

PORTFOLIO DATA ANALYTICS

LEVEL 1

JULY 2023

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Background

I am an enthusiastic and detail-oriented office manager whose role revolves around office coordination, expense tracking and record keeping.

My interest in data analysis began while working as an Administrative Assistant in Alephgimel Nigeria Ltd. I often wondered how companies carried on businesses smoothly and how they were able to analyze and interpret data to derive meaningful insights and increase revenue afterwards. I wondered how they knew what areas needed improvement at every given time. This piqued my interest and led me to taking courses on data analysis and since then, I have been on a continuous quest to refine my craft and deliver exceptional results.

I hold a Master's degree in International Business Law from Coventry University and an LLB from Lead City University. I intend to use my knowledge to help businesses make meaningful decisions.



Project 1

Project Description

As a data Analyst, I was tasked with understanding the pricing and subscription of Udemy courses for four (4) top courses and identifying trends and patterns which would help provide useful insights for the product and marketing team. In order to achieve this objective, I identified six (6) questions:

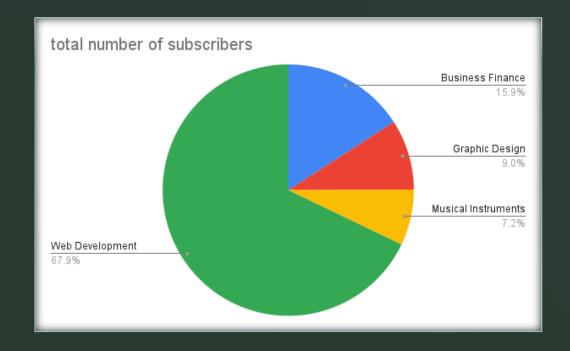
- What are the total numbers of subscribers in each subject?
- How does the average content duration/price/number of students vary across different subjects?
- How many courses are free and paid for each subject?
- What is the average price of web development courses at different levels?
- What are the 20 most popular courses? Also, include the following information:
 - Their Level
 - Whether they are free or paid
 - Whether any are free beginner courses
- Does content duration impact the price of the course?

Data Design

- I imported the Udemy dataset to google sheet and consolidated it.
- I proceeded to clean up the dataset by removing duplicates and blank rows that can interfere with the accuracy of my data.
- After making sure my data was clean and accurate, I analyzed the dataset by creating pivot tables and visualizations using both google sheet and Tableau.

1. What are the total numbers of subscribers in each subject?

- Web development has the highest number of subscribers totaling 67.9%, while the remaining 32.1% is shared amongst Business Finance, Graphic design and Musical instruments, with Business finance following it closely.
- > There is a huge margin between Web Development and the remaining three (3) other courses.

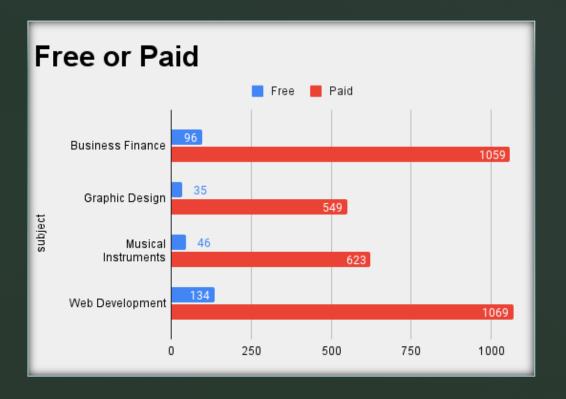


- 2. How does the average content duration/price/number of students vary across different subjects?
 - Musical instruments has the lowest content duration, number of subscribers and the lowest price, making it maintain the same relationship with Web Development which on the other hand ranks the highest in content duration, has the highest number of subscribers and ranks the highest price.
 - o Graphic Design and Business Finance do not maintain the same relationship across all categories. Graphic Design ranks the second highest on subscribers and content duration but averages third in price. While Business Finance averages third on number of subscribers and content duration but ranks second in price.



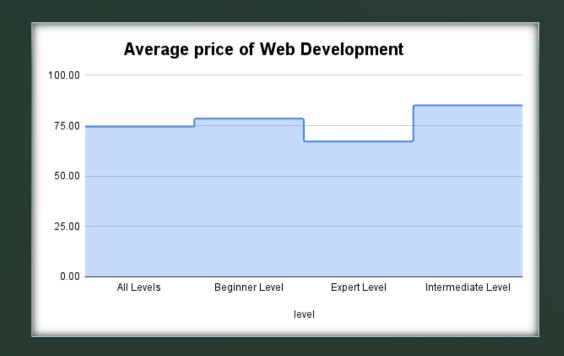
3. How many courses are free and paid for each subject

- Web development offers the highest number of free courses totaling 134.
- Graphic Design offers the least number of courses totaling 34.



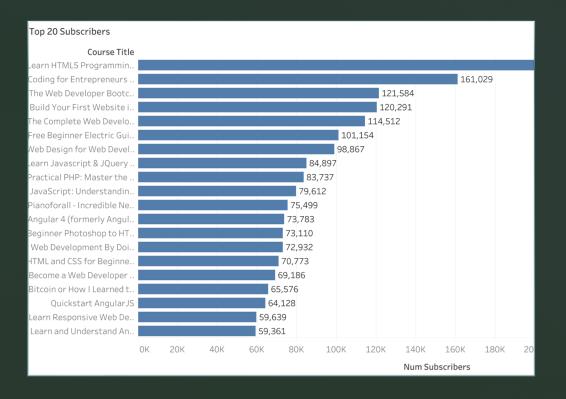
4. What is the average price of web development courses at different levels?

Udemy generates more income from the intermediate level of web development which is the highest in price, seconded by beginner level and expert level being the lowest in price.



5. What are the 20 most popular courses?

The top 20 most popular courses are from web development which is almost 68%, with the exclusion of 3 courses of which 2 are from musical instruments and 1 from Bitcoin classes.



6. Does content duration impact the price of the course?

There are free and cheap courses which span the longest, and on the other hand, there are expensive courses with short duration. Hence content duration has no impact on the course price.



Summary of findings

Top 5 courses:

 Almost 68% of subscribers come from Web Development and the top 5 courses are for Web development as well.

Business Finance vs Web Development:

Business Finance and web development have almost equal number of total courses (1155 vs 1203), but web development course are almost 2x in content duration and have 4x the average subscribers.

Course Pricing:

- The price does not impact on the number of subscribers because Web Development has the most expensive courses, yet the highest subscribers which accounts for the most revenue at Udemy.
- Musical Instruments drives the lowest revenue in Udemy .

Recommended Actions

Product recommendations:

- Focus on getting more paid course by creators in Web Development, being that it is what drives the most revenue for Udemy.
- Make more awareness for Business Finance and Musical instruments courses as they have the least subscription of 9.0% and 7.2% respectively.
- Introduce more free musical Instruments courses with more engaging teachers.

Marketing recommendations:

- Our data tells us that our web development courses are most popular, and people are willing to pay for it. Marketing and advertising campaigns should therefore focus on creating more Web Development courses as it seems to drive the most revenue for Udemy.
- Create a survey to ascertain why more subscribers are driven towards Web development courses. Could it be the manner of teaching, or an itch everyone intends to scratch?
- Invest in more sponsored advertisements notifying the public of free courses as well as some perks like introducing live shows on few occasions where they can put their learnings to practical use.

Superstore Project 2



Project Description

- To identify weak areas and opportunities for superstore to expand and boost sales.
- This will help us to:
- Identify the best-selling sub-category.
- Identify the regions that need improvements.
- Create targeted strategies to increase the company revenue.

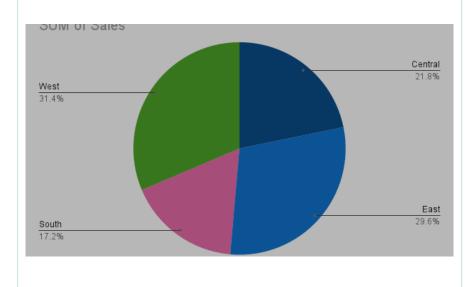
Data Design

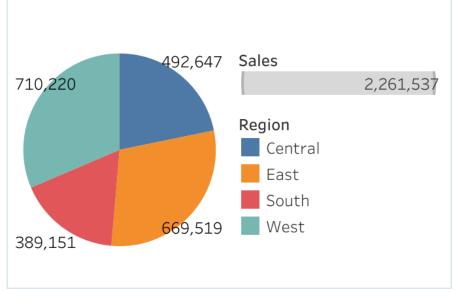
- I imported the Superstore dataset to google sheet.
- I proceeded to clean up the dataset by removing blank rows that can interfere with the accuracy of my data.
- After making sure my data was clean and accurate, I analyzed the dataset by creating pivot tables and visualizations using both google sheet and Tableau.

Key Questions

- What is the overall performance of superstore and how does this vary by region?
- Which category has the most sales in each region?
- What is the preferred shipping mode across different regions?
- What subcategories have the highest contribution across the top 10 states?
- Which year accounts for the highest revenue judging by the total sales from 2015-2018?

1. What is the overall performance of superstore and how does this vary by region?



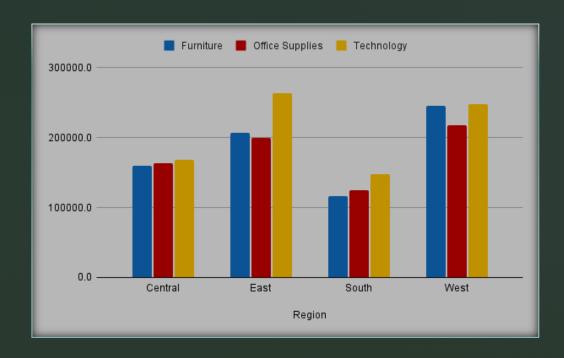


> The west region records the highest sales and the highest overall percentage between 2015 and 2018 totalling 31.4%.

The East region follows it closely with 29.6% falling behind with just 1.8%. Central region comes third with 21.8% in sales while the South region has the least number of sales with 17.2% in total sales.

2. Which category has the most sales in each region?

- Technology drives the most revenue across all regions with the East being the highest.
- ✓ Furniture comes second, the West topping the graph, seconded by the East, followed by the Central and lastly, the South.
- There is a co-relationship between the south and central for Furniture and Office Supplies.
- The south has the overall lowest sales across all categories.



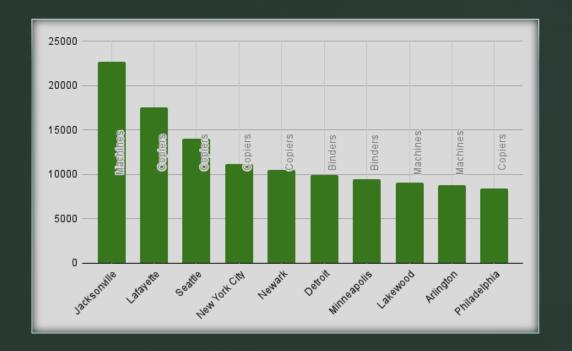
3. What is the most common ship mode and how does it vary across different regions?

- The most common and widely used shipping mode in all the regions is standard shipping which averagely takes 5 days.
- Second class shipping takes about 4 days to ship.
- First Class ships with 2 days
- Same day delivery ships on the day the item was ordered.



4. What subcategories have the highest contribution across the top 10 states?

- ☐ The top 10 sub-categories is shared across 10 states.
- Machines, Copiers and binders are the most frequently purchased subcategories.



5. Which year accounts for the highest revenue judging by the total sales from 2015-2018?

- ✓ 2018 accounts for the highest overall sales between the period of 2015 2018.
- 2016 on the other hand records the lowest overall sale within the same period.
- ✓ Overall, there is a yearly improvement in the overall sales.



Summary of findings:

Top Regions:

- The West accounts for the highest revenue of 31.6% followed by the East at 29.6%.
- Both regions maintain the same relationship across all categories and drive almost the same revenue.

Sales:

There is a yearly revenue increase from 2015 - 2018 except for 2016 which recorded a little drop in the overall sales.

Subcategory:

The top 3 sold product subcategory are Machines, copiers and binders and it cuts across all regions and states.

Ship Mode:

The store offers four types of shipping, but Standard shipping is the most commonly used method.

Recommended Actions:

Product Recommendation:

- Since technology drives the highest sales across all the regions, it is advisable to ensure availability of the most repurchased items.
- New products should also be introduced to provide customers with product options.

Marketing Recommendation:

- Superstore should focus on creating more awareness for stores in the south. They can offer product discounts and run promotion for the products with the least sales to help make more revenue.
- There is a need to conduct studies/research in the South region to understand why it seems to fall short in all category. This may help stakeholders understand customers' category preference.
- A store with high pedestrian traffic can be opened, this may be a way to attract more patronage.
- Superstore should introduce a customer loyalty reward for their loyal customers. This will make them feel seen and appreciated and will be drawn to shop more knowing they are rewarded.