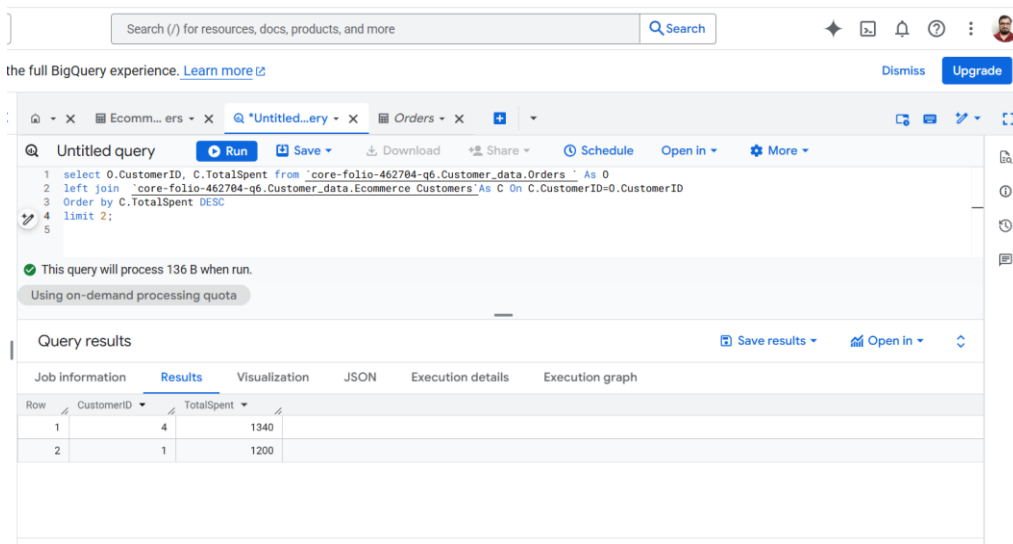


## SQL ADVANCE QUESTION ON DATASET

1) Find the top 2 customers by total spent in Orders.

Query:- select O.CustomerID, C.TotalSpent from `core-folio-462704-q6.Customer\_data.Orders` As O  
left join `core-folio-462704-q6.Customer\_data.Ecommerce Customers` As C On  
C.CustomerID=O.CustomerID  
Order by C.TotalSpent DESC  
limit 2;



The screenshot shows the Google BigQuery web interface. At the top, there's a search bar and navigation links. Below, the 'Untitled query' editor contains the following SQL code:

```
1 select O.CustomerID, C.TotalSpent from `core-folio-462704-q6.Customer_data.Orders` As O
2 left join `core-folio-462704-q6.Customer_data.Ecommerce Customers` As C On
3 C.CustomerID=O.CustomerID
4 Order by C.TotalSpent DESC
5 limit 2;
```

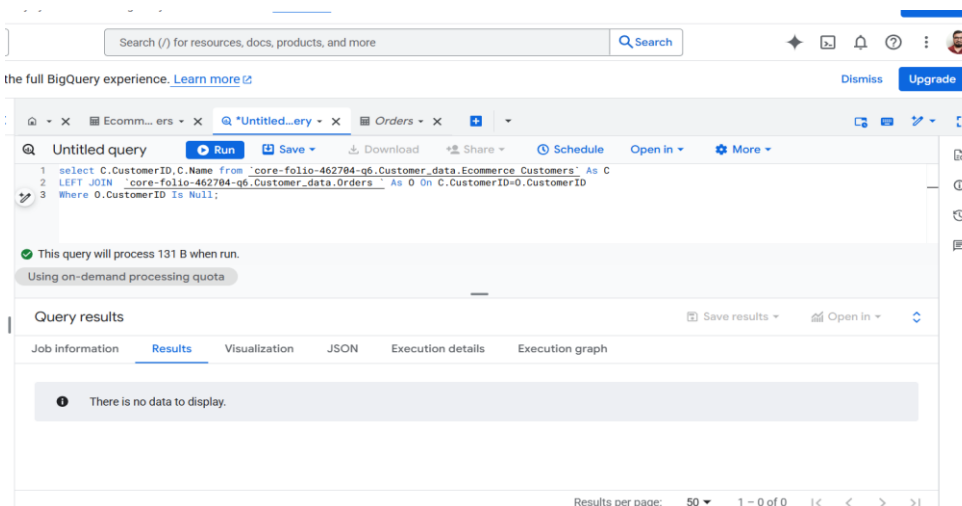
Below the query editor, a status bar indicates 'This query will process 136 B when run.' and 'Using on-demand processing quota'. The 'Query results' section is active, showing a table with two columns: 'CustomerID' and 'TotalSpent'.

Row	CustomerID	TotalSpent
1	4	1340
2	1	1200

2) Identify customers who have not ordered any product.

QUERY:- select C.CustomerID,C.Name from `core-folio-462704-q6.Customer\_data.Ecommerce Customers` As C  
LEFT JOIN `core-folio-462704-q6.Customer\_data.Orders` As O On  
C.CustomerID=O.CustomerID  
Where O.CustomerID Is Null;

**NOTE:-**There is no null value in both the table that's why the result showing there is no data to display.



The screenshot shows the Google BigQuery web interface. The 'Untitled query' editor contains the following SQL code:

```
1 select C.CustomerID,C.Name from `core-folio-462704-q6.Customer_data.Ecommerce Customers` As C
2 LEFT JOIN `core-folio-462704-q6.Customer_data.Orders` As O On
3 C.CustomerID=O.CustomerID
4 Where O.CustomerID Is Null;
```

Below the query editor, a status bar indicates 'This query will process 131 B when run.' and 'Using on-demand processing quota'. The 'Query results' section is active, showing a message: 'There is no data to display.'

3) Calculate the **running total of price** ordered by each customer by OrderDate.

QUERY :- select CustomerID,Price,OrderDate,Sum(Price) Over(Partition By CustomerID Order By OrderDate )As Running\_Total from `core-folio-462704-q6.Customer\_data.Orders`;

The screenshot shows the Google BigQuery web interface. At the top, there's a search bar and navigation icons. Below that, a tab for 'Untitled query' is active. The query editor contains the following SQL code:

```
1 select CustomerID,Price,OrderDate,Sum(Price) Over(Partition By CustomerID Order By OrderDate )As Running_Total from `core-folio-462704-q6.Customer_data.Orders`;
```

Below the query editor, a status bar indicates: 'This query will process 168 B when run. Using on-demand processing quota'. The 'Query results' section is expanded, showing a table with 7 rows and 6 columns: Row, CustomerID, Price, OrderDate, Running\_Total, and an empty column. The data is as follows:

Row	CustomerID	Price	OrderDate	Running_Total	
3	2	50	2024-03-20	50	
4	2	800	2024-04-05	850	
5	3	60	2024-05-25	60	
6	4	150	2024-03-01	150	
7	5	800	2024-05-01	800	

At the bottom right of the results table, it says 'Results per page: 50' and '1 - 7 of 7'.

4) Find the most expensive product ordered by each customer.

QUERY :- with ranked As (SELECT CustomerID,Product,Price,DENSE\_RANK() Over(Partition By CustomerID ORDER BY Price DESC)As Expensive from `core-folio-462704-q6.Customer\_data.Orders`)

Select CustomerID,Product,Price From Ranked  
Where Expensive =1;

The screenshot shows the Google BigQuery web interface. At the top, there's a search bar and navigation icons. Below that, a tab for 'Untitled query' is active. The query editor contains the following SQL code:

```
1 with ranked As (SELECT CustomerID,Product,Price,DENSE_RANK() Over(Partition By CustomerID ORDER BY Price DESC)As Rank from `core-folio-462704-q6.Customer_data.Orders`)  
2 Select CustomerID,Product,Price,Rank From Ranked  
3 Where Rank =1;  
4
```

Below the query editor, a status bar indicates: 'Query completed Using on-demand processing quota'. The 'Query results' section is expanded, showing a table with 5 rows and 5 columns: Row, CustomerID, Product, Price, and Rank. The data is as follows:

Row	CustomerID	Product	Price	Rank
1	1	Laptop	800	1
2	2	Laptop	800	1
3	3	Keyboard	60	1
4	4	Chair	150	1
5	5	Laptop	800	1

At the bottom right of the results table, it says 'Results per page: 50' and '1 - 5 of 5'.

5) List customers along with the number of distinct products they purchased.

QUERY :- Select C.Name,O.CustomerID, COUNT(DISTINCT O.Product) AS  
Distinct\_Products\_Purchased,CONCAT(COUNT(DISTINCT O.Product), ' (' ,  
STRING\_AGG(DISTINCT O.Product, ', '), ')') AS Product\_List\_Display From `core-folio-462704-  
q6.Customer\_data.Orders` AS O  
left join `core-folio-462704-q6.Customer\_data.Ecommerce Customers` As C ON  
C.CustomerID=O.CustomerID  
Group By C.Name,O.CustomerID;

The screenshot shows the Google BigQuery web interface. At the top, there's a search bar and navigation icons. Below that, a tab for 'Untitled query' is active. The query editor displays the following SQL query:

```
1 Select C.Name, O.CustomerID, COUNT(DISTINCT O.Product) AS Distinct_Products_Purchased, CONCAT(COUNT(DISTINCT O.Product), ' (' ,  
2 O.Product, ', '), ')') AS Product_List_Display From `core-folio-462704-q6.Customer_data.Orders` AS O  
3 left join `core-folio-462704-q6.Customer_data.Ecommerce Customers` As C ON C.CustomerID=O.CustomerID  
4 Group By C.Name, O.CustomerID;
```

Below the query editor, a status bar indicates: "This query will process 188 B when run. Using on-demand processing quota".

The 'Query results' section is expanded, showing a table with 5 rows and 5 columns. The columns are: Row, Name, CustomerID, Distinct\_Products\_Purchased, and Product\_List\_Display. The data is as follows:

Row	Name	CustomerID	Distinct_Products_Purchased	Product_List_Display
1	Charlie	3	1	1 (Keyboard)
2	Diana	4	1	1 (Chair)
3	Alice	1	2	2 (Monitor, Laptop)
4	Ethan	5	1	1 (Laptop)
5	Bob	2	2	2 (Laptop, Mouse)

At the bottom right of the results table, it says "Results per page: 50" and "1 - 5 of 5".