

### **B.11 query11.tpl**

Find customers whose increase in spending was large over the web than in stores this year compared to last year.

Qualification Substitution Parameters:

- YEAR.01 = 2001
- SELECTONE = t\_s\_secyar.customer\_preferred\_cust\_flag

Query :

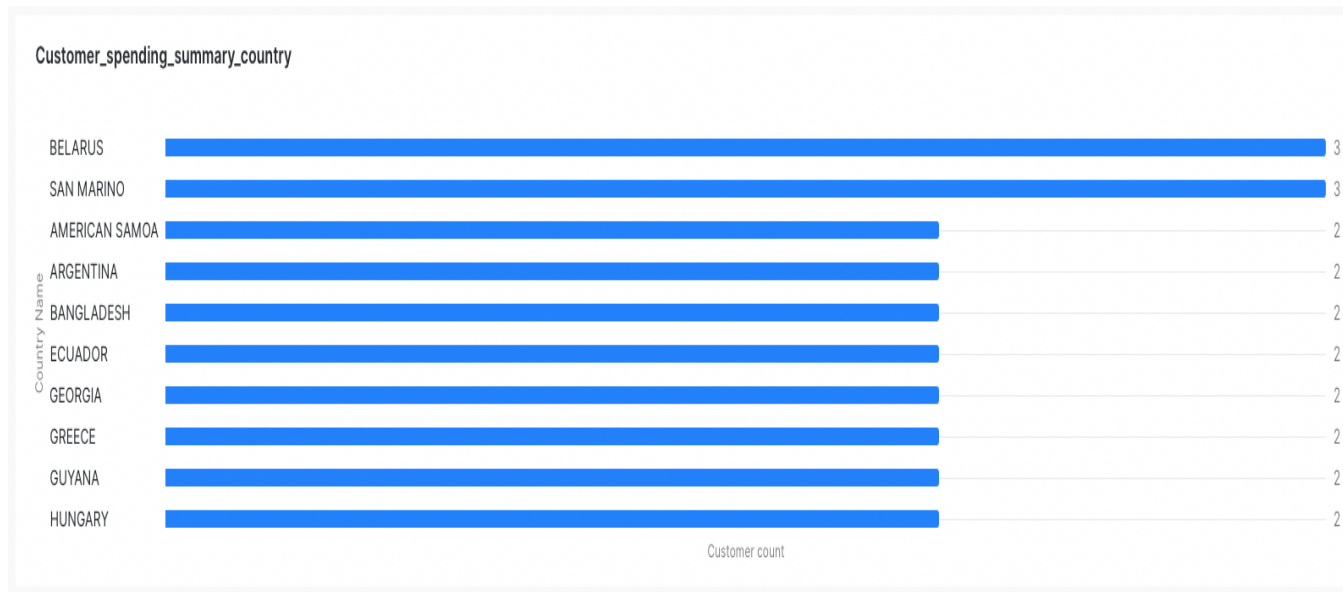
-----  
[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query11.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query11.sql)

LIMIT 100;

-----Data is limited to 100 for visualization and data retrieval purposes-----

### **Targeted dashboard and use cases:**

- Customers in Belarus and San Marino has increase in spending over the web than in stores this year compared to last year when compared to other countries
- This Data can be used to improve web stores in certain countries as we can see year-on-year growth in customer spending
- This data can help us to reduce the stores marketing cost and inventory as customers are leaning towards web stores
- Below is the visual representation of customer spending summary over top 10 countries



## **B.12 query12.tpl**

Compute the revenue ratios across item classes: For each item in a list of given categories, during a 30 day time period, sold through the web channel compute the ratio of sales of that item to the sum of all of the sales in that item's class.

Qualification Substitution Parameters

- CATEGORY.01 = Sports
- CATEGORY.02 = Books
- CATEGORY.03 = Home
- SDATE.01 = 1999-02-22
- YEAR.01 = 1999

Query :

-----  
[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query12.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query12.sql)

-----Data is limited to 10000 for visualization purposes-----

## **Targeted dashboard and use cases:**

- For each item in a list of given categories, during a 30 day time period, sold through the web channel, **BOOKS** category average revenue ratio is high.

- When considering the item class sum with the average revenue ratio, item class **HOCKEY** has a high revenue ratio.
- The data can be helpful for marketing the products with respect to the product class and categories with the help of average revenue ratio and time period.

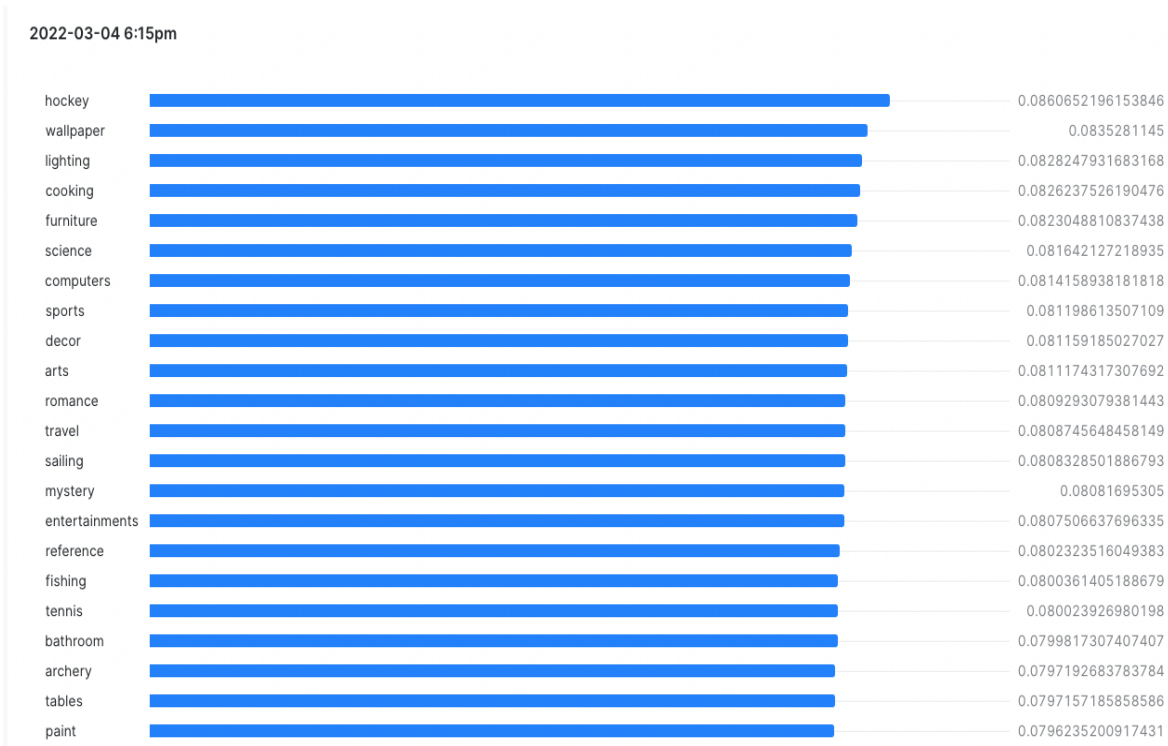
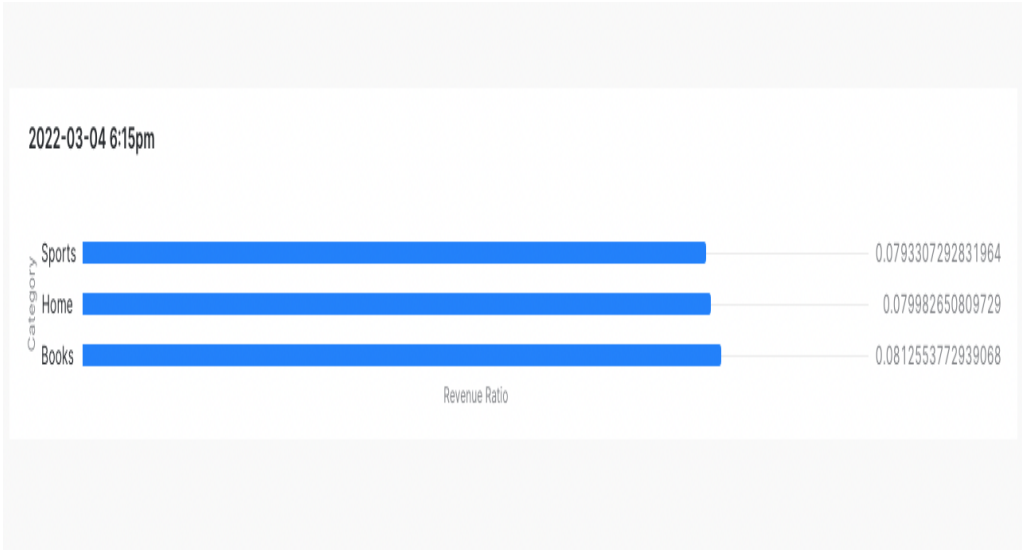


Chart type Bar

Data

REVENUERATIO average

LCLASS none Y-Axis

+ Add column

Appearance

Orientation Bar

Order bars by Bar size

Order direction Descend...

Series direction Descend...

☒ Label X-Axis Revenue Ratio

☒ Label Y-Axis Category

☐ Limit number of bars

### **B.13 query13.tpl**

Calculate the average sales quantity, average sales price, average wholesale cost, total wholesale cost for store sales of different customer types (e.g., based on marital status, education status) including their household demographics, sales price and different combinations of state and sales profit for a given year.

Qualification Substitution Parameters:

- STATE.01 = TX
- STATE.02 = OH
- STATE.03 = TX
- STATE.04 = OR
- STATE.05 = NM
- STATE.06 = KY
- STATE.07 = VA
- STATE.08 = TX
- STATE.09 = MS
- ES.01 = Advanced Degree
- ES.02 = College
- ES.03 = 2 yr Degree
- MS.01 = M
- MS.02 = S
- MS.03 = W

Query :

-----  
[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query13.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query13.sql)

-----Data is limited to 10000 for visualization purposes-----

### **Targeted dashboard and use cases:**

- When considered store sales of different customer types including their household demographics, sales price and different combinations of state and sales profit for a given year
- The total wholesale cost for store sales of different customer types is 150 million and average sales quantity is 32, average sales price is 2388, average wholesale cost is 2180
- This data is used to estimate the average sales quantity, sales price, wholesale cost with respect to the filtered demographics for better marketing approach

Objects

Query

Results

Chart

	AVG(SS_QUANTITY)	AVG(SS_EXT_SALES_PRICE)	...	AVG(SS_EXT_WHOLESALE_COST)	SUM(SS_EXT_WHOLESALE_COST)
1	32	2,388		2,180	150,775,739

### **B.14 query14.tpl)**

This query contains multiple iterations:

Iteration 1: First identify items in the same brand, class and category that are sold in all three sales channels in two consecutive years. Then compute the average sales (quantity\*list price) across all sales of all three sales channels in the same three years (average sales). Finally, compute the total sales and the total number of sales rolled up for each channel, brand, class and category. Only consider sales of cross channel sales that had sales larger than the average sale.

Query :

-----  
[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query14.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query14.sql)

### **Targeted dashboard and use cases:**

- The below data fetches the sales data of two consecutive months with multiple insights as we can see there is an increase in sales in the month of december
- This data can be useful to compare the cross channel sales with respect to channel, brands, class and category.

<div> <div>Objects</div> <div>Query</div> <div>Results</div> <div>Chart</div> </div>										
	IRY_ID	SALES	NUMBER_SALES	CHANNEL	I_BRAND_ID	I_CLASS_ID	I_CATEGORY_ID	...	SALES	NUMBER_SALES
1	1	6,668,093,247.73	1,807,822	store	1001001	1	1		12,857,976,245.9	3,486,453
2	1	8,293,484,551.99	2,243,488	store	1001002	1	1		6,579,005,003.8	1,785,003
3	1	6,526,163,690.17	1,766,504	store	1002001	2	1		12,693,459,429.91	3,438,285
4	1	8,280,568,170.18	2,251,421	store	1002002	2	1		6,450,616,639.28	1,751,728
5	1	6,679,975,028.51	1,814,462	store	1003001	3	1		12,917,947,497.93	3,497,561
6	1	8,277,381,044.99	2,243,307	store	1003002	3	1		6,315,358,305.39	1,716,448
7	1	6,569,937,767.27	1,777,703	store	1004001	4	1		12,757,875,069.31	3,462,544
8	1	8,053,553,088.43	2,182,370	store	1004002	4	1		6,325,196,809.14	1,712,540
9	2	6,816,165,665.57	1,849,042	store	2001001	1	2		12,884,149,256.33	3,492,626
10	2	8,241,757,843.3	2,235,101	store	2001002	1	2		6,369,344,631.99	1,723,955
11	2	6,632,539,137.62	1,799,223	store	2002001	2	2		12,721,778,440.26	3,447,538
12	2	7,966,546,534.66	2,157,203	store	2002002	2	2		6,191,463,654.86	1,675,600
13	2	6,552,289,802.36	1,777,325	store	2003001	3	2		12,795,334,660.5	3,469,343
14	2	7,749,751,303.54	2,100,505	store	2003002	3	2		6,045,236,006.88	1,635,312

### B.15 query15.tpl

Report the total catalog sales for customers in selected geographical regions or who made large purchases for a given year and quarter.

Qualification Substitution Parameters:

- QOY.01 = 2
- YEAR.01 = 2001

Query :

-----  
[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query15.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query15.sql)

### Targeted dashboard and use cases:

- Below data gives the total catalog sales for customers in selected geographical regions or who made large purchases for a given year and quarter with respect to zip code.
- This data can be used to improve catalog sales in selected geographics in certain year and quarter.



-

Query - 16

Report number of orders, total shipping costs and profits from catalog sales of particular counties and states for a given 60 day period for non-returned sales filled from an alternate warehouse.

Qualification Substitution Parameters:

- COUNTY\_E.01 = Williamson County
- COUNTY\_D.01 = Williamson County
- COUNTY\_C.01 = Williamson County
- COUNTY\_B.01 = Williamson County
- COUNTY\_A.01 = Williamson County
- STATE.01 = GA
- MONTH.01 = 2
- YEAR.01 = 2002

### **Query-**

[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query16.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query16.sql)

### **Explanation -**

For the given constraints there is no obtainable data

- COUNTY\_E.01 = Williamson County
- COUNTY\_D.01 = Williamson County
- COUNTY\_C.01 = Williamson County
- COUNTY\_B.01 = Williamson County
- COUNTY\_A.01 = Williamson County
- STATE.01 = GA
- MONTH.01 = 2
- YEAR.01 = 2002

**Use Case Scenario** - we can analyze the store's sales their shipping expenditure for a specific region, this data can be used to understand to compare a particular time window and see how the total market is moving on a global trend

### **Query -17**

Analyze, for each state, all items that were sold in stores in a particular quarter and returned in the next three quarters and then re-purchased by the customer through the catalog channel in the three following quarters.

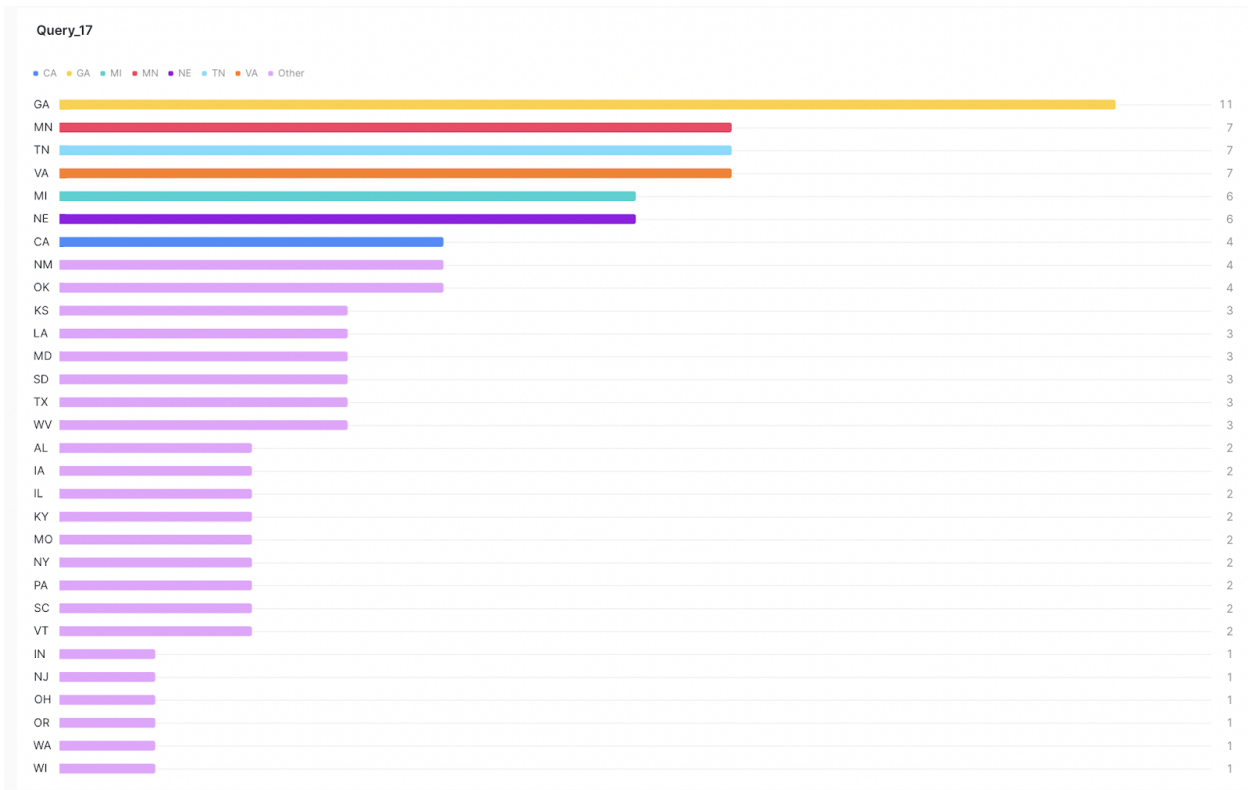
Qualification Substitution Parameters:

- YEAR.01 = 2001

### **Query -**

[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query17.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query17.sql)





Insights -

Explanation -

From the above Graph we can see the total sales across all states

**Use Case Scenario** - The above can be used to Understand which State has more sales, which can be used to to assess various marketing and Decision making processes, like expanding more in a particular state etc.

### Query - 18

Compute, for each county, the average quantity, list price, coupon amount, sales price, net profit, age, and number of dependents for all items purchased through catalog sales in a given year by customers who were born in a given list of six months and living in a given list of seven states and who also belong to a given gender and education demographic.

Qualification Substitution Parameters:

- MONTH.01 = 1
- MONTH.02 = 6
- MONTH.03 = 8

- MONTH.04 = 9
- MONTH.05 = 12
- MONTH.06 = 2
- STATE.01 = MS
- STATE.02 = IN
- STATE.03 = ND
- STATE.04 = OK
- STATE.05 = NM
- STATE.06 = VA
- STATE.07 = MS
- ES.01 = Unknown
- GEN.01 = F
- YEAR.01 = 1998

#### **Query -**

[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query18.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query18.sql)

#### **Explanation -**

For this specific query the run time is more and if we limit the data to 1000 in that case the retrieved data belongs to the same region. The limited insights from the limited data does not tell a compelling story.

**Use Case Scenarios-** Based on the question asked we can analyze the buying patterns of the customers and the analyze which particular product is being returned so that we can make certain decisions to limit it.

#### **Query - 19**

Select the top revenue generating products bought by out of zip code customers for a given year, month and manager. Qualification Substitution Parameters

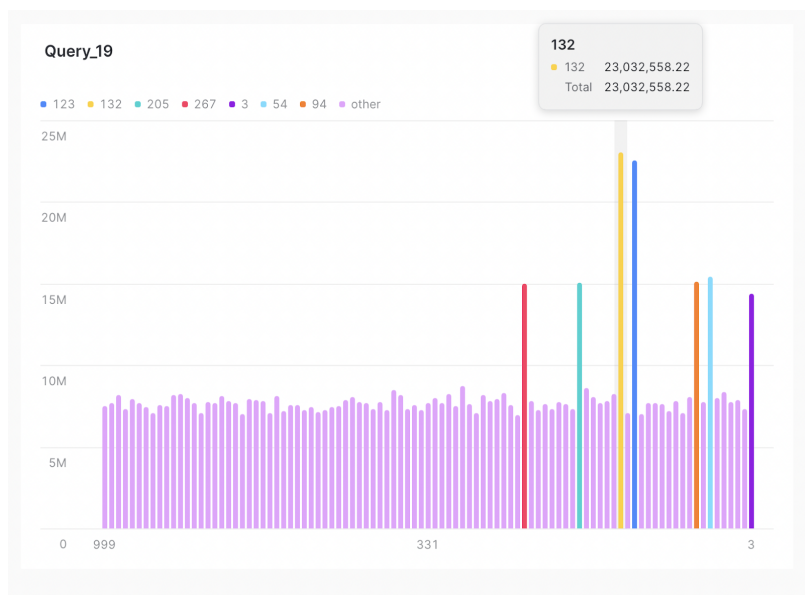
- MANAGER.01 = 8

- MONTH.01 = 11
- YEAR.01 = 1998

### Query -

[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query19.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query19.sql)

### Insights -



### Explanation -

The above Bar graph depicts the sales comparison across various manufacturers, the graph shows that manufacturer\_id had the most Revenue.

**Use Case scenario -** In the Query we worked on getting the top revenue generating products, this can be used to make various business decisions like increasing the inventory of products generating more revenue and also focusing on the same products in other regions as well etc.

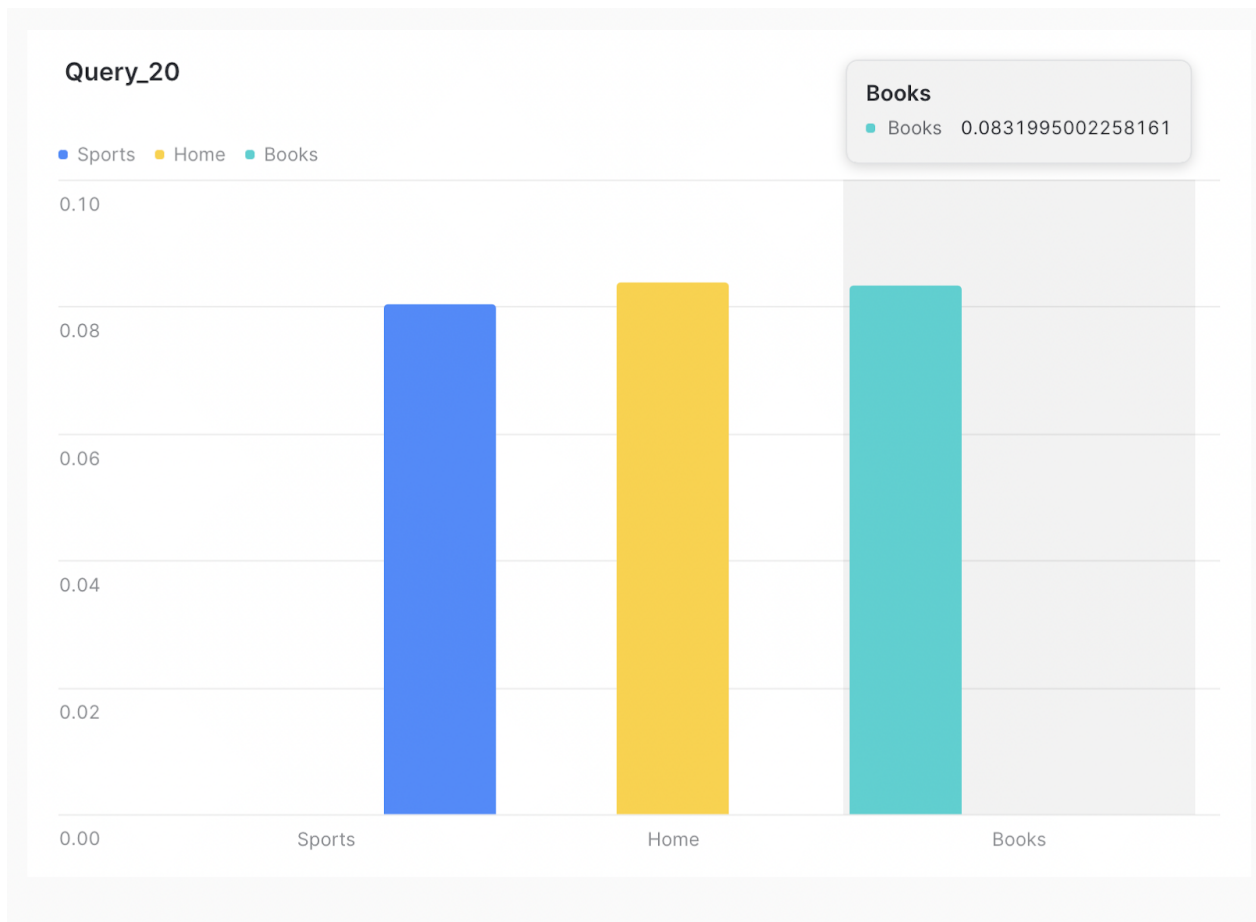
## Query - 20

Compute the total revenue and the ratio of total revenue to revenue by item class for specified item categories and time periods. Qualification Substitution Parameters:

- CATEGORY.01 = Sports
- CATEGORY.02 = Books
- CATEGORY.03 = Home
- SDATE.01 = 1999-02-22
- YEAR.01 = 1999

## Query -

[https://github.com/anveshvarma269/ADM\\_ASSIGNMENT3\\_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query20.sql](https://github.com/anveshvarma269/ADM_ASSIGNMENT3_TEAM2/blob/b7cf3ffee4c566d62d3c6cb3c416e0fb266a4cd3/Query20.sql)



Insights -

Explanation -

Based on the insights we can deduce that the ratio of revenue generated by Books is the highest followed by Home and Sports

**Use Case Scenario-** In the above graphs we can see the total revenue ratio of the three items books,home and sports we can use this data to understand which items are performing good and make certain decisions that would be beneficial for the business.

