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MySQL Assignment 1

Using UBUNTU

- **Load Database using mysql client using CLI**

```
rs7@rs7-HP-ProBook-640-G1:~$ sudo mysql -u root
[sudo] password for rs7:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.36-2ubuntu3 (Ubuntu)
Copyright (c) 2000, 2024, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use Products;
Database changed
```

RUN classicmodels_customers.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_customers.sql
Query OK, 0 rows affected (0.01 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.04 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 122 rows affected (0.01 sec)
Records: 122 Duplicates: 0 Warnings: 0
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.01 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
```

RUN classicmodels_employees.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_employees.sql
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
```

[illegible]

RUN classicmodels_offices.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_offices.sql
```

[illegible]

RUN classicmodels_orderdetails.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_orderdetails.sql
```

[illegible]

[illegible]

RUN classicmodels_orders.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels orders.sql
```

[illegible]

RUN classicmodels_payments.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_payments.sql
```

[illegible]

```
Query OK, 0 rows affected (0.02 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.01 sec)
Query OK, 273 rows affected (0.00 sec)
Records: 273 Duplicates: 0 Warnings: 0
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
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Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
```

RUN classicmodels_productlines.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_productlines.sql
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
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Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.02 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.01 sec)
Query OK, 7 rows affected (0.00 sec)
Records: 7 Duplicates: 0 Warnings: 0
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
```

RUN classicmodels_products.sql

```
mysql> source /home/rs7/Downloads/classicmodels/classicmodels_products.sql
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.01 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.03 sec)
Query OK, 0 rows affected, 1 warning (0.00 sec)
```

```
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 110 rows affected (0.01 sec)
Records: 110 Duplicates: 0 Warnings: 0
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
Query OK, 0 rows affected (0.00 sec)
```

TABLES CREATED SHOWN IN WORKBENCH

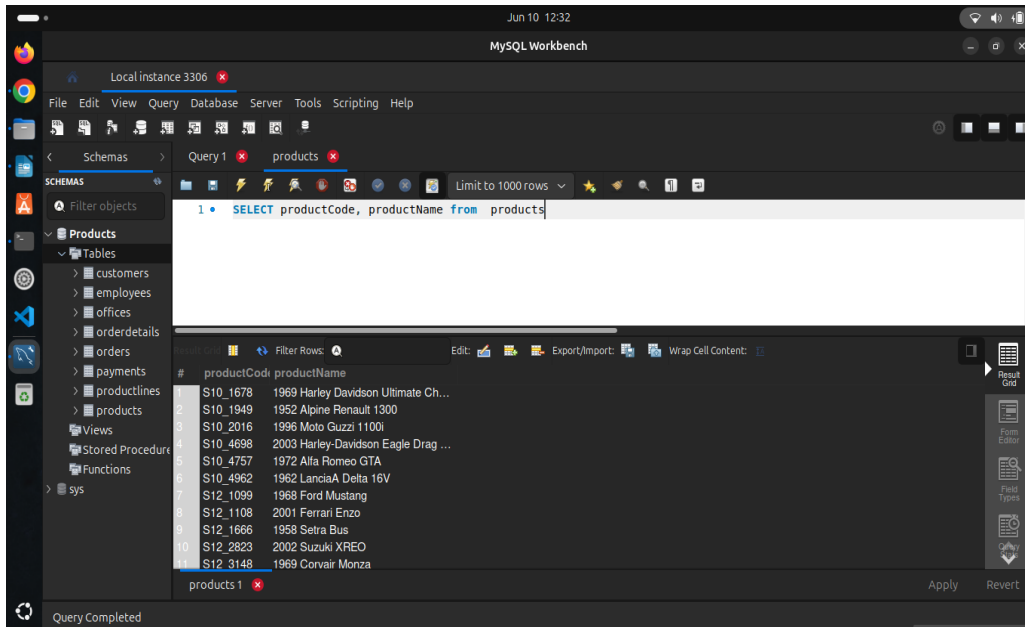
The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane is open, showing a tree view of databases. The 'Products' database is selected, and its tables are listed: customers, employees, offices, orderdetails, orders, payments, productlines, products, views, stored procedures, functions, and sys. A red box highlights the 'Products' database and its tables. The main window shows a query result for 'SELECT * FROM products'. The query is displayed in the 'Query 1' tab. The result set shows 12 rows of data, including product codes, names, lines, scales, and vendors.

#	productCode	productName	productLine	productScale	productVendor	productDescription
1	S10_1678	1969 Harley Davidson Ultimate Ch...	Motorcycles	1:10	Min Lin Diecast	This repl...
2	S10_1949	1952 Alpine Renault 1300	Classic Cars	1:10	Classic Metal Creations	Turnable
3	S10_2016	1996 Moto Guzzi 1100i	Motorcycles	1:10	Highway 66 Mini Classics	Official M...
4	S10_4698	2003 Harley-Davidson Eagle Drag ...	Motorcycles	1:10	Red Start Diecast	Model fe...
5	S10_4757	1972 Alfa Romeo GTA	Classic Cars	1:10	Motor City Art Classics	Features
6	S10_4962	1962 LanciaA Delta 16V	Classic Cars	1:10	Second Gear Diecast	Features
7	S12_1099	1968 Ford Mustang	Classic Cars	1:12	Autoart Studio Design	Hood, dc...
8	S12_1108	2001 Ferrari Enzo	Classic Cars	1:12	Second Gear Diecast	Turnable
9	S12_1666	1958 Setra Bus	Trucks and Buses	1:12	Welly Diecast Productions	Model fe...
10	S12_2823	2002 Suzuki XREO	Motorcycles	1:12	Unimax Art Galleries	Official lo...
11	S12_3148	1969 Corvair Monza	Classic Cars	1:18	Welly Diecast Productions	1:18 scal...
12	S12_3380	1968 Dodge Charger	Classic Cars	1:12	Welly Diecast Productions	1:12 scal...

- Execution of all the queries

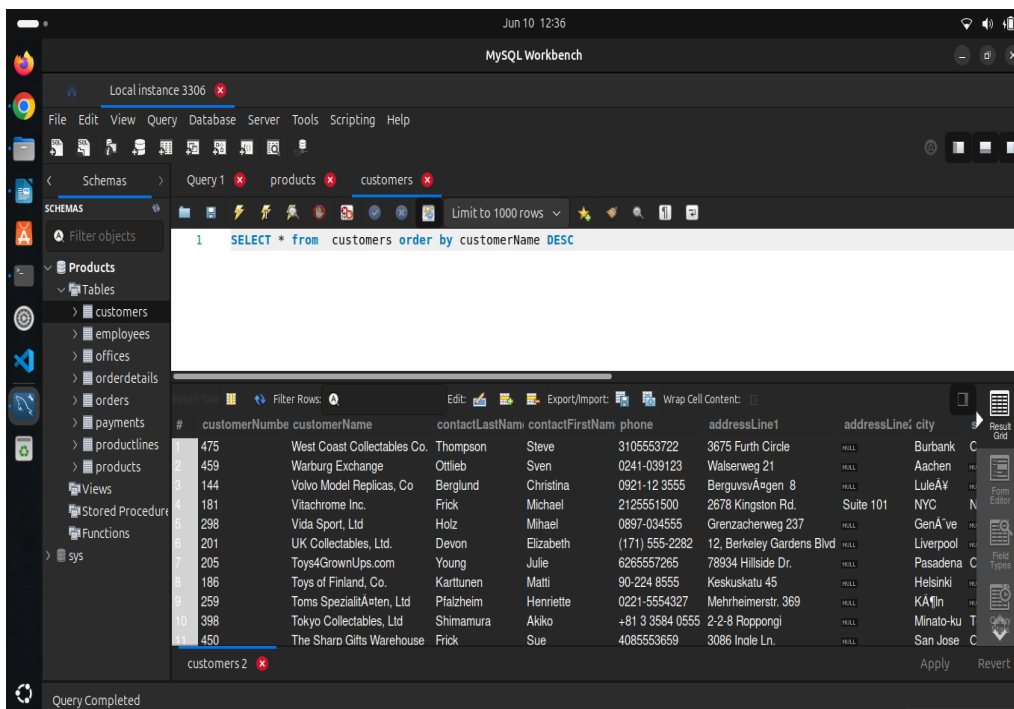
Q1. Write the query to get only the product Code and product name from the products table.

SELECT productCode, productName **from** products



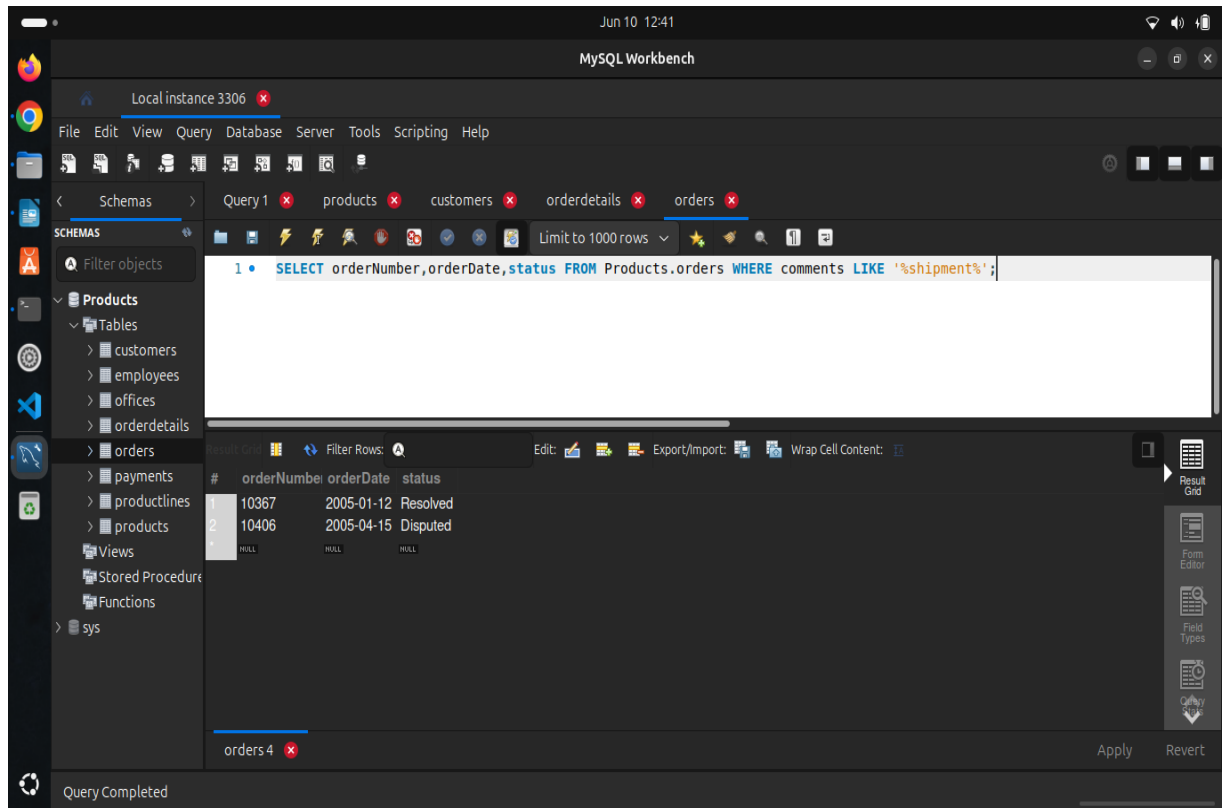
Q2. Write the query to arrange the customer details based on the country name in descending order.

SELECT * from customers **order by** customerName **DESC**



Q3. Write the query to find the order number, order date, and status for the customers having comments about shipment.

```
SELECT orderNumber,orderDate,status FROM Products.orders WHERE comments LIKE '%shipment%';
```



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

```
1 • SELECT orderNumber,orderDate,status FROM Products.orders WHERE comments LIKE '%shipment%';
```

The query results are displayed in a table with the following columns: #, orderNumber, orderDate, and status. The results show two rows:

#	orderNumber	orderDate	status
1	10367	2005-01-12	Resolved
2	10406	2005-04-15	Disputed

The status bar at the bottom indicates "Query Completed".

Q4. Write the query to find the customer who has made the highest payment along with the payment date.

```
SELECT customerNumber, paymentDate, amount
FROM payments
WHERE amount = (SELECT MAX(amount) FROM payments);
```

The screenshot shows the MySQL Workbench interface. The top toolbar includes menus like File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The left sidebar displays the 'SCHEMAS' tree with a search filter and a list of tables including customers, employees, offices, orderdetails, orders, payments, productlines, products, views, stored procedures, functions, and sys. The central editor window contains the following SQL query:

```
1 SELECT customerNumber, paymentDate, amount
2 FROM payments
3 WHERE amount = (SELECT MAX(amount) FROM payments);
```

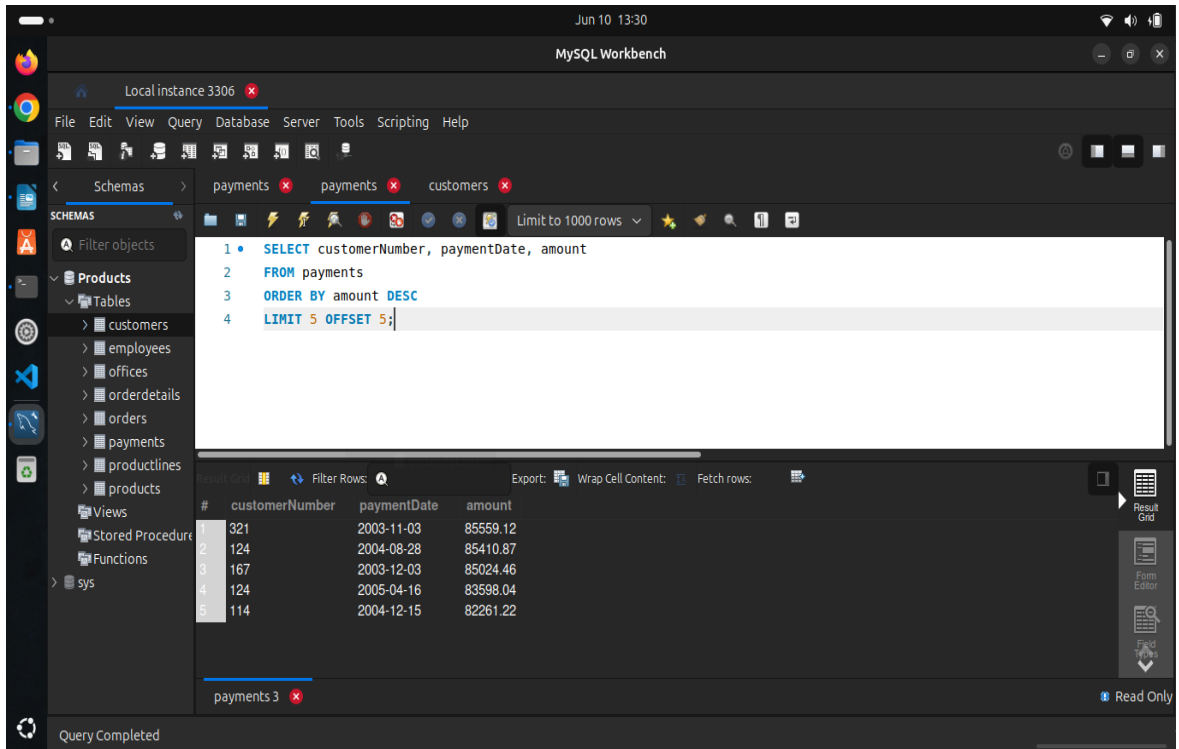
Below the query editor, the 'Result Grid' shows the output of the query. It has columns for '#', 'customerNumber', 'paymentDate', and 'amount'. A single row is displayed with the following values:

#	customerNumber	paymentDate	amount
1	141	2005-03-18	120166.58

The status bar at the bottom indicates 'Query Completed'.

Q5. I have a list of the top five customers who made the highest payment and write a query to find the next top five customers who made the highest payment.

```
SELECT customerNumber, paymentDate, amount
FROM payments
ORDER BY amount DESC
LIMIT 5 OFFSET 5;
```



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

```
1 • SELECT customerNumber, paymentDate, amount
2 FROM payments
3 ORDER BY amount DESC
4 LIMIT 5 OFFSET 5;
```

The results are displayed in a table with the following data:

#	customerNumber	paymentDate	amount
1	321	2003-11-03	85559.12
2	124	2004-08-28	85410.87
3	167	2003-12-03	85024.46
4	124	2005-04-16	83598.04
5	114	2004-12-15	82261.22

The status bar at the bottom indicates "Query Completed".

Q6. Write the query to find the customer details whose credit limit is between 10,000 to 1,00,000.

```
SELECT * FROM Products.customers
WHERE creditLimit BETWEEN 10000 and 100000;
```

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

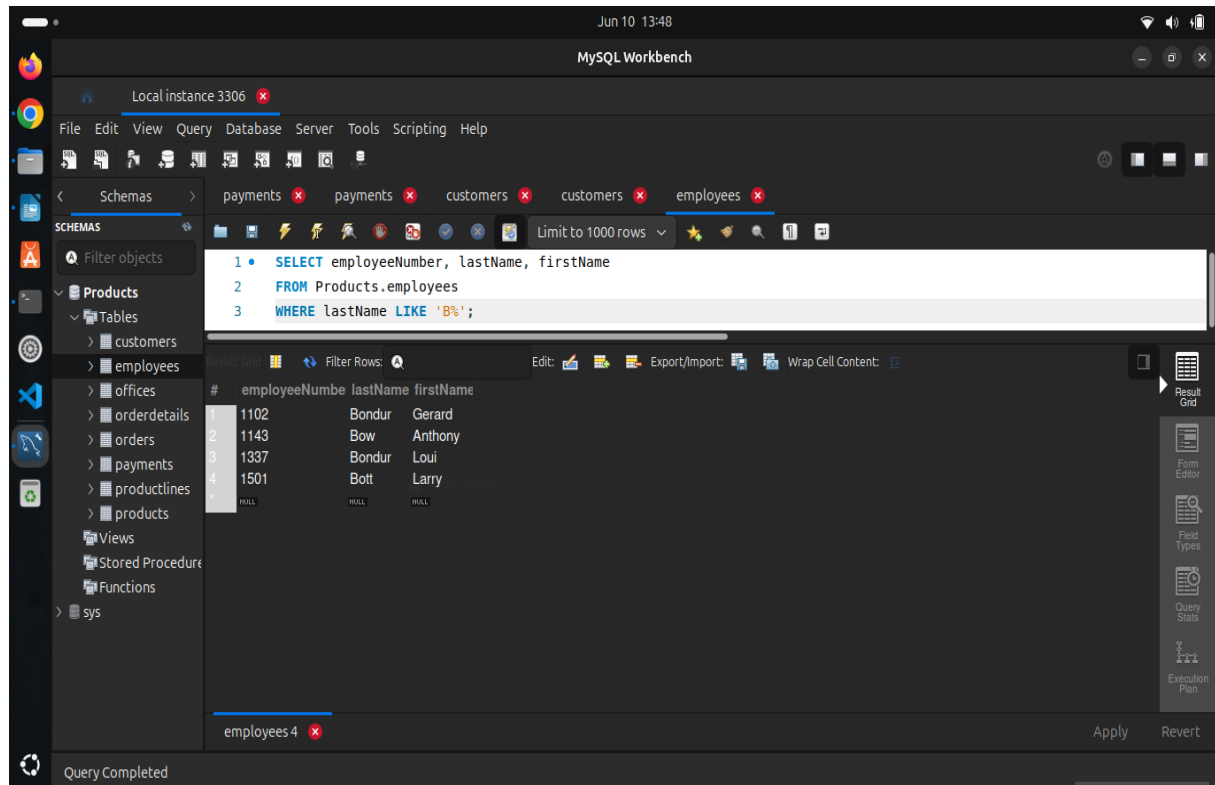
```
1 SELECT * FROM Products.customers
2 WHERE creditLimit BETWEEN 10000 and 100000;
```

The results are displayed in a table with the following columns: firstNam, phone, addressLine1, addressLine2, city, state, postalCode, country, salesRepEmployeeNumbe, and creditLimi. The table contains 11 rows of data, all of which have a credit limit between 10,000 and 100,000.

firstNam	phone	addressLine1	addressLine2	city	state	postalCode	country	salesRepEmployeeNumbe	creditLimi
40.32.2555	54, rue Royale		Nantes		44000	France	1370	21000.00	
7025551838	8489 Strong St.		Las Vegas	NV	83030	USA	1166	71800.00	
07-98 9555	Erling Skakkes gate 78		Stavern		4110	Norway	1504	81700.00	
+49 69 66 90 2555	Lyonerstr. 34		Frankfurt		60528	Germany	1504	59700.00	
6505555787	5557 North Pendale Street		San Francisco	CA	94217	USA	1165	64600.00	
0921-12 3555	BerguvsvÄngen 8		LuleÄv		S-958 22	Sweden	1504	53100.00	
31 12 3555	VinbÄllet 34		Kobenhavn		1734	Denmark	1401	83400.00	
6505556809	9408 Furth Circle		Burlingame	CA	94217	USA	1165	84600.00	
+65 224 1555	106 Linden Road Sandown	2nd Floor	Singapore		069045	Singapore	1612	97900.00	
+47 2267 3215	Brehmen St. 121	PR 334 Sentrum	Bergen		N 5804	Norway	1504	96800.00	
20.16.1555	184, chaussÄe de Tour...		Lille		59000	France	1370	82900.00	
(1) 42.34.2555	265, boulevard Charonne		Paris		75012	France	1337	84300.00	
6175555555	4658 Baden Av.		Cambridge	MA	51247	USA	1188	43400.00	
2035552570	25593 South Bay Ln.		Bridgewater	CT	97562	USA	1323	84300.00	

Q7. Write the query to get the Employee number, lastname, and first name from the employees' table whose last name starts with 'B'.

```
SELECT employeeNumber, lastName, firstName
FROM Products.employees
WHERE lastName LIKE 'B%';
```



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

```
1 • SELECT employeeNumber, lastName, firstName
2 FROM Products.employees
3 WHERE lastName LIKE 'B%';
```

The query results are displayed in a table with the following data:

#	employeeNumber	lastName	firstName
1	1102	Bondur	Gerard
2	1143	Bow	Anthony
3	1337	Bondur	Loui
4	1501	Bott	Larry

The interface also shows a sidebar with a tree view of the database schema, including tables like customers, employees, offices, orderdetails, orders, payments, productlines, and products. The status bar at the bottom indicates "Query Completed".

Q8. write a query to select the order whose total amount is greater than 50,000.

```
SELECT o1.*, totalAmount FROM orderdetails o1
JOIN(
SELECT orderNumber, SUM(quantityOrdered*priceEach) as totalAmount
FROM Products.orderdetails
GROUP BY orderNumber
HAVING SUM(quantityOrdered*priceEach) > 50000) sub
ON o1.orderNumber = sub.orderNumber;
```

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

```
1 • SELECT o1.*, totalAmount FROM orderdetails o1
2 JOIN(
3 SELECT orderNumber, SUM(quantityOrdered*priceEach) as totalAmount FROM Products.orderdetails
4 GROUP BY orderNumber
5 HAVING SUM(quantityOrdered*priceEach) > 50000) sub
6 ON o1.orderNumber = sub.orderNumber;
```

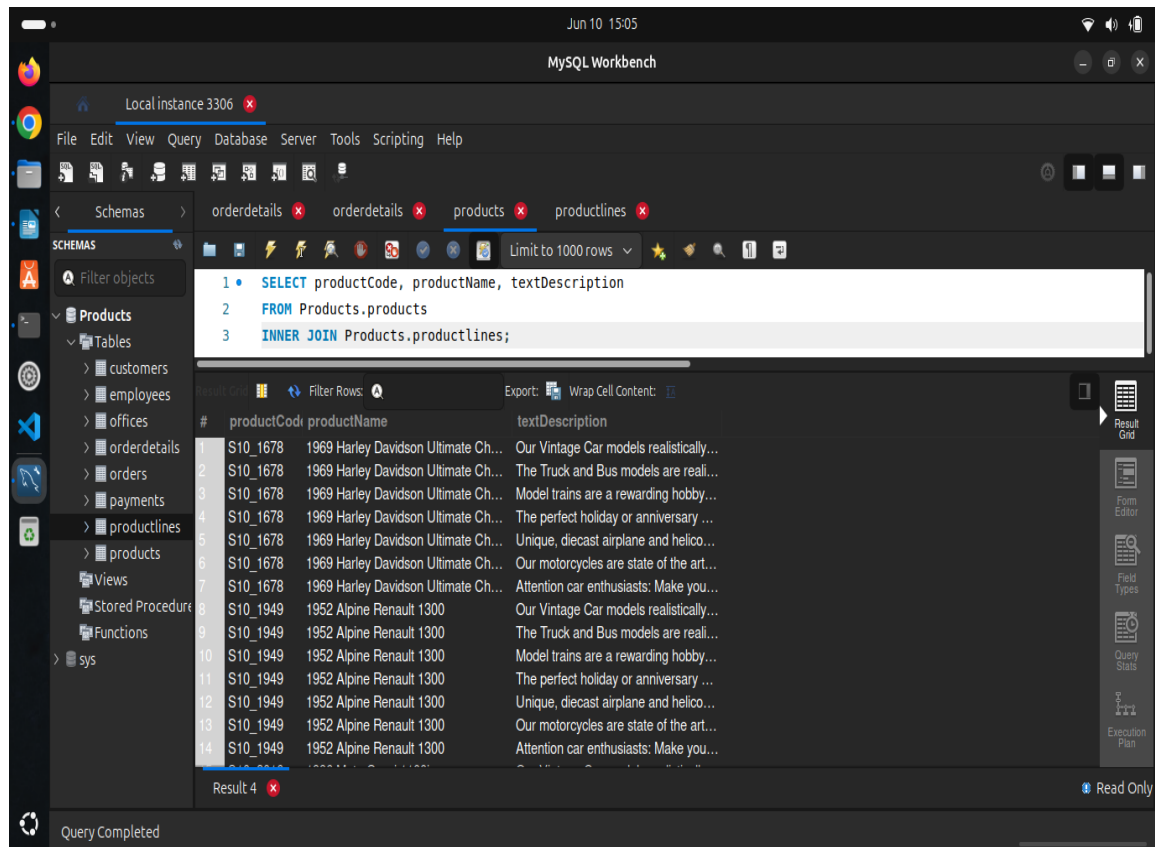
The results pane displays the following data:

#	orderNumber	productCode	quantityOrdered	priceEach	orderLineNumbe	totalAmount
1	10103	S10_1949	26	214.30	11	50218.95
2	10103	S10_4962	42	119.67	4	50218.95
3	10103	S12_1666	27	121.64	8	50218.95
4	10103	S18_1097	35	94.50	10	50218.95
5	10103	S18_2432	22	58.34	2	50218.95
6	10103	S18_2949	27	92.19	12	50218.95
7	10103	S18_2957	35	61.84	14	50218.95
8	10103	S18_3136	25	86.92	13	50218.95
9	10103	S18_3320	46	86.31	16	50218.95
10	10103	S18_4600	36	98.07	5	50218.95
11	10103	S18_4668	41	40.75	9	50218.95

The status bar at the bottom indicates "Query Completed".

Q9. Write the query to find the productcode, product name & text description from the tables products and product lines.

```
SELECT productCode, productName, textDescription
FROM Products.products
INNER JOIN Products.productlines;
```



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

```
1 • SELECT productCode, productName, textDescription
2 FROM Products.products
3 INNER JOIN Products.productlines;
```

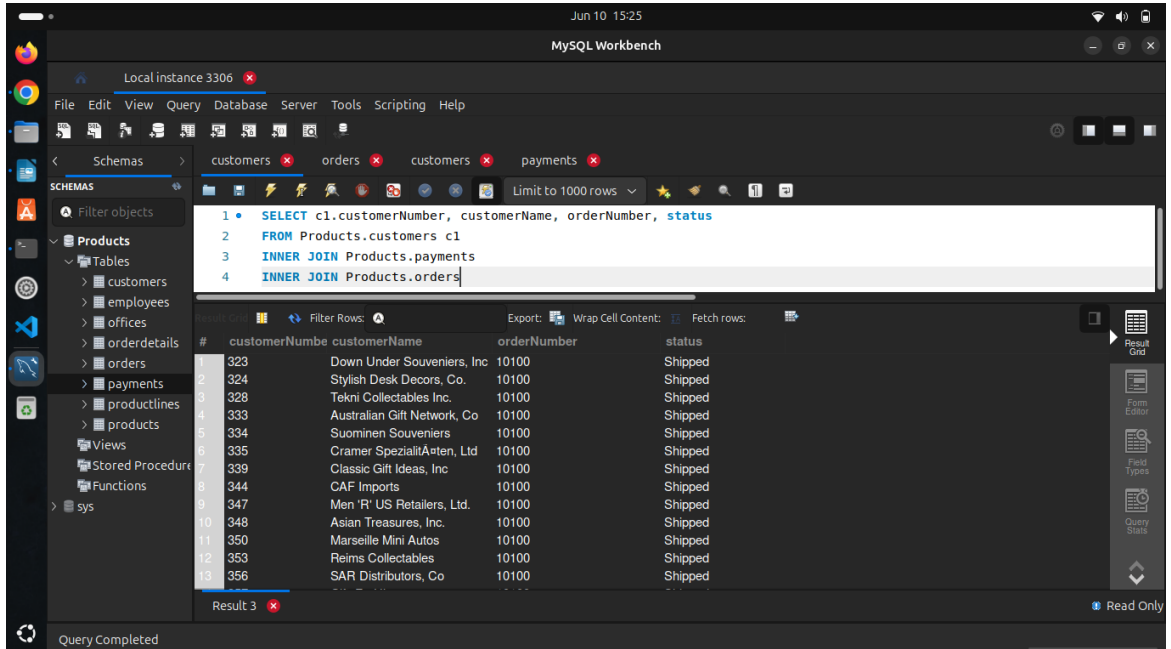
The query has been executed, and the results are displayed in the 'Result Grid' tab. The results show 14 rows of data with columns: #, productCode, productName, and textDescription.

#	productCode	productName	textDescription
1	S10_1678	1969 Harley Davidson Ultimate Ch...	Our Vintage Car models realistically...
2	S10_1678	1969 Harley Davidson Ultimate Ch...	The Truck and Bus models are reali...
3	S10_1678	1969 Harley Davidson Ultimate Ch...	Model trains are a rewarding hobby...
4	S10_1678	1969 Harley Davidson Ultimate Ch...	The perfect holiday or anniversary ...
5	S10_1678	1969 Harley Davidson Ultimate Ch...	Unique, diecast airplane and helico...
6	S10_1678	1969 Harley Davidson Ultimate Ch...	Our motorcycles are state of the art...
7	S10_1678	1969 Harley Davidson Ultimate Ch...	Attention car enthusiasts: Make you...
8	S10_1949	1952 Alpine Renault 1300	Our Vintage Car models realistically...
9	S10_1949	1952 Alpine Renault 1300	The Truck and Bus models are reali...
10	S10_1949	1952 Alpine Renault 1300	Model trains are a rewarding hobby...
11	S10_1949	1952 Alpine Renault 1300	The perfect holiday or anniversary ...
12	S10_1949	1952 Alpine Renault 1300	Unique, diecast airplane and helico...
13	S10_1949	1952 Alpine Renault 1300	Our motorcycles are state of the art...
14	S10_1949	1952 Alpine Renault 1300	Attention car enthusiasts: Make you...

The status bar at the bottom indicates 'Query Completed' and 'Result 4'.

Q10. Write the query to get the customer number, customer name, order number, status from the tables order, payments, and customers who have no order.

```
SELECT c1.customerNumber, customerName, orderNumber, status
FROM Products.customers c1
INNER JOIN Products.payments
INNER JOIN Products.orders
```



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

```
1 • SELECT c1.customerNumber, customerName, orderNumber, status
2 FROM Products.customers c1
3 INNER JOIN Products.payments
4 INNER JOIN Products.orders
```

The results pane displays a table with the following data:

#	customerNumbe	customerName	orderNumber	status
323		Down Under Souvenirs, Inc	10100	Shipped
324		Stylish Desk Decors, Co.	10100	Shipped
328		Tekni Collectables Inc.	10100	Shipped
333		Australian Gift Network, Co	10100	Shipped
334		Suominen Souvenirs	10100	Shipped
335		Cramer Spezialitäten, Ltd	10100	Shipped
339		Classic Gift Ideas, Inc	10100	Shipped
344		CAF Imports	10100	Shipped
347		Men 'R' US Retailers, Ltd.	10100	Shipped
348		Asian Treasures, Inc.	10100	Shipped
350		Marseille Mini Autos	10100	Shipped
353		Reims Collectables	10100	Shipped
356		SAR Distributors, Co	10100	Shipped

The status bar at the bottom indicates "Query Completed".