My Project Overview:

The SuperStore Multinational Dashboard is designed to provide a comprehensive visual analysis of sales and performance metrics for SuperStore, a multinational retail company. The dashboard is tailored to address specific queries and enhance decision-making processes for various stakeholders, including executives, managers, and analysts .

[I] Design Phase

Title of my client(s) who will use the dashboard

CEO (Chief Executive Officer):

- **Interested in overall company performance, profits, and strategic insights.**
- **Focus on high-level trends and key performance indicators.**

Sales Manager:

- **Concerned with sales data, state-wise performance, and product categories.**
- **Interested in identifying top-selling states, profitable subcategories, and effective gender-based sales.**

Marketing Team:

- **May leverage insights on product categories and subcategories for targeted marketing strategies.**
- **Interested in trends related to age and gender for more effective campaigns.**

Finance Team:

- **Focus on financial aspects such as total revenue, net profit, and expenses.**
- **Concerned with monthly sales trends and overall financial health.**

Operations Team:

- **Interested in distribution of sales across different countries and states.**
- **May use data to optimize product offerings based on geographic demand.**

Human Resources:

- **May find value in age-related insights for workforce planning and engagement.**

All available data that will be provided by my client

Sales Data:

- **Date: Information about the date of the sales transaction.**
- **Month: The month in which the sales occurred.**
- **Quantity: The quantity of products sold.**
- **Unit Cost: The cost of a single unit of the product.**
- **Unit Price: The selling price of a single unit of the product.**
- **Total Cost: The total cost of the products sold.**
- **Revenue: The total revenue generated from sales.**
- **Net Profit: The net profit calculated as Revenue minus Total Cost.**

Geographic Information:

- **Country: The country where the sales occurred.**
- **State: The state within the country where the sales occurred.**

Customer Demographics:

- **Age: The age of the customer.**
- **Gender: The gender of the customer.**

Product Information:

- **Product Category: The broader category to which the product belongs.**
- **Sub Category: A more specific category or classification of the product.**

Miscellaneous:

- **Age Status: A status or category related to the customer's age.**

Required questions that my dashboard will answers

Sales Performance:

What is the overall trend in sales over the selected time period?
How do sales vary across different product categories?
Which countries contribute the most to total revenues?
What are the top 10 states with the highest sales figures?
Which states have the lowest sales figures?

Profitability:

What is the overall trend in profits over the selected time period?
What are the top 3 most profitable subcategories in terms of revenues?
What is the distribution of profits across different states?
What is the profitability status based on customer age?

Product Analysis:

What are the top 5 best-selling products globally?
Which subcategories are the most profitable in terms of net profit margin?
How does the distribution of sales vary across different age groups?
What is the gender-wise distribution of sales and profits?

Miscellaneous:

How does the distribution of sales vary across different age groups?
What is the monthly total sales revenue pattern?
What is the most effective gender in terms of positive profit contribution?

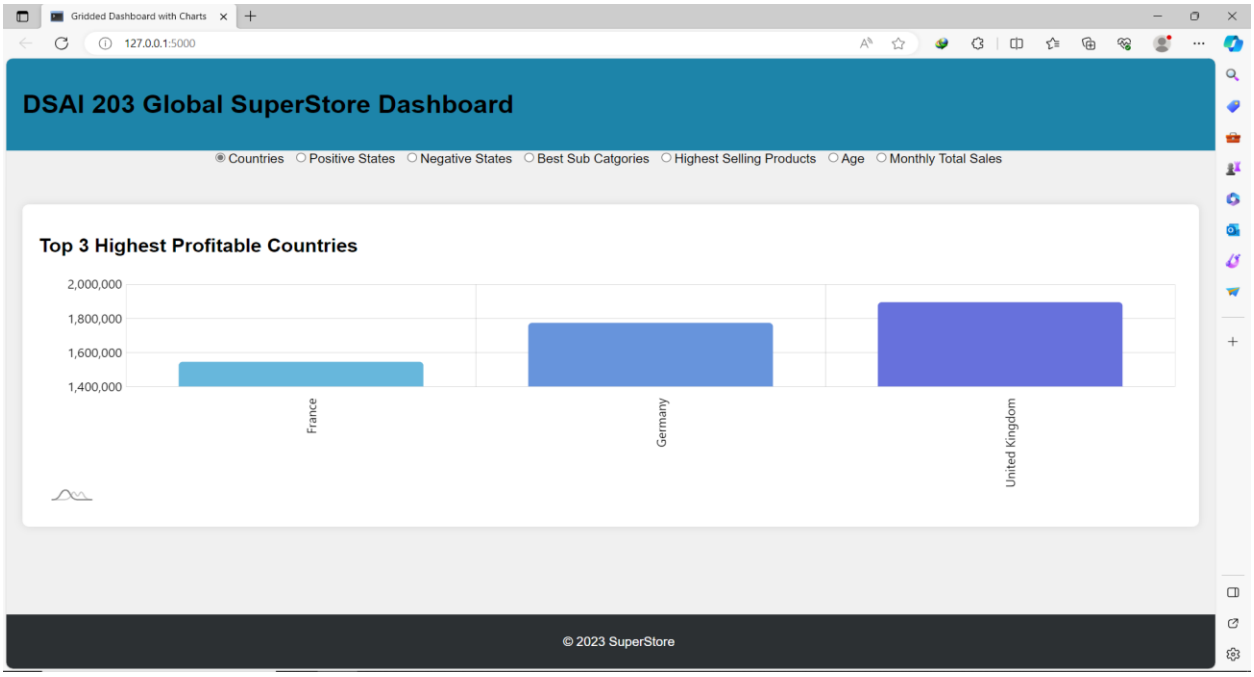


Chart Type: **Bar Chart**

Legend: **Visible**

Colors:**3 diffrent shades of blue**

Title: **Top 3 Heights Profitable Countries**

Visibility: **When clicking on the radio button**

Axis Titles: X-axis (Countries), Y-axis (Reveneau)

Questions Answered:

What are the top three countries with the highest sales?

Which countries contribute the most to total revenues?

Justification: **Bar charts are one of the best charts for comparing the contribution of different countries to the total sales and it gives at a glance the best-selling country due its simplicity and efficiency.**

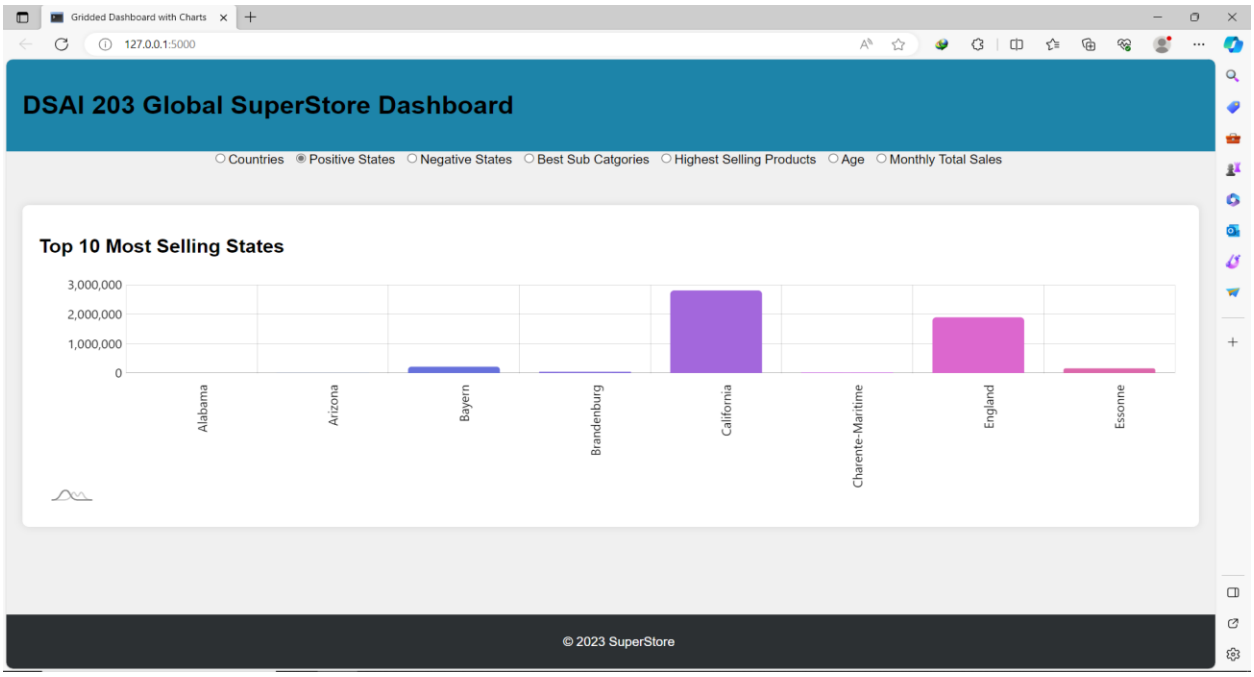


Chart Type: Bar Chart

Legend: Visible

Colors: Mix of Light pink, purple and different shades of blue

Title: Top 10 Most Selling States

Visibility: When clicking on the radio button

Axis Titles: X-axis (States), Y-axis (Revenue)

Questions Answered:

What are the top 10 states with the highest sales figures?

What is the distribution of profits across different states?

Justification: Bar charts are one of the best charts for comparing the contribution of different countries to the total sales and it gives at a glance the best selling country due its simplicity and efficency.

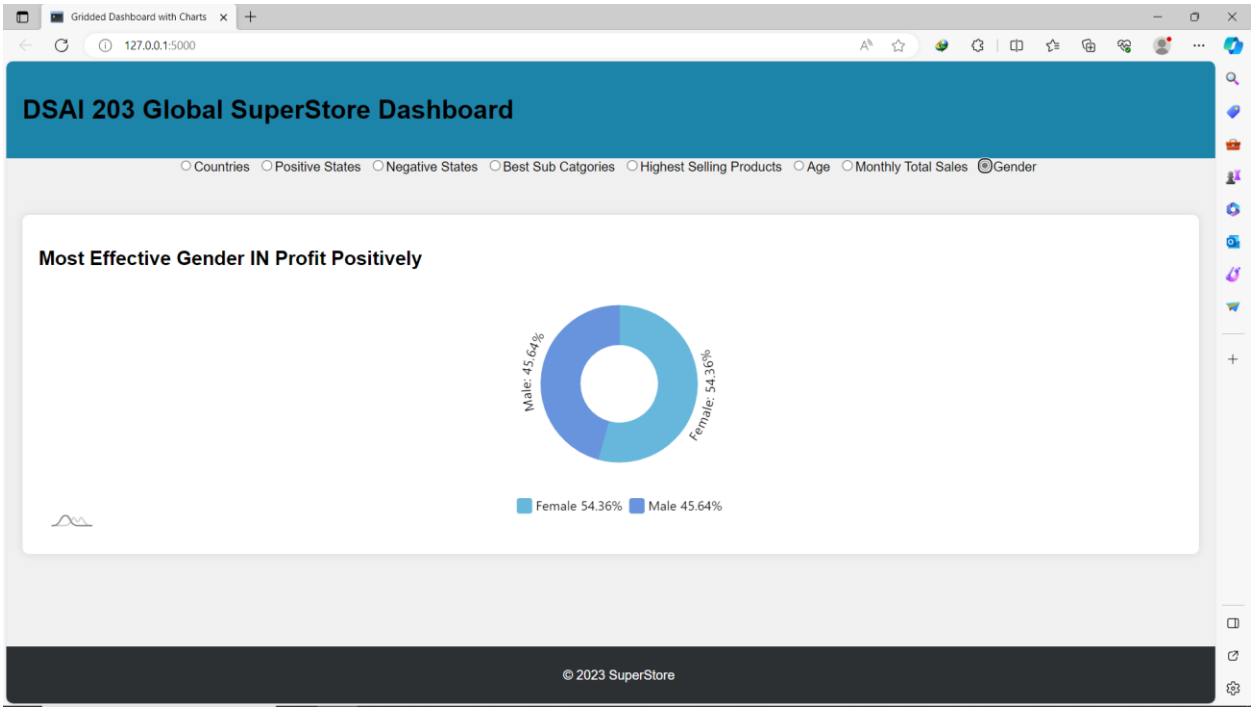


Chart Type: Donut Chart

Legend: Visible

Colors:2 different shades of blue

Title: Most Effective Gender IN Profit Positively

Visibility: When clicking on the radio button

Questions Answered:

What is the gender-wise distribution of sales and profits?

Justification: Donut chart is the best chart to identify the distribution between distinct categories especially if there are two categories in this chart male and female so it gives us at a glance the exact percentage between males and females.

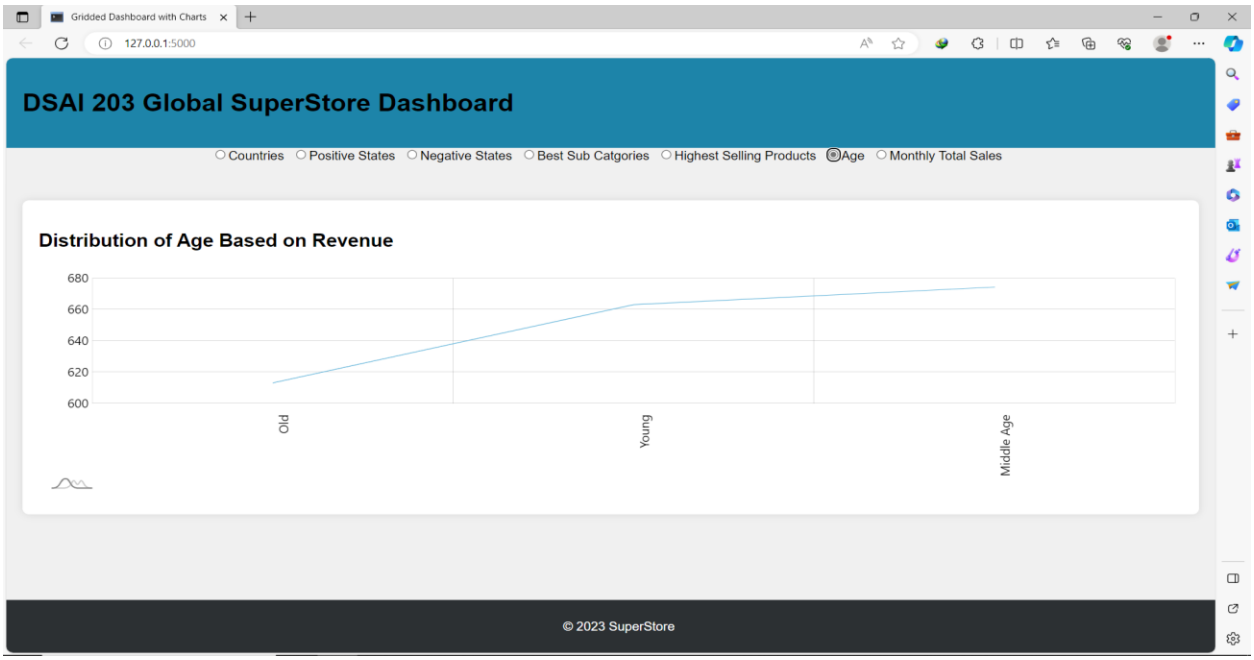


Chart Type: Line Chart

Legend: Visible

Colors: Light Blue

Axis Titles: X-axis (Age Status), Y-axis (Revenue)

Title: Distribution of Age Based on Revenue

Visibility: When clicking on the radio button

Questions Answered:

What is the profitability status based on customer age?

How does the distribution of sales vary across different age groups?

Justification: I choose Line chart here because it is effective for showing trends of the revenue based on the ages so effectively it will give me the age who is the most effective positively over the revenue .

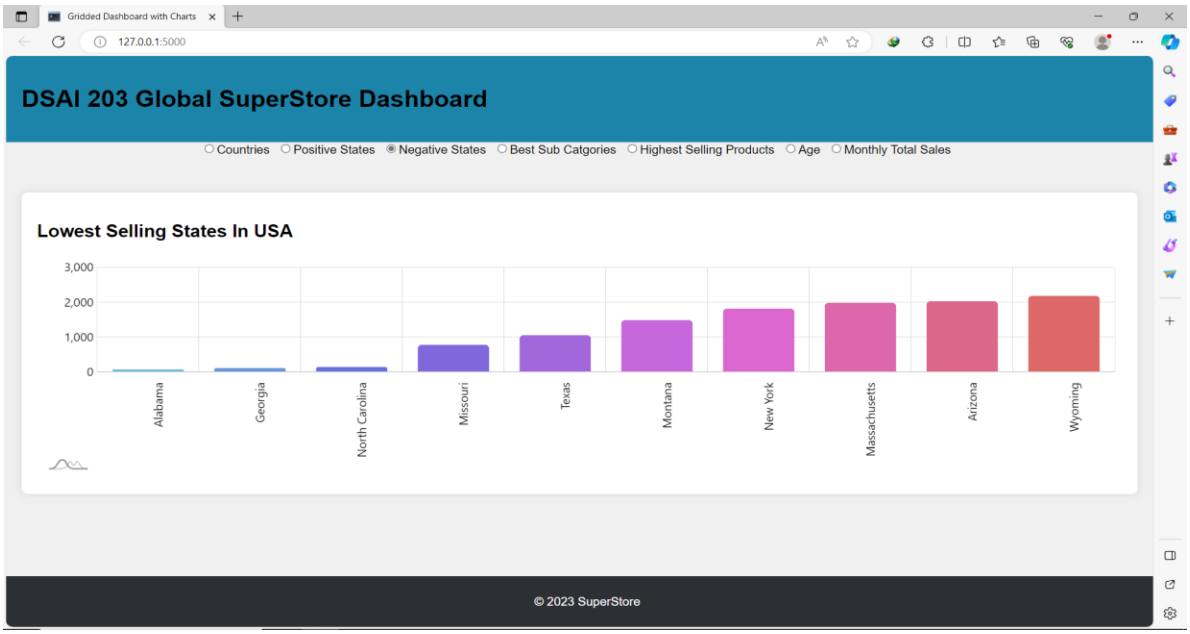


Chart Type: Bar Chart

Legend: Visible

Colors: Mix shadows of Light pink, purple and different shades of light blue

Title: Lowest Selling States in USA

Visibility: When clicking on the radio button

Axis Titles: X-axis (States), Y-axis (Revenue)

Questions Answered:

Which states have the lowest sales figures?

Justification: Bar charts isone of the best charts for comparing the contribution of different countries to the total sales and it gives at a glance the best selling country due its simplicity and efficency.

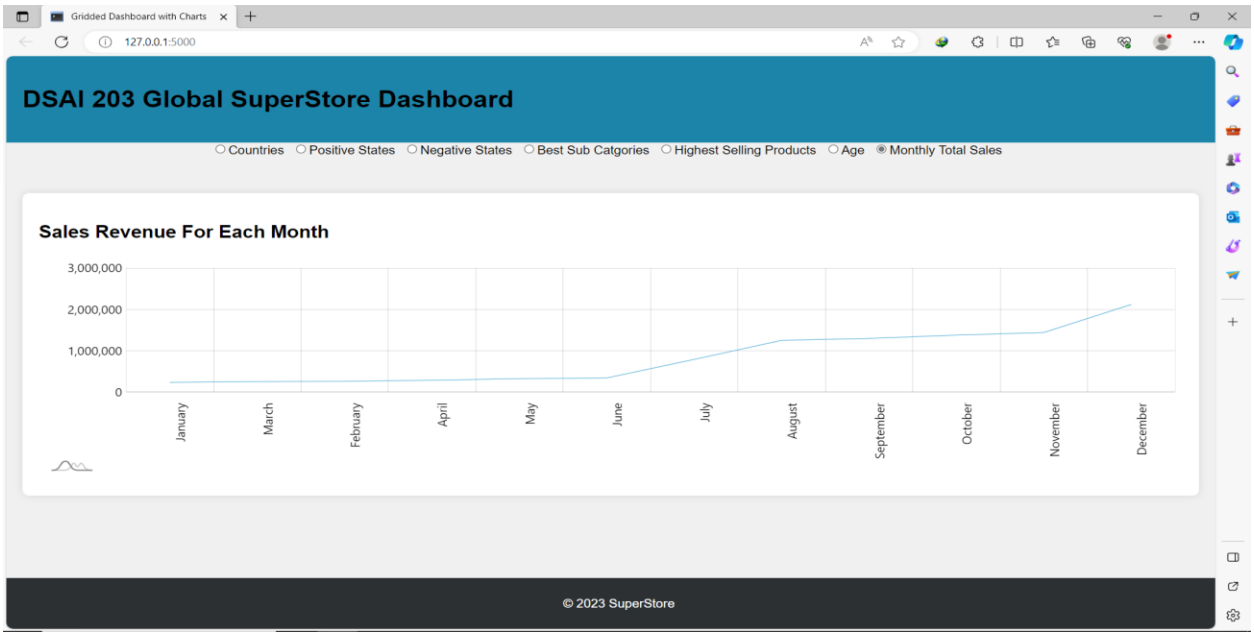


Chart Type: Line Chart

Legend: Visible

Colors: Light Blue

Axis Titles: X-axis (Months), Y-axis (Revenue)

Title: Distribution of Age Based on Revenue

Visibility: When clicking on the radio button

Questions Answered:

What is the monthly total sales revenue pattern?

What is the overall trend in profits over the selected time period?

Justification: I choose Line chart here because it is effective for showing trends of the revenue based on the ages so this chart visualizes the trend in monthly sales revenue, allowing for easy identification of patterns.

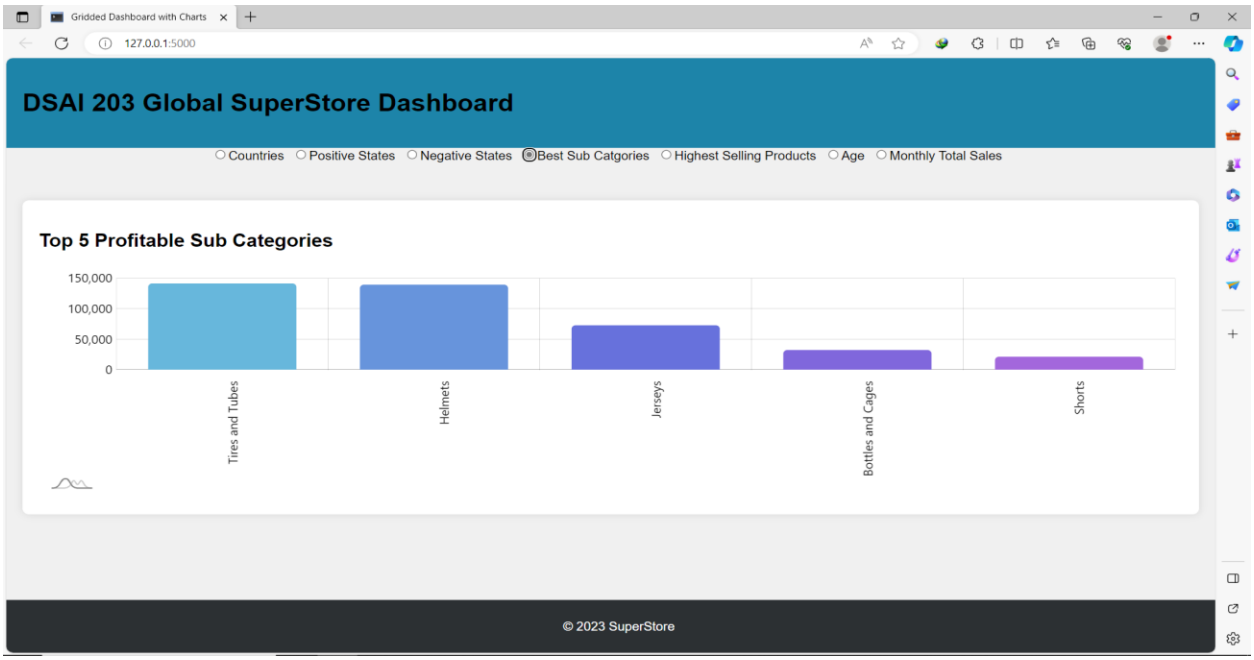


Chart Type: Bar Chart

Legend: Visible

Colors: Mix shadows of Light pink, purple and different shades of light blue

Title: Top 5 Profitable Product Sub Categories

Visibility: When clicking on the radio button

Axis Titles: X-axis (Sub Products), Y-axis (Profit)

Questions Answered:

How do sales vary across different product categories?

What are the top 5 best-selling Sub products globally?

Justification: Bar charts is one of the best charts for comparing the contribution of different products to the total sales(profit) and it gives at a glance the best-selling product due its simplicity and efficiency.

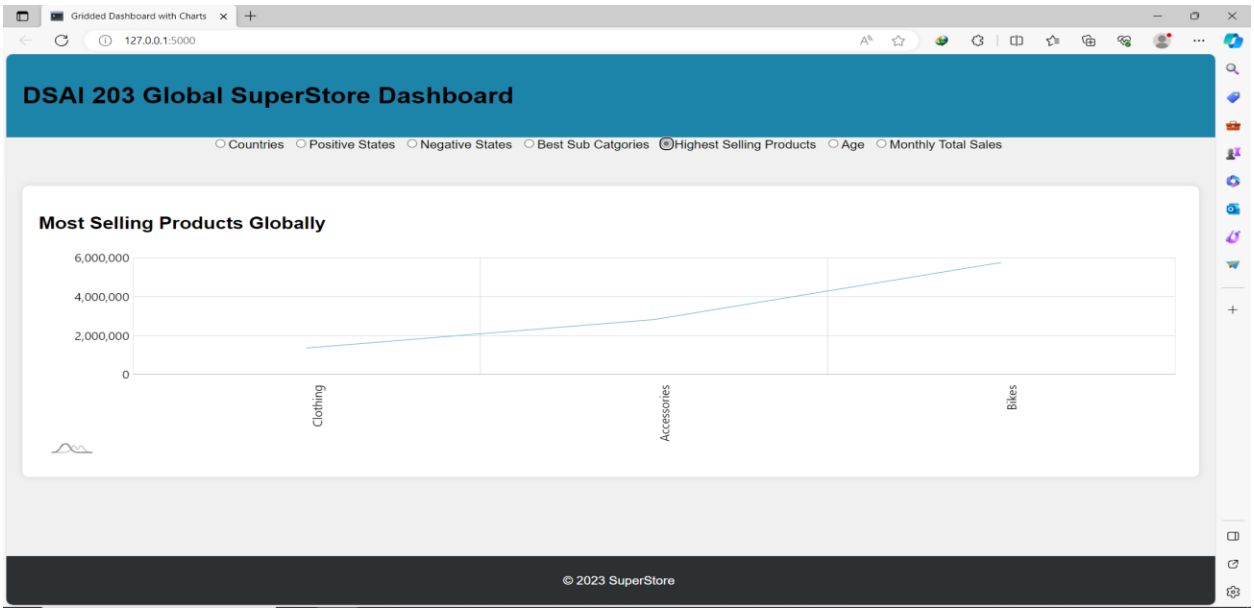


Chart Type: Line Chart

Legend: Visible

Colors: Light Blue

Axis Titles: X-axis (Products), Y-axis (Revenue)

Title: Most Selling Products Globally

Visibility: When clicking on the radio button

Questions Answered:

What are the top 5 best-selling products globally?

Justification: I choose Line chart here because it is effective for showing trends of the profit based on the products so this chart visualizes the trend in sales' revenue, allowing for easy identification of patterns of profitability.

Why i selected these positions for each chart, title, buttons, colors?

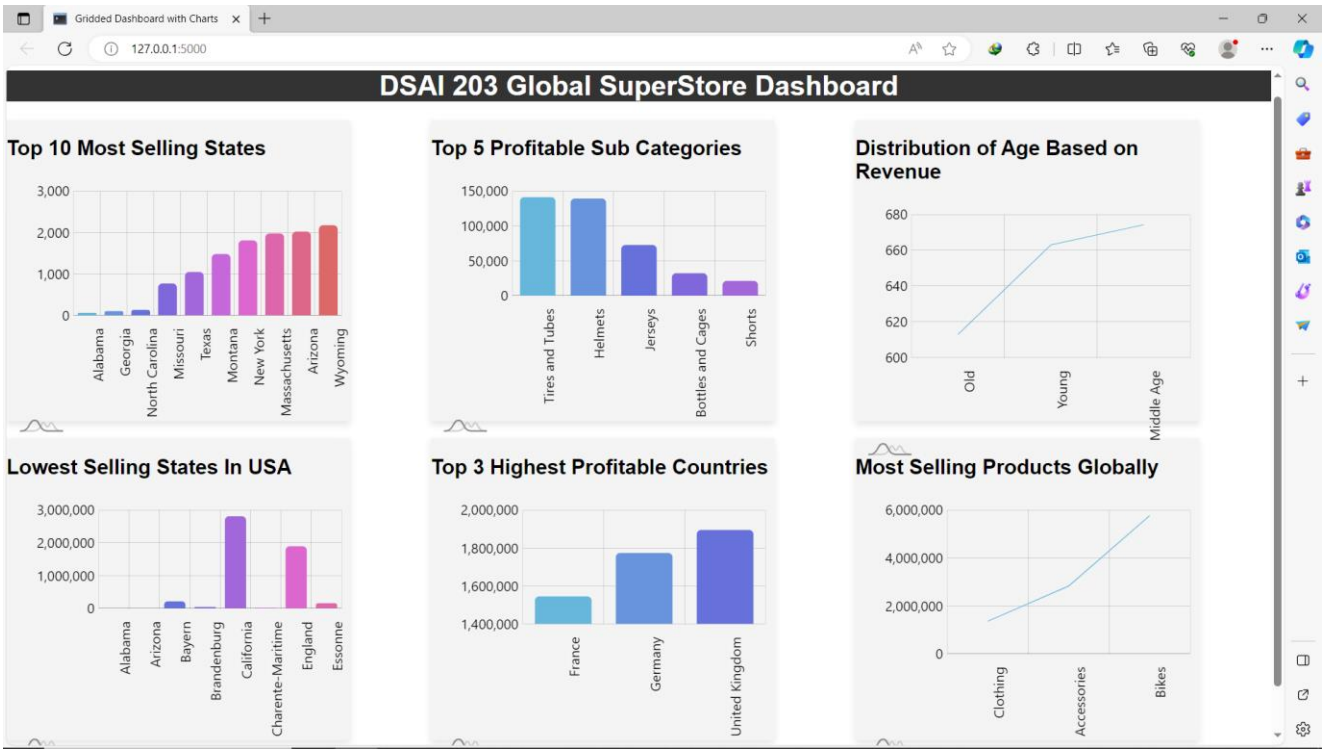
I wanted my insights to be clear, and fast to get the point from, so i choose to make the charts in the full screen mode. In addition, choose light cool colors to make the eyes of the client's only focus on the insight not the color and its brightness. I also decided to make the radio button in the front of the screen to make the axis clear and to make it easy to use. The title of the charts are very clear and on point to make the full benefit of the chart and to reduce the probability of any confusion that may occur so the decision makers could make their decision correctly and wisely.

Points that may be criticized in my design layout

My layout could be cretisized in one point which is what if the clients want to see all the charts behind each other after they saw in the full screen mood so they take the full overview of the all the charts in the dashboard together

But i resolved this issue

I made a layout for the full dashboard so after they see the detailed charts one by one they will see the overall dashboard, but it also has disadvantage of the size of it in the full screen mode will make the charts smaller and somehow hard to read and to make it clear I had to remove the donut chart so it look nice and cool like this, so every layout has its strength and weakness.



Analysis of the second layout positions

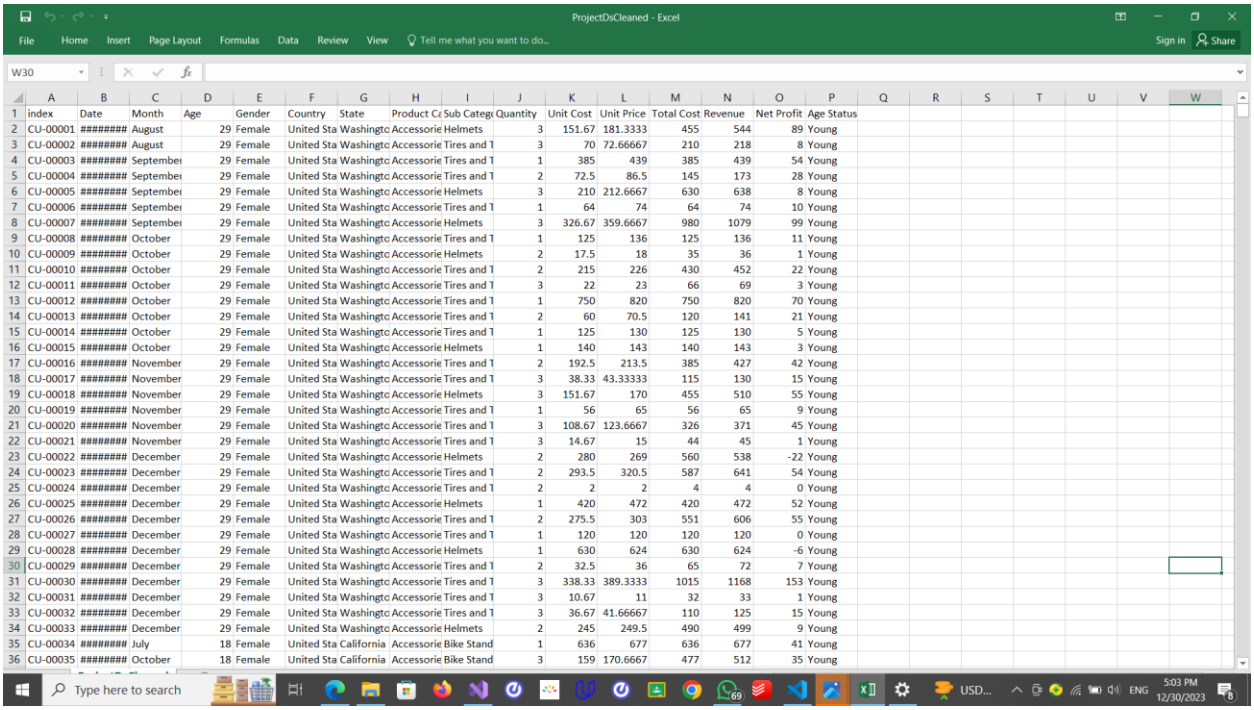
I strategically positioned the states with the highest sales on the left side, intending to capture the client's immediate attention. Below this, a detailed chart highlights the performance of the lowest-selling states, providing clients with insights into both profitable and challenging markets.

In the middle section, I focused on the most selling subcategory, presenting a breakdown of the best-selling countries within that subcategory. This ensures that clients receive comprehensive information about specific product segments and the key contributors to overall sales.

On the right side, I incorporated line charts due to their visual prominence and the clarity they offer in depicting trends. This placement allows clients to quickly identify patterns and shifts in sales data.

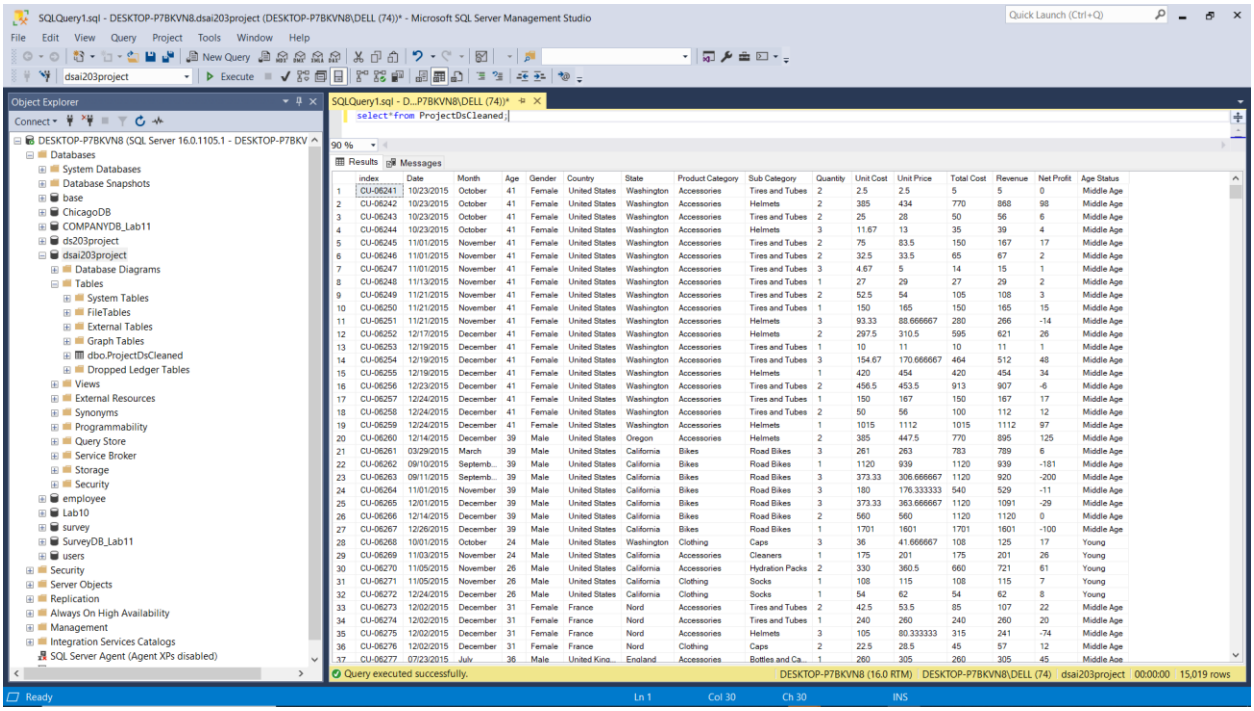
The layout I made not only enhances visual appeal but also facilitates a swift and intuitive grasp of the sales performance.

Snapshot of the provided data (as tables)



ProjectDsCleaned - Excel

index	Date	Month	Age	Gender	Country	State	Product Ca	Sub Categ	Quantity	Unit Cost	Unit Price	Total Cost	Revenue	Net Profit	Age Status
CU-00001	########	August	29	Female	United Sta	Washingtc	Accessorie	Helmets	3	151.67	181.3333	455	544	89	Young
CU-00002	########	August	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	70	72.66667	210	218	8	Young
CU-00003	########	Septembei	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	385	439	385	439	54	Young
CU-00004	########	Septembei	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	72.5	86.5	145	173	28	Young
CU-00005	########	Septembei	29	Female	United Sta	Washingtc	Accessorie	Helmets	3	210	212.6667	630	638	8	Young
CU-00006	########	Septembei	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	64	74	64	74	10	Young
CU-00007	########	Septembei	29	Female	United Sta	Washingtc	Accessorie	Helmets	3	326.67	359.6667	980	1079	99	Young
CU-00008	########	October	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	125	136	125	136	11	Young
CU-00009	########	October	29	Female	United Sta	Washingtc	Accessorie	Helmets	2	17.5	18	35	36	1	Young
CU-00010	########	October	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	215	226	430	452	22	Young
CU-00011	########	October	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	22	23	66	69	3	Young
CU-00012	########	October	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	750	820	750	820	70	Young
CU-00013	########	October	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	60	70.5	120	141	21	Young
CU-00014	########	October	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	125	130	125	130	5	Young
CU-00015	########	October	29	Female	United Sta	Washingtc	Accessorie	Helmets	1	140	143	140	143	3	Young
CU-00016	########	November	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	192.5	213.5	385	427	42	Young
CU-00017	########	November	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	38.33	43.33333	115	130	15	Young
CU-00018	########	November	29	Female	United Sta	Washingtc	Accessorie	Helmets	3	151.67	170	455	510	55	Young
CU-00019	########	November	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	56	65	56	65	9	Young
CU-00020	########	November	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	108.67	123.6667	326	371	45	Young
CU-00021	########	November	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	14.67	15	44	45	1	Young
CU-00022	########	December	29	Female	United Sta	Washingtc	Accessorie	Helmets	2	280	269	560	538	-22	Young
CU-00023	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	293.5	320.5	587	641	54	Young
CU-00024	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	2	2	4	4	0	Young
CU-00025	########	December	29	Female	United Sta	Washingtc	Accessorie	Helmets	1	420	472	420	472	52	Young
CU-00026	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	275.5	303	551	606	55	Young
CU-00027	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	1	120	120	120	120	0	Young
CU-00028	########	December	29	Female	United Sta	Washingtc	Accessorie	Helmets	1	630	624	630	624	-6	Young
CU-00029	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	2	32.5	36	65	72	7	Young
CU-00030	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	338.33	389.3333	1015	1168	153	Young
CU-00031	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	10.67	11	32	33	1	Young
CU-00032	########	December	29	Female	United Sta	Washingtc	Accessorie	Tires and T	3	36.67	41.66667	110	125	15	Young
CU-00033	########	December	29	Female	United Sta	Washingtc	Accessorie	Helmets	2	245	249.5	490	499	9	Young
CU-00034	########	July	18	Female	United Sta	California	Accessorie	Bike Stand	1	636	677	636	677	41	Young
CU-00035	########	October	18	Female	United Sta	California	Accessorie	Bike Stand	3	159	170.6667	477	512	35	Young


SQLQuery1.sql - DESKTOP-P7BKVN8.dsai203project (DESKTOP-P7BKVN8\DELL (74))* - Microsoft SQL Server Management Studio
Quick Launch (Ctrl+Q)
File Edit View Query Project Tools Window Help
New Query
Execute
dsai203project
Object Explorer
Connect
DESKTOP-P7BKVN8 (SQL Server 16.0.1105.1 - DESKTOP-P7BKV
Databases
System Databases
Database Snapshots
base
ChicagoDB
COMPANYDB_Lab11
ds203project
dsai203project
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.ProjectDsCleaned
Dropped Ledger Tables
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
employee
Lab10
survey
SurveyDB_Lab11
users
Security
Server Objects
Replication
Always On High Availability
Management
Integration Services Catalogs
SQL Server Agent (Agent XPs disabled)
SQLQuery1.sql - D...P7BKVN8\DELL (74))*
select*from ProjectDsCleaned;
90 %
Results
Messages
index Date Month Age Gender Country State Product Category Sub Category Quantity Unit Cost Unit Price Total Cost Revenue Net Profit Age Status
1 CU-06241 10/23/2015 October 41 Female United States Washington Accessories Tires and Tubes 2 2.5 2.5 5 5 0 Middle Age
2 CU-06242 10/23/2015 October 41 Female United States Washington Accessories Helmets 2 385 434 770 868 98 Middle Age
3 CU-06243 10/23/2015 October 41 Female United States Washington Accessories Tires and Tubes 2 25 28 50 56 6 Middle Age
4 CU-06244 10/23/2015 October 41 Female United States Washington Accessories Helmets 3 11.67 13 35 39 4 Middle Age
5 CU-06245 11/01/2015 November 41 Female United States Washington Accessories Tires and Tubes 2 75 83.5 150 167 17 Middle Age
6 CU-06246 11/01/2015 November 41 Female United States Washington Accessories Tires and Tubes 2 32.5 33.5 65 67 2 Middle Age
7 CU-06247 11/01/2015 November 41 Female United States Washington Accessories Tires and Tubes 3 4.67 5 14 15 1 Middle Age
8 CU-06248 11/13/2015 November 41 Female United States Washington Accessories Tires and Tubes 1 27 29 27 29 2 Middle Age
9 CU-06249 11/21/2015 November 41 Female United States Washington Accessories Tires and Tubes 2 52.5 54 105 108 3 Middle Age
10 CU-06250 11/21/2015 November 41 Female United States Washington Accessories Tires and Tubes 1 150 165 150 165 15 Middle Age
11 CU-06251 11/21/2015 November 41 Female United States Washington Accessories Helmets 3 93.33 88.666667 280 266 -14 Middle Age
12 CU-06252 12/17/2015 December 41 Female United States Washington Accessories Helmets 2 297.5 310.5 595 621 26 Middle Age
13 CU-06253 12/19/2015 December 41 Female United States Washington Accessories Tires and Tubes 1 10 11 10 11 1 Middle Age
14 CU-06254 12/19/2015 December 41 Female United States Washington Accessories Tires and Tubes 3 154.67 170.666667 464 512 48 Middle Age
15 CU-06255 12/19/2015 December 41 Female United States Washington Accessories Helmets 1 420 454 420 454 34 Middle Age
16 CU-06256 12/23/2015 December 41 Female United States Washington Accessories Tires and Tubes 2 456.5 453.5 913 907 -6 Middle Age
17 CU-06257 12/24/2015 December 41 Female United States Washington Accessories Tires and Tubes 1 150 167 150 167 17 Middle Age
18 CU-06258 12/24/2015 December 41 Female United States Washington Accessories Tires and Tubes 2 50 56 100 112 12 Middle Age
19 CU-06259 12/24/2015 December 41 Female United States Washington Accessories Helmets 1 1015 1112 1015 1112 97 Middle Age
20 CU-06260 12/14/2015 December 39 Male United States Oregon Accessories Helmets 2 385 447.5 770 895 125 Middle Age
21 CU-06261 03/29/2015 March 39 Male United States California Bikes Road Bikes 3 261 263 783 789 6 Middle Age
22 CU-06262 09/10/2015 Septemb... 39 Male United States California Bikes Road Bikes 1 1120 939 1120 939 -181 Middle Age
23 CU-06263 09/11/2015 Septemb... 39 Male United States California Bikes Road Bikes 3 373.33 306.666667 1120 920 -200 Middle Age
24 CU-06264 11/01/2015 November 39 Male United States California Bikes Road Bikes 3 180 176.333333 540 529 -11 Middle Age
25 CU-06265 12/01/2015 December 39 Male United States California Bikes Road Bikes 3 373.33 363.666667 1120 1091 -29 Middle Age
26 CU-06266 12/14/2015 December 39 Male United States California Bikes Road Bikes 2 560 560 1120 1120 0 Middle Age
27 CU-06267 12/26/2015 December 39 Male United States California Bikes Road Bikes 1 1701 1601 1701 1601 -100 Middle Age
28 CU-06268 10/01/2015 October 24 Male United States Washington Clothing Caps 3 36 41.666667 108 125 17 Young
29 CU-06269 11/03/2015 November 24 Male United States California Accessories Cleaners 1 175 201 175 201 26 Young
30 CU-06270 11/05/2015 November 26 Male United States California Accessories Hydration Packs 2 330 360.5 660 721 61 Young
31 CU-06271 11/05/2015 November 26 Male United States California Clothing Socks 1 108 115 108 115 7 Young
32 CU-06272 12/24/2015 December 26 Male United States California Clothing Socks 1 54 62 54 62 8 Young
33 CU-06273 12/02/2015 December 31 Female France Nord Accessories Tires and Tubes 2 42.5 53.5 85 107 22 Middle Age
34 CU-06274 12/02/2015 December 31 Female France Nord Accessories Tires and Tubes 1 240 260 240 260 20 Middle Age
35 CU-06275 12/02/2015 December 31 Female France Nord Accessories Helmets 3 105 80.333333 315 241 -74 Middle Age
36 CU-06276 12/02/2015 December 31 Female France Nord Clothing Caps 2 22.5 28.5 45 57 12 Middle Age
37 CU-06277 07/23/2015 July 36 Male United King... England Accessories Bottles and Ca... 1 260 305 260 305 45 Middle Age
Query executed successfully.
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Ready
Ln 1 Col 30 Ch 30 INS

Suggested future work

1-I want to be able to make my dashboard user could Personalize it for example,
Allow users to customize the dashboard according to their preferences. This could include adjustable periods, the ability to choose specific metrics, or personalized data views.

2-Real-time Data Updates: I want to be able to implemented real-time data updates to provide users with the latest information. This is crucial for industries where data changes rapidly not a static database.

3- Mobile Responsiveness: I want my dashboard to be mobile-friendly so who need to access information immediately does not with running the coding files. A responsive design improves accessibility and usability across various devices.