

## Part 2

### Liquor Sales: Measure

1. `SELECT SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]`

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists various database objects under the 'Iowa' database. The central pane displays a query window with the following T-SQL code:

```
--Liquor Sales:Measure
--1
SELECT SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --3720271003.7700
--2
SELECT SUM(Volume_Sold_Gallons) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --63275923.7300
--3
select SUM(CAST(Bottle_Volume_ml AS BIGINT)) from [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --23210107417
--4
select SUM(State_Bottle_Retail_State_Bottle_Cost) as Gross_Profit from [dbo].[fct_iowa_liquor_sales_invoice_lineitem];
--5
SELECT Invoice_Number, SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]
GROUP BY Invoice_Number, Sale_Dollars -- 26160915
--liquor sales by store
```

The results pane shows a single row of data: 3720271003.7700. A status bar at the bottom indicates "Query executed successfully."

2. `SELECT SUM(Volume_Sold_Gallons) FROM dbo].[fct_iowa_liquor_sales_invoice_lineitem]`

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists various database objects under the 'Iowa' database. The central pane displays a query window with the following T-SQL code:

```
--Liquor Sales:Measure
--1
SELECT SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --3720271003.7700
--2
SELECT SUM(Volume_Sold_Gallons) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --63275923.7300
--3
select SUM(CAST(Bottle_Volume_ml AS BIGINT)) from [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --23210107417
--4
select SUM(State_Bottle_Retail_State_Bottle_Cost) as Gross_Profit from [dbo].[fct_iowa_liquor_sales_invoice_lineitem];
--5
SELECT Invoice_Number, SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]
GROUP BY Invoice_Number, Sale_Dollars -- 26160915
--liquor sales by store
```

The results pane shows a single row of data: 63275923.7300. A status bar at the bottom indicates "Query executed successfully."

3. `select SUM(CAST(Bottle_Volume_ml AS BIGINT)) from [dbo].[fct_iowa_liquor_sales_invoice_lineitem]`

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists various database objects including Tables, External Tables, and Views. The central pane displays a multi-line T-SQL script. The fifth line of the script is highlighted in green, indicating it is the current statement being executed. The results pane at the bottom shows a single row with the value '23210107417'. A status bar at the bottom indicates the query was executed successfully.

```
--Liquor Sales:Measure
--1
--SELECT SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --3720271003.7700
--2
--SELECT SUM(Volume_Sold_Gallons) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --63275923.7300
--3
--select SUM(CAST(Bottle_Volume_ml AS BIGINT)) from [dbo].[fct_iowa_liquor_sales_invoice_lineitem] --23210107417
--4
--select SUM(State_Bottle_Retail-State_Bottle_Cost) as Gross_profit from [dbo].[fct_iowa_liquor_sales_invoice_lineitem];
--5
--SELECT Invoice_Number, SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]
--Group By Invoice_Number, Sale_Dollars -- 26160915
--liquor sales by store
```

Results

(No column name)
23210107417

Query executed successfully.

4. `select SUM(State_Bottle_Retail-State_Bottle_Cost) as Gross_profit from [dbo].[fct_iowa_liquor_sales_invoice_lineitem]`

```

SQLsql - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\Tj (62)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
    Tables
        System Tables
        FileTables
        External Tables
        Graph Tables
        obo.Dim_Iowa_Date
        obo.Dim_Iowa_City
        obo.Dim_Iowa_County
        obo.Dim_Iowa_Liquor_Geo
        obo.Dim_Iowa_Liquor_Product_Categories
        obo.Dim_Iowa_Liquor_Products
        obo.Dim_Iowa_Liquor_Store
        obo.Dim_Iowa_Liquor_Vendors
        obo.FCT_Iowa_City_Population_By_Year
        obo.FCT_Iowa_County_Population_By_Year
        obo.FCT_Iowa_Liquor_Sales_Invoice_Header
        obo.FCT_Iowa_Liquor_Sales_Invoice_Lineitem
        obo.stg_Iowa_City_Population_By_Year_Alteryx
        obo.stg_Iowa_County_Population_By_Year_Alteryx
        obo.stg_Iowa_Liquor_Products_Alteryx
        obo.stg_Iowa_Liquor_Sales
        obo.stg_Iowa_Liquor_Sales_Alteryx
        obo.stg_Iowa_Liquor_Sales_By_Year
        obo.stg_Iowa_Liquor_Sales_By_Year_and_County
        obo.stg_Iowa_Liquor_Stores_Alteryx
        Views
        External Resources
        Synonyms
        Programmability
        Service Broker
        Storage
        Security
        Iowa_Sample
        NYC
        TAI_EMO
    Ready
    43°F Cloudy
    Search
    Results
    Messages
    Gross_Profit
    1 136113317.1500
    Query executed successfully.

```

5. `SELECT Invoice_Number, SUM(Sale_Dollars) FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem] GGroup By Invoice_Number, Sale_Dollars`

```

SQLsql - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\Tj (62)) Executing... - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Object Explorer
    Tables
        System Tables
        FileTables
        External Tables
        Graph Tables
        obo.Dim_Iowa_Date
        obo.Dim_Iowa_City
        obo.Dim_Iowa_County
        obo.Dim_Iowa_Liquor_Geo
        obo.Dim_Iowa_Liquor_Product_Categories
        obo.Dim_Iowa_Liquor_Products
        obo.Dim_Iowa_Liquor_Store
        obo.Dim_Iowa_Liquor_Vendors
        obo.FCT_Iowa_City_Population_By_Year
        obo.FCT_Iowa_County_Population_By_Year
        obo.FCT_Iowa_Liquor_Sales_Invoice_Header
        obo.FCT_Iowa_Liquor_Sales_Invoice_Lineitem
        obo.stg_Iowa_City_Population_By_Year_Alteryx
        obo.stg_Iowa_County_Population_By_Year_Alteryx
        obo.stg_Iowa_Liquor_Products_Alteryx
        obo.stg_Iowa_Liquor_Sales
        obo.stg_Iowa_Liquor_Sales_Alteryx
        obo.stg_Iowa_Liquor_Sales_By_Year
        obo.stg_Iowa_Liquor_Sales_By_Year_and_County
        obo.stg_Iowa_Liquor_Stores_Alteryx
        Views
        External Resources
        Synonyms
        Programmability
        Service Broker
        Storage
        Security
        Iowa_Sample
        NYC
        TAI_EMO
    Ready
    43°F Cloudy
    Search
    Results
    Messages
    Invoice_Number (No column name)
    1 51.7800
    2 12.9000
    3 3 141.7800
    4 4 472.0000
    5 5 34.6600
    6 6 19.9000
    7 7 69.4400
    8 8 299.9000
    9 9 30.0000
    10 10 30.1200
    11 11 234.0000
    12 12 90.0000
    13 13 28.3500
    14 14 180.0000
    15 15 85.5000
    16 16 26.9000
    17 17 760.0000
    Executing query...

```

## Liquor Sales by Dimension

```
1. SELECT S.Store_Name, SUM(L.Sale_Dollars) AS Total_Sales FROM
    [dbo].[fct_iowa_liquor_sales_invoice_header] H
JOIN [dbo].[Dim_Iowa_Liquor_Stores] S ON S.Store_SK = H.Store_SK
JOIN [dbo].[fct_iowa_liquor_sales_invoice_lineitem] L ON L.Invoice_Item_Number=
H.Invoice_Number
GROUP BY S.Store_Name
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists various database objects like Tables, Views, and Synonyms. Three queries are open in the center pane:

- 1**: A query that joins the fact table for liquor sales with the dimension table for stores to calculate total sales per store.
- 2**: A query that joins the dimension table for counties with the fact table for liquor sales to calculate total sales per county.
- 3**: A query that joins the dimension table for cities with the fact table for liquor sales to calculate total sales per city.

The results pane shows the output for the third query, which lists 2265 rows of data with columns for Store\_Name and Total\_Sales. The top row is highlighted.

Store_Name	Total_Sales
Fareway Stores #227 / Centerville	1509927.5000
Krebs Eagle Foods	291200.4300
Fareway Stores #025 / Oskaloosa	1936452.4300
Prime Mart / Waterloo	1604021.7000
Fast Ave One Stop	762147.5100
Modemot Oil Co	69908.1400
Casey's General Store #3566 / Pella	232000.3800
Karen's Spirits And Wine	3728986.8900
Winn-Dixie #100 / Cedar Rapids	2161165.1000
Walmart #520 / Cedar Rapids	450786.8900
Wal-mart 1491 / Indianapolis	337771.8600
Speeds Shop / Wintrop	328711.5700
Casey's General Store #2385 / Atlanta	265444.1200
Casey's General Store #2778 / Cedar	447509.1800
Casey's General Store #1941 / Ankeny	287541.4900
Kwik Star #710 / Toledo	40742.3300
... (truncated)	109600.4000

At the bottom, it says "Query executed successfully."

```
2. SELECT C.County, SUM(H.Invoice_Sale_Dollars) AS Total_Sales FROM
    [dbo].[Dim_Iowa_Liquor_Stores] S
JOIN [dbo].[Dim_iowa_county] C ON C.County_SK = S.County_SK
JOIN [dbo].[fct_iowa_liquor_sales_invoice_header] H ON H.Store_SK = S.Store_SK
GROUP BY C.County
order by Total_Sales desc
```

SQL Server - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\T (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

SQLQuery1.sql - DE\_P-CJ60CRS\T (52)\*    SQLQuery1.sql - DE\_P-CJ60CRS\T (55)\*    SQL.sql - DESKTOP-CJ60CRS\T (62) \* - vs80E6.sql - DESKTOP-CJ60CRS\T (61)

Quick Launch (Ctrl+Q)

--1  
SELECT S.Store\_Name, SUM(L.Sale\_Dollars) AS Total\_Sales FROM [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header] H  
JOIN [dbo].[Dim\_Iowa\_Liquor\_Stores] S ON S.Store\_SK = H.Store\_SK  
JOIN [dbo].[fct\_iowa\_liquor\_sales\_invoice\_lineitem] L ON L.Invoice\_Item\_Number= H.Invoice\_Number  
GROUP BY S.Store\_Name --2265

--2  
SELECT C.County, SUM(H.Invoice\_Sale\_Dollars) AS Total\_Sales FROM [dbo].[Dim\_Iowa\_Liquor\_Stores] S  
JOIN [dbo].[Dim\_iowa\_county] C ON C.County\_SK = S.County\_SK  
JOIN [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header] H ON H.Store\_SK = S.Store\_SK  
GROUP BY C.County  
order by Total\_Sales desc--XXXXXX

--3  
SELECT C.City, SUM(H.Invoice\_Sale\_Dollars) AS Total\_Sales FROM [dbo].[Dim\_Iowa\_Liquor\_Stores] S  
JOIN [dbo].[Dim\_iowa\_city] C ON C.City\_SK = S.City\_SK  
JOIN [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header] H ON H.Store\_SK = S.Store\_SK  
GROUP BY C.City  
order by Total\_Sales desc

Results Messages

County	Total_Sales
Polk County	625297558.9100
Scott County	22116607.9900
Linn County	20654597.4600
Black Hawk County	18325366.6000
Johnson County	127395267.8900
Woodbury County	117939734.7400
Dubuque County	85907831.2100
Story County	68724905.9500
Pelham County	57164012.9100
Pottawattamie County	5314647.0200
Clinton County	4757947.6600
Dickinson County	3765570.0600
Cerro Gordo County	37514227.2600
Lee County	32026301.2400
Muscatine County	31729027.7700
Webster County	29744941.7700
Franklin County	78883908.3600

Query executed successfully.

DESKTOP-CJ60CRS (15.0 RTM) | DESKTOP-CJ60CRS\T (62) | Iowa | 00:00:01 | 98 rows

Ready 43°F Cloudy Ln 23 Col 1 Ch 1 INS 11:10 PM 4/7/2023

3. `SELECT C.City, SUM(H.Invoice_Sale_Dollars) AS Total_Sales FROM [dbo].[Dim_Iowa_Liquor_Stores] S  
JOIN [dbo].[Dim_iowa_city] C ON C.City_SK = S.City_SK  
JOIN [dbo].[fct_iowa_liquor_sales_invoice_header] H ON H.Store_SK = S.Store_SK  
GROUP BY C.City  
order by Total_Sales desc`

SQL Server - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\T (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

SQLQuery1.sql - DE\_P-CJ60CRS\T (52)\*    SQLQuery1.sql - DE\_P-CJ60CRS\T (55)\*    SQL.sql - DESKTOP-CJ60CRS\T (62) \* - vs80E6.sql - DESKTOP-CJ60CRS\T (61)

Quick Launch (Ctrl+Q)

--1  
SELECT S.Store\_Name, SUM(L.Sale\_Dollars) AS Total\_Sales FROM [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header] H  
JOIN [dbo].[Dim\_Iowa\_Liquor\_Stores] S ON S.Store\_SK = H.Store\_SK  
JOIN [dbo].[fct\_iowa\_liquor\_sales\_invoice\_lineitem] L ON L.Invoice\_Item\_Number= H.Invoice\_Number  
GROUP BY S.Store\_Name --2265

--2  
SELECT C.County, SUM(H.Invoice\_Sale\_Dollars) AS Total\_Sales FROM [dbo].[Dim\_Iowa\_Liquor\_Stores] S  
JOIN [dbo].[Dim\_iowa\_county] C ON C.County\_SK = S.County\_SK  
JOIN [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header] H ON H.Store\_SK = S.Store\_SK  
GROUP BY C.County  
order by Total\_Sales desc--XXXXXX

--3  
SELECT C.City, SUM(H.Invoice\_Sale\_Dollars) AS Total\_Sales FROM [dbo].[Dim\_Iowa\_Liquor\_Stores] S  
JOIN [dbo].[Dim\_iowa\_city] C ON C.City\_SK = S.City\_SK  
JOIN [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header] H ON H.Store\_SK = S.Store\_SK  
GROUP BY C.City  
order by Total\_Sales desc

Results Messages

City	Total_Sales
Des Moines	37082740.4200
Cedar Rapids	179940972.1700
Davenport	154470316.2500
Sioux City	113543984.9000
West Des Moines	103666889.0000
Waterloo	103567242.1500
Iowa City	87352066.9400
Dubuque	76751183.6700
Corinthville	68201917.9900
Bettendorf	59517847.4900
Ames	57754181.1000
Cedar Falls	56331249.9700
Ankeny	54017076.9700
Iowa City	42837749.8500
Fort Dodge	33962289.2600
Windsor Heights	32884721.3100
Urbandale	31000198.8700

Query executed successfully.

DESKTOP-CJ60CRS (15.0 RTM) | DESKTOP-CJ60CRS\T (62) | Iowa | 00:00:00 | 458 rows

Ready 43°F Cloudy Ln 1 Col 1 INS 11:11 PM 4/7/2023

```

4. SELECT C.Category_Name, sum(L.Sale_Dollars) as total_sales FROM
[dbo].[Dim_iowa_liquor_Products] P
JOIN [dbo].[fct_iowa_liquor_sales_invoice_lineitem] L ON L.Item_Number =
cast(P.Item_Number as varchar(50))
JOIN [dbo].[Dim_iowa_liquor_Product_Categories] C ON C.Category_SK =
P.Category_SK
GROUP BY C.Category_Name, L.Sale_Dollars
order by total_sales desc

```

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left lists various database objects like Tables, Views, and Procedures. The central pane displays two queries being run simultaneously. The top query is identical to the one above, and the bottom query is:

```

--5
SELECT SUM(Sale_Dollars) as total_sales, Invoice_Item_Number FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]
GROUP BY Invoice_Item_Number

```

The results pane shows the output of the second query, which lists the total sales for each invoice item number. The data is as follows:

Invoice_Item_Number	total_sales
1	1046100.0000
2	13566572.4000
3	12380941.8400
4	12232708.1600
5	12033810.1200
6	11921535.3600
7	11795812.5600
8	11228807.5200
9	11008269.6000
10	10315968.0000
11	9722160.0000
12	9560138.4000
13	9548036.4000
14	9548036.4000
15	8881180.4000
16	8405453.5200
17	8320969.4400

At the bottom of the results pane, it says "Query executed successfully."

```

5. SELECT SUM(Sale_Dollars) as total_sales, Invoice_Item_Number FROM
[dbo].[fct_iowa_liquor_sales_invoice_lineitem]
GROUP BY Invoice_Item_Number
order by total_sales desc

```

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, there is a tree view of tables, system tables, file tables, external tables, graph tables, dimensions, fact tables, and other objects under the 'iowa' database. Several tabs are open in the main pane, displaying T-SQL code:

```

--5
SELECT SUM(Sale_Dollars) as total_sales, Invoice_Item_Number FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]
GROUP BY Invoice_Item_Number
order by total_sales desc

--6
SELECT V.Vendor_Name, sum(L.Sale_Dollars) as total_sales FROM [dbo].[Dim_iowa_liquor_Products] P
JOIN [dbo].[fct_iowa_liquor_sales_invoice_lineitem] L ON L.Item_Number = cast(P.Item_Number as varchar(50))
JOIN [dbo].[Dim_iowa_liquor_Vendors] V ON P.Vendor_SK = V.Vendor_SK
group by v.Vendor_Name
order by total_sales desc--XXXXXX---

--Liquor sales by Time
--1
SELECT Invoice_Date, SUM(Invoice_Sale_Dollars) AS Total_Sales FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
group by invoice_date

```

The Results tab shows the output of the second query:

	total_sales	Invoice_Item_Number
1	279557.2800	INV-1477470005
2	254100.0000	805867400001
3	254100.0000	809275100052
4	250932.0000	INV-30852400189
5	250932.0000	INV-43470400126
6	250932.0000	INV-38045600132
7	250932.0000	INV-359096000152
8	225800.0000	INV-30852400127
9	995604.8800	812931100095
10	495624.0000	INV-55381600120
11	18162.0000	831923000002
12	176332.0000	INV-53540200001
13	15607.0000	INV-4068670002
14	150559.2000	INV-30337300001
15	150559.2000	INV-30354800002
16	150559.2000	INV-30483400004
17	150559.2000	INV-30430310003

A status bar at the bottom indicates: DESKTOP-CJ60CRS (15.0 RTM) | DESKTOP-CJ60CRS\TJ (62) | iowa | 00:00:30 | 2,936,313 rows.

6. `SELECT V.Vendor_Name, sum(L.Sale_Dollars) as total_sales FROM [dbo].[Dim_iowa_liquor_Products] P JOIN [dbo].[fct_iowa_liquor_sales_invoice_lineitem] L ON L.Item_Number = cast(P.Item_Number as varchar(50)) JOIN [dbo].[Dim_iowa_liquor_Vendors] V ON P.Vendor_SK = V.Vendor_SK group by v.Vendor_Name order by total_sales desc`

SQL Server Management Studio - DESKTOP-CI60CRS\TJ (62) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Quick Launch (Ctrl+Q)

Object Explorer

Connect to... Connect to... Connect to...

lawa

SQLQuery2.sql - DE\_P-CI60CRS\TJ (52)\* SQLQuery1.sql - DE\_P-CI60CRS\TJ (55)\* SQLQuery - DESKTOP-CI60CRS\TJ (62) - vs80E6.sql - DESKTOP-CI60CRS\TJ (61)

```
--5
--SELECT SUM(Sale_Dollars) as total_sales, Invoice_Item_Number FROM [dbo].[fct_iowa_liquor_sales_invoice_lineitem]
--GROUP BY Invoice_Item_Number
--order by total_sales desc

--6
--SELECT V.Vendor_Name, sum(L.Sale_Dollars) as total_sales FROM [dbo].[Dim_iowa_liquor_Products] P
--JOIN [dbo].[fct_iowa_liquor_sales_invoice_lineitem] L ON L.Item_Number = cast(P.Item_Number as varchar(50))
--JOIN [dbo].[Dim_iowa_liquor_Vendors] V ON P.Vendor_SK = V.Vendor_SK
--group by V.Vendor_Name
--order by total_sales desc--XXXXXX---

--Liquor sales by Time
--1
--SELECT Invoice_Date, SUM(Invoice_Sale_Dollars) AS Total_Sales FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--group by Invoice_Date
--order by Total_Sales desc
```

119 %

Results Messages

Vendor_Name	total_sales
DIAGEO AMERICAS	740764449600
SAZERAC COMPANY INC	4906877775400
JIM BEAM BRANDS	2638800871600
HEAVEN HILL BRANDS	2637197243000
PERNOD RICARD USA	2473179282400
BACARDI USA INC	2101161731400
LUXCO INC	1960983428200
BROWN FORMAN CORP	1977052000000
PPM HOLDING CORPORATION INC	1420116172700
PROXIMO	1220621732300
E & J GALLON WINERY	6770607242400
MOET HENNESSY USA	727874423000
PHILLIPS BEVERAGE	734099651400
LAIRD & COMPANY	529050204500
MAST-JAEGERMEISTER US, INC	488247090800
MCCORMICK DISTILLING CO.	398400494000
MIERIMM ESTATE	391454448000

Query executed successfully.

DESKTOP-CI60CRS (15.0 RTM) | DESKTOP-CI60CRS\TJ (62) | lawa | 00:00:04 | 285 rows

Ready

43°F Cloudy

Ln 49 Col 1 Ch 1 INS

11:14 PM 4/7/2023

## Liquor Sales by Time

1. 

```
SELECT Invoice_Date, SUM(Invoice_Sale_Dollars) AS Total_Sales FROM
[dbo].[fct_iowa_liquor_sales_invoice_header]
GROUP BY Invoice_Date
```

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar reads "SQLsql - DESKTOP-CI60CRS.lowa (DESKTOP-CI60CRS\Tj (62)) - Microsoft SQL Server Management Studio". The left pane is the Object Explorer, displaying a tree view of databases, tables, and other objects. The right pane contains a query editor window with the following T-SQL code:

```
--Liquor sales by Time
--1
--SELECT Invoice_Date, SUM(Invoice_Sale_Dollars) AS Total_Sales FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--GROUP BY Invoice_Date
--2
--SELECT Year(Invoice_Date) AS Invoice_Year, SUM(Invoice_Sale_Dollars) AS Total_Sales
--FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--GROUP BY Year(Invoice_Date)
--3
--select * from dbo.fct_iowa_liquor_sales_invoice_lineitem a, dbo.
--SELECT Year(Invoice_DATE) FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--4
--5
--SELECT Year(Invoice_Date) AS Invoice_Year, Month(Invoice_Date) AS Invoice_Month, SUM(Invoice_Sale_Dollars) AS Total_Sales
--FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--GROUP BY Year(Invoice_Date), Month(Invoice_Date)
```

The results pane below the code shows a table with two columns: "Invoice\_Date" and "Total\_Sales". The data is as follows:

Invoice_Date	Total_Sales
2016-10-13 00:00:00.000	1439863.6100
2016-11-16 00:00:00.000	1685712.9700
2017-01-16 00:00:00.000	64802.5800
2017-02-20 00:00:00.000	1000.0000
2017-08-26 00:00:00.000	53174.0700
2017-09-19 00:00:00.000	641066.7700
2018-01-24 00:00:00.000	122280.4900
2018-03-02 00:00:00.000	51036.6000
2018-04-09 00:00:00.000	1529723.6000
2019-01-24 00:00:00.000	1648702.2800
2019-03-22 00:00:00.000	506453.2000
2019-04-08 00:00:00.000	1409058.3300
2019-05-02 00:00:00.000	1447287.6200
2019-07-05 00:00:00.000	2116536.4600
2019-10-01 00:00:00.000	1423278.9900
2019-12-26 00:00:00.000	1944481.8600
2020-01-14 00:00:00.000	1739887.8500

The status bar at the bottom indicates "Query executed successfully." and shows the system name "DESKTOP-CI60CRS (15.0 RTM)", the session number "DESKTOP-CI60CRS\Tj (62)", the database name "lowa", the current time "00:00:01", and the row count "2,881 rows".

```
2. SELECT Year(Invoice_Date) AS Invoice_Year, SUM(Invoice_Sale_Dollars) AS Total_Sales  
FROM [dbo].[fct_iowa_liquor_sales_invoice_header]  
GROUP BY Year(Invoice_Date)
```

SQLsql - DESKTOP-CI60CRS.iowa (DESKTOP-CI60CRS\Tj (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

Connect

Tables

System Tables

File Tables

External Tables

Graph Tables

dbo.dim\_Date

dbo.dim\_Iowa\_City

dbo.dim\_Iowa\_County

dbo.dim\_Iowa\_Liquor\_Geo

dbo.dim\_Iowa\_Liquor\_Product\_Categories

dbo.dim\_Iowa\_Liquor\_Products

dbo.dim\_Iowa\_Liquor\_Store

dbo.dim\_Iowa\_Liquor\_Vendors

dbo.fct\_iowa\_city\_population\_by\_year

dbo.fct\_iowa\_county\_population\_by\_year

dbo.fct\_iowa\_liquor\_sales\_invoice\_header

dbo.fct\_iowa\_liquor\_sales\_invoice\_lineitem

dbo.stg\_iowa\_city\_population\_by\_year\_alteryx

dbo.stg\_iowa\_county\_population\_by\_year\_alteryx

dbo.stg\_iowa\_liquor\_products\_alteryx

dbo.stg\_iowa\_liquor\_sales\_alteryx

dbo.stg\_iowa\_liquor\_sales\_by\_year

dbo.stg\_iowa\_liquor\_sales\_by\_year\_and\_county

dbo.stg\_iowa\_liquor\_stores\_alteryx

Views

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

iowa\_Sample

NYC

TAI End

--Liquor sales by Time  
--1  
SELECT Invoice\_Date, SUM(Invoice\_Sale\_Dollars) AS Total\_Sales FROM [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header]  
GROUP BY Invoice\_Date  
--2  
SELECT Year(Invoice\_Date) AS Invoice\_Year, SUM(Invoice\_Sale\_Dollars) AS Total\_Sales  
FROM [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header]  
GROUP BY Year(Invoice\_Date)  
  
--select \* from dbo.fct\_iowa\_liquor\_sales\_invoice\_lineitem a, dbo.  
--SELECT Year(Invoice\_Date) FROM [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header]  
--3  
SELECT Year(Invoice\_Date) AS Invoice\_Year, Month(Invoice\_Date) AS Invoice\_Month, SUM(Invoice\_Sale\_Dollars) AS Total\_Sales  
FROM [dbo].[fct\_iowa\_liquor\_sales\_invoice\_header]  
GROUP BY Year(Invoice\_Date), Month(Invoice\_Date)

119 %

Results

Invoice_Year	Total_Sales
1	101066122.2700
2	258103792.8200
3	33421643.0700
4	349220341.6300
5	314530044.8100
6	248780000.0000
7	20141798.0000
8	284238572.1100
9	24123836.4000
10	399683131.8600
11	255203313.5700
12	29944564.8500

Query executed successfully.

Ln 60 Col 1 Ch 1 INS

DESKTOP-CI60CRS (15.0 RTM) DESKTOP-CI60CRS\Tj (62) iowa 00:00:00 12 rows

43°F Cloudy 11:16 PM 4/7/2023

```

3. SELECT Year(Invoice_Date) AS Invoice_Year, Month(Invoice_Date) AS
   Invoice_Month, SUM(Invoice_Sale_Dollars) AS Total_Sales
   FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
   GROUP BY Year(Invoice_Date), Month(Invoice_Date)
   order by Total_Sales desc

```

```

SQLServer - DESKTOP-CI6OCRS\Iowa (DESKTOP-CI6OCRS\TJ (62)) - Microsoft SQL Server Management Studio
File Edit View Project Tools Window Help
Iowa | New Query | Execute | Save | Refresh | Stop | Run | Stop | Run | Save As | Open | Close | Minimize | Maximize | Close
Object Explorer | SQLQuery1.sql - DE_P-CI6OCRS\TJ (55) | SQLServer - DESKTOP-CI6OCRS\Iowa (62) | -vs80E6.sql - DESK_P-CI6OCRS\TJ (61)
FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
GROUP BY Year(Invoice_Date)

--select * from dbo.fct_iowa_liquor_sales_lineitem a, dbo.
--SELECT Year(Invoice_Date) FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--as
--SELECT Year(Invoice_Date) AS Invoice_Year,Month(Invoice_Date) AS Invoice_Month, SUM(Invoice_Sale_Dollars) AS Total_Sales
--FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--GROUP BY Year(Invoice_Date), Month(Invoice_Date)
--order by Total_Sales desc

--4
--SELECT Year(Invoice_Date) AS Invoice_Year, SUM(Invoice_Sale_Dollars) AS Total_Sales, LAG(SUM(Invoice_Sale_Dollars))
--OVER (ORDER BY Year(Invoice_Date)) AS Previous_Sales, SUM(Invoice_Sale_Dollars) - (LAG(SUM(Invoice_Sale_Dollars)))
--OVER (ORDER BY Year(Invoice_Date))) AS YOY
--FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
--GROUP BY Year(Invoice_Date)

```

Invoice_Year	Invoice_Month	Total_Sales
1	2022	43146512.1700
2	2021	42290787.0600
3	2022	8
4	2020	42714066.2400
5	2022	10
6	2021	6
7	2022	6
8	2021	10
9	2021	11
10	2022	11
11	2020	37465199.1000
12	2020	9
13	2021	3
14	2022	9
15	2021	8
16	2023	3
17	2023	4

Query executed successfully.

```

4. SELECT Year(Invoice_Date) AS Invoice_Year, SUM(Invoice_Sale_Dollars) AS
   Total_Sales, LAG(SUM(Invoice_Sale_Dollars))
   OVER (ORDER BY Year(Invoice_Date)) AS Previous_Sales,
   SUM(Invoice_Sale_Dollars) - (LAG(SUM(Invoice_Sale_Dollars)))
   OVER (ORDER BY Year(Invoice_Date))) AS YOY
   FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
   GROUP BY Year(Invoice_Date)

```

SQL Server - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\Tj (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

Tables

System Tables

FileTables

External Tables

Graph Tables

dbo.Dim\_Date

dbo.Dim\_Iowa\_City

dbo.Dim\_Iowa\_Count

dbo.Dim\_Iowa\_Geo

dbo.Dim\_Iowa\_Liquor\_Geo

dbo.Dim\_Iowa\_Liquor\_Product\_Categories

dbo.Dim\_Iowa\_Liquor\_Products

dbo.Dim\_Iowa\_Liquor\_Store

dbo.Dim\_Iowa\_Liquor\_Vendors

dbo.FCT\_Iowa\_City\_Population\_By\_Year

dbo.FCT\_Iowa\_County\_Population\_By\_Year

dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Header

dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Lineitem

dbo.Stg\_Iowa\_City\_Population\_By\_Year\_Alteryx

dbo.Stg\_Iowa\_Liquor\_Products\_Alteryx

dbo.Stg\_Iowa\_Liquor\_Sale

dbo.Stg\_Iowa\_Liquor\_Sales\_Alteryx

dbo.Stg\_Iowa\_Liquor\_Sales\_By\_Year

dbo.Stg\_Iowa\_Liquor\_Sales\_By\_Year\_And\_Count

dbo.Stg\_Iowa\_Liquor\_Stores\_Alteryx

Views

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

Iowa\_Sample

NYC

TAI\_CND

SQLQuery2.sql - DE-P-CJ60CRS\Tj (52)\*    SQLQuery1.sql - DE-P-CJ60CRS\Tj (55)\*    SQL.sql - DESKTOP-CJ60CRS\Tj (62) \*    -vs80E6.sql - DESKTOP-CJ60CRS\Tj (61)

```
order by Total_Sales desc
-----4
SELECT Year(Invoice_Date) AS Invoice_Year, SUM(Invoice_Sale_Dollars) AS Total_Sales, LAG(SUM(Invoice_Sale_Dollars))
OVER (ORDER BY Year(Invoice_Date)) AS Previous_Sales, SUM(Invoice_Sale_Dollars) - (LAG(SUM(Invoice_Sale_Dollars))
OVER (ORDER BY Year(Invoice_Date))) AS YOY
FROM [dbo].[fct_iowa_liquor_sales_invoice_header]
GROUP BY Year(Invoice_Date)
```

Results Messages

Invoice_Year	Invoice_Month	Total_Sales
1	2022	12
2	2021	12
3	2022	8
4	2020	12
5	2022	10
6	2021	6
7	2022	6
8	2021	10
9	2021	11
10	2022	11
11	2020	10
12	2020	9
13	2021	3
14	2022	9
15	2021	8
16	2023	3
17	2023	4

Query executed successfully.

DESKTOP-CJ60CRS (15.0 RTM) | DESKTOP-CJ60CRS\Tj (62) | Iowa | 00:00:00 | 135 rows

Ready 43°F Cloudy Ln 73 Col 1 Ch 1 INS 11:18 PM 4/7/2023

```
select Year(a.Invoice_Date), sum(a.Invoice_Sale_Dollars) as total_sales from
dbo.fct_iowa_liquor_sales_invoice_header a
where year(a.Invoice_Date) <= 2022
group by year(a.Invoice_Date)
order by year(a.Invoice_Date);
```

SQL Server - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\Tj (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

Tables

System Tables

FileTables

External Tables

Graph Tables

dbo.Dim\_Date

dbo.Dim\_Iowa\_City

dbo.Dim\_Iowa\_Count

dbo.Dim\_Iowa\_Geo

dbo.Dim\_Iowa\_Liquor\_Geo

dbo.Dim\_Iowa\_Liquor\_Product\_Categories

dbo.Dim\_Iowa\_Liquor\_Products

dbo.Dim\_Iowa\_Liquor\_Store

dbo.Dim\_Iowa\_Liquor\_Vendors

dbo.FCT\_Iowa\_City\_Population\_By\_Year

dbo.FCT\_Iowa\_County\_Population\_By\_Year

dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Header

dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Lineitem

dbo.Stg\_Iowa\_City\_Population\_By\_Year\_Alteryx

dbo.Stg\_Iowa\_Liquor\_Products\_Alteryx

dbo.Stg\_Iowa\_Liquor\_Sale

dbo.Stg\_Iowa\_Liquor\_Sales\_Alteryx

dbo.Stg\_Iowa\_Liquor\_Sales\_By\_Year

dbo.Stg\_Iowa\_Liquor\_Sales\_By\_Year\_And\_Count

dbo.Stg\_Iowa\_Liquor\_Stores\_Alteryx

Views

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

Iowa\_Sample

NYC

TAI\_CND

SQLQuery1.sql - DE-P-CJ60CRS\Tj (52)\*    SQLQuery2.sql - DE-P-CJ60CRS\Tj (55)\*    SQL.sql - DESKTOP-CJ60CRS\Tj (62) \*    -vs80E6.sql - DESKTOP-CJ60CRS\Tj (61)

```
GROUP BY Year(Invoice_Date)

-----1
select Year(a.Invoice_Date), sum(a.Invoice_Sale_Dollars) as total_sales from dbo.fct_iowa_liquor_sales_invoice_header a
where year(a.Invoice_Date) <= 2022
group by year(a.Invoice_Date)
order by year(a.Invoice_Date);

-----2
select top 20 a.Store_Name, sum(b.Invoice_Sale_Dollars) as total_sales from dbo.Dim_Iowa_Liquor_Stores a, dbo.fct_iowa_liq
```

Results Messages

(No column name)	total_sales
1	255203313.5700
2	258103792.8200
3	27058738.0900
4	284328572.1100
5	29944764.8500
6	314530044.8100
7	341452000.0000
8	340220341.6300
9	36668131.6600
10	428123535.4000
11	426780003.4900

Query executed successfully.

DESKTOP-CJ60CRS (15.0 RTM) | DESKTOP-CJ60CRS\Tj (62) | Iowa | 00:00:00 | 11 rows

Ready 43°F Cloudy Ln 84 Col 1 Ch 1 INS 11:19 PM 4/7/2023

```

select top 20 a.Store_Name, sum(b.Invoice_Sale_Dollars) as total_sales from
dbo.Dim_Iowa_Liquor_Stores a, dbo.fct_iowa_liquor_sales_invoice_header b
where a.Store_ID = b.Store_Number
group by a.Store_Name
order by total_sales desc;

```

The screenshot shows the Microsoft SQL Server Management Studio interface with three query windows open:

- Query 1:** A single query block containing the provided T-SQL code.
- Query 2:** A single query block showing the result of the first query. The results table has columns 'Store\_Name' and 'total\_sales'. The data is as follows:

Store_Name	total_sales
Hy-Vee #2 / Des Moines	117042751.1400
Central City 2	103549566.5200
Hy-Vee Wine & Spirits #1 (1281) / Iowa City	50600000.0000
I-80 Liquor / Cedar Rapids	32035645.6600
Costco Wholesale #788 / Wm	3943660.0500
Sam's Club #344 / Windsor Heights	38542041.6600
Benz Distributing	33421467.8000
Lot-a-spirits	30922851.5900
Sam's Club #238 / Davenport	27254287.1300
Wilke Liquors	26235453.8000
Central City Liquor, Inc.	26021024.7500
Hy-Vee Food Store / Urbandale	24980785.2600
Hy-Vee Wine & Spirits #2 / Davenport	24137264.9800
I-80 Liquor / Council Bluffs	23161071.9200
Sam's Club #514 / Waterloo	23128891.1700
Sam's Club #632 / Sioux City	22777473.7900
La Crosse Liquor / Davenport	19342900.5500

- Query 3:** A single query block showing the result of the second query. The results table has columns 'a.City' and 'total\_sales'. The data is as follows:

a.City	total_sales
Des Moines	117042751.1400
Cedar Rapids	103549566.5200
Winnipeg	50600000.0000
Davenport	32035645.6600
Wm	3943660.0500
Windsor Heights	38542041.6600
Urbandale	33421467.8000
Winnipeg	30922851.5900
Davenport	27254287.1300
Sioux City	26235453.8000
Waterloo	26021024.7500
Winnipeg	24980785.2600
Winnipeg	24137264.9800
Winnipeg	23161071.9200
Winnipeg	23128891.1700
Winnipeg	22777473.7900
Winnipeg	19342900.5500

- Query 4:** A single query block showing the result of the third query. The results table has columns 'a.County' and 'total\_sales'. The data is as follows:

a.County	total_sales
Boone	117042751.1400
Washington	103549566.5200
Pottawattamie	50600000.0000
Winneshiek	32035645.6600
Winneshiek	3943660.0500
Winneshiek	38542041.6600
Winneshiek	33421467.8000
Winneshiek	30922851.5900
Winneshiek	27254287.1300
Winneshiek	26235453.8000
Winneshiek	26021024.7500
Winneshiek	24980785.2600
Winneshiek	24137264.9800
Winneshiek	23161071.9200
Winneshiek	23128891.1700
Winneshiek	22777473.7900
Winneshiek	19342900.5500

```

select top 20 a.City, sum(c.Invoice_Sale_Dollars) as total_sales from dbo.Dim_iowa_city
a, dbo.Dim_Iowa_Liquor_Stores b, dbo.fct_iowa_liquor_sales_invoice_header c
where a.City_SK = b.City_SK
and b.Store_ID = c.Store_Number
group by a.City
order by total_sales desc;

```

SQL Server - DESKTOP-CJ60CRS1owa (DESKTOP-CJ60CRS1TJ (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Object Explorer

Connect ▾ Tables System Tables FileTables External Tables Graph Tables dbo.Dim Date dbo.Dim\_Iowa\_City dbo.Dim\_Iowa\_County dbo.Dim\_Iowa\_Liquor\_Geo dbo.Dim\_Iowa\_Liquor\_Product\_Categories dbo.Dim\_Iowa\_Liquor\_Products dbo.Dim\_Iowa\_Liquor\_Store dbo.Dim\_Iowa\_Liquor\_Vendor dbo.FCT\_Iowa\_City\_Population\_By\_Year dbo.FCT\_Iowa\_County\_Population\_By\_Year dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Header dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_LineItem dbo.FCT\_Iowa\_City\_Population\_By\_Year\_Altexy dbo.FCT\_Iowa\_County\_Population\_By\_Year\_Altexy dbo.FCT\_Iowa\_Liquor\_Products\_Altexy dbo.FCT\_Iowa\_Liquor\_Sales\_Altexy dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Altexy dbo.FCT\_Iowa\_Liquor\_Sales\_By\_Year\_Altexy dbo.FCT\_Iowa\_Liquor\_Sales\_By\_Year\_and\_County dbo.FCT\_Iowa\_Liquor\_Stores\_Altexy Views External Resources Synonyms Programmability Service Broker Storage Security Iowa\_Sample NYC TAI\_EASY

SQLQuery2.sql - DE..P-CJ60CRS1TJ (52)\* SQLQuery1.sql - DE..P-CJ60CRS1TJ (55)\* SQLsql - DESKTOP-CJ60CRS1TJ (62)\* ↗vs80E6.sql - DESKTOP-CJ60CRS1TJ (61)

```
--> 2
--select top 20 a.Store_Name, sum(b.Invoice_Sale_Dollars) as total_sales from dbo.Dim_Iowa_Liquor_Stores a, dbo.fct_iowa_liq
where a.Store_ID = b.Store_Number
group by a.Store_Name
order by total_sales desc;

--> 3
--select top 20 a.City, sum(c.Invoice_Sale_Dollars) as total_sales from dbo.Dim_Iowa_City a, dbo.Dim_Iowa_Liquor_Stores b,
where a.City_SK = b.City_SK
and b.Store_ID = c.Store_Number
group by a.City
order by total_sales desc;

--> 4
--select top 10 a.County, sum(c.Invoice_Sale_Dollars) as total_sales from dbo.Dim_Iowa_County a, dbo.Dim_Iowa_Liquor_Stores b,
```

119 rows | Results | Messages

Store_Name	total_sales
Hy-Vee #3 / Bld / Des Moines	117924751.1400
Central City 2	103549566.5200
Hy-Vee Wine And Spirits #1 (1281) / Iowa City	50269725.4100
Sam's Club #2 / Cedar Rapids	39426488.0500
Grocery Wholesaler #788 / Wdm	35842041.8600
Benz Distributing	32421407.8000
Lit+sprite	30922851.8000
Sam's Club #2323 / Davenport	27254237.1300
Wilke Liquor	26235483.8000
Central City Liquor, Inc.	26021024.7500
Hy-Vee Food Store / Urbandale	24980768.2600
Hy-Vee Wine & Spirits #2 / Davenport	24137264.8800
I-80 Liquor / Council Bluffs	23161071.8200
Sam's Club #514 / Waterloo	23128891.7700
Sam's Club #432 / Sioux City	22777473.7900
Hy-Vee Wine & Spirits #10	19540000.5500

Query executed successfully.

DESKTOP-CJ60CRS1 (15.0 RTM) DESKTOP-CJ60CRS1TJ (62) Iowa 00:00:00 20 rows

Ready 43°F Cloudy

Search

Ln 96 Col 1 Ch 1 INS

11:20 PM 4/7/2023

```
select top 10 a.County, sum(c.Invoice_Sale_Dollars) as total_sales from  
dbo.Dim_iowa_county a, dbo.Dim_Iowa_Liquor_Stores b,  
dbo.fct_iowa_liquor_sales_invoice_header c  
where a.County_SK = b.County_SK  
and b.Store_ID = c.Store_Number  
group by a.County  
order by total sales desc;
```

SQLsql - DESKTOP-CJ60CRS1owa (DESKTOP-CJ60CRS1TJ (62)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

... New Query Execute ...

Object Explorer Connect ...

Tables System Tables FileTables External Tables Graph Tables dbo.Dim\_Date dbo.Dim\_Iowa\_City dbo.Dim\_Iowa\_County dbo.Dim\_Iowa\_Geo dbo.Dim\_Iowa\_Liquor\_Product\_Categories dbo.Dim\_Iowa\_Liquor\_Products dbo.Dim\_Iowa\_Liquor\_Store dbo.Dim\_Iowa\_Liquor\_Vendors dbo.FCT\_Iowa\_City\_Population\_By\_Year dbo.FCT\_Iowa\_County\_Population\_By\_Year dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Header dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_LineItem dbo.FCT\_Iowa\_City\_Population\_By\_Year\_Afteryx dbo.FCT\_Iowa\_County\_Population\_By\_Year\_Afteryx dbo.FCT\_Iowa\_Liquor\_Products\_Afteryx dbo.FCT\_Iowa\_Liquor\_Sales\_Afteryx dbo.FCT\_Iowa\_Liquor\_Sales\_Invoice\_Afteryx dbo.FCT\_Iowa\_Liquor\_Sales\_By\_Year\_Afteryx dbo.FCT\_Iowa\_Liquor\_Sales\_By\_Year\_And\_County dbo.FCT\_Iowa\_Liquor\_Stores\_Afteryx Views External Resources Synonyms Programmability Service Broker Storage Security Iowa\_Sample NYC TAI\_CMB

SQLQuery1.sql - DE\_P-CJ60CRS1TJ (52)\* SQLQuery1.sql - DE\_P-CJ60CRS1TJ (55)\* SQLsql - DESKTOP-P-CJ60CRS1TJ (62)\* - v80E6.sql - DESKTOP-P-CJ60CRS1TJ (61)

```
----- 3
select top 20 a.City, sum(c.Invoice_Sale_Dollars) as total_sales from dbo.Dim_iowa_city a, dbo.Dim_Iowa_Liquor_Stores b,
where a.City_SK = b.City_SK
and b.Store_ID = c.Store_Number
group by a.City
order by total_sales desc;

----- 4
select top 10 a.County, sum(c.Invoice_Sale_Dollars) as total_sales from dbo.Dim_iowa_county a, dbo.Dim_Iowa_Liquor_Stores b,
where a.County_SK = b.County_SK
and b.Store_ID = c.Store_Number
group by a.County
order by total_sales desc;
```

119 %

Results Messages

County	total_sales
Polk County	789821270.3900
Linn County	260252462.0600
Scott County	250057258.8100
Johnson County	194227457.2800
Black Hawk County	180975983.4800
Woodbury County	121082802.2400
Dubuque County	103792134.9600
Story County	102265882.7700
Dallas County	83905608.0500
Pottawattamie County	58276170.8100

Query executed successfully.

Ln 103 Col 1 Ch 1 INS

DESKTOP-CJ60CRS1 (15.0 RTM) DESKTOP-CJ60CRS1TJ (62) Iowa 00:00:00 10 rows

11:20 PM 4/7/2023

```

select top 20 a.Category_Name, sum(c.Sale_Dollars) as total_sales
from dbo.Dim_Iowa_Liquor_Product_Categories a,
dbo.Dim_iowa_liquor_Products b, dbo.fct_iowa_liquor_sales_invoice_lineitem c
where a.Category_SK = b.Category_SK
and b.Item_SK = c.Item_SK
group by a.Category_Name
order by total_sales desc;

```

The screenshot shows the Microsoft SQL Server Management Studio interface with three query windows:

- Object Explorer:** Shows the database schema with various tables, views, and stored procedures.
- SQLQuery1.sql - DESKTOP-CJ6OCRS\Tj (55)\*:**

```

where a.County_SK = b.County_SK
and b.Store_ID = c.Store_Number
group by a.County
order by total_sales desc;

----- 5
select top 20 a.Category_Name, sum(c.Sale_Dollars) as total_sales
from dbo.Dim_Iowa_Liquor_Product_Categories a
dbo.Dim_iowa_liquor_Products b, dbo.fct_iowa_liquor_sales_invoice_lineitem c
where a.Category_SK = b.Category_SK
and b.Item_SK = c.Item_SK
group by a.Category_Name
order by total_sales desc;
----- 6

```
- Results:** Displays the results of the fifth query, showing the top 20 categories by total sales.

Category_Name	total_sales
AMERICAN VODKAS	40377517.7400
CANADIAN WHISKIES	37673722.3100
STRAIGHT BOURBON WHISKIES	19650258.1200
WHISKEY LIQUEUR	171792214.8500
SPICED RUM	106957974.3100
100% AGAVE TEQUILA	103837153.4600
CREAM LIQUEURS & LIQUEUR	95377153.4600
IMPORTED BRANDIES	95454899.6500
TENNESSEE WHISKIES	73232185.2900
IRISH WHISKIES	67146998.9200
BLENDED WHISKIES	66188681.5700
AMERICAN FLAVORED VODKA	65805012.0500
IMPORTED VODKAS	61826216.7300
CREAM LIQUEUR	53748925.1900
AMERICAN SCHNAPPS	52548035.4300
MIXTO TEQUILA	50332231.3700
SCOTCH WHISKIES	48837708.4600

```

select top 50 a.Item_Description, sum(b.Sale_Dollars) as total_sales from
dbo.Dim_iowa_liquor_Products a, dbo.fct_iowa_liquor_sales_invoice_lineitem b
where a.Item_SK = b.Item_SK
group by a.Item_Description
order by total_sales desc;

```

SQL Server Management Studio - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\Tj (62))

Object Explorer

File Edit View Query Project Tools Window Help

SQLQuery2.sql - DE-P-CJ60CRS\Tj (52)\* SQLQuery1.sql - DE-P-CJ60CRS\Tj (55)\* SQLsql - DESKTOP-CJ60CRS\Tj (62)\* -vs80E6.sql - DESK-P-CJ60CRS\Tj (61)

```

order by total_sales desc;

----- 6
select top 50 a.Item_Description, sum(b.Sale_Dollars) as total_sales from dbo.Dim_iowa_liquor_Products a, dbo.fct_iowa_liq
where a.Item_SK = b.Item_SK
group by a.Item_Description
order by total_sales desc;

----- 7
select top 20 a.Vendor_Name, sum(c.Sale_Dollars) as total_sales from dbo.Dim_iowa_liquor_Vendors a, dbo.Dim_iowa_liquor_Pr
where a.Vendor_SK = b.Vendor_SK
and b.Item_SK = c.Item_SK
group by a.Vendor_Name
order by total_sales desc;

```

Results

Item_Description	total_sales
BLACK VELVET	137938974900
TITOS HANDMADE VODKA	1350510778300
FIREBALL CINNAMON WHISKEY	856232079600
CROWN ROYAL	721436050200
CAPTAIN MORGAN ORIGINAL SPICED	557810761400
HAWKEYE VODKA	557224580500
CROWN ROYAL REGAL APPLE	548180520400
JAMES BOND	545180520400
REHABESSY VS	500000000100
JIM BEAM	442016391200
JAERMEISTER LIQUEUR	440651402000
JACK DANIELS OLD #7 BLACK LABEL	417428530700
FIVE O'CLOCK VODKA	307846696900
PATRON SILVER	255928605000
BARTON VODKA	240209874200
TANGUERAY GIN	232556716300
GRANDMACE INDIAN	229816000000

Query executed successfully.

LN 119 Col 1 Ch 1 INS

DESKTOP-CJ60CRS (15.0 RTM) DESKTOP-CJ60CRS\Tj (62) Iowa 00:00:03 50 rows

Ready 43°F Cloudy Search 11:22 PM 4/7/2023

```

select top 20 a.Vendor_Name, sum(c.Sale_Dollars) as total_sales from
dbo.Dim_iowa_liquor_Vendors a, dbo.Dim_iowa_liquor_Products b,
dbo.fct_iowa_liquor_sales_invoice_lineitem c
where a.Vendor_SK = b.Vendor_SK
and b.Item_SK = c.Item_SK
group by a.Vendor_Name
order by total_sales desc;

```

SQL Server Management Studio - DESKTOP-CJ60CRS\owa (DESKTOP-CJ60CRS\Tj (62))

Object Explorer

File Edit View Query Project Tools Window Help

SQLQuery2.sql - DE-P-CJ60CRS\Tj (52)\* SQLQuery1.sql - DE-P-CJ60CRS\Tj (55)\* SQLsql - DESKTOP-CJ60CRS\Tj (62)\* -vs80E6.sql - DESK-P-CJ60CRS\Tj (61)

```

order by total_sales desc;

----- 6
select top 50 a.Item_Description, sum(b.Sale_Dollars) as total_sales from dbo.Dim_iowa_liquor_Products a, dbo.fct_iowa_liq
where a.Item_SK = b.Item_SK
group by a.Item_Description
order by total_sales desc;

----- 7
select top 20 a.Vendor_Name, sum(c.Sale_Dollars) as total_sales from dbo.Dim_iowa_liquor_Vendors a, dbo.Dim_iowa_liquor_Pr
where a.Vendor_SK = b.Vendor_SK
and b.Item_SK = c.Item_SK
group by a.Vendor_Name
order by total_sales desc;

```

Results

Vendor_Name	total_sales
DIAGEO AMERICAS	4832664304900
SARAZAC COMPANY INC	3893158416000
JIM BEAM BRANDS	2120880085700
HEAVEN HILL BRANDS	2107408443000
PERNOD RICARD USA	1539294652000
LUXCO INC	1512548151100
FIFTH GENERATION INC	1366608826300
BACARDI USA INC	1204900664400
BROOKMAN CORP.	900761751600
PROGRESS	795500000000
E & J GALLO WINERY	695458973600
MOET HENNESSY USA	607153420300
PHILLIPS BEVERAGE	501581156800
LAIRD & COMPANY	494634705900
MAST-JAERMEISTER US, INC	488258121400
CAMPARI AMERICA	368100445700
DEMUY COMPTEAU U.S.A. INC	303043601800

Query executed successfully.

LN 125 Col 1 Ch 1 INS

DESKTOP-CJ60CRS (15.0 RTM) DESKTOP-CJ60CRS\Tj (62) Iowa 00:00:04 20 rows

Ready 43°F Cloudy Search 11:22 PM 4/7/2023

