

DATA ANALYSIS PORTFOLIO

PREPARED BY
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Professional Background

I graduated from Ladoke Akintola University of Technology, Ogbomosho, Oyo state, Nigeria, with a Second -Class upper CGPA of 3.9/5.0 B.Tech (honour) degree in Animal Production and Health. My first work experience was at the Ministry of Agriculture, Osun State Agricultural Development Cooperation OSADEC, Osogbo, Nigeria, where I acquire industrial training in my field of course.

I am a member of the Nigeria Institute of Animal Science (NIAS) and a Graduate of Animal Scientist (GAS).

I served as an awareness manager in a non-governmental Organization, The Haemophilia Foundation of Nigeria (HFN) working under the World Federation of Haemophilia (WFH) in advocating, supporting and treating people with a bleeding disorder. I've worked as an Investment manager at Oxford Group of Companies, Lagos, Nigeria where I gave financial advice and trained my associates on prospecting and led presentations in corporate firms. I'm skilled in managing people and building teams.

My affection for problem-solving, numbers and analytical thinking bring about my interest in Tech. In 2021, I started my journey in Tech through some pieces of training, I got a chance to attend a two-month Bootcamp for data analytics which included topics such as Data cleaning, Data Visualization, Data Extraction and Data Modelling. I have technical skills in Microsoft Excel, Power BI, Tableau, SQL and R.

Portfolio Outline

Professional Background	1
Table of Contents	2
Udemy Project Description	3
The Problem	4
Design	5
Findings	6
Analysis	10
Conclusion	11
US Superstore Project Description	12
Data Design	13
Findings	14
Data Analysis	19
Conclusion	20
Appendix	21



Udemy Project Description

- As a Data Analyst, I was asked by my Manager, Head of Curriculum to present the data on the courses (Web Development, Business Finance, Graphic Design, and Musical Instruments) Revenue. Providing data on different topics on these courses to understand where opportunities to increase revenue may lie and track the performance of the courses.

Methodology

- Included in this data are content duration, the course title, course id, number of subscribers, number of reviews, published date and rating.

Result/Conclusion

- Web Development is the most popular subject and the most profitable subject that provided the highest Revenue of all.

The Problem

The business problem is to understand which of these subjects charge more by tracking each topic's performance in order to increase their next quarterly earnings and identify the most subscribed and the most popular Subjects.

This Project is expected to take less than three weeks.

The data for each subject which includes the total number of subscribers, total number of reviews, subject that has the highest price, Published date by each subject, and the topics of each subject are to be collected to track the performance of the respective subject. The data is provided in a tabular form for a better understanding.

Data Design

The data was collected from 4 subjects, **Web Development**, **Business Finance**, **Graphic Design** and **Musical Instruments**.

I appended all the data into one worksheet, and the data was cleaned by removing the duplicates and the blank cells and adjusting the inconsistent data using Google Sheets.

The data was analysed using Tableau to create compelling Visualizations.

Findings

Finding 1

Figure 1: Total Subscriptions by Category

The table below shows the Total number of Subscribers by subject which reveals Web Development has the highest number of subscribers by 67.7%.

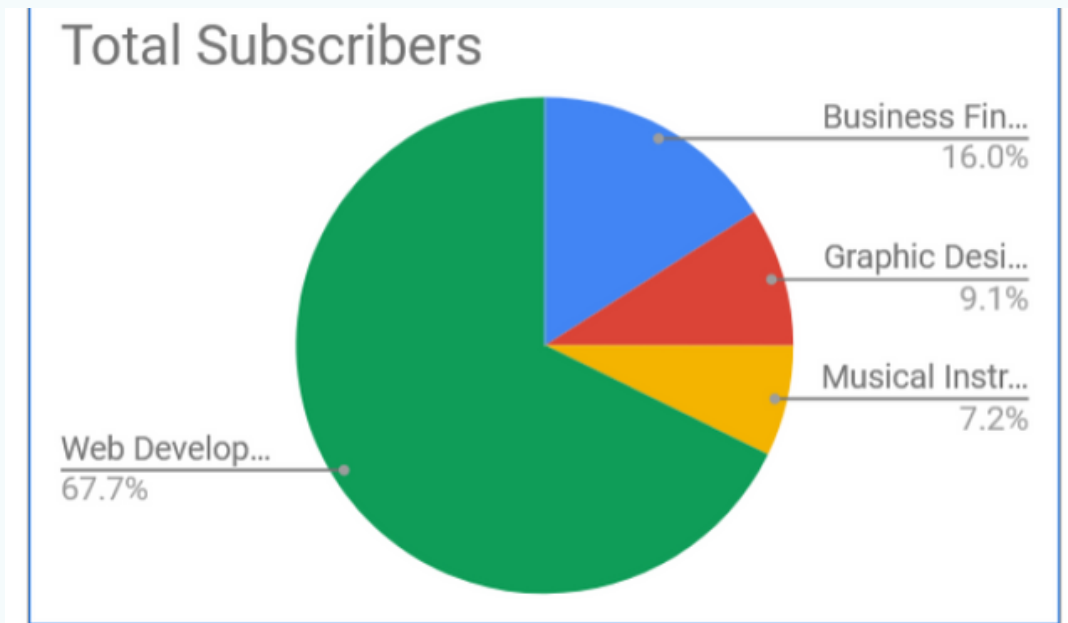
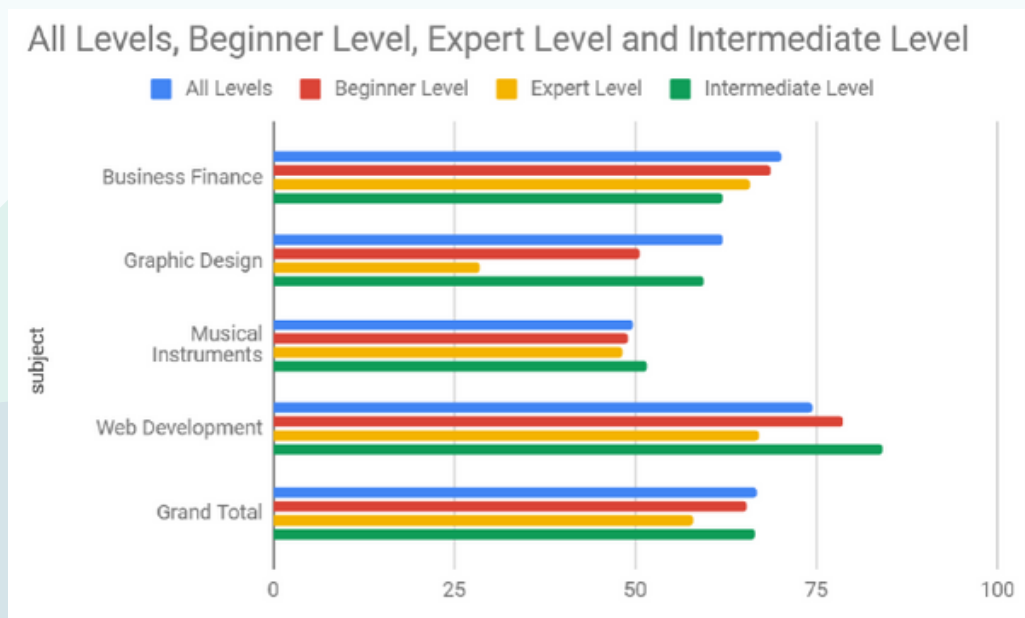


Figure 2: Users by Skill Level

This table show the subscribers level by subject



Finding 2

Table 1: Average Number of Subscribers by Subject

This data shows the average number of subscribers by subject. Web Development has a huge number of subscribers than others,

subject	AVERAGE of num_subscribers
Musical Instruments	1245.13
Business Finance	1569.03
Graphic Design	1766.03
Web Development	6619.92
Grand Total	3190.59

Finding 3

Table 2: Paid or Free Courses by Subscribers

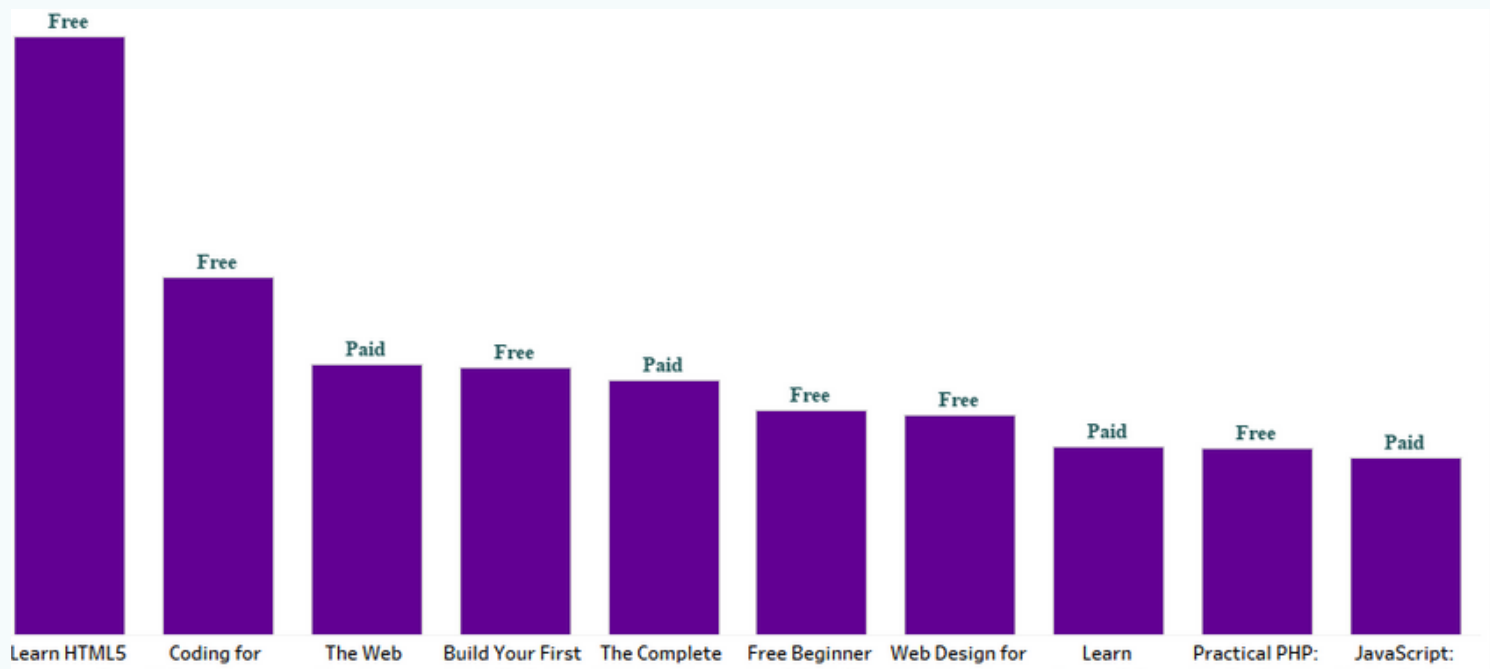
This data shows that many people subscribed for paid courses than free courses,

Free or Paid Courses	COUNTA of num_subscribers
Free	310
Paid	3362
Grand Total	3672

Finding 4

Figure 3: Top 10 Courses

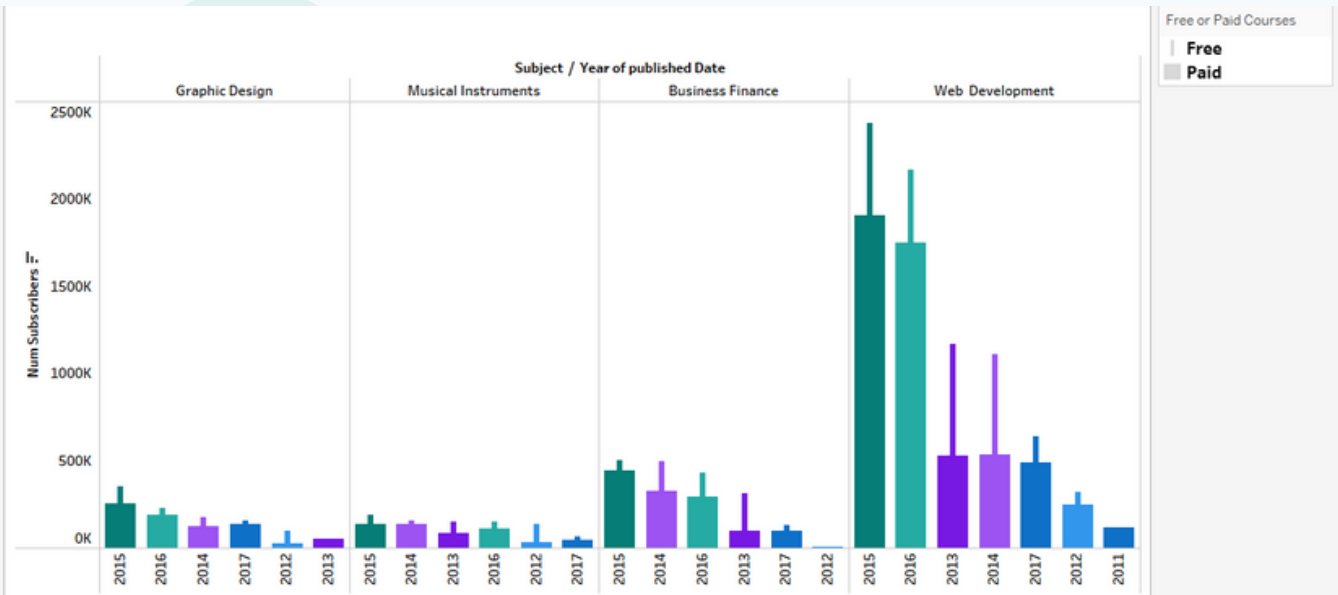
The table below shows the top 10 most Subscribed Courses. According to the data, the most subscribed course is a free web development course .



Finding 5

Figure 4: Subscription Trend

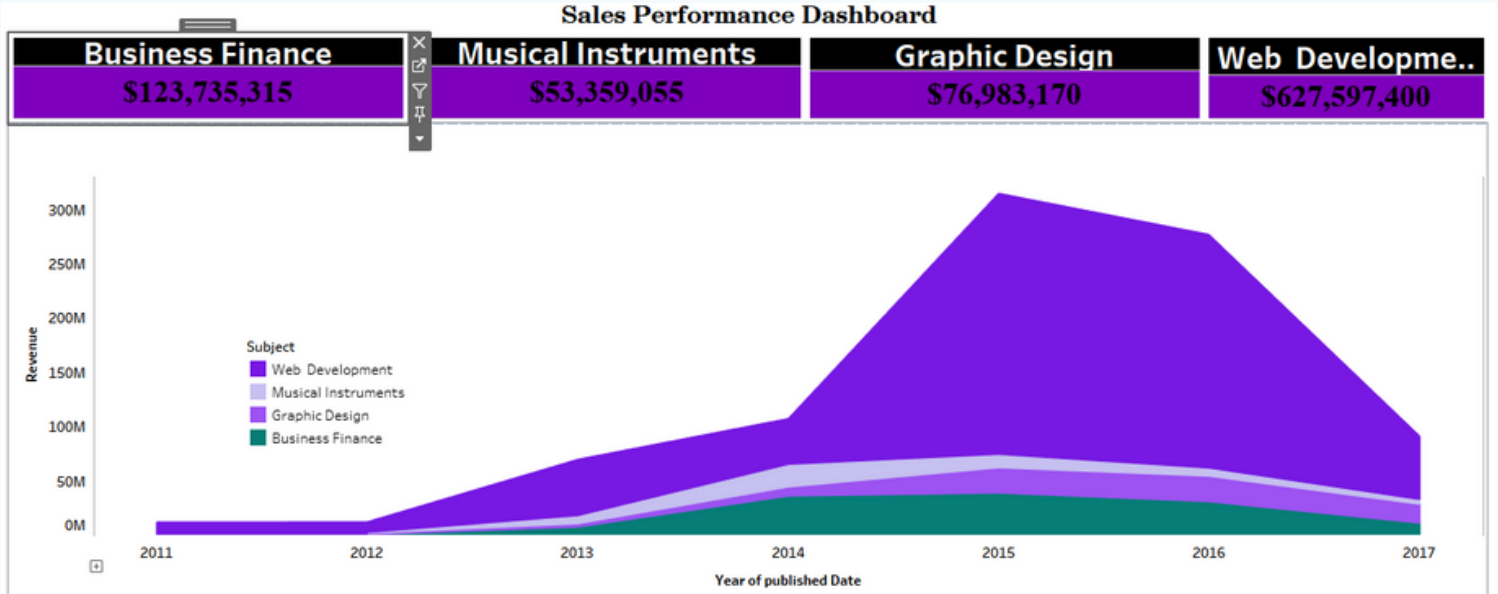
The table below shows the subscription trend of each subject in 7 years.



Finding 6

Figure 5: Sales Performance Dashboard

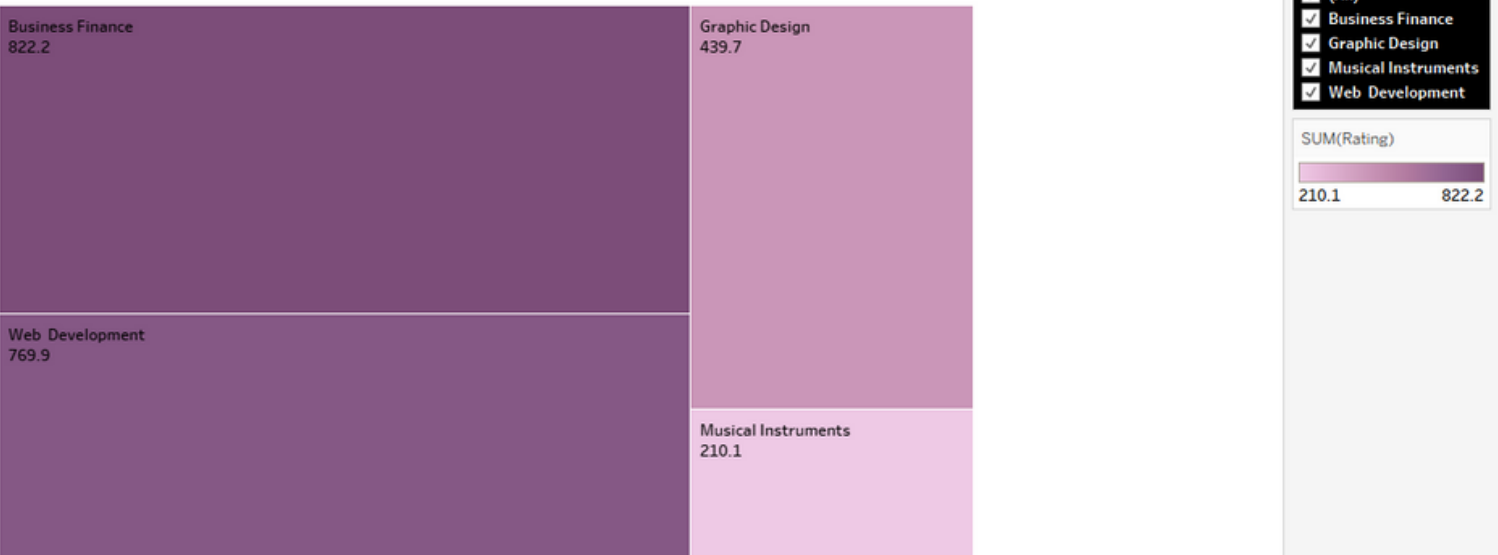
Web Development has the highest Total Revenue of \$627,597,400 and the highest sales of \$240,171,550 was generated in 2015



Finding 7

Figure 6: Rating by Subject

The table below shows the ratings by subject which reveals Business Finance rated higher than Web development.



Analysis

Whys Analysis

According to the report, Web Development was rated lower than its potency

why?

Web development is the most popular and most profitable course. My insight from the data is that the most subscribed courses are free web development courses.

why?

Business Finance was rated higher than Web Development because most of the courses in Web Development are offered for free, affecting subscribers' reviews to encourage more intending subscribers to this course.

why?

...because Web Development courses are not marketable enough.

This could cause a reduction in the Revenue or Sales Performance of Web Development Courses in the subsequent years.

Conclusion

- There is a higher chance of increasing the revenue in Web development if the Market Strategy of this course is worked on as it is more popular and more reviews from the subscribers should be generated.
- More courses should be published on Web Development to boost revenue and increase sales performance as it was the leading subject right from 2011- 2017.
- Reviews from subscribers that enroll for each subject should be taken into consideration and ensure all subscribers rate the course at the end of each program.
- Web Development is the most popular subject and the most profitable subject that provided the highest Revenue of all.



Capstone Project Description

I decided to analyze a large dataset. I got a dataset of almost 10,000 pieces of recorded sales of a US superstore on Kaggle. The data includes the category and subcategories of products sold, all the States and the 4 Regions in the United State, the number of goods sold, the profit made on each product, and the discount.

I did a review of the data and discovered the problem of an increase in loss of sales and a reduction in profit. My hypothesis for the cause of the problem based on my intuition included that the more the discount, the higher the loss and the lower the discount, the higher the profit made.

The impact of the Problem could cause a drastic loss to the stakeholders if not solved.

Data Design

The data was cleaned, checked for duplicates, removed all the blank cells, and adjusted inconsistent data using Google Sheets. The cleaned data were analysed using Tableau for compelling Visualization.

This study aims to track the sales performance of the product category within the states and regions, establish the region that has the highest Revenue and identify opportunities for increased Revenue.



Findings

Finding 8

Table 3: Region by sum of total profit

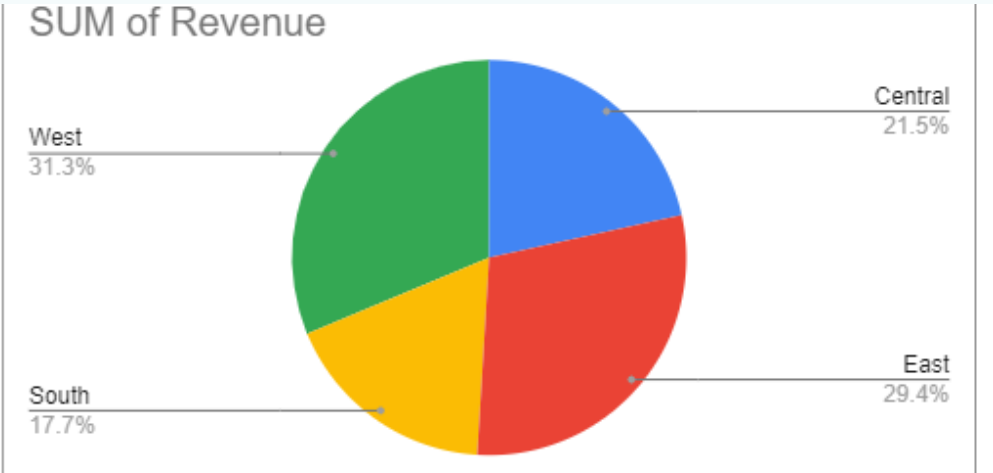
The data below shows the sum of profit in all the regions. The western Region has the highest profit of \$532,529

SUM of Total Pr Profit/Loss			
Region	Loss	Profit	Grand Total
Central	-\$279,543.70	\$498,997.45	\$219,453.75
East	-\$241,470.09	\$691,932.17	\$450,462.08
South	-\$151,217.14	\$378,663.63	\$227,446.49
West	-\$110,670.06	\$643,199.60	\$532,529.54
Grand Total	-\$782,900.99	\$2,212,792.85	\$1,429,891.86

Finding 9

Figure 7: The total sum of Revenue

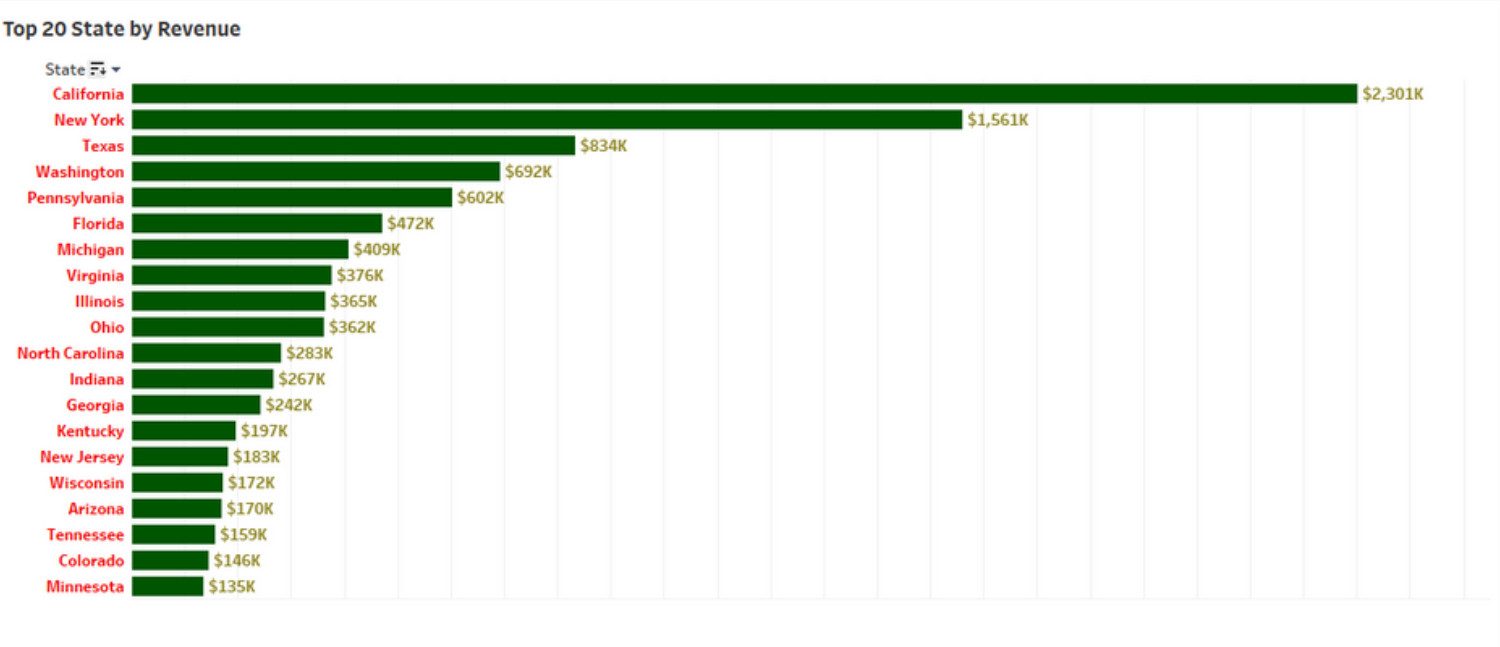
The data below shows that the western part of the country made more sales



Finding 10

Figure 8: Top 20 State by Revenue

California made the highest sales of \$2,301



Finding 11

Table 4: Category by Average Discount

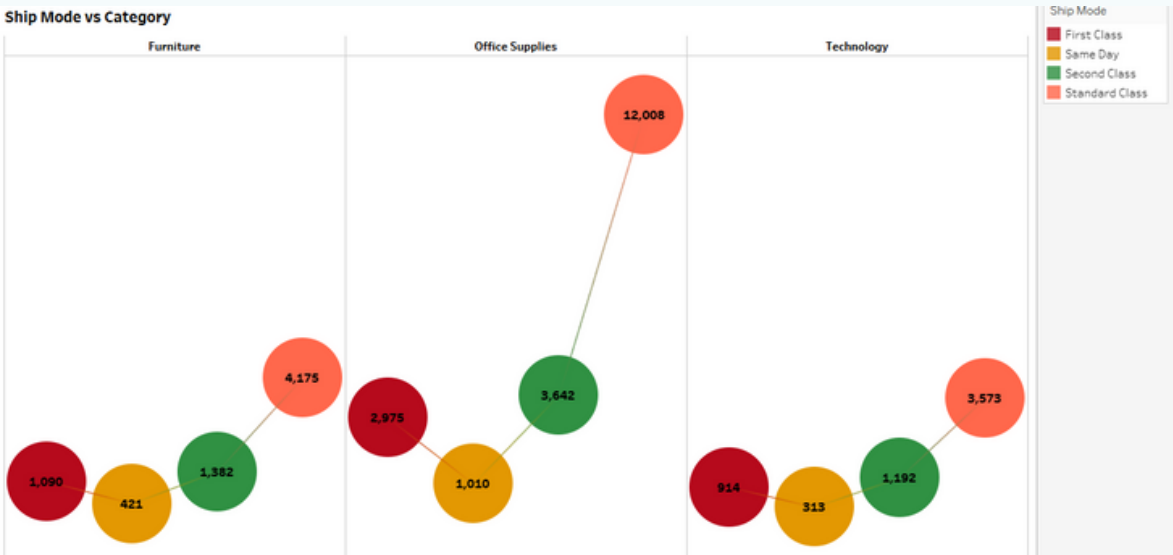
The data below shows Office Supplies had the highest discount, hence the highest quantity sold but the profit made is lower compared to Technology which had the lowest discounting and lowest quantity sold and made the highest profit.

Category	SUM of Discount	SUM of Total Profit	SUM of Quantity
Furniture	36859%	\$109,490.91	8,020
Office Supplies	94620%	\$608,814.49	22,861
Technology	24440%	\$711,586.46	6,939
Grand Total	155919%	\$1,429,891.86	37,820

Finding 12

Figure 9: Ship mode by Category

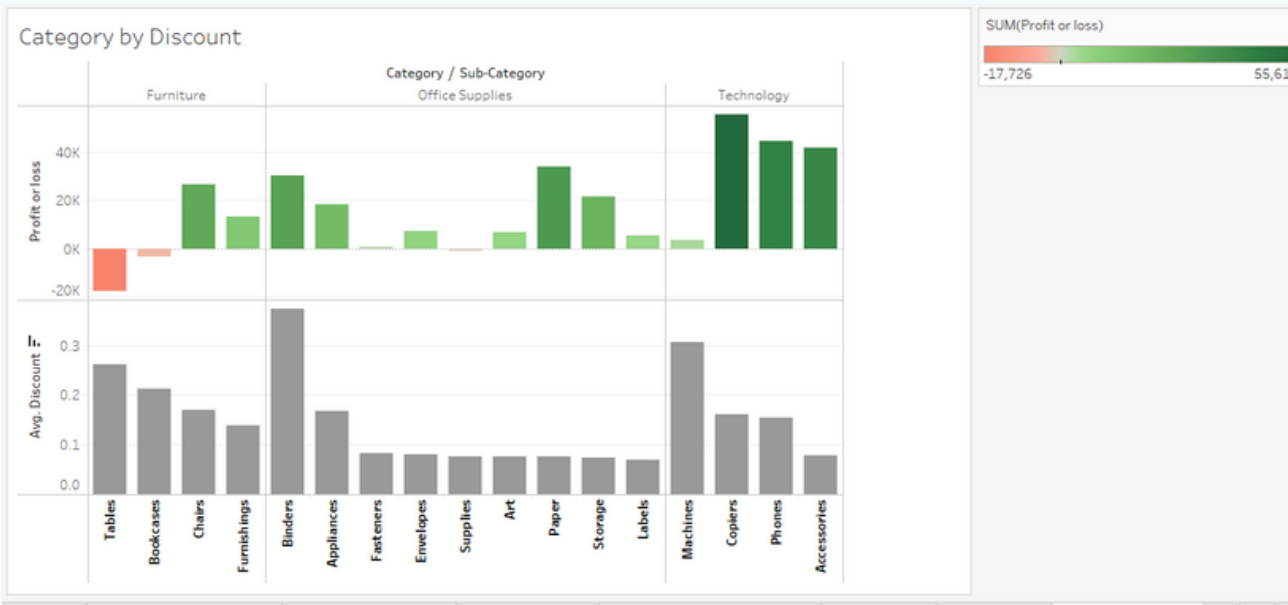
The data below shows that the office supplies standard ship mode has the highest quantity sold.



Finding 13

Figure 10: Subcategory by Discount

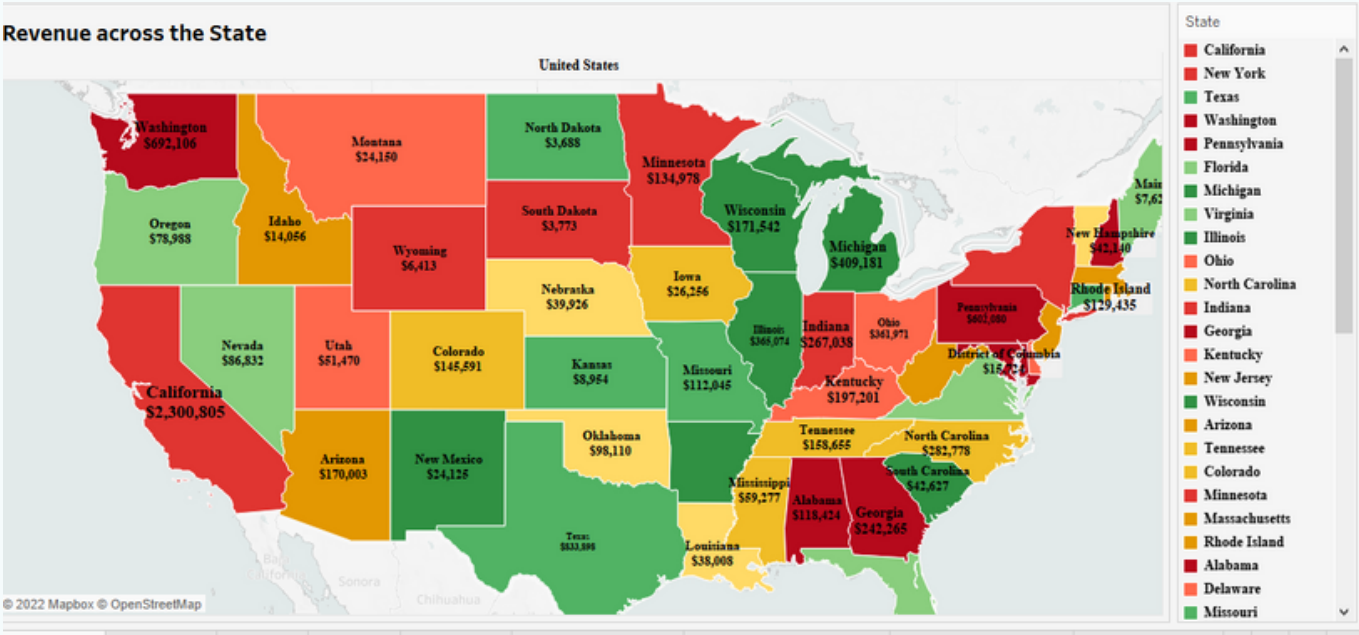
The data below shows the sum of profit and the discounting in all the sub categories. .Tables and bookcases are not profitable but rather run loss.



Finding 14

Figure 11: Revenue across the State

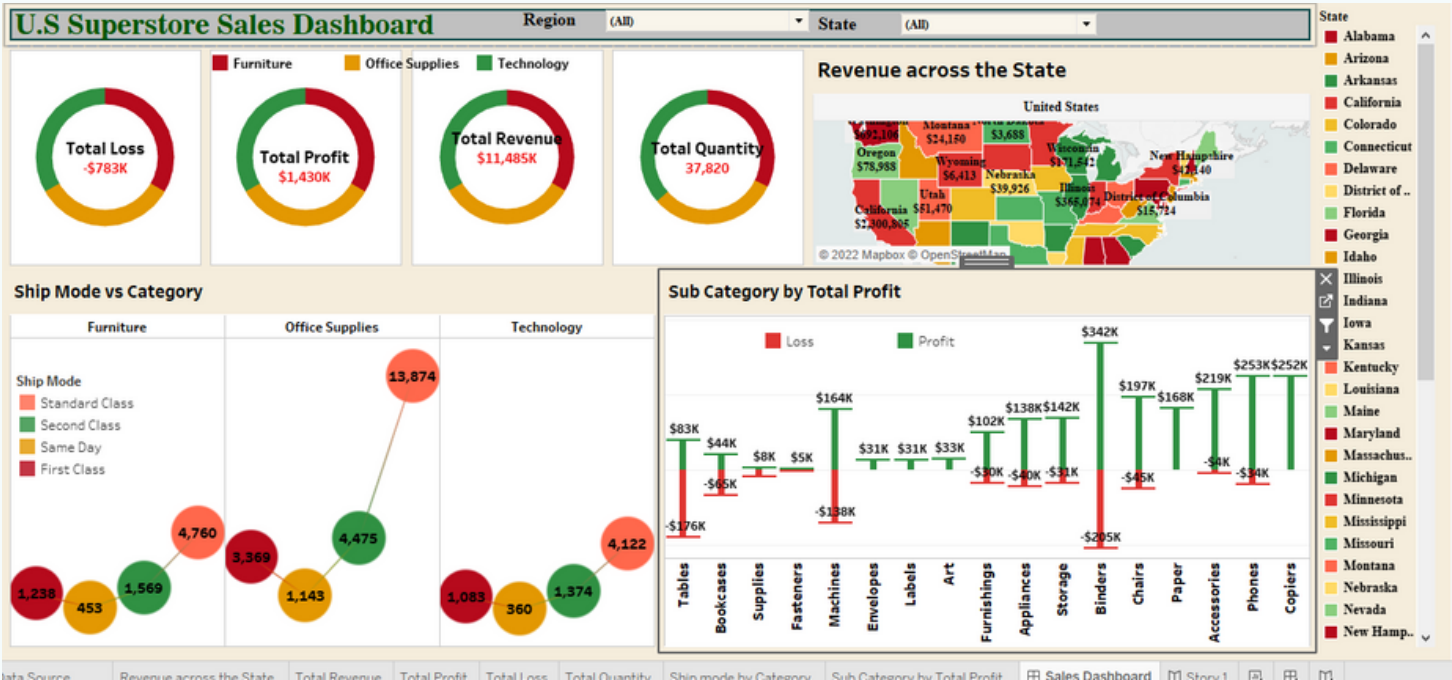
The data below shows that California is the most profitable state of all



Finding 15

Figure 12: Sales Performance Dashboard

The data below shows the Key Performance Indicators of all the sales made in US.



Analysis

5 whys Analysis

Problem -: From the data, I intuitively discovered that there were huge losses in profit which were caused by the high rate of Discount pricing. The higher the discounting, the lower the profit made and the higher the loss incurred.

WHY?

1. It's well understood that discounting helps in generating sales, reducing marketing costs and increasing demand. I presumed the highly discounted prices were made because of low demand.

WHY?

2. A decrease in demand can be caused by competition among sellers in terms of pricing.

WHY?

3...because the same products were being produced by different producers (competition among producers).

WHY?

4. ..because they were in high demand by consumers (highly competitive market).

WHY?

5...because there's an expansion in the producer's company which in turn increase the supply.

Conclusion

- A high discount rate can devalue a product monetarily. Constant discounting can affect the bottom line and slow down the rate of growth based on customer needs to purchase only during promotions and discounts.
- Marketing Strategies should be leveraged on to increase the demand for products instead of high discounting.

Appendix



Google Sheets Data Set for Udemy Project

https://docs.google.com/spreadsheets/d/1PWE_NW/wcFLJMVXOarIHzRTYQPaUMeZAbI4JW/ssFIWs/edit?usp=sharing

Tableau Data Visualization For Udemy Project

https://public.tableau.com/views/UdemyCoursesDashboard_16670268833100/Story?:language=en-US&:display_count=n&:origin=viz_share_link

Google Sheets Data Set for US Superstore Project

https://docs.google.com/spreadsheets/d/1moGa6JGqUxIFjdc0OV2kQNV7cy6gVeZ_Y4Wb05fMbxc/edit?usp=sharing

Tableau Data Visualization For [chosen] Project

https://public.tableau.com/shared/44M5Y96Xg?:display_count=n&:origin=viz_share_link