

SQL

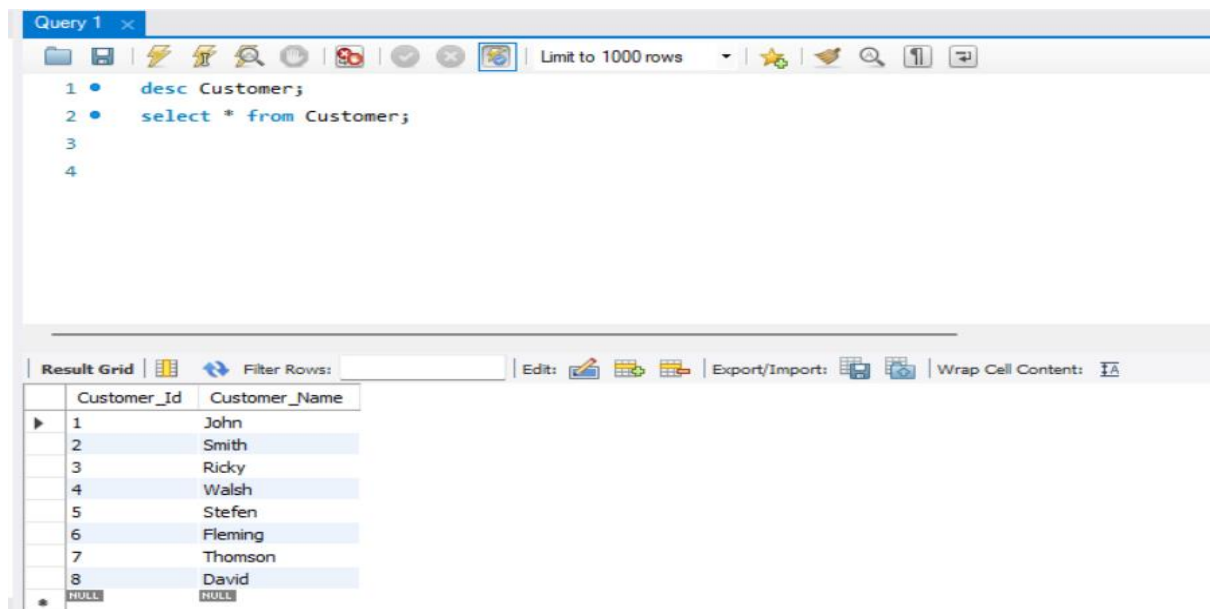
Name:SHREYAS M

College:MRIT

Create Customer table..

```
CREATE TABLE Customer (Customer_Id INT PRIMARY KEY, Customer_Name VARCHAR(50));
```

```
INSERT INTO Customer (Customer_Id, Customer_Name) VALUES(1, 'John'),(2, 'Smith'),(3, 'Ricky'),(4, 'Walsh'),(5, 'Stefen'),(6, 'Fleming'),(7, 'Thomson'),(8, 'David');
```



The screenshot shows a SQL query editor window titled 'Query 1'. The query text is as follows:

```
1 • desc Customer;
2 • select * from Customer;
3
4
```

Below the query editor, there is a 'Result Grid' tab. The grid displays the results of the 'select * from Customer;' query. The columns are 'Customer_Id' and 'Customer_Name'. The data is as follows:

Customer_Id	Customer_Name
1	John
2	Smith
3	Ricky
4	Walsh
5	Stefen
6	Fleming
7	Thomson
8	David
HULL	HULL

Create Product table..

```
CREATE TABLE Product(Product_Id INT PRIMARYKEY, Product_Name VARCHAR(50), Product_PriceINT);
```

```
INSERT INTO Product (Product_Id, Product_Name, Product_Price) VALUES(1, 'Television', 19000),(2, 'DVD', 3600),(3, 'Washing Machine', 7600),(4, 'Computer', 35900),(5, 'Ipod', 3210),(6, 'Panasonic Phone', 2100),(7, 'Chair', 360),(8, 'Table', 490),(9, 'Sound System', 12050),(10, 'Home Theatre', 19350);
```

Query 1 x

Limit to 1000 rows

```

1 • desc Product;
2 • select * from Product;
3
4

```

Result Grid

	Product_Id	Product_Name	Product_Price
1	1	Television	19000
2	2	DVD	3600
3	3	Washing Machine	7600
4	4	Computer	35900
5	5	Ipod	3210
6	6	Panasonic Phone	2100
7	7	Chair	360
8	8	Table	490
9	9	Sound System	12050
10	10	Home Theatre	19350

Result 4 Product 5 x

Create Ordered table..

```

CREATE TABLE Ordered ( Order_Id INT PRIMARY KEY, Customer_Id
INT, Ordered_Date DATE, FOREIGN KEY (Customer_Id) REFERENCES
Customer(Customer_Id));

```

```

INSERT INTO Ordered (Order_Id, Customer_Id, Ordered_Date) VALUES(1, 4,
'2005-01-10'),(2, 2, '2006-02-10'),(3, 3, '2005-03-20'),(4, 3, '2006-03-10'),(5, 1,
'2007-04-05'),(6, 7, '2006-12-13'),(7, 6, '2008-03-13'),(8, 6, '2004-11-29'),(9, 5,
'2005-01-13'),(10, 1, '2007-12-12');

```

Query 1 x

Limit to 1000 rows

```

1 • desc Ordered;
2 • select * from Ordered;

```

Result Grid

	Order_Id	Customer_Id	Ordered_Date
1	1	4	2005-01-10
2	2	2	2006-02-10
3	3	3	2005-03-20
4	4	3	2006-03-10
5	5	1	2007-04-05
6	6	7	2006-12-13
7	7	6	2008-03-13
8	8	6	2004-11-29
9	9	5	2005-01-13
10	10	1	2007-12-12

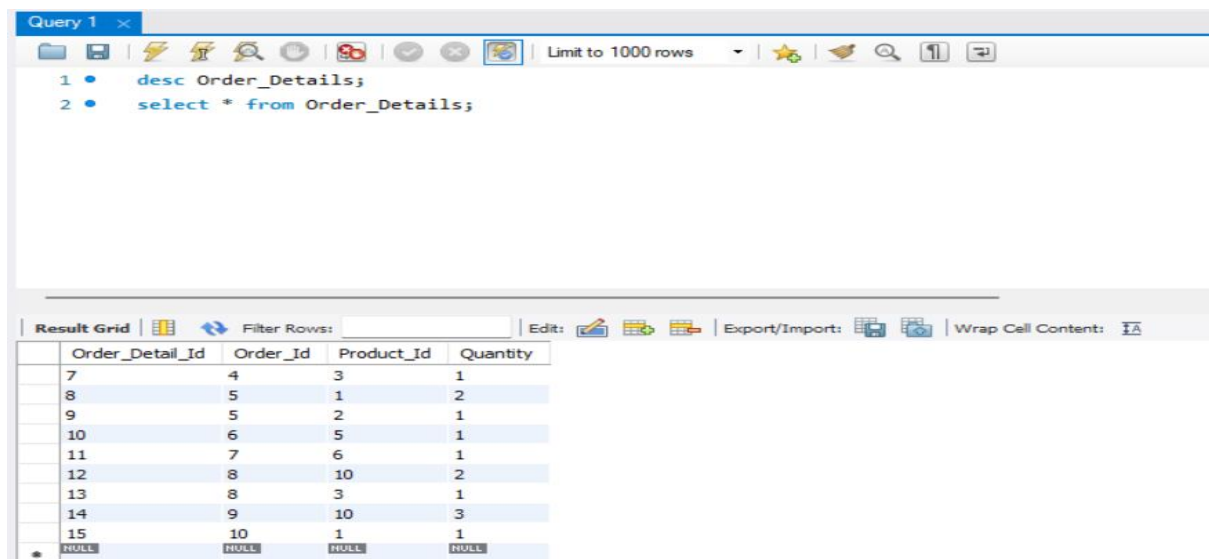
Result 6 Ordered 7 x

Create Order_Details table..

```
CREATE TABLE Order_Details (Order_Detail_Id INT PRIMARY  
KEY,Order_Id INT,Product_Id INT,Quantity INT,FOREIGN KEY (Order_Id)  
REFERENCES Ordered(Order_Id),FOREIGN KEY (Product_Id)  
REFERENCES Product(Product_Id));
```

```
INSERT INTO Order_Details (Order_Detail_Id, Order_Id, Product_Id, Quantity)  
VALUES(1, 1, 3, 1),
```

```
(2, 1, 2, 3),(3, 2, 10, 2),(4, 3, 7, 10),(5, 3, 4, 2),(6, 3, 5, 4),(7, 4, 3, 1),(8, 5, 1, 2),(9,  
5, 2, 1),(10, 6, 5, 1),(11, 7, 6, 1),(12, 8, 10, 2),(13, 8, 3, 1),(14, 9, 10, 3),(15, 10,  
1, 1);
```



The screenshot shows a database query tool interface. The top section, titled 'Query 1', contains two SQL commands: `1 • desc Order_Details;` and `2 • select * from Order_Details;`. Below the query editor is a 'Result Grid' displaying the output of the second query. The grid has four columns: 'Order_Detail_Id', 'Order_Id', 'Product_Id', and 'Quantity'. It contains 15 rows of data, corresponding to the values inserted in the previous blocks, followed by a row with all NULL values. The interface also includes various tool icons and a 'Limit to 1000 rows' dropdown.

Order_Detail_Id	Order_Id	Product_Id	Quantity
7	4	3	1
8	5	1	2
9	5	2	1
10	6	5	1
11	7	6	1
12	8	10	2
13	8	3	1
14	9	10	3
15	10	1	1
NULL	NULL	NULL	NULL

QUERIES:

1. Fetch all the Customer Details along with the product names that the customer has ordered.

```
select c.Customer_Id,c.Customer_Name,p.Product_Name
from Customer c,Ordered o,Order_Details od,Product p
where c.Customer_Id=o.Customer_Id AND o.Order_Id=od.Order_Id
AND od.Product_Id=p.Product_Id;
```

Output:

Query 1

Limit to 1000 rows

1

select c.Customer_Id,c.Customer_Name,p.Product_Name

2

from Customer c,Ordered o,Order_Details od,Product p

3

where c.Customer_Id=o.Customer_Id AND o.Order_Id=od.Order_Id

4

AND od.Product_Id=p.Product_Id;

Result Grid

Filter Rows:

Export:

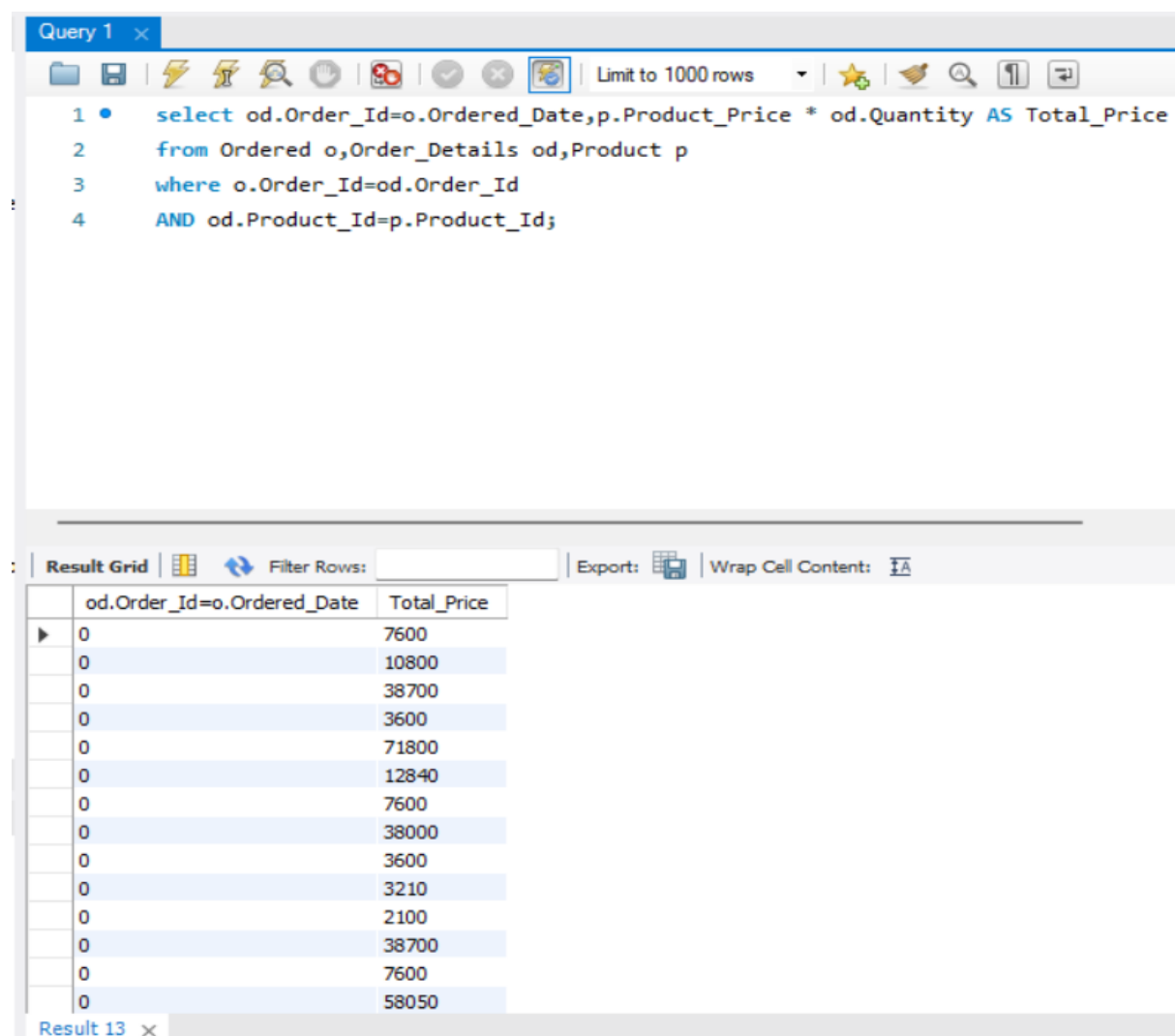
Wrap Cell Content:

	Customer_Id	Customer_Name	Product_Name
1	John	Television	
2	Smith	Home Theatre	
3	Ricky	Chair	
3	Ricky	Computer	
3	Ricky	Ipod	
3	Ricky	Washing Machine	
4	Walsh	Washing Machine	
4	Walsh	DVD	
5	Stefen	Home Theatre	
6	Fleming	Panasonic Phone	
6	Fleming	Home Theatre	
6	Fleming	Washing Machine	
7	Thomson	Ipod	

2.Fetch Order Id, Ordered Date, Total Price of the order (product price*qty).

```
Select  od.Order_Id=o.Ordered_Date,p.Product_Price  *  od.Quantity  AS
Total_Price
from Ordered o,Order_Details od,Product p
where o.Order_Id=od.Order_Id
AND od.Product_Id=p.Product_Id;
```

Output:



The screenshot shows a database query editor window titled "Query 1". The SQL query is as follows:

```
1 • select od.Order_Id=o.Ordered_Date,p.Product_Price * od.Quantity AS Total_Price
2   from Ordered o,Order_Details od,Product p
3   where o.Order_Id=od.Order_Id
4   AND od.Product_Id=p.Product_Id;
```

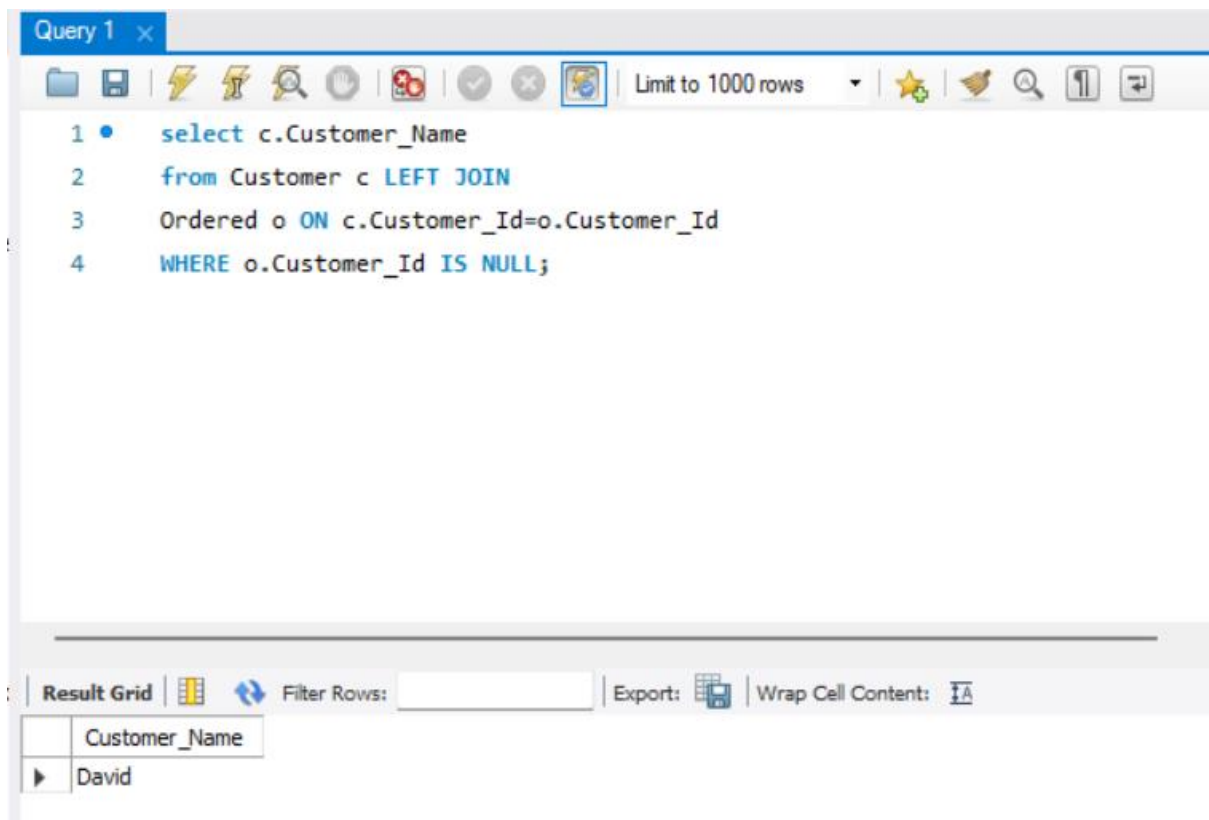
Below the query editor, the "Result Grid" is displayed, showing the output of the query. The grid has two columns: "od.Order_Id=o.Ordered_Date" and "Total_Price". The results are as follows:

od.Order_Id=o.Ordered_Date	Total_Price
0	7600
0	10800
0	38700
0	3600
0	71800
0	12840
0	7600
0	38000
0	3600
0	3210
0	2100
0	38700
0	7600
0	58050

3.Fetch the Customer Name, who has not placed any order.

```
select c.Customer_Name  
from Customer c LEFT JOIN  
Ordered o ON c.Customer_Id=o.Customer_Id  
WHERE o.Customer_Id IS NULL;
```

Output:



The screenshot shows a SQL query editor window titled "Query 1". The query is as follows:

```
1 • select c.Customer_Name  
2   from Customer c LEFT JOIN  
3   Ordered o ON c.Customer_Id=o.Customer_Id  
4   WHERE o.Customer_Id IS NULL;
```

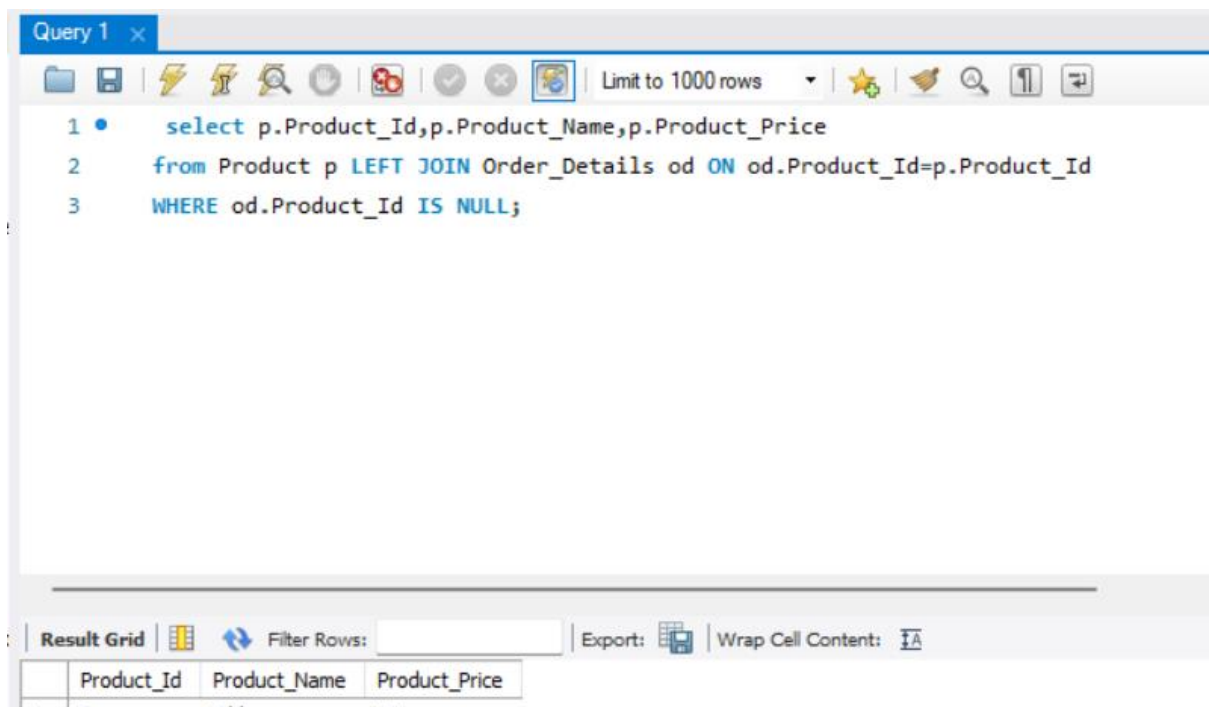
The editor has a toolbar with various icons and a "Limit to 1000 rows" dropdown. Below the query editor, there is a "Result Grid" section. It includes a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" checkbox. The result grid displays the following data:

	Customer_Name
▶	David

4.Fetch the Product Details without any order(purchase).

```
select p.Product_Id,p.Product_Name,p.Product_Price  
from Product p LEFT JOIN Order_Details od ON od.Product_Id=p.Product_Id  
WHERE od.Product_Id IS NULL;
```

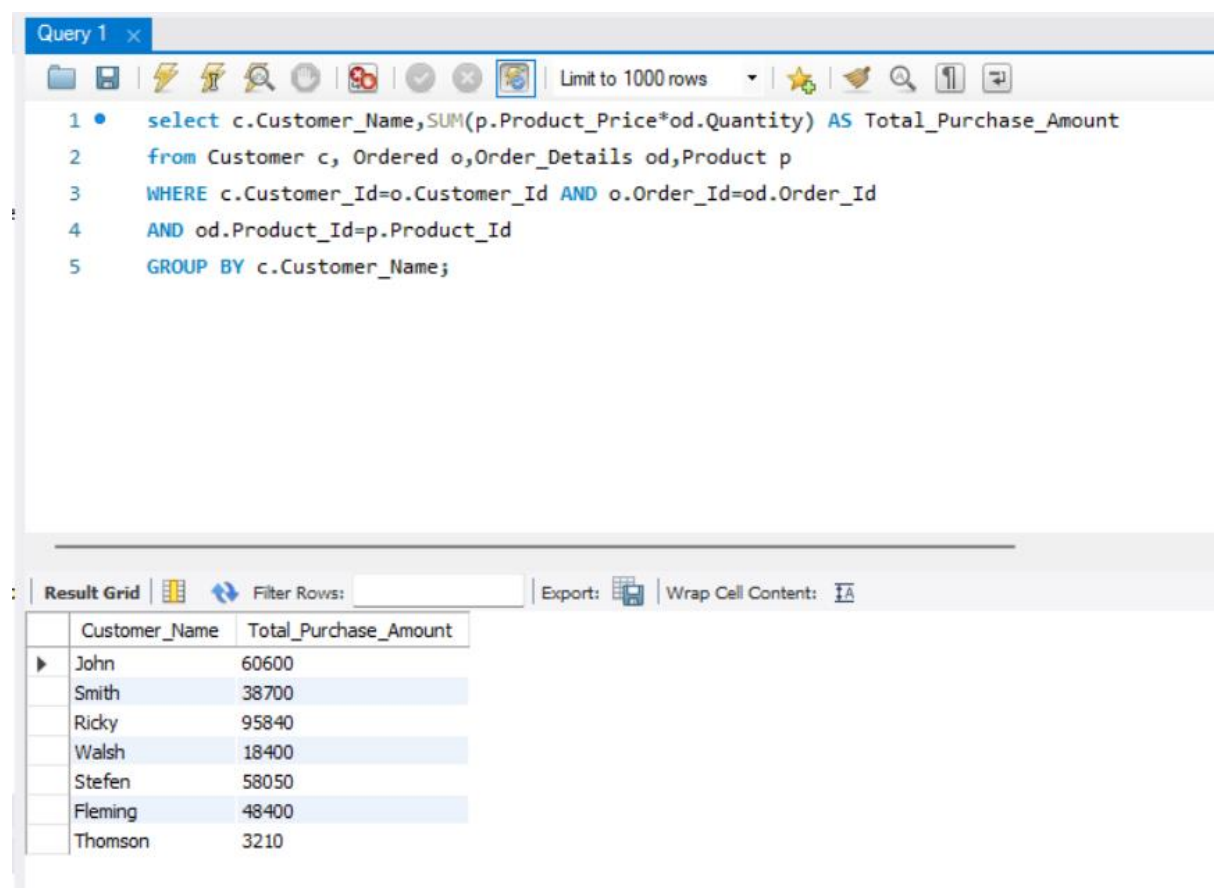
Output:



5.Fetch the Customer name along with the total Purchase Amount.

```
select c.Customer_Name,SUM(p.Product_Price*od.Quantity) AS  
Total_Purchase_Amount  
from Customer c, Ordered o,Order_Details od,Product p  
WHERE c.Customer_Id=o.Customer_Id AND o.Order_Id=od.Order_Id  
AND od.Product_Id=p.Product_Id  
GROUP BY c.Customer_Name;
```

Output:



Query 1

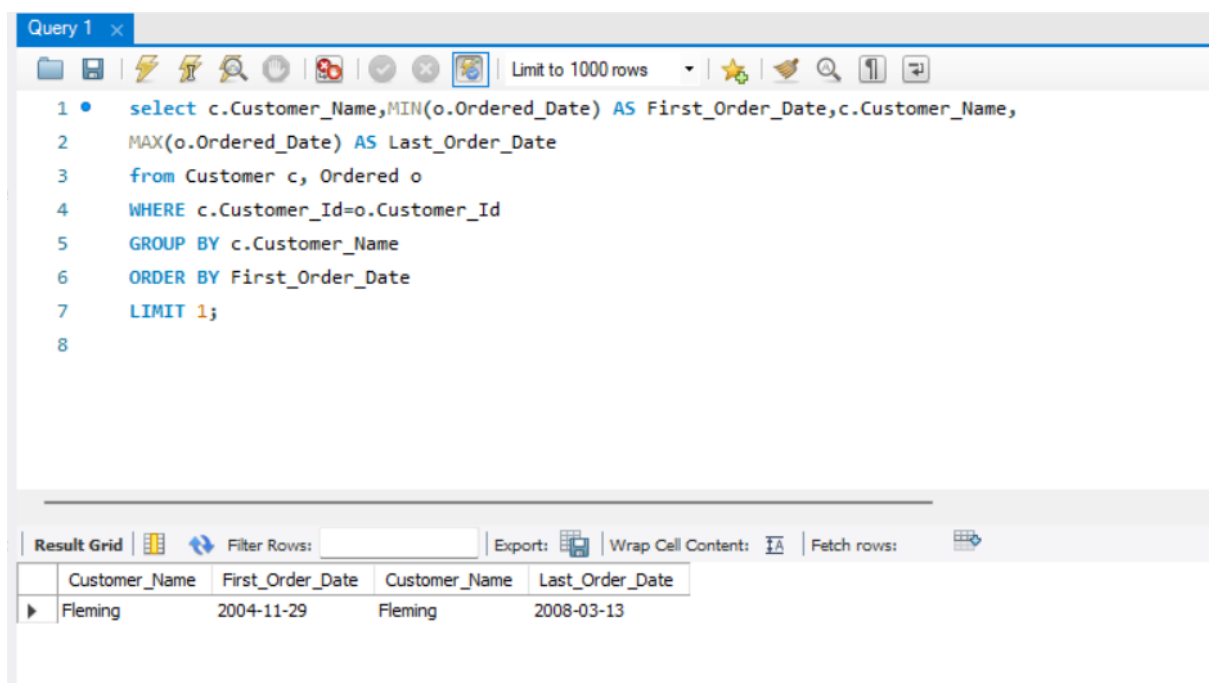
```
1 • select c.Customer_Name,SUM(p.Product_Price*od.Quantity) AS Total_Purchase_Amount  
2 from Customer c, Ordered o,Order_Details od,Product p  
3 WHERE c.Customer_Id=o.Customer_Id AND o.Order_Id=od.Order_Id  
4 AND od.Product_Id=p.Product_Id  
5 GROUP BY c.Customer_Name;
```

Result Grid

	Customer_Name	Total_Purchase_Amount
▶	John	60600
	Smith	38700
	Ricky	95840
	Walsh	18400
	Stefen	58050
	Fleming	48400
	Thomson	3210

6.Fetch the Customer details, who has placed the first and last order.

```
select c.Customer_Name,MIN(o.Ordered_Date) AS  
First_Order_Date,c.Customer_Name,  
MAX(o.Ordered_Date) AS Last_Order_Date  
from Customer c, Ordered o  
WHERE c.Customer_Id=o.Customer_Id  
GROUP BY c.Customer_Name  
ORDER BY First_Order_Date  
LIMIT 1;  
Output:
```



The screenshot shows a database query editor window titled "Query 1". The query is as follows:

```
1 • select c.Customer_Name,MIN(o.Ordered_Date) AS First_Order_Date,c.Customer_Name,  
2 MAX(o.Ordered_Date) AS Last_Order_Date  
3 from Customer c, Ordered o  
4 WHERE c.Customer_Id=o.Customer_Id  
5 GROUP BY c.Customer_Name  
6 ORDER BY First_Order_Date  
7 LIMIT 1;  
8
```

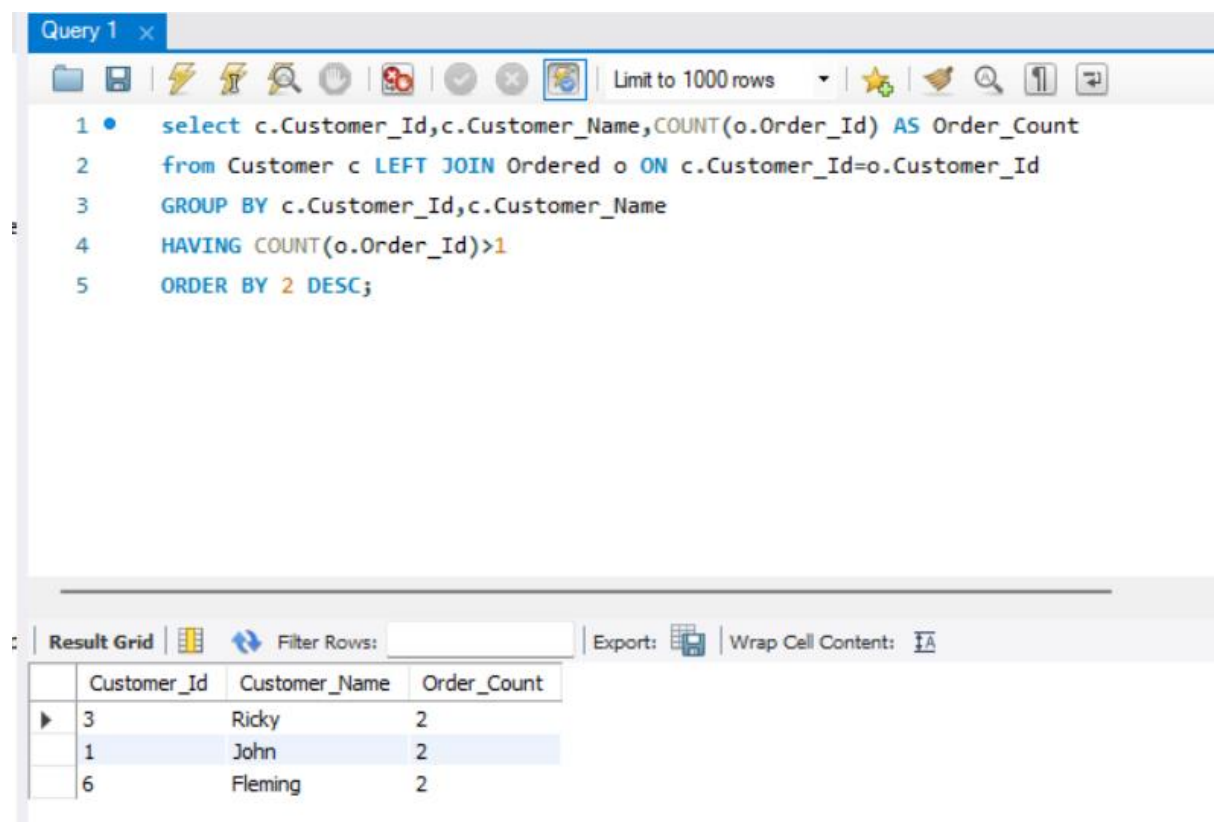
Below the query editor, the "Result Grid" is displayed, showing the output of the query. The grid has four columns: Customer_Name, First_Order_Date, Customer_Name, and Last_Order_Date. The first row of data shows the customer "Fleming" with a first order date of "2004-11-29" and a last order date of "2008-03-13".

Customer_Name	First_Order_Date	Customer_Name	Last_Order_Date
Fleming	2004-11-29	Fleming	2008-03-13

7.Fetch the customer details , who has placed more number of orders.

```
select c.Customer_Id,c.Customer_Name,COUNT(o.Order_Id) AS Order_Count
from Customer c LEFT JOIN Ordered o ON c.Customer_Id=o.Customer_Id
GROUP BY c.Customer_Id,c.Customer_Name
HAVING COUNT(o.Order_Id)>1
ORDER BY 2 DESC;
```

Output:



The screenshot shows a SQL query editor window titled "Query 1". The query is as follows:

```
1 • select c.Customer_Id,c.Customer_Name,COUNT(o.Order_Id) AS Order_Count
2 from Customer c LEFT JOIN Ordered o ON c.Customer_Id=o.Customer_Id
3 GROUP BY c.Customer_Id,c.Customer_Name
4 HAVING COUNT(o.Order_Id)>1
5 ORDER BY 2 DESC;
```

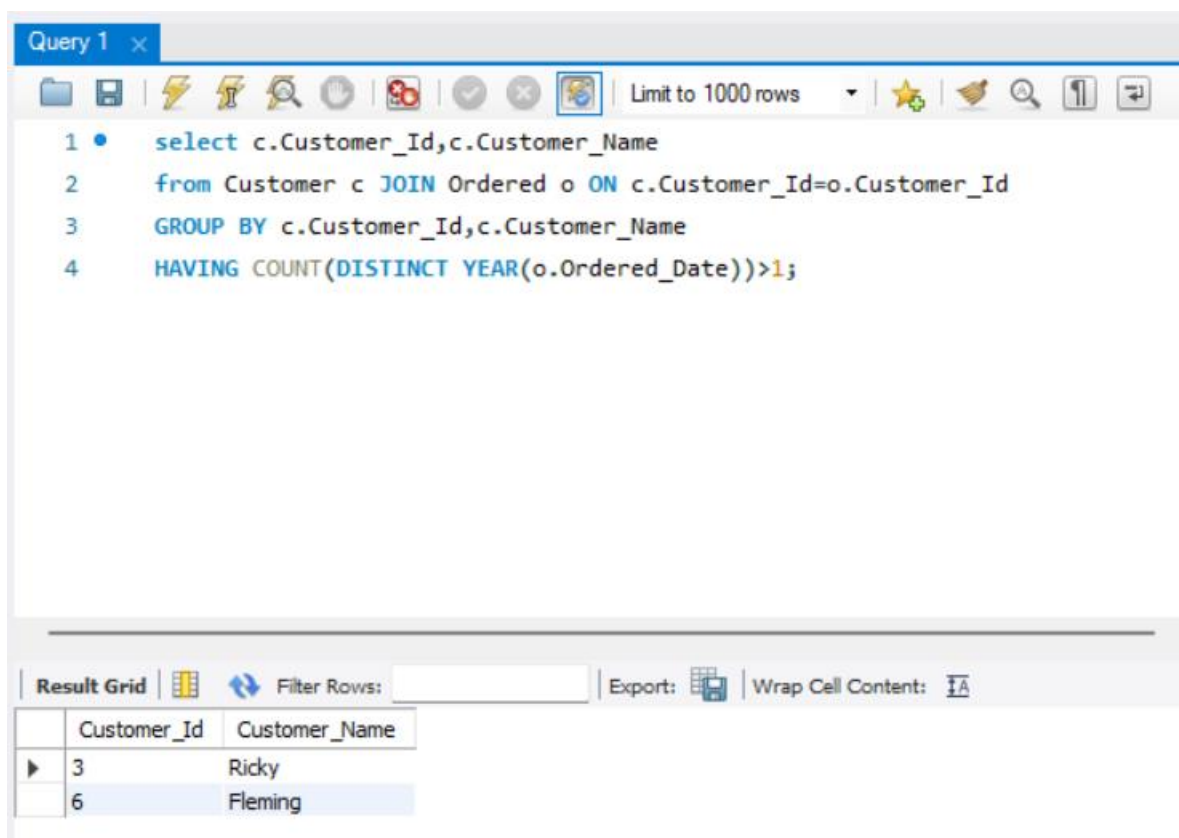
Below the query editor, the "Result Grid" is displayed, showing the output of the query. The table has four columns: Customer_Id, Customer_Name, and Order_Count. The results are as follows:

	Customer_Id	Customer_Name	Order_Count
▶	3	Ricky	2
	1	John	2
	6	Fleming	2

8.Fetch the customer details, who has placed multiple orders in the same year.

```
select c.Customer_Id,c.Customer_Name
from Customer c JOIN Ordered o ON c.Customer_Id=o.Customer_Id
GROUP BY c.Customer_Id,c.Customer_Name
HAVING COUNT(DISTINCT YEAR(o.Ordered_Date))>1;
```

Output:



The screenshot shows a SQL query editor window titled "Query 1". The query is as follows:

```
1 • select c.Customer_Id,c.Customer_Name
2   from Customer c JOIN Ordered o ON c.Customer_Id=o.Customer_Id
3   GROUP BY c.Customer_Id,c.Customer_Name
4   HAVING COUNT(DISTINCT YEAR(o.Ordered_Date))>1;
```

Below the query editor, the "Result Grid" is displayed, showing the output of the query. The grid has two columns: "Customer_Id" and "Customer_Name". The results are as follows:

Customer_Id	Customer_Name
3	Ricky
6	Fleming

9.Fetch the name of the month, in which more number of orders has been placed.

```
Select MONTHNAME(o.Ordered_Date) AS Month_Name  
from Ordered o GROUP BY MONTH(o.Ordered_Date)  
ORDER BY COUNT(*) DESC  
LIMIT 1;
```

Output:

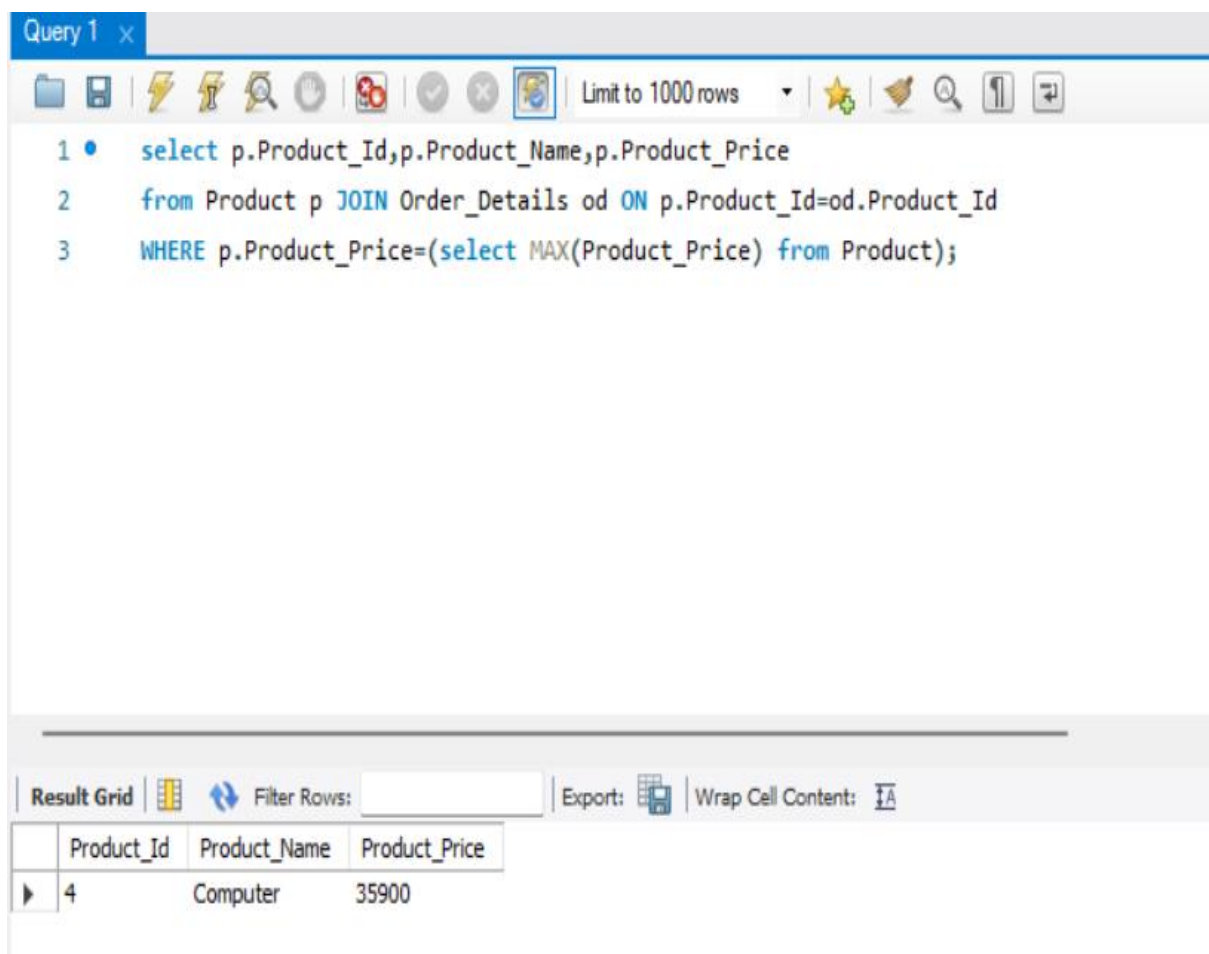
```
1 • SELECT MONTHNAME(o.Ordered_Date) AS Month_Name  
2 FROM Ordered o GROUP BY MONTH(o.Ordered_Date)  
3 ORDER BY COUNT(*) DESC  
4 LIMIT 1;
```

Result Grid		Filter Rows: <input type="text"/>	Export:	Wrap Cell Content:	Fetch rows:	
	Month_Name					
	▶ March					

10.Fetch the maximum priced Ordered Product.

```
select p.Product_Id,p.Product_Name,p.Product_Price  
from Product p JOIN Order_Details od ON p.Product_Id=od.Product_Id  
WHERE p.Product_Price=(select MAX(Product_Price) from Product);
```

Output:



The screenshot shows a SQL query editor window titled "Query 1". The query is as follows:

```
1 • select p.Product_Id,p.Product_Name,p.Product_Price  
2   from Product p JOIN Order_Details od ON p.Product_Id=od.Product_Id  
3   WHERE p.Product_Price=(select MAX(Product_Price) from Product);
```

Below the query editor, the "Result Grid" is displayed, showing the output of the query. The grid has four columns: Product_Id, Product_Name, and Product_Price. The first row of data shows Product_Id 4, Product_Name Computer, and Product_Price 35900.

	Product_Id	Product_Name	Product_Price
▶	4	Computer	35900