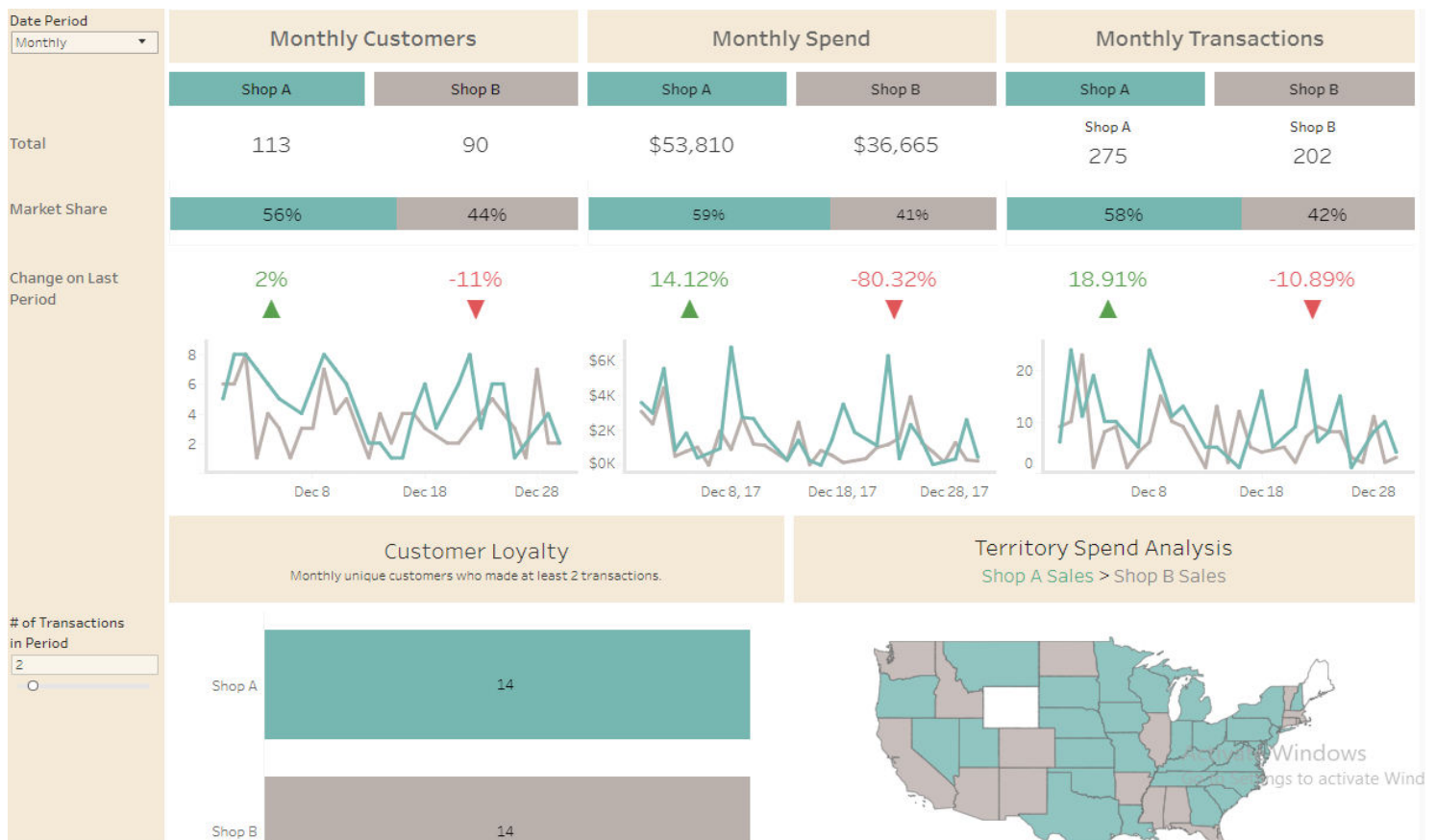


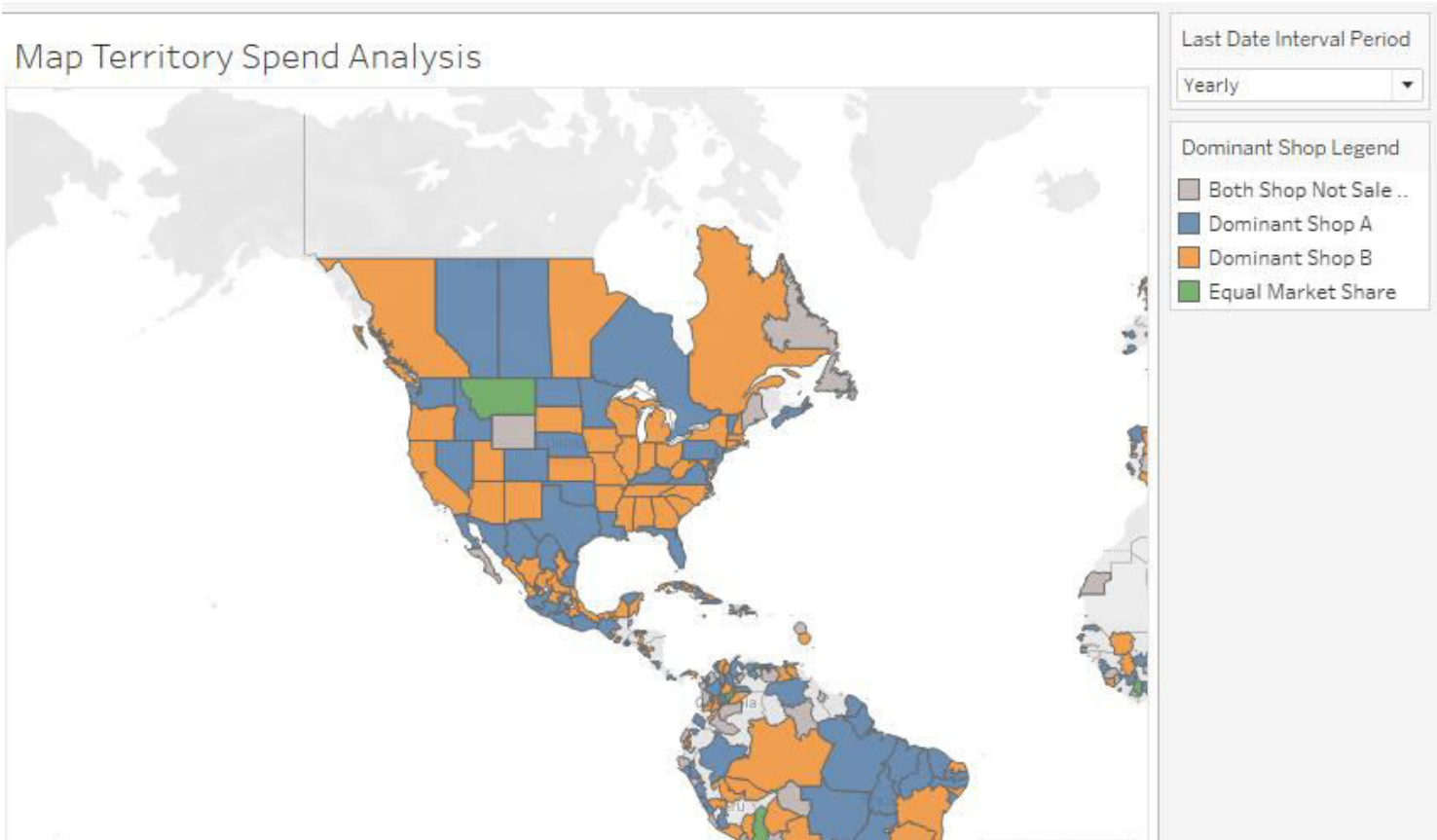
Notes: Explain with your voice what you do and your ideas during implementation of the tasks

Q#	Questions
Q1	Load Sales Dataset File in your new database say its name "SalesDB"
Q2	<ol style="list-style-type: none"> 1) Explore and Discover Data Attributes, Relationships , Keys, Foreign Keys of the Loaded Sales Dataset , Redesign the database "SalesDB" to 3NF and name the new database "SalesDB3NF" 2) Migrate the Loaded Sales Dataset from the database "SalesDB" to your new database design "SalesDB3NF" <p>Do the migration using the best way as if you deal with large size of data</p> <ol style="list-style-type: none"> 3) Validate data in the target database "SalesDB3NF" against the source database "SalesDB" to check that you didn't missing any data (at least Rows Count validation) 4) Write script that get the data from the database "SalesDB3NF" in the form of the database "SalesDB" (join all lookup tables with the fact table) and check that the number of rows of the fact table in the database "SalesDB" are the same as the number of rows getting from the written script
Q3	1) Write SQL Script as form of Stored Procedure that get the same data of the dashboard parts from the database "SalesDB3NF"
Q4	<ol style="list-style-type: none"> 1) Design the bellow dashboard for the Sales Dataset File or the "SalesDB" database with your favorite BI dashboard and reporting tools 2) Could you implement and add any "what if scenario" related to Sales, Profit, Discount and Shipping Cost, Price

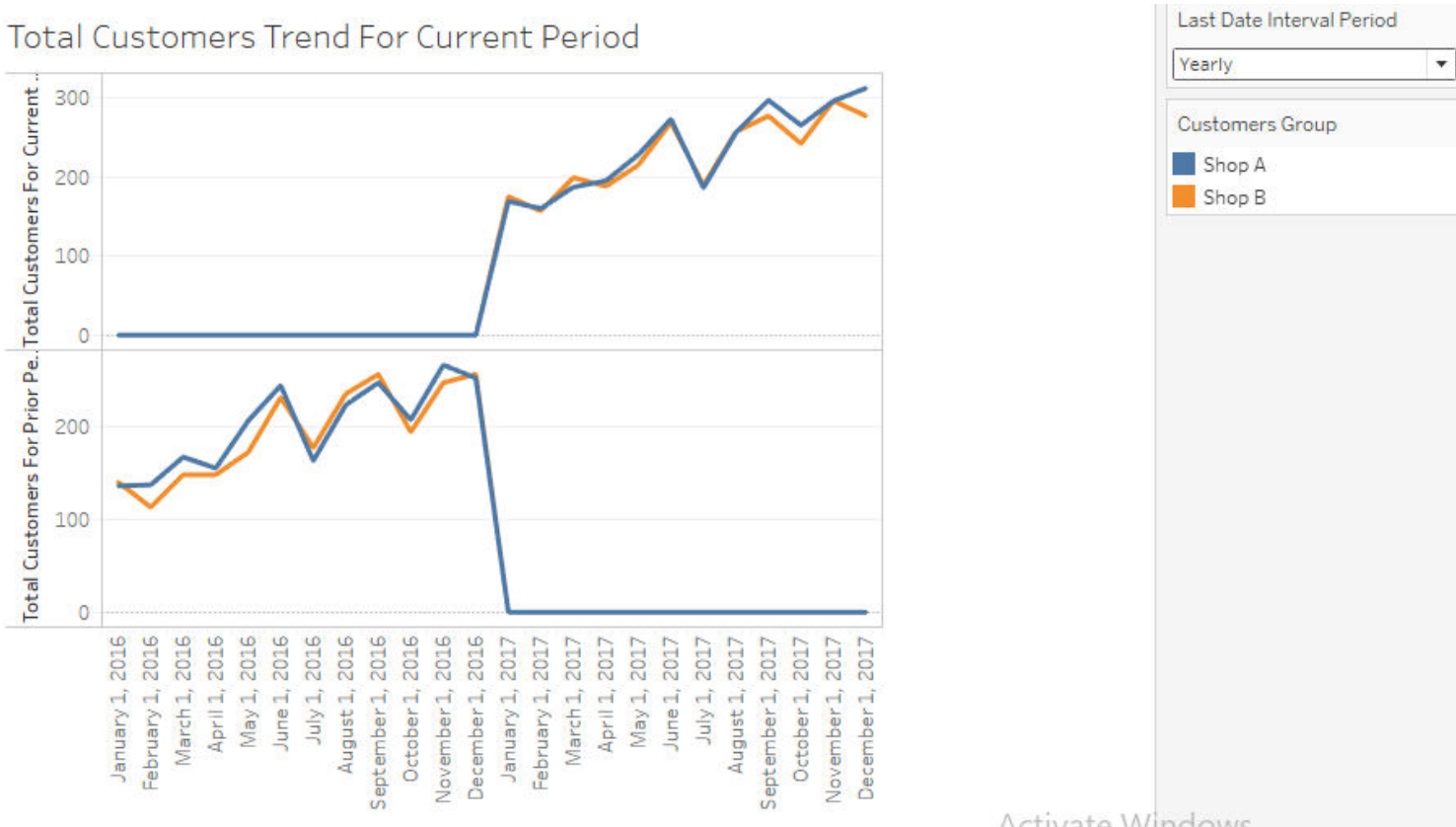
Dashboard:



Adjust the map in the dashboard to be like that



Adjust the Interval Trends to be like this



Write as SQL

1)

	Segment			
	Consumer	Corporate	Home Office	Grand Total
Total Orders	13,291	7,724	4,713	25,728
Total Canceled Orders	1,013	598	359	1,970
Total Net Orders	12,278	7,126	4,354	23,758

2)

Customer Orders Distributions

Total Customers	796
Total Customer That Didn't Canceled Any Orders	65
Total Customer That Canceled At Least 1 Order But Not all Their Order..	731
Total Customer That Canceled all Their Orders	0

3)

Customer That Cancel Some Orders

Customer Name	Total Orders	Total Canceled Orders	Total Net Orders
Aaron Bergman	37	5	32
Aaron Smayling	31	3	28
Adam Bellavance	41	2	39
Adam Hart	42	1	41
Adam Shillingsburg	36	2	34
Adrian Barton	40	1	39
Adrian Hane	26	3	23
Adrian Shami	24	2	22
Aimee Bixby	28	1	27
Alan Barnes	35	3	32
Alan Dominguez	30	3	27
Alan Haines	34	3	31
Alan Hwang	38	1	37
Alan Schoenberger	35	3	32
Alan Shonely	36	3	33
Alejandro Ballentine	39	5	34
Alejandro Grove	33	4	29
Alejandro Savely	43	3	40
Aleksandra Gannaway	30	4	26
Alex Avila	26	1	25
Alex Grayson	35	3	32
Alex Russell	35	1	34
Allen Arnold	31	2	29

4)

Total Customer That Didn't Canceled Any Orders

Customer Name
Aaron Hawkins
Alice McCarthy
Andrew Roberts
Anna Häberlin
Ben Peterman
Bill Overfelt
Bobby Elias
Brian Moss
Cathy Prescott
Chad Cunningham
Christine Sundaresam
Christopher Martinez
Cindy Stewart
Craig Carroll
Cyma Kinney
Darren Budd
David Bremer
David Kendrick
Don Weiss
Dorothy Badders
Doug O'Connell
Frank Carlisle
Frank Preis

5)

For each year, get the total net sales, total net sales of the previous year

6)

For each year Get the product list that have net total order more than 10 and the product total net sales ratio(over all products in that year) more than 3%

Answer using BI and rewrite as SQL

Q 1.

- a) What are the three countries that generated the highest total net profit for each year?
- b) For each of these three countries, find the three products with the highest total net profit. Specifically, what are the products' names and the total net profit for each product?

Q 2.

Identify the 3 subcategories with the highest average of net shipping cost in the United States.

Q 3.

- a) Assess Nigeria's profitability (i.e., total net profit) for each year. How does it compare to other African countries?
- b) What factors might be responsible for Nigeria's poor performance? You might want to investigate shipping costs and the average discount as potential root causes.

Q 4.

- a) Identify the product subcategory that is the least net profitable in Southeast Asia.
Assume that Southeast Asia comprises Cambodia, Indonesia, Malaysia, Myanmar (Burma), the Philippines, Singapore, Thailand and Vietnam.
- b) Is there a specific country in Southeast Asia where the company should stop offering the subcategory identified in 4a?

Q 5.

- a) Which city is the least profitable (in terms of average net profit) in the United States? Discard the cities with less than 10 orders.
- b) Why is this city's average net profit so low?

Q 6.

- a) Which product subcategory has the highest average net profit in Australia?
- b) First, identify all Australian cities with at least 5 orders. For the remaining cities, look at the subcategory you identified in 6a and find those cities for which the average net profit in that category exceeds \$100.