

## Report Generation– SQL Code

```
SELECT TOP (100) [SalesOrderID]
    , [RevisionNumber]
    , [OrderDate]
    , [DueDate]
    , [ShipDate]
    , [Status]
    , [OnlineOrderFlag]
    , [SalesOrderNumber]
    , [PurchaseOrderNumber]
    , [AccountNumber]
    , [CustomerID]
    , [SalesPersonID]
    , [TerritoryID]
    , [BillToAddressID]
    , [ShipToAddressID]
    , [ShipMethodID]
    , [CreditCardID]
    , [CreditCardApprovalCode]
    , [CurrencyRateID]
    , [SubTotal]
    , [TaxAmt]
    , [Freight]
    , [TotalDue]
    , [Comment]
    , [rowguid]
    , [ModifiedDate]
FROM [AdventureWorks2017].[Sales].[SalesOrderHeader];

WITH QuaSales AS (
    SELECT
        DATEPART(YEAR, OrderDate) AS OrderYear,
        DATEPART(QUARTER, OrderDate) AS OrderQuarter,
        SUM(TotalDue) AS TSales
    FROM Sales.SalesOrderHeader
    GROUP BY DATEPART(YEAR, OrderDate), DATEPART(QUARTER, OrderDate)
),
AnnualSales AS (
    SELECT
        OrderYear,
        SUM(TSales) AS YearlyTotal
    FROM QuaSales
    GROUP BY OrderYear
)
SELECT
    RIGHT(CONCAT(' ', QuaSales.OrderYear), 12) as OrderYear,
```

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        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 1 THEN QuaSales.TSales ELSE NULL END)), '#,###')),12) AS '1st Quarter',
        RIGHT(CONCAT('          ',SUM(CASE WHEN QuaSales.OrderQuarter = 1 THEN
QuaSales.TSales ELSE NULL END) / AnnualSales.YearlyTotal * 100),12) AS 'Annual%',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 1 THEN QuaSales.TSales ELSE NULL END) - LAG(SUM(CASE WHEN QuaSales.OrderQuarter = 4
THEN QuaSales.TSales ELSE NULL END), 1) OVER (ORDER BY
QuaSales.OrderYear)), '#,###')),12) AS '4 to 1 Change',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 2 THEN QuaSales.TSales ELSE NULL END)), '#,###')),12) AS '2nd Quarter',
        RIGHT(CONCAT('          ',SUM(CASE WHEN QuaSales.OrderQuarter = 2 THEN
QuaSales.TSales ELSE NULL END) / AnnualSales.YearlyTotal * 100),12) AS 'Annual%',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 2 THEN QuaSales.TSales ELSE NULL END) - SUM(CASE WHEN QuaSales.OrderQuarter = 1 THEN
QuaSales.TSales ELSE NULL END)), '#,###')),12) AS '1 to 2 Change',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 3 THEN QuaSales.TSales ELSE NULL END)), '#,###')),12) AS '3rd Quarter',
        RIGHT(CONCAT('          ',SUM(CASE WHEN QuaSales.OrderQuarter = 3 THEN
QuaSales.TSales ELSE NULL END) / AnnualSales.YearlyTotal * 100),12) AS 'Annual%',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 3 THEN QuaSales.TSales ELSE NULL END) - SUM(CASE WHEN QuaSales.OrderQuarter = 2 THEN
QuaSales.TSales ELSE NULL END)), '#,###')),12) AS '2 to 3 Change',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 4 THEN QuaSales.TSales ELSE NULL END)), '#,###')),12) AS '4th Quarter',
        RIGHT(CONCAT('          ',SUM(CASE WHEN QuaSales.OrderQuarter = 4 THEN
QuaSales.TSales ELSE NULL END) / AnnualSales.YearlyTotal * 100),12) AS 'Annual%',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT, SUM(CASE WHEN QuaSales.OrderQuarter
= 4 THEN QuaSales.TSales ELSE NULL END) - SUM(CASE WHEN QuaSales.OrderQuarter = 3 THEN
QuaSales.TSales ELSE NULL END)), '#,###')),20) AS '3 to 4 Change',
        RIGHT(CONCAT('          ',FORMAT(CONVERT(INT,
AnnualSales.YearlyTotal), '#,###')),12) as AnnualSales
FROM QuaSales
JOIN AnnualSales ON QuaSales.OrderYear = AnnualSales.OrderYear
GROUP BY QuaSales.OrderYear, AnnualSales.YearlyTotal
ORDER BY QuaSales.OrderYear;

```