**SQL - Assignment**

**Question-1:**

1.Here is the Dataset for the below questions.

**Gold members Data Set**--Column names : (userid integer, signup\_date)

('John','09-22-2017'), ('Mary','04-21-2017')

values

**Users Data Set**--Column names : (userid integer, signup\_date)

('John','09-02-2014'), ('Michel','01-15-2015'), ('Mary','04-11-2014')

**Sales Data Set**-- Column names : (userid,created\_date,product\_id)

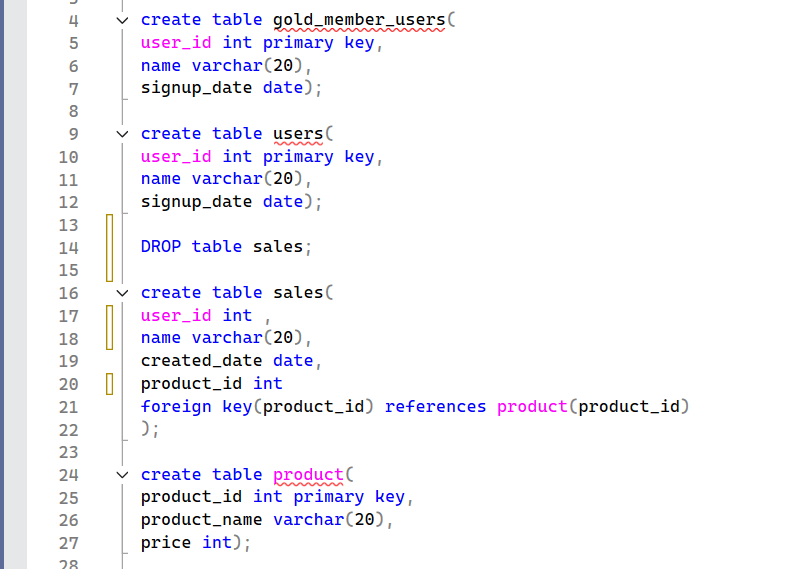
('John','04-19-2017',2), ('Mary','12-18-2019',1), ('Michel','07-20-2020',3), ('John','10-23-2019',2), ('John','03-19-2018',3), ('Mary','12-20-2016',2), ('John','11-09-2016',1), ('John','05-20-2016',3), ('Michel','09-24-2017',1), ('John','03-11-2017',2), ('John','03-11-2016',1), ('Mary','11-10-2016',1), ('Mary','12-07-2017',2)

**Product Data Set**--Column names : (product\_id,product\_name,price)

(1,'Mobile',980), (2,'Ipad',870), (3,'Laptop',330)

1. Create Database as ecommerce:  
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2. Create 4 tables (gold\_member\_users, users, sales, product) under the above database(ecommerce)



1. Insert the values provided above with respective datatypes:

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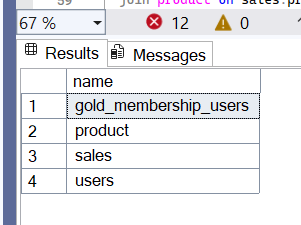
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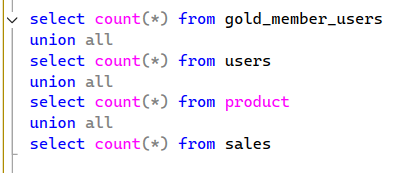
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1. Show all the tables in the same database(ecommerce):





1. Count all the records of all four tables using single query:



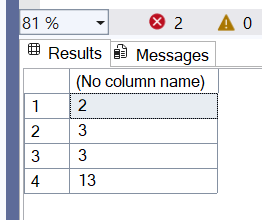
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6. What is the total amount each customer spent on ecommerce company :

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7. Find the distinct dates of each customer visited the website: output should have 2 columns date and customer name :

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8. Find the first product purchased by each customer using 3 tables(users, sales, product) :

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9. What is the most purchased item of each customer and how many times the customer has purchased it: output should have 2 columns count of the items as item\_count and customer name

10. Find out the customer who is not the gold\_member\_user :

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11. What is the amount spent by each customer when he was the gold\_memberorder by user :

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12. Find the Customers names whose name starts with M

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13. Find the Distinct customer Id of each customer

16.

17

18

19.

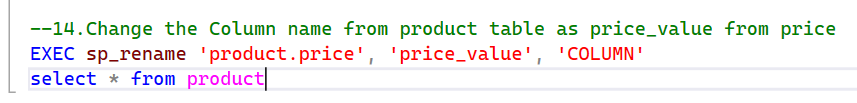
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14. Change the Column name from product table as price\_value from price :

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15. Change the Column value product\_name – **Ipad to Iphone** from product table :

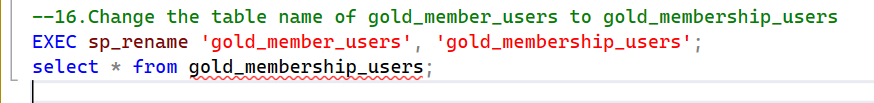
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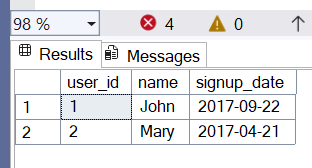
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16. Change the table name of gold\_member\_users to gold\_membership\_users





17. Create a new column as **Status** in the table crate above **gold\_membership\_users** the Status values should be 2 Yes and No if the user is gold member, then status should be Yes else No:

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18. Delete the users\_ids 1,2 from users table and roll the back changes once both the rows are deleted one by one mention the result when performed roll back

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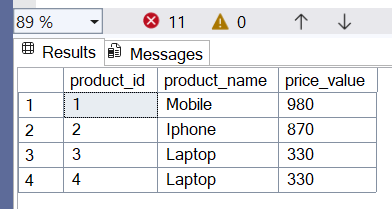
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19. Insert one more record as same (3,'Laptop',330) as product table

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20. Write a query to find the duplicates in product table

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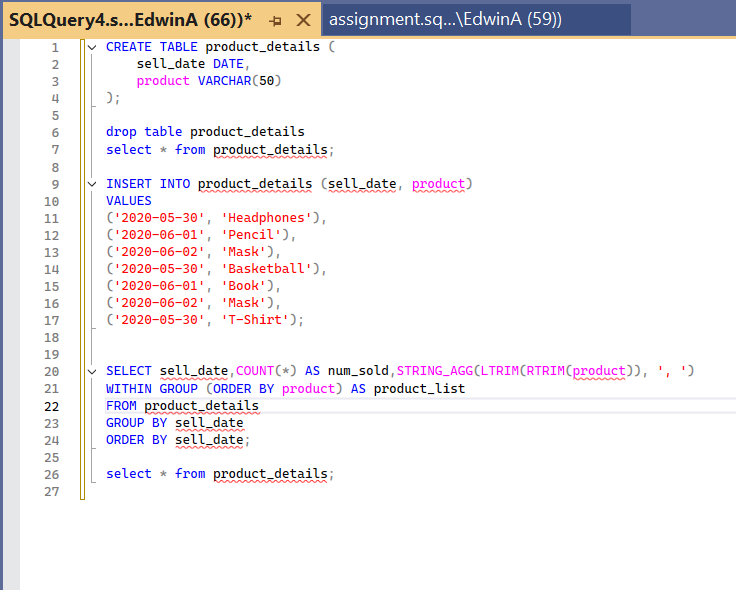
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**Question-2 :** Write a query to find for each date the number of different products sold and their names.   
Column names: (sell\_date, product)

Data: ('2020-05-30', 'Headphones'),  
('2020-06-01','Pencil'),  
('2020-06-02','Mask'),  
('2020-05-30','Basketball'),  
('2020-06-01','Book'),  
('2020-06-02', ' Mask '),  
('2020-05-30','T-Shirt')

* Create table product\_details with above data and find the above result
* Output:

|  |  |  |
| --- | --- | --- |
| sell\_date | num\_sold | product\_list |
| 2020-05-30 | 3 | Basketball, Headphones, T-Shirt |
| 2020-06-01 | 2 | Book, Pencil |
| 2020-06-02 | 1 | Mask |





Final Output Table:

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**Question-3 :** Find the total salary of each department

Column names:(id\_deptname, emp\_name, salary)

Data:   
('1111-MATH', 'RAHUL', 10000),  
('1111-MATH', 'RAKESH', 20000),  
('2222-SCIENCE', 'AKASH', 10000),  
('222-SCIENCE', 'ANDREW', 10000),  
('22-CHEM', 'ANKIT', 25000),  
('3333-CHEM', 'SONIKA', 12000),  
('4444-BIO', 'HITESH', 2300),  
('44-BIO', 'AKSHAY', 10000)

* Create table dept\_tbl with above data

Output:

|  |  |
| --- | --- |
| dept\_name | total\_salary |
| BIO | 12300 |
| CHEM | 37000 |
| Math | 30000 |
| Science | 20000 |

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**Question-4 :** Write a query to find gmail accounts with latest and first signup date and difference between both the dates and also write the query to replace null value with ‘1970-01-01’

Column names: (id, email\_id, signup\_date)

Data:

(1, '[Rajesh@Gmail.com](mailto:Rajesh@Gmail.com)', '2022-02-01'),  
(2, '[Rakesh\_gmail@rediffmail.com](mailto:Rakesh_gmail@rediffmail.com)', '2023-01-22'),  
(3, '[Hitest@Gmail.com](mailto:Hitest@Gmail.com)', '2020-09-08'),  
(4, '[Salil@Gmmail.com](mailto:Salil@Gmmail.com)', '2019-07-05'),  
(5, '[Himanshu@Yahoo.com](mailto:Himanshu@Yahoo.com)', '2023-05-09'),  
(6, '[Hitesh@Twitter.com](mailto:Hitesh@Twitter.com)', '2015-01-01'),  
(7, '[Rakesh@facebook.com](mailto:Rakesh@facebook.com)', null);

Create table email\_signup with above data

Output:

|  |  |  |  |
| --- | --- | --- | --- |
| count\_gmail\_account | latest\_signup\_date | first\_signup\_date | diff\_in\_days |
| 2 | 2022-02-01 | 2020-09-08 | 511 |

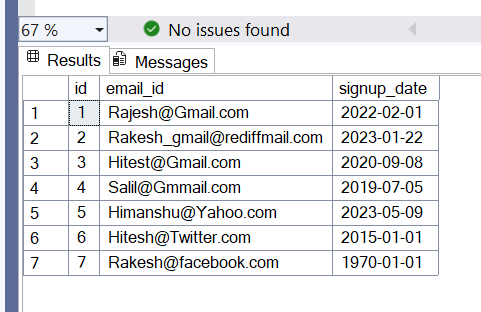
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**Question -5 :** Solve the below questions by creating below mentioned tables and adding the given dataset.

Hint: Solve using the Window Functions

1. create a table named **sales\_data** with columns: **product\_id**, **sale\_date**, and  **quantity\_sold**.
2. insert some sample data into the table:

dataset:

(1, '2022-01-01', 20),

(2, '2022-01-01', 15),

(1, '2022-01-02', 10),

(2, '2022-01-02', 25),

(1, '2022-01-03', 30),

(2, '2022-01-03', 18),

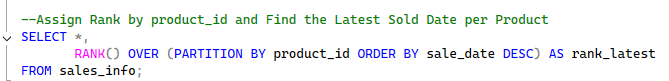
(1, '2022-01-04', 12),

(2, '2022-01-04', 22)

1. Assign rank by partition based on product\_id and find the latest product\_id sold
2. Retrieve the **quantity\_sold** value from a previous row and compare the **quantity\_sold**.
3. Partition based on product\_id and return the first and last values in ordered set.

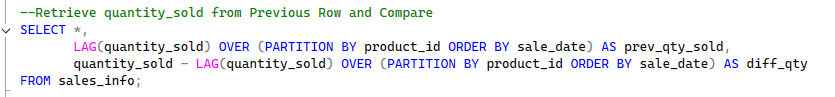
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