**ADVENTUREWORKS DASHBOARD QUERY DOCUMENT**

**A. ADVENTUREWORKS DASHBOARD | SUMMARY**

**KPI’S:**

**Total Sales (in Millions):**

select cast(SUM(linetotal)/1000000 as decimal(10,2)) as Total\_Sales

from orders

****

**YoY Total Sales %:**

declare @mindate date = (select min(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @maxdate date = (select max(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @totalsales\_2014 float =

(select SUM(linetotal) from orders where YEAR(orderdate) = 2014);

declare @totalsales\_2013 float =

(select sum(linetotal) from orders

where YEAR(orderdate) = 2013 and (orderdate >= DATEADD(YEAR, -1, @mindate) and orderdate <= DATEADD(YEAR, -1, @maxdate)));

select cast(((@totalsales\_2014 - @totalsales\_2013) \*100.0/ @totalsales\_2013) as decimal(10,2)) as YoY\_Total\_Sales\_prct

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**YTD Total Sales:**

select cast(SUM(linetotal) / 1000000 as decimal(10,2)) as YTD\_Total\_Sales

from orders

where YEAR(orderdate) = 2014

****

**-----------------------------------------------------------------------------------------------------------------------------------------------------------Total Orders:**

select COUNT(distinct salesorderid) as total\_orders

from orders

****

**YoY Total Orders %:**

declare @mindate date = (select min(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @maxdate date = (select max(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @totalorders\_2014 float =

(select COUNT(distinct salesorderid) from orders where YEAR(orderdate) = 2014);

declare @totalorders\_2013 float =

(select COUNT(distinct salesorderid) from orders

where YEAR(orderdate) = 2013 and (orderdate >= DATEADD(YEAR, -1, @mindate) and orderdate <= DATEADD(YEAR, -1, @maxdate)));

select cast(((@totalorders\_2014 - @totalorders\_2013) \*100.0/ @totalorders\_2013) as decimal(10,1)) as YoY\_Total\_Orders\_prct

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**YTD Total Orders:**

select COUNT(distinct salesorderid) as YTD\_Total\_Orders

from orders where YEAR(orderdate) = 2014

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**-----------------------------------------------------------------------------------------------------------------------------------------------------------**

**Total Customers:**

select COUNT(distinct customerid) as Total\_Customers

from orders

****

**YoY Total Customers %:**

declare @mindate date = (select min(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @maxdate date = (select max(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @totalcustomers\_2014 float =

(select COUNT(distinct customerid) from orders where YEAR(orderdate) = 2014);

declare @totalcustomers\_2013 float =

(select COUNT(distinct customerid) from orders

where YEAR(orderdate) = 2013 and (orderdate >= DATEADD(YEAR, -1, @mindate) and orderdate <= DATEADD(YEAR, -1, @maxdate)));

select cast(((@totalcustomers\_2014 - @totalcustomers\_2013) \*100.0/ @totalcustomers\_2013) as decimal(10,2)) as YoY\_Total\_customers\_prct

****

**YTD Total Customers:**

select COUNT(distinct customerid) as YTD\_Total\_Customers

from orders where YEAR(orderdate) = 2014

****

**-----------------------------------------------------------------------------------------------------------------------------------------------------------**

**Total Quantity Sold:**

select SUM(orderquantity) as Total\_Quantity\_Sold

from orders

****

**YoY Total Quantity Sold %:**

declare @mindate date = (select min(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @maxdate date = (select max(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @totalquantitysold\_2014 float =

(select SUM(orderquantity) from orders where YEAR(orderdate) = 2014);

declare @totalquantitysold\_2013 float =

(select sum(orderquantity) from orders

where YEAR(orderdate) = 2013 and (orderdate >= DATEADD(YEAR, -1, @mindate) and orderdate <= DATEADD(YEAR, -1, @maxdate)));

select cast(((@totalquantitysold\_2014 - @totalquantitysold\_2013) \*100.0/ @totalquantitysold\_2013) as decimal(10,2)) as YoY\_Total\_Sales\_prct

****

**YTD Total Quantity Sold:**

select SUM(orderquantity) as YTD\_Total\_Quantity\_Sold

from orders where YEAR(orderdate) = 2014

****

**-----------------------------------------------------------------------------------------------------------------------------------------------------------**

**Average Order Value:**

select round(SUM(linetotal) \* 1.0 / COUNT(distinct salesorderid), 1) as Avg\_Order\_value

from orders

****

**YoY Average Order Value %:**

declare @mindate date = (select min(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @maxdate date = (select max(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @AOV\_2014 float =

(select SUM(linetotal) \* 1.0 / COUNT(distinct salesorderid) from orders where YEAR(orderdate) = 2014);

declare @AOV\_2013 float =

(select SUM(linetotal) \* 1.0 / COUNT(distinct salesorderid) from orders

where YEAR(orderdate) = 2013 and (orderdate >= DATEADD(YEAR, -1, @mindate) and orderdate <= DATEADD(YEAR, -1, @maxdate)));

select cast(((@AOV\_2014 - @AOV\_2013) \*100.0/ @AOV\_2013) as decimal(10,2)) as YoY\_Avg\_Order\_Value\_prct

****

**YTD Average Order Value:**

select CAST(SUM(linetotal) \* 1.0 / COUNT(distinct salesorderid) as decimal(10,2)) as YTD\_Avg\_Order\_Value

from orders where YEAR(orderdate) = 2014

****

**-----------------------------------------------------------------------------------------------------------------------------------------------------------Average Unit Price:**

select AVG(unitprice) as Average\_unit\_price

from orders

****

**YoY Average Unit Price %:**

declare @mindate date = (select min(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @maxdate date = (select max(orderdate) as mindate from orders where YEAR(orderdate) = 2014);

declare @AUP\_2014 float =

(select AVG(unitprice) from orders where YEAR(orderdate) = 2014);

declare @AUP\_2013 float =

(select AVG(unitprice) from orders

where YEAR(orderdate) = 2013 and (orderdate >= DATEADD(YEAR, -1, @mindate) and orderdate <= DATEADD(YEAR, -1, @maxdate)));

select cast(((@AUP\_2014 - @AUP\_2013) \*100.0/ @AUP\_2013) as decimal(10,2)) as YoY\_Avg\_Unit\_Price\_prct

****

**YTD Average Unit Price:**

select cast(AVG(unitprice) as decimal(10,2)) as YTD\_Avg\_Unit\_Price

from orders where YEAR(orderdate) = 2014

****

**-----------------------------------------------------------------------------------------------------------------------------------------------------------**

**Sales by Product Category in Millions:**

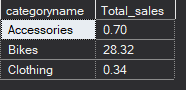
select p.categoryname, cast(sum(linetotal)/ 1000000 as decimal(10,2)) as Total\_sales

from products p

join orders o

on p.productid = o.productid

group by p.categoryname

****

**Orders by Product Category:**

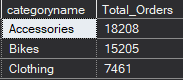
select p.categoryname, COUNT(distinct salesorderid) as Total\_Orders

from products p

join orders o

on p.productid = o.productid

group by p.categoryname



**Customer Count by Product Category:**

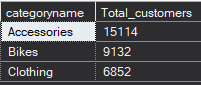
select p.categoryname, COUNT(distinct customerid) as Total\_customers

from products p

join orders o

on p.productid = o.productid

group by p.categoryname

****

**Quantity Sold by Product Category:**

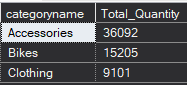
select p.categoryname, SUM(orderquantity) as Total\_Quantity

from products p

join orders o

on p.productid = o.productid

group by p.categoryname

****

**Average Order Value by Product Category:**

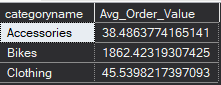
select p.categoryname, sum(linetotal) / COUNT(distinct salesorderid) as Avg\_Order\_Value

from products p

join orders o

on p.productid = o.productid

group by p.categoryname

****

**Average Unit Price by Product Category:**

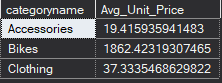
select p.categoryname, AVG(unitprice) as Avg\_Unit\_Price

from products p

join orders o

on p.productid = o.productid

group by p.categoryname

****

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**Sales by Product SubCategory:**

select top 10 p.subcategoryname, cast(sum(linetotal)/ 1000000 as decimal(10,2)) as Total\_sales

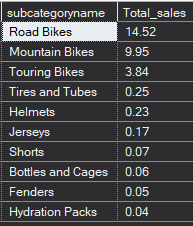
from products p

join orders o

on p.productid = o.productid

group by p.subcategoryname

order by Total\_sales desc

****

**Orders by Product SubCategory:**

select top 10 p.subcategoryname, COUNT(distinct salesorderid) as Total\_Orders

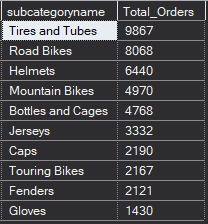
from products p

join orders o

on p.productid = o.productid

group by p.subcategoryname

order by Total\_Orders desc

****

**Customer Count by Product Subcategory:**

select top 10 p.subcategoryname, COUNT(distinct customerid) as Total\_customers

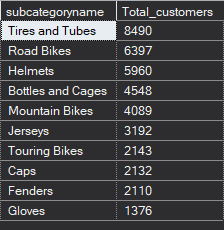
from products p

join orders o

on p.productid = o.productid

group by p.subcategoryname

order by Total\_Orders desc

****

**Quantity Sold by Product Subcategory:**

select top 10 p.subcategoryname, SUM(orderquantity) as Total\_Quantity

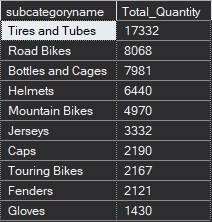
from products p

join orders o

on p.productid = o.productid

group by p.subcategoryname

order by Total\_Quantity desc

****

**Average Order Value by Product Subcategory:**select top 10 p.subcategoryname

, cast(sum(linetotal) / COUNT(distinct salesorderid) as decimal(10,2)) as Avg\_Order\_Value

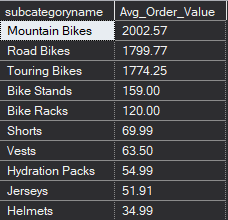
from products p

join orders o

on p.productid = o.productid

group by p.subcategoryname

order by Avg\_Order\_Value desc

****

**Average Unit Price by Product Subcategory:**

select top 10 p.subcategoryname

, cast(AVG(unitprice) as decimal(10,2)) as Avg\_Unit\_Price

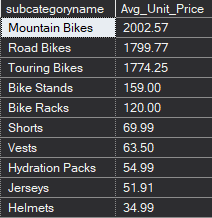
from products p

join orders o

on p.productid = o.productid

group by p.subcategoryname

order by Avg\_Unit\_Price desc

****

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**Sales by Productname:**

select top 10 p.productname, cast(sum(linetotal)/ 1000000 as decimal(10,2)) as Total\_sales

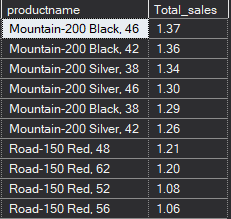
from products p

join orders o

on p.productid = o.productid

group by p.productname

order by Total\_sales desc

****

**Orders by Productname:**

select top 10 p.productname, COUNT(distinct salesorderid) as Total\_Orders

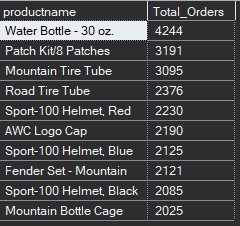
from products p

join orders o

on p.productid = o.productid

group by p.productname

order by Total\_Orders desc

****

**Customers count by Productname:**

select top 10 p.productname, COUNT(distinct customerid) as Total\_customers

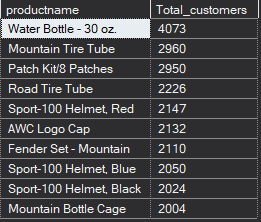
from products p

join orders o

on p.productid = o.productid

group by p.productname

order by Total\_customers desc



**QuantitySold by Productname:**

select top 10 p.productname, SUM(orderquantity) as Total\_Quantity

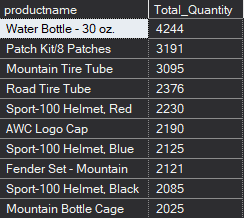
from products p

join orders o

on p.productid = o.productid

group by p.productname

order by Total\_Quantity desc

****

**Average Order Value by Productname:**

select top 10 p.productname

,cast(sum(linetotal) / COUNT(distinct salesorderid) as decimal(10,2)) as Avg\_Order\_Value

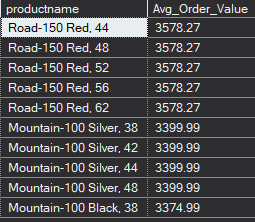
from products p

join orders o

on p.productid = o.productid

group by p.productname

order by Avg\_Order\_Value desc

****

**Average Unit Price by Productname:**

select top 10 p.productname

, cast(AVG(unitprice) as decimal(10,2)) as Avg\_Unit\_Price

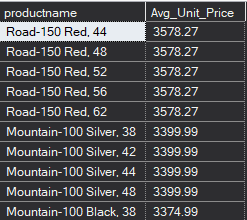
from products p

join orders o

on p.productid = o.productid

group by p.productname

order by Avg\_Unit\_Price desc

****

**----------------------------------------------------------------------------------------------------------------------------------------------Overall Sales by Orderdate in months:**

select

MONTH(orderdate) as Month\_num

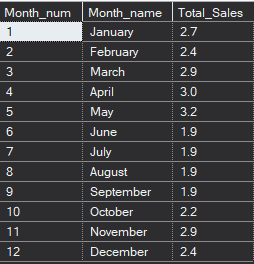
, DATENAME(month, orderdate) as Month\_name

, cast(((SUM(linetotal)) \* 1.0/ 1000000) as decimal(10,1)) as Total\_Sales

from orders

group by MONTH(orderdate), DATENAME(month, orderdate)

order by Month\_num asc

****

**Sales by Region (Country) in Millions:**

select c.country

, CAST(SUM(o.linetotal)/1000000 as decimal(10,2)) as Total\_sales

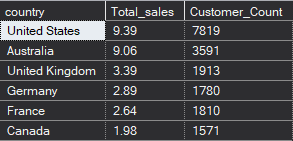
, COUNT(DISTINCT o.customerid) as Customer\_Count

from orders o

join customers c on o.customerid = c.customerid

group by c.country

order by Total\_sales desc

****

**----------------------------------------------------------------------------------------------------------------------------------------------**

**Sales by Region (Country and City) in Thousands:**

select c.country

, c.city

, CAST(SUM(o.linetotal)/1000 as decimal(10,2)) as Total\_sales

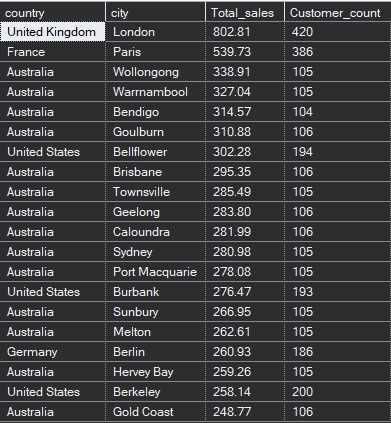
, COUNT(distinct o.customerid) as Customer\_count

from orders o

join customers c on o.customerid = c.customerid

group by c.country, c.city

order by Total\_sales desc

****

**B. ADVENTUREWORKS DASHBOARD | DETAILS**

SELECT c.customerid

,c.fullname

, c.city

, c.country

, cast(SUM(o.linetotal) / 1000 as decimal(10,1)) as Total\_Investment

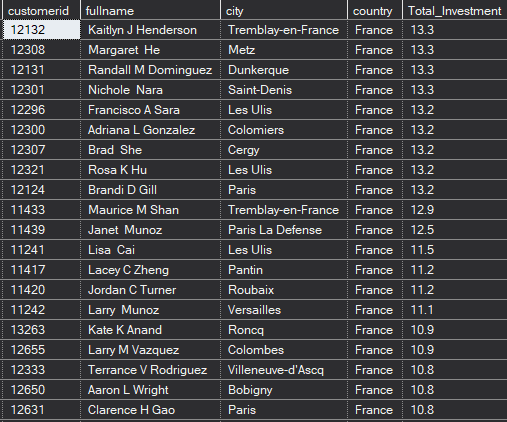
FROM customers c

join orders o

on c.customerid = o.customerid

group by c.customerid, c.fullname, c.city, c.country

order by Total\_Investment desc

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*Note: I had applied multiple Filters on all the dashboards. You can check the results for the filters as well by modifying the query.*