SQL ASSIGNMENT 3

Assignment-3 : SQL GROUP BY and Aggregation

Instructions :

- *Reference: Lectures In Snowflake & SQL folder (AWA - APP+WEBSITE)*
- *Due Date : 30th-Sept-2023 11:59 PM(Midnight)*
- *Late submissions will not be evaluated*
- *Its mandatory to do all questions*
- *Use SNOWFLAKE for the task submission while for practice one can execute in MySQL Workbench too.*
- *Proper comments should be given for the code explanation wherever required.*
- *Proper snippets should be attached of the output(mandatory) and write the code too.*
- *Don't do plagiarism*
- *Kindly don't USE JOINS or WINDOWS functions in any of the problems.*
- *Kindly upload the assignment by uploading it in the below GOOGLE DRIVE FOLDER as per the mentioned format(only pdf) as fullname_assignment_name_ yyyy_mm_dd.pdf(anandjha_sql_assignment2_2023_09_13.pdf) :*

https://drive.google.com/drive/folders/1SN6i0WaGI9eV2Cg5p7fkUyfCSTkEOgO3?usp=drive_link

Dataset: Sales Information

You have been given a dataset containing information about sales transactions. The dataset includes the following columns:

- order_id (integer): Unique identifier for each order.
- customer_id (integer): Unique identifier for each customer.
- product_id (integer): Unique identifier for each product.
- product_name (string): Name of the product.
- quantity (integer): The quantity of the product sold.
- unit_price (decimal): The unit price of the product.
- order_date (date): The date when the order was placed.

Table Structure:

Create a table named sales with the following structure:

CREATE TABLE sales (

   order_id INT PRIMARY KEY,

```
    customer_id INT,

    product_id INT,

    product_name VARCHAR(50),

    quantity INT,

    unit_price DECIMAL(10, 2),

    order_date DATE

);
```

Insert Data: Insert the following sample data into the sales table:

INSERT INTO sales (order_id, customer_id, product_id, product_name, quantity, unit_price, order_date)

VALUES

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    (1, 101, 1, 'Widget A', 5, 10.00, '2023-01-15'),

    (2, 102, 2, 'Widget B', 2, 12.50, '2023-01-16'),

    (3, 103, 1, 'Widget A', 3, 10.00, '2023-01-16'),

    (4, 104, 3, 'Widget C', 1, 15.75, '2023-01-17'),

    (5, 105, 2, 'Widget B', 4, 12.50, '2023-01-17'),

    (6, 106, 1, 'Widget A', 2, 10.00, '2023-01-18'),

    (7, 107, 4, 'Widget D', 3, 20.00, '2023-01-18'),

    (8, 108, 2, 'Widget B', 5, 12.50, '2023-01-19'),

    (9, 109, 1, 'Widget A', 1, 10.00, '2023-01-19'),

    (10, 101, 3, 'Widget C', 2, 15.75, '2023-01-20');
```

Instructions:

Write SQL queries to answer the following questions using the sales table:

1. Retrieve the total sales quantity and revenue for each product.
2. Find the total revenue for each customer.
3. Get the products with more than 10 units sold in a single order.

SQL ASSIGNMENT 3

4. List the customers who have placed orders on at least three different dates.
5. Calculate the average unit price of products.
6. Find the products with an average unit price greater than $12.00.
7. Retrieve the customers who have spent more than $100.00 in total.
8. List the customers who have purchased 'Widget B' and 'Widget A' in the same order.

Submission:

Submit the SQL queries for the questions above along with their results.

Note:

1. Please use appropriate SQL syntax.
2. Ensure that your queries are efficient and optimized.
3. Provide the SQL queries and the results in your submission.