Project Name – Ecommerce Orders & Shipment Analysis

The Dataset contain 4 tables are **products_df, orders_df, shipments_df, suppliers_df**

The SQL Queries are

#Total_Quantity

```
select sum(Quantity) as Total_Quantity from orders_df;
```

Total_Quantity
3778933

#Total_Orders

```
select count(distinct OrderID) as Total_Orders from orders_df;
```

Result Grid | Filter Rows:

Total_Orders
7461

#Total_Price

```
select sum(UnitPriceUSD) as Total_Price from products_df;
```

Result Grid | Filter Rows: | Ex

Total_Price
240320.39999999982

#Total_Revenue

```
select sum(p.UnitPriceUSD * o.Quantity) as Total_Revenue
from products_df as p
join orders_df as o
on p.ProductID= o.ProductID;
```

Result Grid | Filter Rows:

Total_Revenue
913569246.6199988

#Delivered_Orders

```
select count(*) as Delivered_Orders from orders_df
where OrderStatus='Delivered';
```

Delivered_Orders
3332

#Cancelled_Orders

```
select count(*) as Cancelled_Orders from orders_df
where OrderStatus='Cancelled';
```

Cancelled_Orders
375

#Pending_Orders

```
select count(*) as Pending_Orders from orders_df
where OrderStatus='Pending';
```

Pending_Orders
1449

#Average_Orders

```
select (sum(Quantity) / COUNT(DISTINCT OrderID)) as Avg_Order
from orders_df;
```

Avg_Order
506.4914890765313

 # how many customer orders were successfully fulfilled

```
SELECT
   (COUNT(CASE WHEN OrderStatus = 'Delivered' THEN 1 END) * 100.0)
   / COUNT(DISTINCT OrderID) AS Fulfillment_Rate
FROM orders_df;
```

Fulfillment_Rate
44.65889

#Revenue Per ProductID

```
select p.ProductID, p.UnitPriceUSD,o.Quantity ,sum(p.UnitPriceUSD * o.Quantity) as Revenue
from products_df as p
```

```
join orders_df as o
on p.ProductID= o.ProductID
group by p.ProductID, p.UnitPriceUSD,o.Quantity ;
```

ProductID	UnitPriceUSD	Quantity	Revenue
P0978	491.94	519	510633.72
P0493	494.15	990	489208.5
P0829	498.54	971	484082.34
P0235	488.39	990	483506.1
P0876	495.88	974	482987.12
P0974	485.41	991	481041.31

 # Average Delivery Time (days)

```
Select AVG(DATEDIFF(DeliveryDate, ShipDate)) AS AvgDeliveryDays
FROM shipments_df
WHERE DeliveryDate IS NOT NULL;
```

AvgDeliveryDays
17.1902

#Avg_Shipping_Cost

```
select (sum(s.ShippingCostUSD) / count(distinct o.OrderID )) as Avg_Shipping_Cost
from orders_df as o
join shipments_df as s
on o.OrderID = s.OrderID;
```

Result Grid | Filter Rc

Avg_Shipping_Cost
971.4181195550207

 # Shipping Cost by Mode – Air, Sea, Road, Rail

```
select ShippingMode, sum(ShippingCostUSD) as Total_Shipping_Cost
from shipments_df
group by ShippingMode
order by Total_Shipping_Cost desc;
```

ShippingMode	Total_Shipping_Cost
Air Freight	2520815.8999999943
Rail	2504456.5800000005
Road	2377424.48
Sea Freight	2330919.11

 # Shipment Mode which are delivered

```
select ShippingMode, count(case when Delivered='True' then 1 End)  as Delivereds
from  shipments_df
group by ShippingMode
order by Delivereds desc;
```

ShippingMode	Delivereds
Rail	1203
Air Freight	1193
Road	1070
Sea Freight	1062

 # which Category generates the highest Total Revenue

```
select p.Category, sum(p.UnitPriceUSD * o.Quantity) as Total_Revenue
from products_df as p
join orders_df as o
on p.ProductID = o.ProductID
group by p.Category
order by Total_Revenue desc;
```

Category	Total_Revenue
Cables	166130214.72000003
Components	164997243.07999998
Power Units	147263478.67000014
Display Units	146410530.3300002
Controllers	144685789.5500001
Sensors	144081990.26999986

 # which Category generates the highest Orders

```
select p.Category, count(distinct o.OrderID) as Total_Orders
from products_df as p
join orders_df as o
```

```
on p.ProductID = o.ProductID
group by p.Category
order by Total_Orders desc;
```

Category	Total_Orders
Cables	1305
Components	1253
Sensors	1228
Display Units	1172
Controllers	1140
Power Units	1131

 # which Category has highest quantities sold

```
select p.Category, Sum(o.Quantity) as Total_Quantity
from products_df as p
join orders_df as o
on p.ProductID = o.ProductID
group by p.Category
order by Total_Quantity desc;
```

Category	Total_Quantity
Cables	668497
Components	645973
Sensors	608309
Display Units	586138
Controllers	580089
Power Units	573168

#Highest Revenue by Warehouse

```
select o.Warehouse, sum(p.UnitPriceUSD * o.Quantity) as Total_Revenue
from products_df as p
join orders_df as o
on p.ProductID = o.ProductID
group by o.Warehouse
order by Total_Revenue desc;
```

Result Grid | Filter Rows:

Warehouse	Total_Revenue
Berlin	162365852.76999968
Mumbai	155978029.28000018
London	155197165.0800001
Tokyo	149743438.3999999
Shanghai	149698295.7200002
New York	140586465.36999992

 # Which Supplier and Country is making high Revenue

```
select s.SupplierID, s.Country,sum(p.UnitPriceUSD * o.Quantity) as Total_Revenue
from products_df as p
join orders_df as o
on p.ProductID = o.ProductID
join suppliers_df as s
on p.SupplierID=s.SupplierID
group by s.SupplierID, s.Country
order by Total_Revenue desc;
```

Result Grid | Filter Rows:

SupplierID	Country	Total_Revenue
S048	South K...	9066652.379999997
S027	Brazil	9688537.200000005
S019	UK	10046933.119999997
S025	USA	10956698.849999994
S028	India	12366783.210000006
S050	Brazil	12755476.459999999

 # Which Category has highest StockLevel

```
select Category, sum(StockLevel) as In_Shock
from products_df
group by Category
order by  In_Shock desc;
```

Result Grid | Filter R

Category	In_Shock
Cables	473208
Display Units	453728
Components	425417
Sensors	418352
Controllers	389185
Power Units	364202

 # Which SupplierID has highest StockLevel

```
select SupplierID, sum(StockLevel) as In_Shock
from products_df
group by SupplierID
order by  In_Shock desc;
```

SupplierID	In_Shock
S015	71318
S002	70010
S011	68079
S025	67936
S017	66570
S040	66247