**USER QUERY**

**1. The percentage of invoices along with payment method year wise comparison.**

**Query :** SELECT TOTAL\_YEAR.CalendarYear, ((COD\_COUNT/Total\_Count)\*100) AS COD\_percentage

, ((CASH\_COUNT/Total\_Count)\*100) AS CASH\_percentage, ((CHARGE\_COUNT/Total\_Count)\*100) AS CHARGE\_percentage

FROM (SELECT d.CalendarYear, count(1) as COD\_COUNT

FROM Date d

INNER JOIN sales\_fact s

ON d.Date\_SK = s.SalesDate\_SK

INNER JOIN Method m

ON s.Method\_SK = m.Method\_SK

WHERE m.PaymentMethod = "cod" and s.Method\_SK > 0

GROUP BY d.CalendarYear) COD\_YEAR,

(SELECT d.CalendarYear, count(1) as CASH\_COUNT

FROM Date d

INNER JOIN sales\_fact s

ON d.Date\_SK = s.SalesDate\_SK

INNER JOIN Method m

ON s.Method\_SK = m.Method\_SK

WHERE m.PaymentMethod = "cash" and s.Method\_SK > 0

GROUP BY d.CalendarYear) CASH\_YEAR,

(SELECT d.CalendarYear, count(1) as CHARGE\_COUNT

FROM Date d

INNER JOIN sales\_fact s

ON d.Date\_SK = s.SalesDate\_SK

INNER JOIN Method m

ON s.Method\_SK = m.Method\_SK

WHERE m.PaymentMethod = "charge" and s.Method\_SK > 0

GROUP BY d.CalendarYear) CHARGE\_YEAR,

(SELECT d.CalendarYear, count(1) as Total\_Count

FROM Date d

INNER JOIN sales\_fact s

ON d.Date\_SK = s.SalesDate\_SK

WHERE s.Method\_SK > 0

GROUP BY d.CalendarYear) TOTAL\_YEAR

WHERE COD\_YEAR.CalendarYear = TOTAL\_YEAR.CalendarYear and CHARGE\_YEAR.CalendarYear = TOTAL\_YEAR.CalendarYear and

CASH\_YEAR.CalendarYear = TOTAL\_YEAR.CalendarYear;

**2. The most frequent method of ordering a product from PEC.**

**Query:**

SELECT m.OrderMethod AS FrequentOrderMethod,

COUNT(f.InvoiceID\_DD) AS Frequency

FROM sales\_fact f

INNER JOIN Method m

ON m.Method\_SK = f.Method\_SK

WHERE f.Division = 'PEC'

GROUP BY m.OrderMethod

ORDER BY Frequency DESC

LIMIT 3;

**3. Annual comparison of each supplier by its gross profit.**

**Query:**

SELECT a.Year AS Current\_Year,a.First\_Supplier,a.FirstSup\_GrossProfit as Current\_Year\_Profit,b.SecondSup\_GrossProfit as Last\_Year\_Profit

FROM (SELECT d.CalendarYear AS Year, s.SupplierName AS First\_Supplier,   
 sum(Sales\_Amount-Total\_Amount) AS FirstSup\_GrossProfit

FROM Supplier s, sales\_fact f, Date d

WHERE s.Supplier\_SK = f.Supplier\_SK

AND d.Date\_SK = f.SalesDate\_SK

GROUP BY d.CalendarYear,s.SupplierName) a

JOIN

(SELECT d.CalendarYear AS Year, s.SupplierName AS Second\_Supplier,

sum(Sales\_Amount-Total\_Amount) AS SecondSup\_GrossProfit

FROM Supplier s, sales\_fact f, Date d

WHERE s.Supplier\_SK = f.Supplier\_SK

AND d.Date\_SK = f.SalesDate\_SK

GROUP BY d.CalendarYear,s.SupplierName) b

WHERE a.First\_Supplier = b.Second\_Supplier

AND a.Year = b.Year - 1;

**4. Top ten customers each year on the basis of total sales amount.**

**Query:**

SELECT count(b.TotalSalesAmount) AS Rank, a.Customer\_SK AS CustomerKey, a.CustomerName, a.TotalSalesAmount

FROM (SELECT c.CustomerName, c.Customer\_SK, SUM(Sales\_Amount) AS TotalSalesAmount

FROM sales\_fact f, Customer c

WHERE f.Customer\_SK = c.Customer\_SK

GROUP BY c.Customer\_SK) a

JOIN

(SELECT c.CustomerName, c.Customer\_SK,SUM(Sales\_Amount) AS TotalSalesAmount

FROM sales\_fact f, Customer c

WHERE f.Customer\_SK = c.Customer\_SK

GROUP BY c.Customer\_SK) b

WHERE a.TotalSalesAmount <= b.TotalSalesAmount

GROUP BY a.Customer\_SK, a.CustomerName

ORDER BY a.TotalSalesAmount desc

LIMIT 5;

**5- find the total sales and average number of day to ship to the customer associated with the customer type on quarterly based.**

SELECT Customer.CustomerType, sum(sales\_fact.Sales\_Amount) as Sales\_Amount,  
Date.CalendarYear, avg(NULLIF(sales\_fact.Number\_of\_days,0)) as Average\_Number\_Of\_Day\_To\_Process  
FROM sales\_fact  
INNER JOIN Customer  
ON Customer.Customer\_SK = sales\_fact.Customer\_SK  
INNER JOIN Date  
ON Date.Date\_SK = sales\_fact.SalesDate\_SK  
GROUP BY Date.CalendarYear, Customer.CustomerType;