

## Home Work 4

### Data Ware House

Checking the count of Tables:

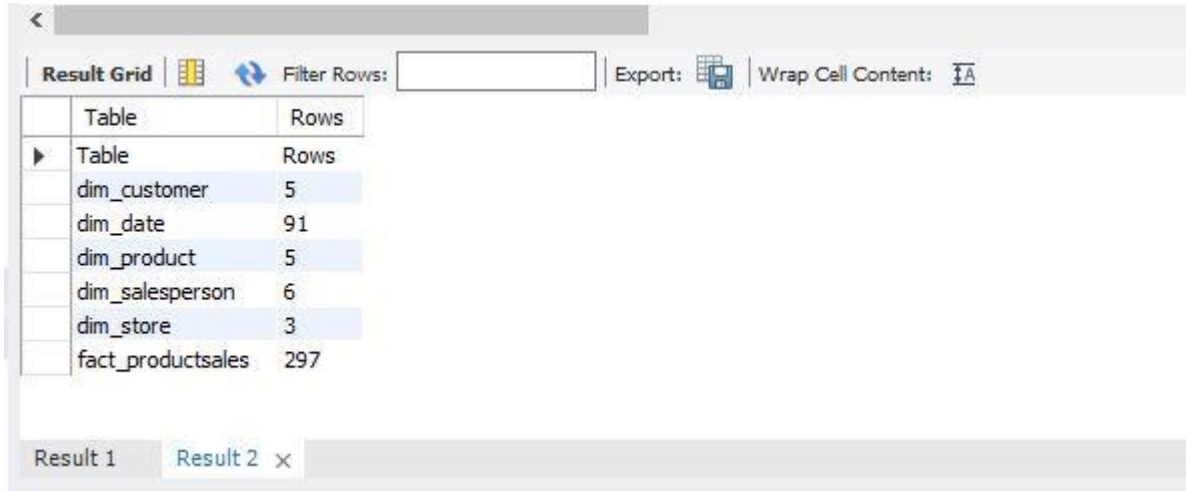
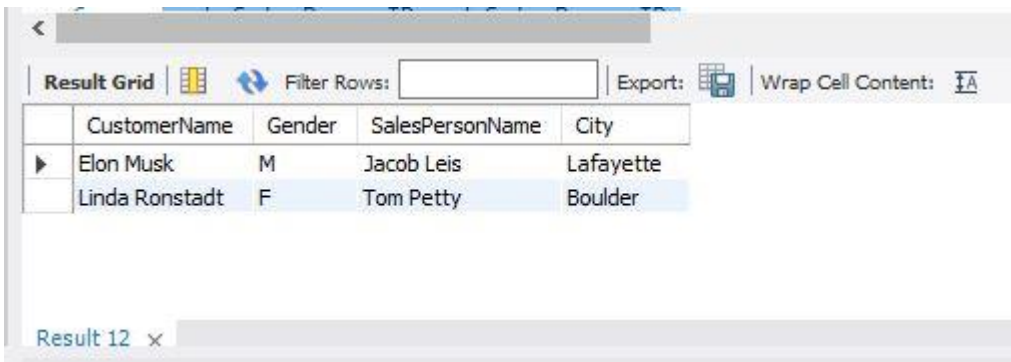


Table	Rows
dim_customer	5
dim_date	91
dim_product	5
dim_salesperson	6
dim_store	3
fact_productsales	297

#### Query 1

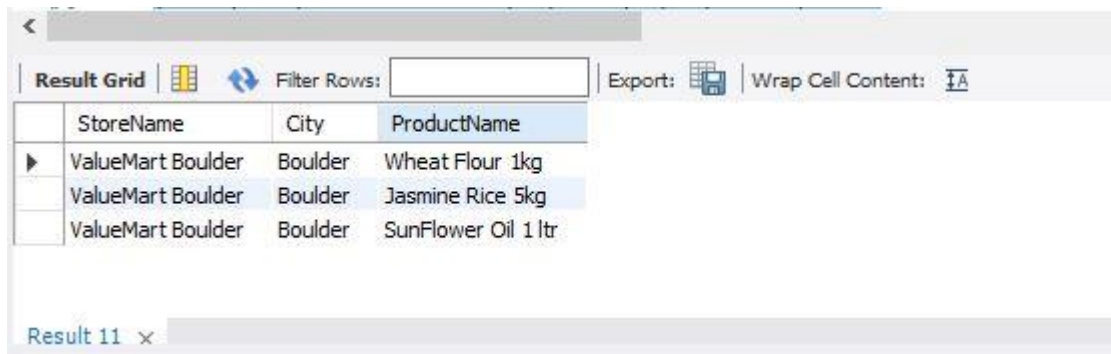
```
select a.CustomerName, a.Gender, d.SalesPersonName, d.City
from dim_customer as a join fact_productsales as b
on a.CustomerID=b.CustomerID join dim_date as c on
b.SalesDateKey=c.DateKey join dim_salesperson as d
on b.SalesPersonID = d.SalesPersonID
where c.YEAR = "2015" and c.MONTH = "9"
and b.SalesPrice > 20 and b.Quantity > 8
group by b.ProductID
;
```



CustomerName	Gender	SalesPersonName	City
Elon Musk	M	Jacob Leis	Lafayette
Linda Ronstadt	F	Tom Petty	Boulder

## Query 2

```
select a.StoreName , a.City , c.ProductName
from dim_store as a join fact_productsales as b on
a.StoreID = b.StoreID join dim_product as c on
b.ProductID = c.ProductKey join dim_date as d on
b.SalesDateKey = d.DateKey
where d.MONTH = "3" and d.YEAR= "2017"
and a.City="Boulder" and b.ProductCost < 50
;
```



The screenshot shows a SQL query result grid with the following data:

	StoreName	City	ProductName
▶	ValueMart Boulder	Boulder	Wheat Flour 1kg
	ValueMart Boulder	Boulder	Jasmine Rice 5kg
	ValueMart Boulder	Boulder	SunFlower Oil 1ltr

Result 11 x

## Query 3:

```
select a.SalesPersonID , a.SalesPersonName , (sum(b.ProductCost) * sum(c.ProductSalesPrice)) as
total_Revenue
from dim_salesperson as a join fact_productsales as b on
a.SalesPersonID = b.SalesPersonID join dim_product as c on
b.ProductID = c.ProductKey join dim_date as d on
b.SalesDateKey = d.DateKey
where d.YEAR = "2017"
order by total_Revenue desc
limit 2
;
```

Result Grid			
Filter Rows:			
Export:			
Wrap Cell Content:			
SalesPersonID	SalesPersonName	total_Revenue	
6	Jacob Leis	682356.0000	

Result 22 x

Output

Action Output

Query 4:

```

select a.CustomerName , sum(b.SalesPrice * b.Quantity) as Lowest_Total_Revenue
from dim_customer as a join fact_productsales as b on
a.CustomerID = b.CustomerID join dim_date as c on
b.SalesDateKey = c.DateKey
where c.Year = "2017"
group by a.CustomerName
order by Lowest_Total_Revenue asc
limit 1
;

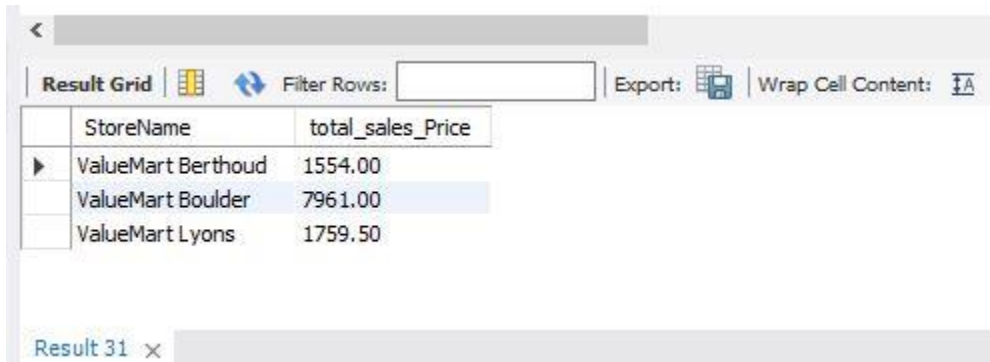
```

Result Grid		
Filter Rows:		
Export:		
Wrap Cell C		
CustomerName	Lowest_Total_Revenue	
Melinda Gates	437.50	

Result 36 x

Query 5:

```
select a.StoreName , sum(b.SalesPrice) as total_sales_Price
from dim_store as a join fact_productsales as b on
a.StoreID = b.StoreID join dim_date as c on
b.SalesDateKey = c.DateKey
where c.YEAR >= "2010" and c.YEAR <= "2017"
group by a.StoreName
order by a.StoreName asc
;
```





The screenshot shows a SQL query result grid with the following data:

	StoreName	total_sales_Price
▶	ValueMart Berthoud	1554.00
	ValueMart Boulder	7961.00
	ValueMart Lyons	1759.50

Below the table, there is a tab labeled "Result 31" with a close button (x).

Query 6:

```
select a.StoreName, c.ProductName , (b.SalesPrice * b.Quantity) - (b.ProductCost * b.Quantity) as profit
from dim_store as a join fact_productsales as b on
a.StoreID = b.StoreID join dim_product as c on
c.ProductKey = b.ProductID join dim_date as d on
b.SalesDateKey = d.DateKey
where c.ProductName="Jasmine Rice 5kg" and d.YEAR="2010"
;
```

Result Grid			
Filter Rows:		Export:  Wrap Cell Content: 	
StoreName	ProductName	profit	
ValueMart Boulder	Jasmine Rice 5kg	1.50	
ValueMart Boulder	Jasmine Rice 5kg	4.00	
ValueMart Boulder	Jasmine Rice 5kg	1.50	
ValueMart Boulder	Jasmine Rice 5kg	4.00	
ValueMart Boulder	Jasmine Rice 5kg	1.50	
ValueMart Lyons	Jasmine Rice 5kg	1.00	
ValueMart Boulder	Jasmine Rice 5kg	9.00	
ValueMart Lyons	Jasmine Rice 5kg	15.00	
ValueMart Berthoud	Jasmine Rice 5kg	10.50	
ValueMart Boulder	Jasmine Rice 5kg	13.50	
ValueMart Boulder	Jasmine Rice 5kg	6.00	
ValueMart Lyons	Jasmine Rice 5kg	3.00	
ValueMart Berthoud	Jasmine Rice 5kg	7.50	
ValueMart Boulder	Jasmine Rice 5kg	4.50	
ValueMart Boulder	Jasmine Rice 5kg	4.50	



Result 38 x

Query 7:

```

select a.StoreName,c.QUARTER,c.YEAR , (b.SalesPrice * b.Quantity) as Total_Revenue
from dim_store as a join fact_productsales as b on
a.StoreID = b.StoreID join dim_date as c on
c.DateKey = b.SalesDateKey
where c.YEAR="2016" and a.StoreName="ValueMart Boulder"
group by c.QUARTER
order by c.QUARTER
;

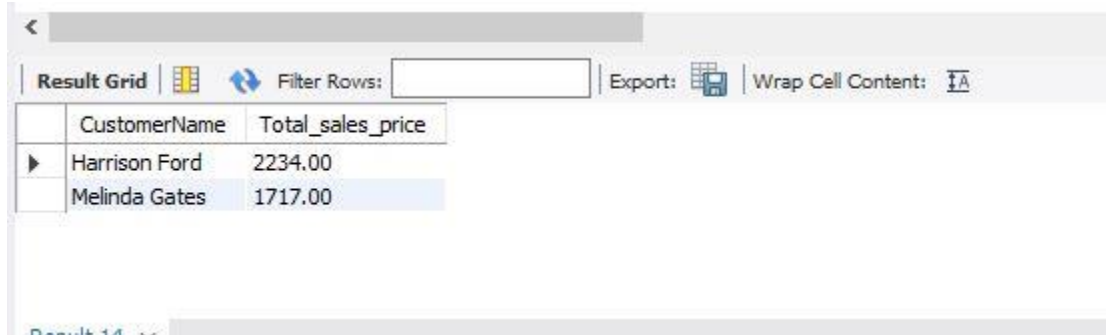
```

Result Grid				
Filter Rows:		Export:  Wrap Cell Content: 		
StoreName	QUARTER	YEAR	Total_Revenue	
ValueMart Boulder	1	2016	39.00	
ValueMart Boulder	2	2016	192.00	
ValueMart Boulder	3	2016	24.00	
ValueMart Boulder	4	2016	19.50	

Result 9    Result 10 x

Query 8:

```
select a.CustomerName , sum(b.SalesPrice) as Total_sales_price
from dim_customer as a join fact_productsales as b on
a.CustomerID = b.CustomerID
where a.CustomerName="Melinda Gates" or a.CustomerName="Harrison Ford"
group by a.CustomerName
;
```



CustomerName	Total_sales_price
Harrison Ford	2234.00
Melinda Gates	1717.00

Query 9:

```
select a.StoreName,b.SalesPrice,d.CustomerName
from dim_store as a join fact_productsales as b on
a.StoreID=b.StoreID join dim_date as c on
b.SalesDateKey = c.DateKey join dim_customer as d on
b.customerId = d.customerId
where c.DAYOFMONTH="12" and c.MONTH="3" and c.YEAR="2017"
;
```



StoreName	SalesPrice	CustomerName
ValueMart Boulder	6.50	Aldous Huxley
ValueMart Boulder	24.00	Aldous Huxley
ValueMart Boulder	43.50	Aldous Huxley

Query 10:

```
select a.SalesPersonName,sum(b.SalesPrice*b.Quantity) as Highest_Revenue
from dim_salesperson as a join fact_productsales as b on
a.SalesPersonID=b.SalesPersonID
group by a.SalesPersonName
order by Highest_Revenue desc
limit 1
;
```



The screenshot shows a SQL query result grid with two columns: SalesPersonName and Highest\_Revenue. The top row shows Julian Brand with a revenue of 21164.50. The interface includes a 'Result Grid' tab, a 'Filter Rows' input field, and 'Export' and 'Wrap Cell' buttons.

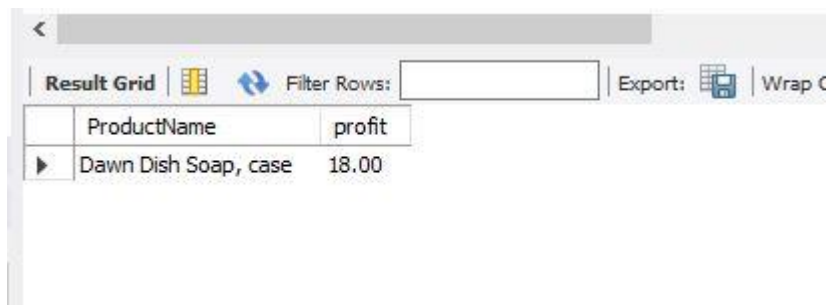
SalesPersonName	Highest_Revenue
Julian Brand	21164.50

Result 21 x

Output

Query 11:

```
select a.ProductName, (b.SalesPrice * b.Quantity) - (b.ProductCost * b.Quantity) as profit
from dim_product as a join fact_productsales as b on
a.ProductKey = b.ProductID
group by ProductName
order by profit desc
limit 1
;
```



The screenshot shows a SQL query result grid with two columns: ProductName and profit. The top row shows Dawn Dish Soap, case with a profit of 18.00. The interface includes a 'Result Grid' tab, a 'Filter Rows' input field, and 'Export' and 'Wrap Cell' buttons.

ProductName	profit
Dawn Dish Soap, case	18.00

Query 12:

```
select a.YEAR,a.MONTH, sum(b.SalesPrice * b.Quantity) as Revenue
from dim_date as a join fact_productsales as b on
a.DateKey = b.SalesDateKey
where (a.MONTH='1' or a.MONTH='2' or a.MONTH='3') and a.YEAR="2017"
group by a.MONTH
;
```



The screenshot shows a SQL query result grid with the following data:

	YEAR	MONTH	Revenue
▶	2017	1	1417.50
	2017	2	1595.50
	2017	3	1954.00

Result 25 x

Query 13:

```
select a.ProductName , round(AVG(b.ProductCost),2) as Average_Product_cost ,
round(AVG(b.SalesPrice),2) as Average_sales_price
from dim_product as a join fact_productsales as b on
a.ProductKey = b.ProductID join dim_date as c on
b.SalesDateKey = c.DateKey
where c.YEAR = "2017"
group by a.ProductName
;
```



The screenshot shows a SQL query result grid with the following data:

	ProductName	Average_Product_cost	Average_sales_price
▶	Wheat Flour 1kg	5.50	6.50
	Jasmine Rice 5kg	22.50	24.00
	SunFlower Oil 1 ltr	42.00	43.50
	Dawn Dish Soap, case	18.00	20.00
	Tide Laundry Detergent 1kg case	135.00	139.00

Result 29 x



Query 14:

```
select a.CustomerName, round(avg(b.SalesPrice),2) as average_sales_price , round(avg(b.Quantity),2) as  
average_Quantity
```

```
from dim_customer as a join fact_productsales as b on
```

```
a.CustomerID = b.CustomerID
```

```
where a.CustomerName="Melinda Gates"
```

```
group by a.CustomerName
```

```
;
```



The screenshot shows a SQL query result grid. The grid has a toolbar at the top with buttons for 'Result Grid', 'Filter Rows', 'Export', and 'Wrap Cell Content'. Below the toolbar, the grid displays the results of the query. The columns are 'CustomerName', 'average\_sales\_price', and 'average\_Quantity'. There is one row of data for 'Melinda Gates' with an average sales price of 26.02 and an average quantity of 4.98.

	CustomerName	average_sales_price	average_Quantity
▶	Melinda Gates	26.02	4.98

Query 15:

```
select a.City , Max(b.SalesPrice) as Maximum_sales_price , Min(b.SalesPrice) as Minimum_sales_price
```

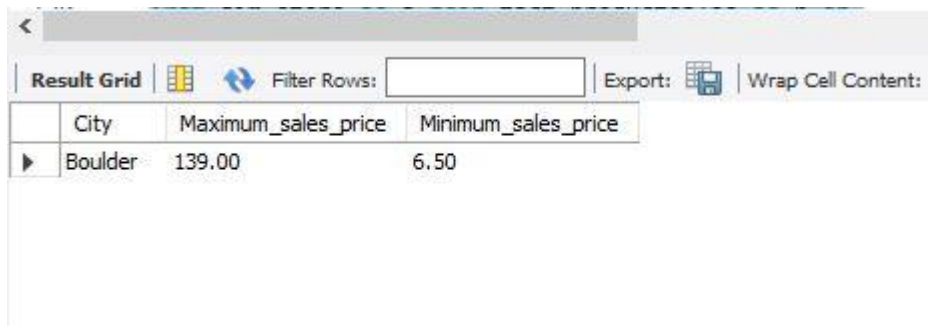
```
from dim_store as a join fact_productsales as b on
```

```
a.StoreID = b.StoreID
```

```
where a.City = "Boulder"
```

```
group by a.City
```

```
;
```



The screenshot shows a SQL query result grid. The grid has a toolbar at the top with buttons for 'Result Grid', 'Filter Rows', 'Export', and 'Wrap Cell Content'. Below the toolbar, the grid displays the results of the query. The columns are 'City', 'Maximum\_sales\_price', and 'Minimum\_sales\_price'. There is one row of data for 'Boulder' with a maximum sales price of 139.00 and a minimum sales price of 6.50.

	City	Maximum_sales_price	Minimum_sales_price
▶	Boulder	139.00	6.50