

ALPHAMART'S SALES PERFORMANCE ANALYSIS

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Project Description:

In the competitive world of retail, understanding sales performance is essential for growth and sustainability. AlphaMart recognizes the importance of data-driven decision-making in navigating this landscape.

Aim:

to uncover valuable insights from AlphaMart's sales data.

Objectives:

Analyzing

1. Revenue Trends
2. Geographical Sales Distribution
3. Customer Demographics
4. Top Product Performance
5. Key Performance Indicators

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Learning outcomes:

1. Understanding chart types for univariate, bivariate, and multivariate analysis
2. Building and customizing geographical visualizations
3. Designing key performance indicators (KPIs)
4. Utilizing filters
5. Understanding level of details

TASK 1

Import the data from the file **‘AlphaMart Sales Dataset’**.

[Link](#)

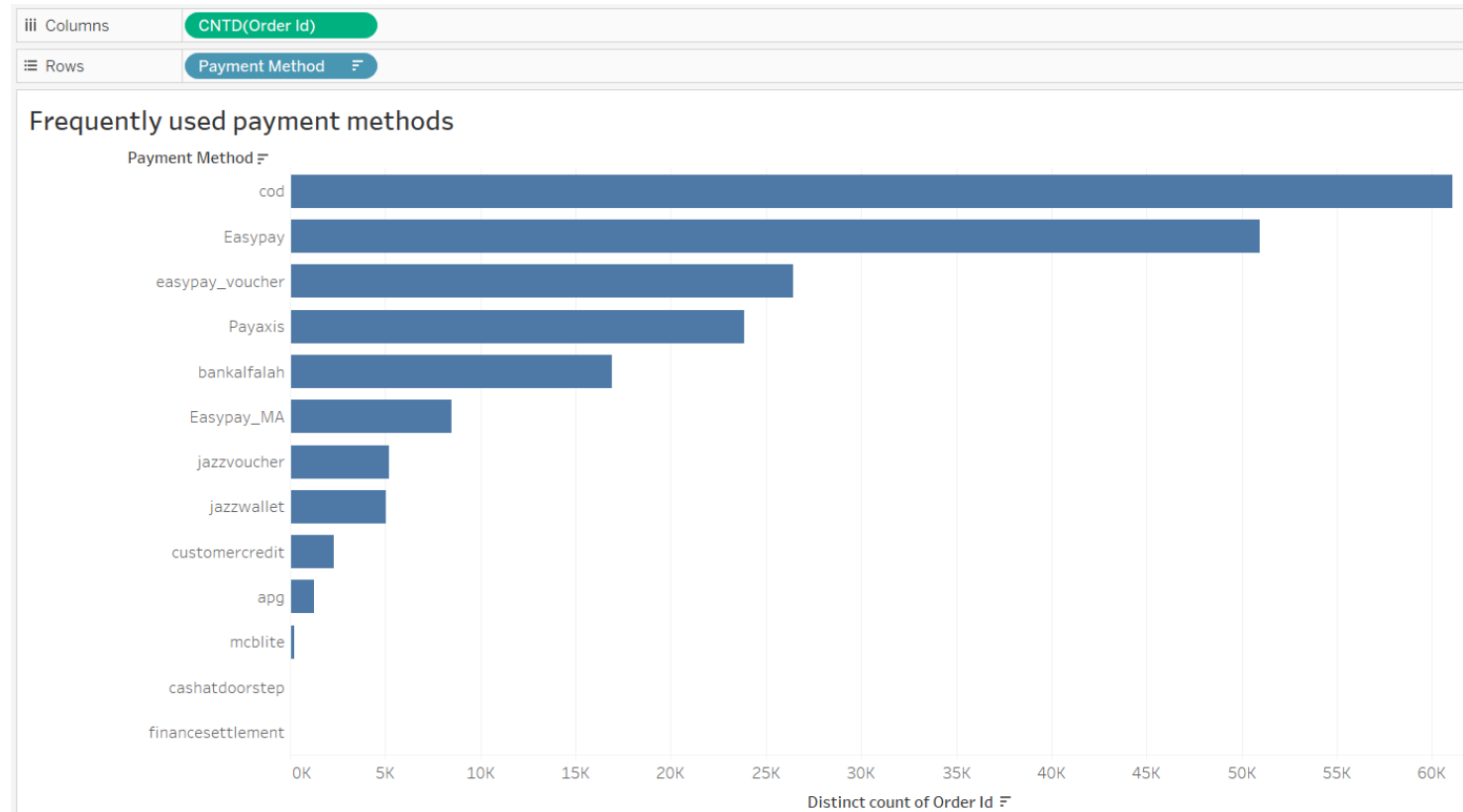
TASK 2

Find out the most frequently used payment methods for purchasing items.

COLUMN CHART

Purpose:

To compare numerical values across categories.



TASK 3

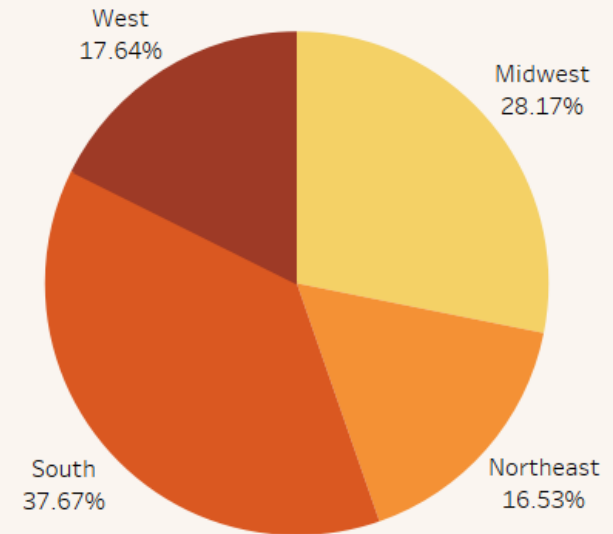
Visualize the percentage distribution of sales across different regions.

PIE CHART

Purpose:

Display proportions of a whole to highlight category contributions

Regionwise revenue distribution



TASK 4

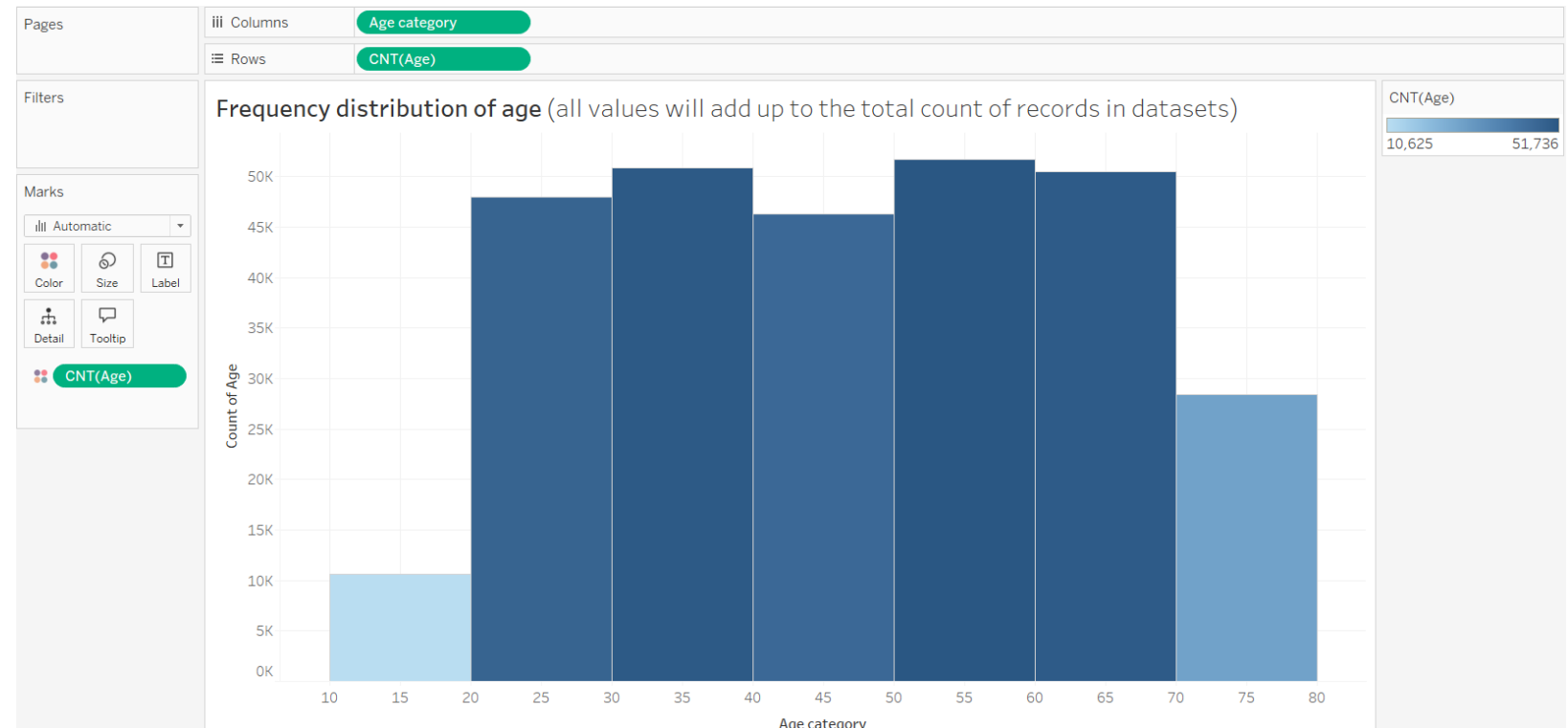
Visualize the frequency distribution of customer ages.

HISTOGRAM CHART

Purpose:

visualize the frequency distribution of customer ages

Columns: Bins of Age with size 10



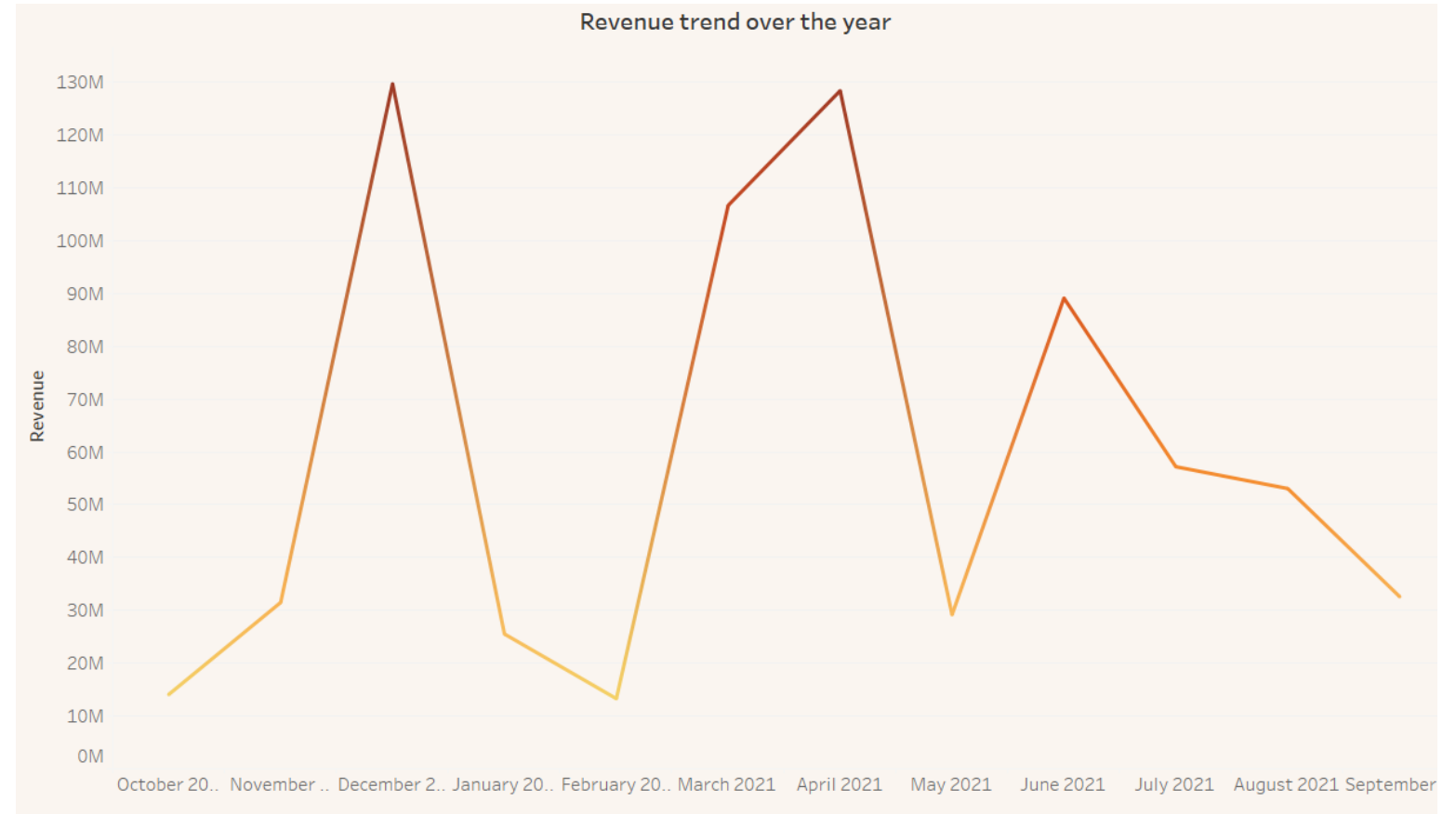
Task 5

Analyze the sales trend over the year.
(October 2020 to November 2021)

LINE CHART

Purpose:

Show the sales trend over the year.



Task 6

Visualize sales from states using geographical map.

SUM(Revenue)

952,115 45,468,618

Compare Visualize data distribution across geographic locations to identify patterns and trends.

Task 7

Create a KPI for a sales in a month.

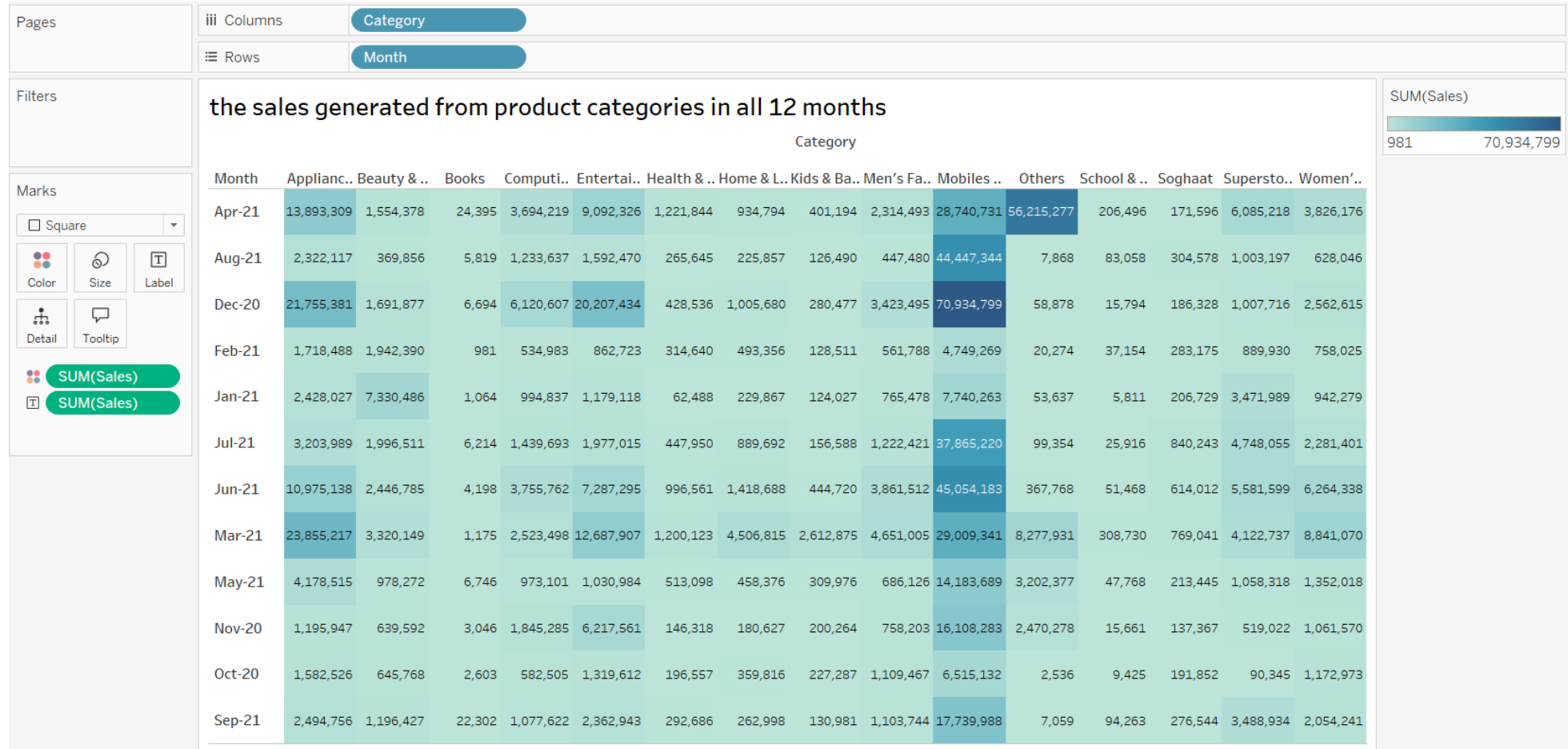
KPI



Task 8

Visualize the sales generated from product categories in all 12 months.
Find out the product category which is generating highest sales in a month.

Heatmap



Task 9

Find the top 5 product categories generating highest sales.
Also, visualize the gender wise contribution to the sales.

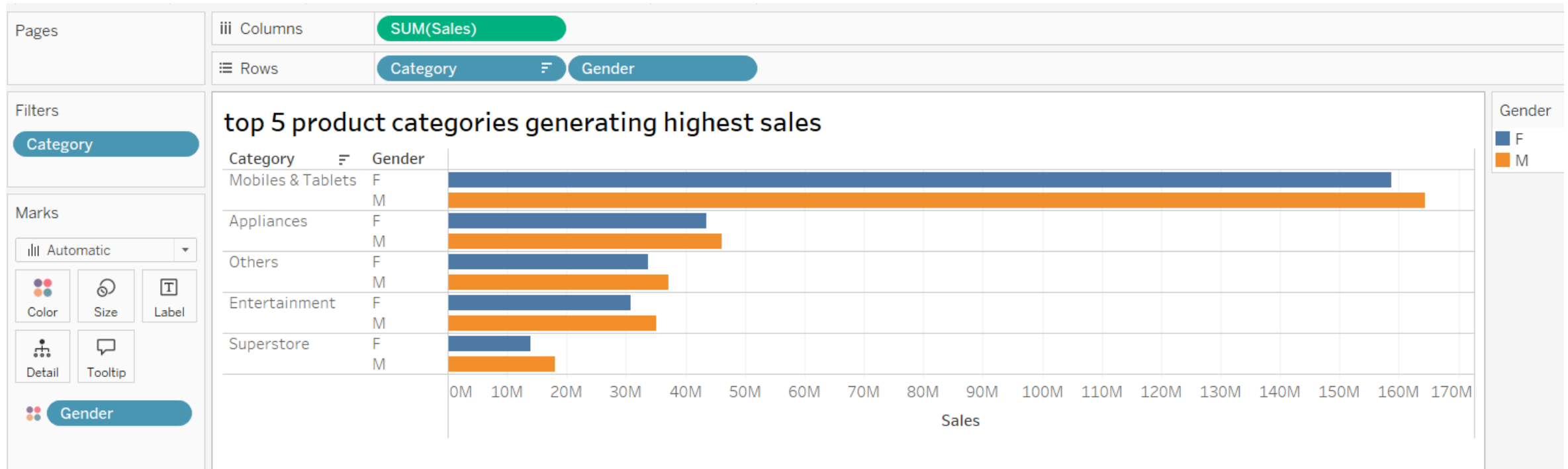
FILTERS

Filters:

Filters in Tableau are used to refine and control the data displayed in visualizations, allowing for focused analysis and better insights.

1. Selection filter
2. Wildcard filter
3. Condition filter
4. Top 'N' filter

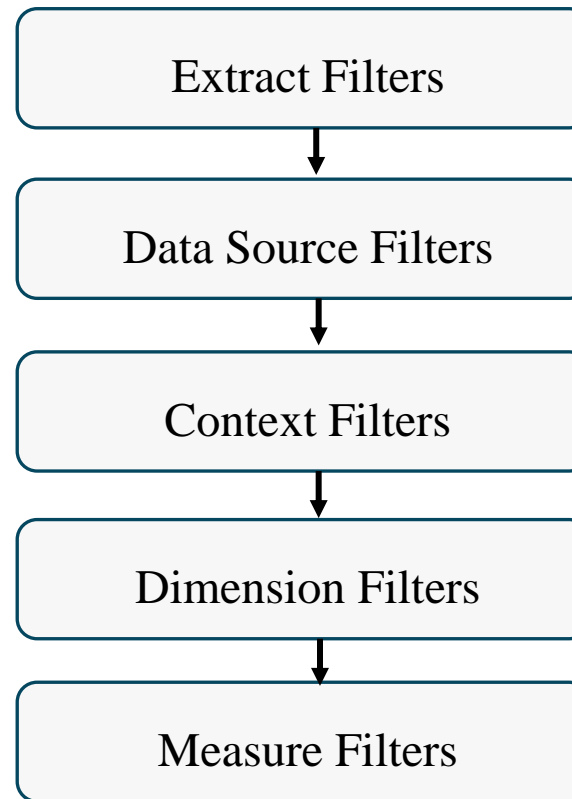
Dimension Filter



Task 10

Find top 5 product categories which are generating highest sales from southern region.

Order of Filter Execution



Filters

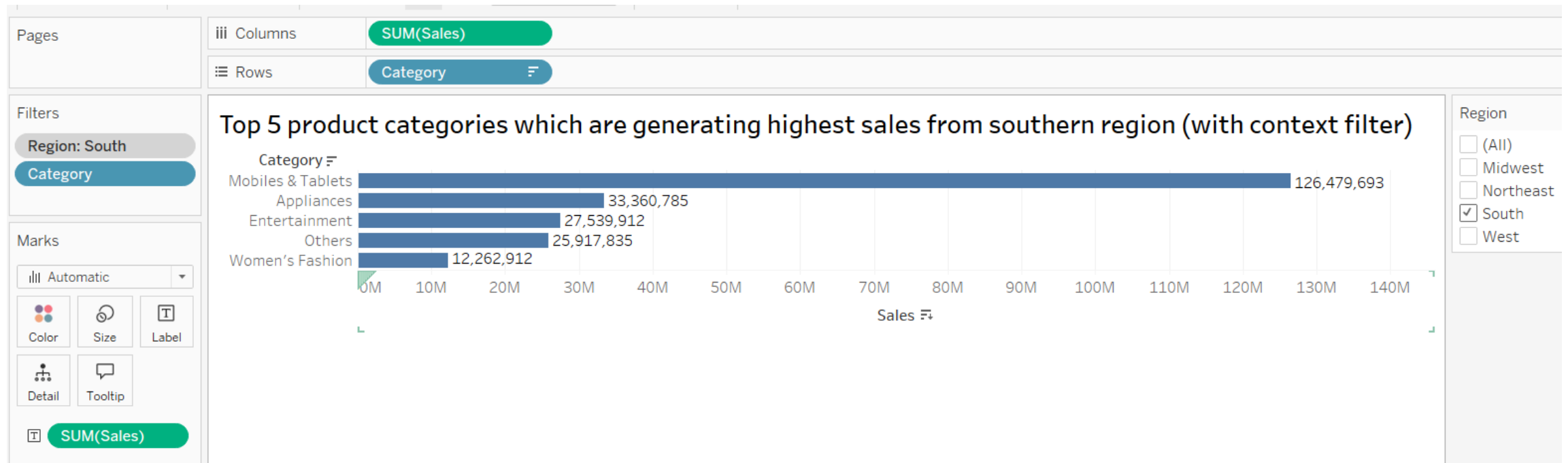
Context Filter:

Creates a **context** or **subset of data** that other filters will be applied to. It essentially sets a "context" for the remaining filters, ensuring that subsequent filters only affect the data within this subset.

Regular Filter:

Applies directly to the data, without setting a context for other filters. It works independently of other filters.

Find top 5 product categories which are generating highest revenue from southern region.



Task 11

Using geographical map, visualize the sales generated from states.

Include the sales generated per region in tooltip.

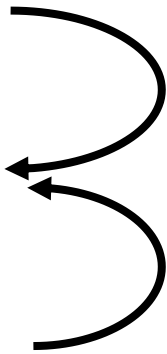
Level of Details

Refers to the granularity at which data is analyzed or aggregated in a visualization.

High ↑ Aggregation ↓ Low	Total sales = 2297201		1	Granularity ↓ Low High
	Category		3	
	Office Supplies	719,047		
Low	Furniture	742,000	12	High
	Technology	836,154		
	Category	Region		
	Office	Central		
	Supplies	East		
		South		
		West		
	Furniture	Central		
		East		
		South		
		West		
	Technology	Central		
		East		
		South		
		West		

Changing the Level of Details

LOD 1
LOD 2
LOD 3
LOD 4 (Current)
LOD 5
LOD 6
LOD 7
LOD 8



Exclude / Fixed
(will get duplicates)

Include / Fixed
(along with aggregation)

TYPES OF LOD

Fixed

- Calculates values at a fixed level of detail
- **Independent** of the dimensions in the view
- Not affected by dimension filter

{FIXED <list of dimensions> : Aggregations }

TYPES OF LOD

Exclude

- Removes a dimension from the level of detail in the view, calculating more aggregated values.
- Affected by dimension filter

{EXCLUDE <list of dimensions> : Aggregations}

TYPES OF LOD

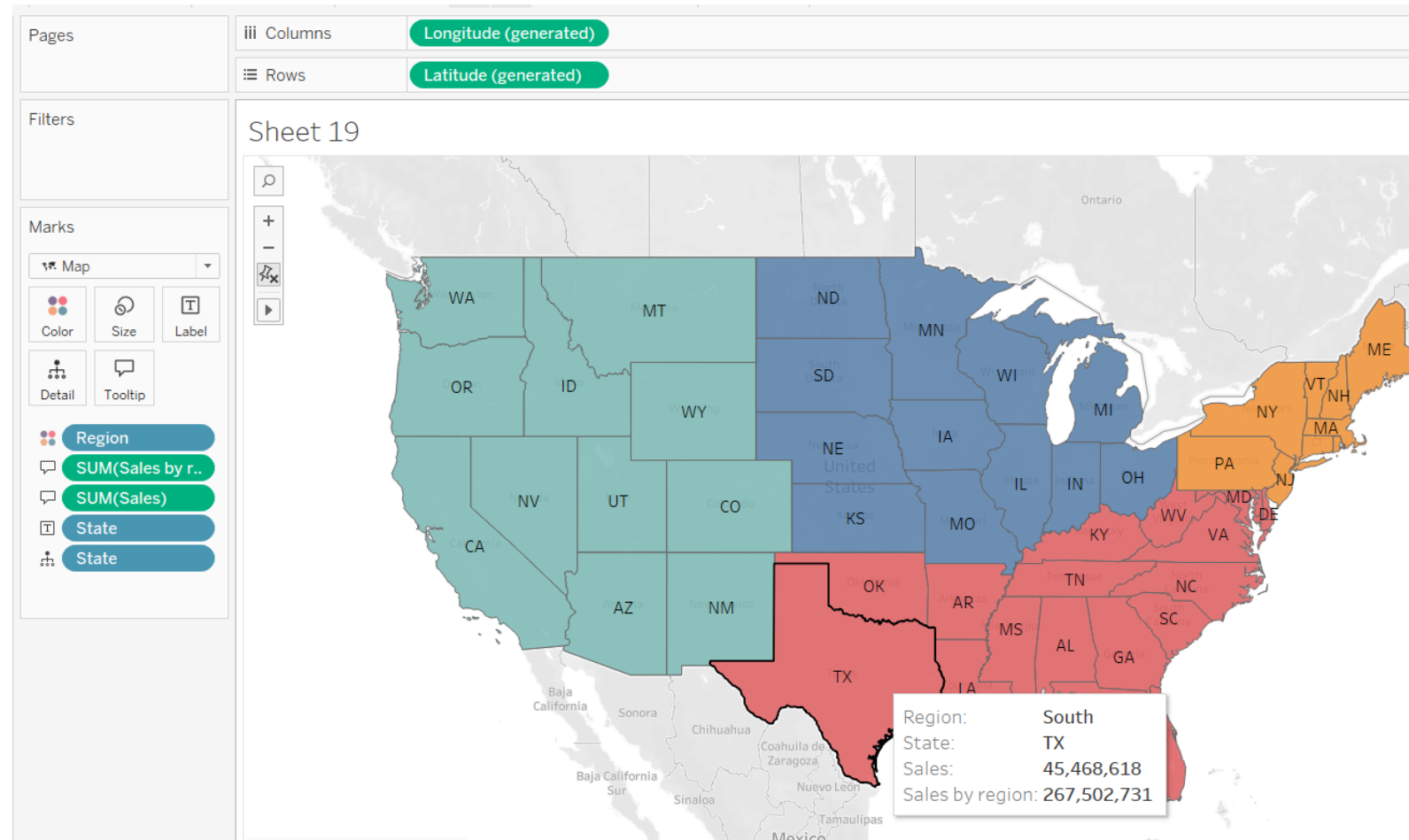
Include

- Adds a calculated expression to the existing level of detail in the view
- Affected by dimension filter

{INCLUDE <list of dimensions> : Aggregations}

Using geographical map, visualize the sales generated from states.

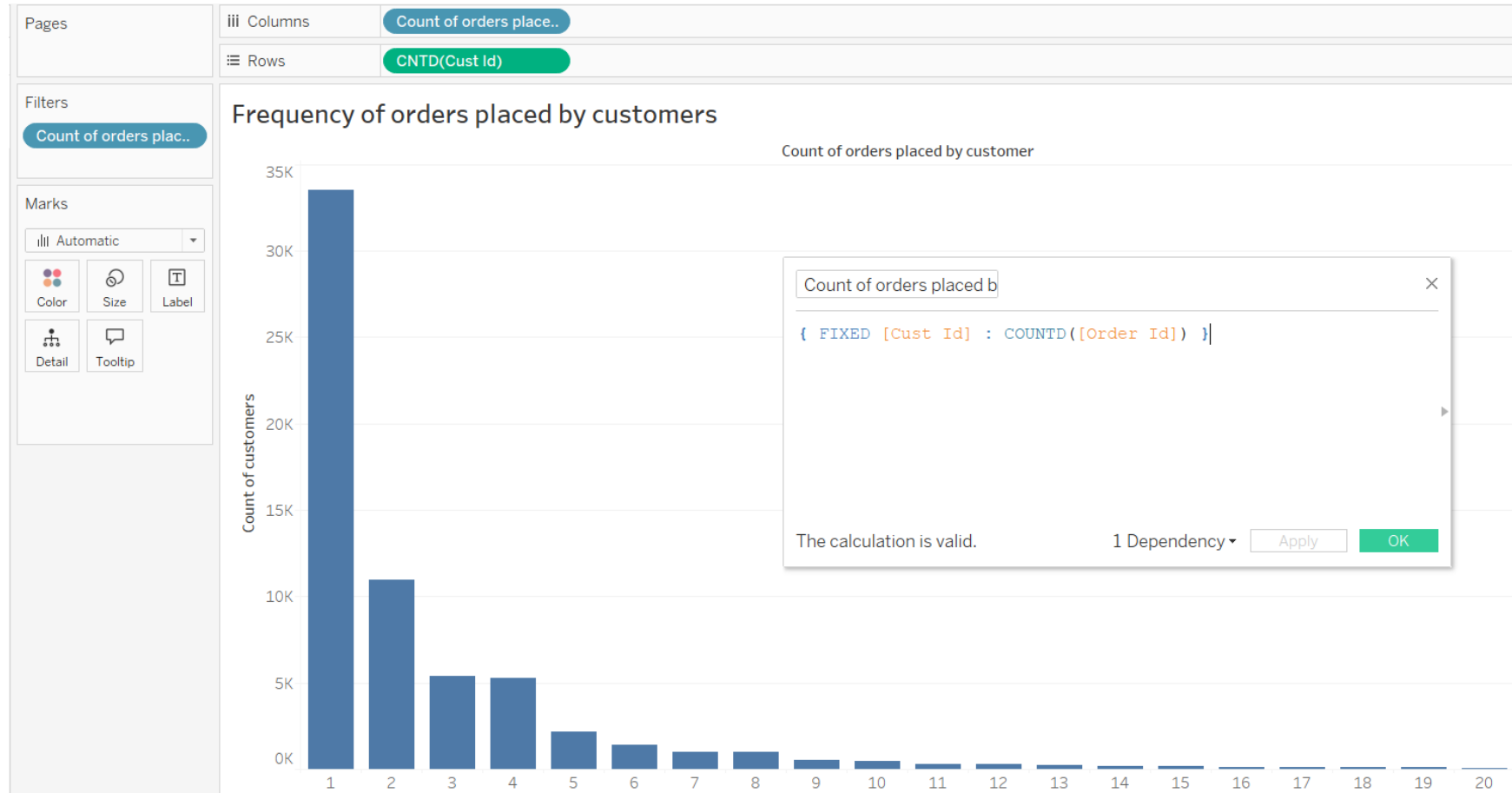
Include the revenue generated per region in tooltip.



Task 12

Find the frequency of orders placed by customers.

Find the frequency of orders placed by customers.



Task 13

Visualize sales contribution (in percentage) by region, categorized by gender.

(Hint: Use exclude LOD)

Visualize revenue contribution (in percentage) by region, categorized by gender.

Pages

Filters

Marks

Measure Values

iii Columns

Measure Names

Rows

Gender

Region

Sheet 20

Gender	Region	Sales	Total sales by gender (Fixed LOD)	Percentage
F	Midwest	89,452,362	340,978,783	26.23%
	Northeast	57,721,436	340,978,783	16.93%
	South	127,425,146	340,978,783	37.37%
	West	66,379,839	340,978,783	19.47%
	Total	340,978,783	340,978,783	100.00%
M	Midwest	110,647,126	369,296,851	29.96%
	Northeast	59,672,985	369,296,851	16.16%
	South	140,077,585	369,296,851	37.93%
	West	58,899,155	369,296,851	15.95%
	Total	369,296,851	369,296,851	100.00%
Grand Total		710,275,634	710,275,634	100.00%

Measure Values

SUM(Sales)

SUM(Total sales by g..)

AGG(Percentage)

Task 14

Compute average sales from states from each region.

(Note: Compute the average by considering sales from cities in the respective states.)

Pages

Filters

Measures

Measure Values

Columns

Rows

Measure Names

Region

State

Average revenue from states from each region

Region	State	revenue	Average revenue from states from each region
Midwest	IA	17,290,472	22,632
	IL	36,340,461	36,268
	IN	17,101,005	28,454
	KS	9,831,997	19,431
	MI	18,694,205	26,293
	MN	17,107,671	25,803
	MO	23,751,164	30,568
	ND	6,996,176	22,789
	NE	9,233,737	22,090
	OH	26,618,282	32,422
Northeast	SD	5,669,607	17,662
	WI	11,464,709	18,432
	CT	5,767,429	27,077
	MA	12,359,713	20,711
	ME	7,764,976	
	NH	3,966,230	
	NJ	13,949,926	
	NY	35,020,453	
	PA	30,051,234	
	RI	952,115	
South	VT	7,562,345	
	AL	11,538,740	
	AR	10,251,907	
	DC	3,743,253	
	DE	1,402,086	
	FL	26,325,586	
	GA	15,776,768	
	KY	21,008,992	
	LA	10,445,827	
			26,580

Average revenue from st

AVG({ INCLUDE [City]: SUM([revenue]) })

The calculation is valid. 1 Dependency

ApplyOK

QnA
