIMITER ;

```

Result Grid

customerNumber	customername	purchase_status
103	Atelier graphique	Silver
112	Signal Gift Stores	Platinum
114	Australian Collectors, Co.	Platinum
119	La Rochelle Gifts	Platinum
121	Baane Mini Imports	Platinum

Result 18 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:05:17	CREATE FUNCTION purchase_status(p_customer_...	0 row(s) affected	0.000 sec
2	00:05:17	# b. Write a query that displays customerNumber, cu...	122 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7

Limit to 500 rows

```

32 DELIMITER ;
33
34 # b. Write a query that displays customerNumber, customername and purchase_status from customers
35 SELECT c.customerNumber, c.customername, purchase_status(c.customerNumber) AS purchase_status
36 FROM customers c;
37

```

Result Grid

customerNumber	customername	purchase_status
103	Atelier graphique	Silver
112	Signal Gift Stores	Platinum
114	Australian Collectors, Co.	Platinum
119	La Rochelle Gifts	Platinum
121	Baane Mini Imports	Platinum

Result 18 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:05:17	CREATE FUNCTION purchase_status(p_customer_...	0 row(s) affected	0.000 sec
2	00:05:17	# b. Write a query that displays customerNumber, cu...	122 row(s) returned	0.000 sec / 0.000 sec

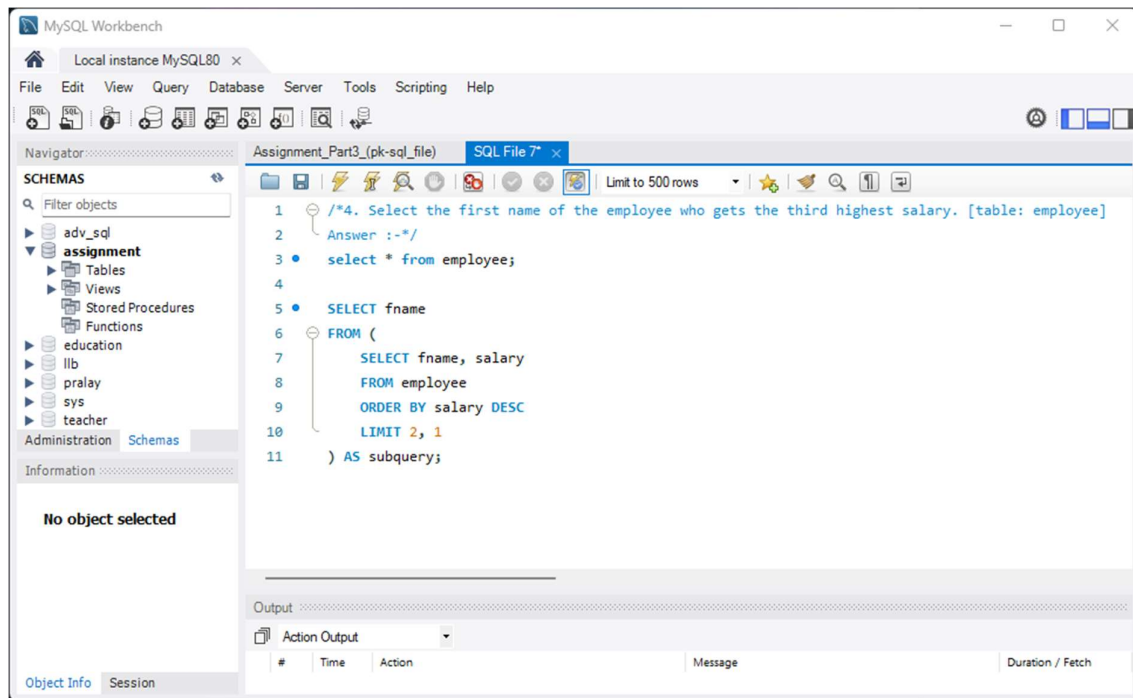
Object Info Session

3. Replicate the functionality of 'on delete cascade' and 'on update cascade' using triggers on movies and rentals tables. Note: Both tables - movies and rentals - don't have primary or foreign keys. Use only triggers to implement the above.

Answer :-

4. Select the first name of the employee who gets the third highest salary. [table: employee]

Answer :-



MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```
1 /*4. Select the first name of the employee who gets the third highest salary. [table: employee]
2 Answer :-*/
3 select * from employee;
4
5 SELECT fname
6 FROM (
7     SELECT fname, salary
```

Result Grid

empid	fname	lname	deptno	salary
100	Jon	Hamm	10	2000.00
200	Tom	Cruise	10	3000.00
300	Hugh	Laurie	20	7500.00
400	Tom	Hanks	30	750.00
500	Johnny	Depp	20	1300.00
600	Hugh	Grant	30	850.00

employee 20 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:22:59	select * from employee LIMIT 0, 500	11 row(s) returned	0.016 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```
1 /*4. Select the first name of the employee who gets the third highest salary. [table: employee]
2 Answer :-*/
3 select * from employee;
4
5 SELECT fname
6 FROM (
7     SELECT fname, salary
```

Result Grid

empid	fname	lname	deptno	salary
600	Hugh	Grant	30	850.00
700	Ben	Affleck	30	75.00
800	George	Clooney	10	10000.00
900	Henry	TOULS	10	3000.00
1000	Gregory	House	20	3500.00
1100	Jean	Hackman	10	2700.00

employee 20 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:22:59	select * from employee LIMIT 0, 500	11 row(s) returned	0.016 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```
4
5 SELECT fname
6 FROM (
7     SELECT fname, salary
8     FROM employee
9     ORDER BY salary DESC
10    LIMIT 2, 1
11 ) AS subquery;
```

Result Grid

fname
Gregory

No object selected

Result 21 x

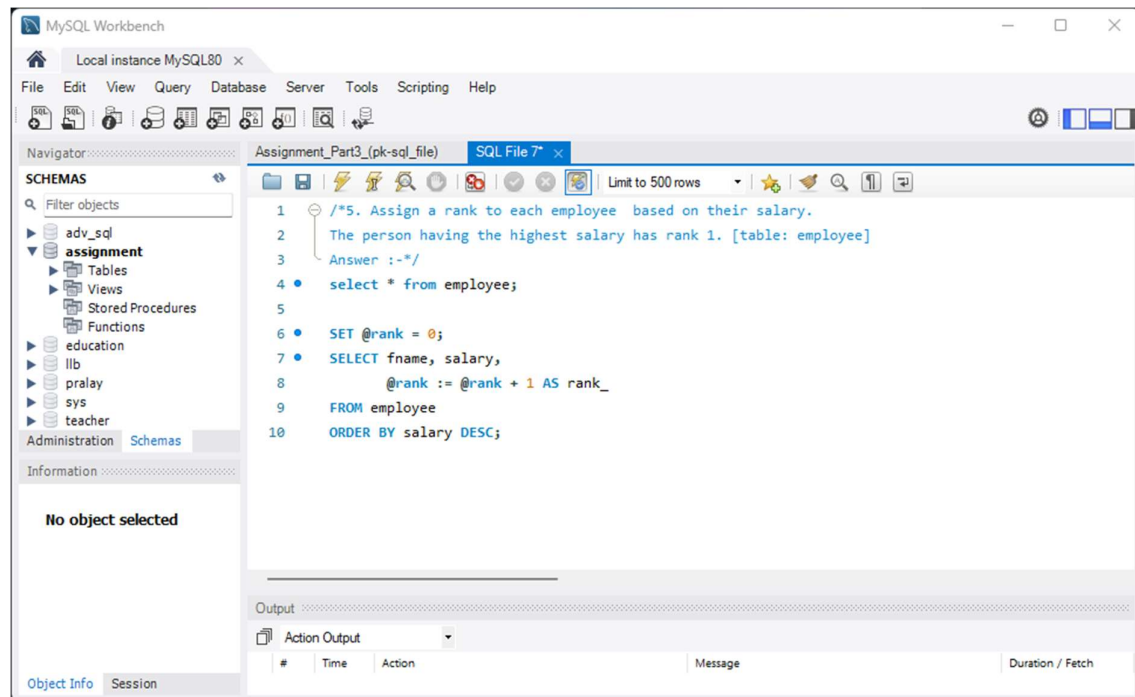
Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:24:15	SELECT fname FROM (SELECT fname, salary ...	1 row(s) returned	0.000 sec / 0.000 sec

5. Assign a rank to each employee based on their salary. The person having the highest salary has rank 1. [table: employee]

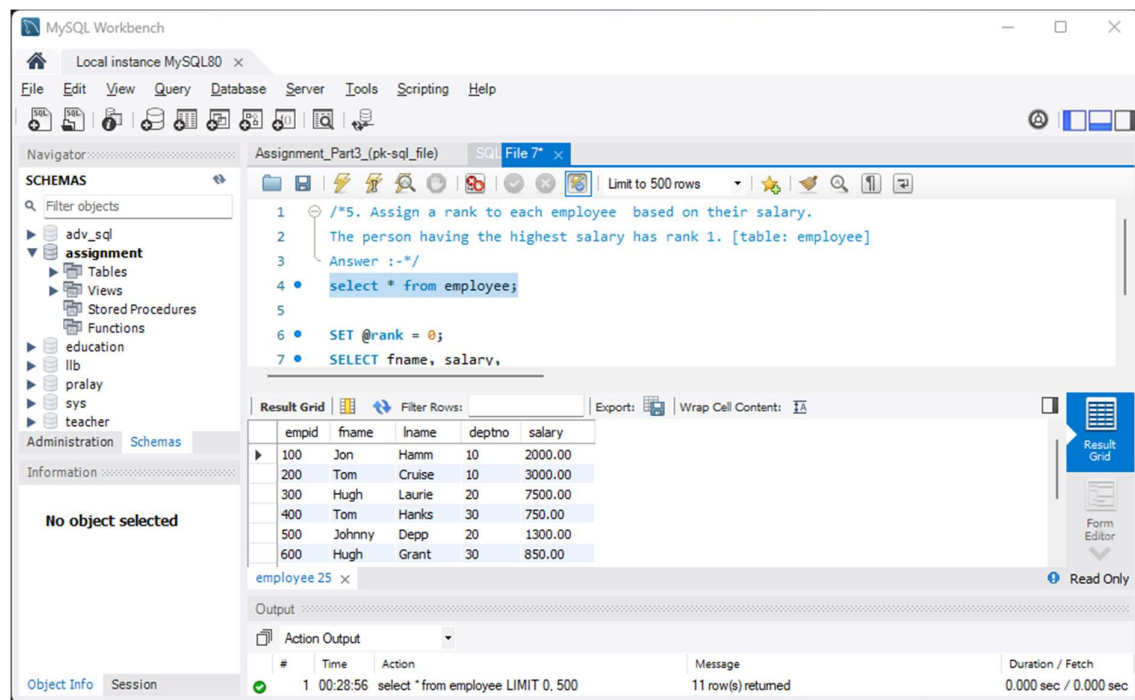
Answer :-



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

```
1 /*5. Assign a rank to each employee based on their salary.
2 The person having the highest salary has rank 1. [table: employee]
3 Answer :-*/
4 select * from employee;
5
6 SET @rank = 0;
7 SELECT fname, salary,
8        @rank := @rank + 1 AS rank_
9 FROM employee
10 ORDER BY salary DESC;
```

The Navigator panel on the left shows the database structure, including the 'employee' table. The Output panel at the bottom is empty, indicating the query has not been executed yet.



The screenshot shows the MySQL Workbench interface after the query has been executed. The SQL editor contains the same query as the previous screenshot. The Result Grid panel at the bottom displays the results of the query:

empid	fname	lname	deptno	salary
100	Jon	Hamm	10	2000.00
200	Tom	Cruise	10	3000.00
300	Hugh	Laurie	20	7500.00
400	Tom	Hanks	30	750.00
500	Johnny	Depp	20	1300.00
600	Hugh	Grant	30	850.00

The Output panel at the bottom shows the execution details: 11 row(s) returned, 0.000 sec / 0.000 sec.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```
1 /*5. Assign a rank to each employee based on their salary.
2 The person having the highest salary has rank 1. [table: employee]
3 Answer :-*/
4 select * from employee;
5
6 SET @rank = 0;
7 SELECT fname, salary,
```

Result Grid

empid	fname	lname	deptno	salary
600	Hugh	Grant	30	850.00
700	Ben	Affleck	30	75.00
800	George	Clooney	10	10000.00
900	Henry	MULL	10	3000.00
1000	Gregory	House	20	3500.00
1100	Jean	Hackman	10	2700.00

employee 25 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:28:56	select * from employee LIMIT 0, 500	11 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```
5
6 SET @rank = 0;
7 SELECT fname, salary,
8 @rank := @rank + 1 AS rank_
9 FROM employee
10 ORDER BY salary DESC;
```

Result Grid

fname	salary	rank_
George	10000.00	1
Hugh	7500.00	2
Gregory	3500.00	3
Tom	3000.00	4
Henry	3000.00	5
Jean	2700.00	6

Result 26 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:32:18	SET @rank = 0	0 row(s) affected	0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Assignment_Part3_(pk-sql_file) SQL File 7 x

Limit to 500 rows

```
5
6 • SET @rank = 0;
7 • SELECT fname, salary,
8     @rank := @rank + 1 AS rank_
9 FROM employee
10 ORDER BY salary DESC;
```

Result Grid

fname	salary	rank_
Jean	2700.00	6
Jon	2000.00	7
Johnny	1300.00	8
Hugh	850.00	9
Tom	750.00	10
Ben	75.00	11

Result 26 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	00:32:18	SET @rank = 0	0 row(s) affected	0.000 sec

END.