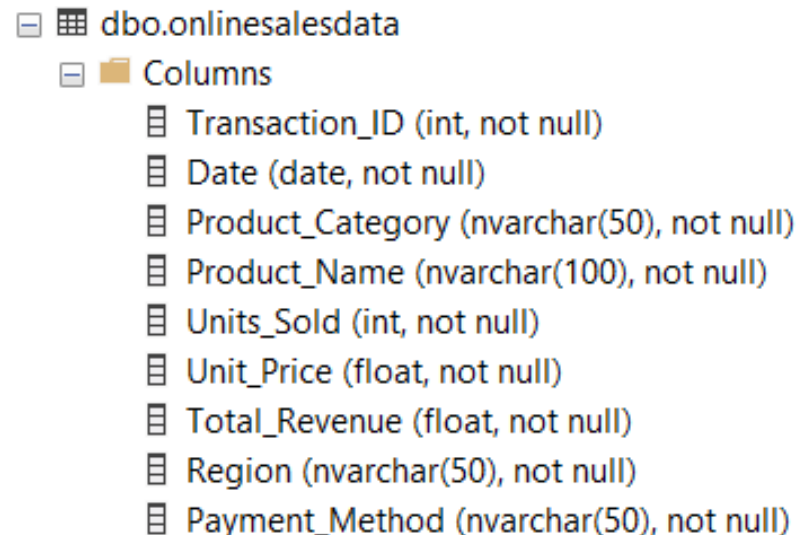


TASK 6 – SQL QUERIES

- DATABASE **ONLINESALES**
- TABLE **ONSALESDATA**



The screenshot displays the SQL Server Enterprise Manager interface. Under the 'dbo' folder, the 'onlinesalesdata' table is selected. The 'Columns' folder is expanded, showing a list of columns with their data types and nullability constraints.

Column Name	Data Type	Nullability
Transaction_ID	int	not null
Date	date	not null
Product_Category	nvarchar(50)	not null
Product_Name	nvarchar(100)	not null
Units_Sold	int	not null
Unit_Price	float	not null
Total_Revenue	float	not null
Region	nvarchar(50)	not null
Payment_Method	nvarchar(50)	not null

```
SELECT * FROM onlinesalesdata;
```

OUTPUT:

	Transaction_ID	Date	Product_Category	Product_Name	Units_Sold	Unit_Price	Total_Revenue	Region	Payment_Method
1	10001	2024-01-01	Electronics	iPhone 14 Pro	2	999.989990234375	1999.97998046875	North America	Credit Card
2	10002	2024-01-02	Home Appliances	Dyson V11 Vacuum	1	499.989990234375	499.989990234375	Europe	PayPal
3	10003	2024-01-03	Clothing	Levi's 501 Jeans	3	69.9899978637695	209.970001220703	Asia	Debit Card
4	10004	2024-01-04	Books	The Da Vinci Code	4	15.9899997711182	63.9599990844727	North America	Credit Card
5	10005	2024-01-05	Beauty Products	Neutrogena Skincare Set	1	89.9899978637695	89.9899978637695	Europe	PayPal
6	10006	2024-01-06	Sports	Wilson Evolution Basketball	5	29.9899997711182	149.949996948242	Asia	Credit Card
7	10007	2024-01-07	Electronics	MacBook Pro 16-inch	1	2499.98999023438	2499.98999023438	North America	Credit Card
8	10008	2024-01-08	Home Appliances	Blueair Classic 480i	2	599.989990234375	1199.97998046875	Europe	PayPal
9	10009	2024-01-09	Clothing	Nike Air Force 1	6	89.9899978637695	539.940002441406	Asia	Debit Card
10	10010	2024-01-10	Books	Dune by Frank Herbert	2	25.9899997711182	51.9799995422363	North America	Credit Card
11	10011	2024-01-11	Beauty Products	Chanel No. 5 Perfume	1	129.990005493164	129.990005493164	Europe	PayPal
12	10012	2024-01-12	Sports	Babolat Pure Drive Tennis Racket	3	199.990005493164	599.969970703125	Asia	Credit Card
13	10013	2024-01-13	Electronics	Samsung Galaxy Tab S8	2	749.989990234375	1499.97998046875	North America	Credit Card
14	10014	2024-01-14	Home Appliances	Keurig K-Elite Coffee Maker	1	189.990005493164	189.990005493164	Europe	PayPal
15	10015	2024-01-15	Clothing	North Face Down Jacket	2	249.990005493164	499.980010986328	Asia	Debit Card
16	10016	2024-01-16	Books	Salt, Fat, Acid, Heat by Samin Nosrat	3	35.9900016784668	107.970001220703	North America	Credit Card

-- Total Revenue using (Sum)

```
SELECT CAST(SUM(total_revenue) AS DECIMAL (10,2)) as total_revenue
FROM onlinesalesdata;
```

OUTPUT:

	total_revenue
1	80567.85

-- Total Number of Orders using (Count)

```
SELECT COUNT(Transaction_ID) as No_of_transactions
FROM onlinesalesdata;
```

OUTPUT:

	No_of_transactions
1	240

-- Average Sales using (AVG)

```
SELECT DISTINCT Region AS region,  
    CAST (SUM(Total_Revenue) over (partition by region) AS  
    DECIMAL (10,2)) AS region_average_sales  
from onlinesalesdata  
ORDER BY region_average_sales DESC;
```

OUTPUT:

	region	region_average_sales
1	North America	36844.34
2	Asia	22455.45
3	Europe	21268.06

-- Product Category-wise Total Revenue using Partition

```
SELECT DISTINCT Product_Category AS category,  
    CAST (SUM(Total_Revenue) over (partition by product_category) AS  
    DECIMAL (10,2)) AS categorywise_sales  
from onlinesalesdata  
ORDER BY categorywise_sales DESC;
```

OUTPUT:

	category	categorywise_sales
1	Electronics	34982.41
2	Home Appliances	18646.16
3	Sports	14326.52
4	Clothing	8128.93
5	Beauty Products	2621.90
6	Books	1861.93

-- Product Name Total Revenue using Partition

```
SELECT
    DISTINCT Product_Name AS product_name,
    CAST (SUM(Total_Revenue) over (partition by product_name)
    AS DECIMAL (10,2)) AS product_wise_sales
from onlinesalesdata
ORDER BY product_wise_sales DESC;
```

OUTPUT:

	product_name	product_wise_sales
1	Canon EOS R5 Camera	3899.99
2	LG OLED TV	2599.98
3	MacBook Pro 16-inch	2499.99
4	Apple MacBook Pro 16-inch	2399.00
5	iPhone 14 Pro	1999.98
6	Peloton Bike	1895.00
7	HP Spectre x360 Laptop	1599.99
8	Roomba i7+	1599.98
9	Garmin Forerunner 945	1599.97
10	Samsung Odyssey G9 Gaming Monitor	1499.99
11	Samsung Galaxy Tab S8	1499.98
12	Microsoft Surface Laptop 4	1299.99
13	Apple MacBook Air	1199.99
14	Samsung QLED 4K TV	1199.99
15	Apple iPad Air	1199.98

```
-- Date data validation
```

```
SELECT MAX(Date) AS start_date,  
       MIN(Date) AS end_date  
FROM onlinesalesdata;
```

OUTPUT:

	start_date	end_date
1	2024-08-27	2024-01-01

```
-- Extract Month Name from Date Column using DATENAME
```

```
SELECT DISTINCT DATENAME(Month, Date) as Month  
FROM onlinesalesdata;
```

OUTPUT:

	Month
1	April
2	August
3	February
4	January
5	July
6	June
7	March
8	May

--- Extract distinct Region from data USING Distinct

```
SELECT DISTINCT Region FROM onlinesalesdata;
```

OUTPUT:

	Region
1	Asia
2	Europe
3	North America

--- Top 10 Products

```
SELECT Product_Name,  
       CAST(Total_Revenue AS DECIMAL (10,2)) AS Total_Sales  
FROM (SELECT Product_Name,  
            SUM(Total_Revenue) AS Total_Revenue,  
            ROW_NUMBER() OVER (ORDER BY Total_Revenue DESC) AS rn  
FROM onlinesalesdata  
GROUP BY Product_Name, Total_Revenue  
 ) AS ranked_products  
WHERE rn <= 10;
```

OUTPUT:

	Product_Name	Total_Sales
1	Canon EOS R5 Camera	3899.99
2	LG OLED TV	2599.98
3	MacBook Pro 16-inch	2499.99
4	Apple MacBook Pro 16-inch	2399.00
5	iPhone 14 Pro	1999.98
6	Peloton Bike	1895.00
7	HP Spectre x360 Laptop	1599.99
8	Roomba i7+	1599.98
9	Samsung Odyssey G9 Gaming Monitor	1499.99
10	Samsung Galaxy Tab S8	1499.98

-- Total Sales between January and March 2024

```
SELECT CAST(SUM(total_revenue) AS DECIMAL (10,2)) as  
       total_revenue_during_Jan_Mar_2024  
FROM onlinesalesdata  
WHERE DATENAME(Month, Date) BETWEEN 'January' AND  
      'March';
```

OUTPUT:

	total_revenue_during_Jan_Mar_2024
1	41579.19

-- Payment Method - Credit Card, Paypal, Debit Card

```
SELECT DISTINCT Payment_Method AS Method_of_payment,  
    CAST (SUM(Total_Revenue) over (partition by Payment_Method) AS  
    DECIMAL (10,2)) AS total_business  
from onlinesalesdata  
ORDER BY total_business DESC;
```

OUTPUT:

	Method_of_payment	total_business
1	Credit Card	51170.86
2	PayPal	21268.06
3	Debit Card	8128.93