**POWER BI PROJECT WRITE UP**

**UDEMY COURSES DATASET ANALYSIS**

**Objective:**

Gaining knowledge about the available Udemy courses, their distribution across different categories, pricing patterns, reviews, and general performance, is the aim of this investigation. This will make it easier to comprehend the features of the best-performing courses and potential areas for growth.

**Project description:**

The dataset consists of **3**.682 recordsof courses from 4 subjects (Business Finance, Graphic Design, Musical Instruments and Web Design**)** taken from Udemy. The dataset was an excel file imported into Power BI and transformed to power query for cleaning and modelling. Prior to transformation, the dataset was observed closely to generate some questions. The following were the questions;

1. Which subject has the most courses, and what does that suggest about Udemy's course offerings?
2. Is there a relationship between high course reviews and the number of students subscribed to a course?
3. What is the average price of courses in each subject, and which subjects tend to have higher-priced courses?
4. How long are the courses on average in each category, and how might course duration impact student engagement?
5. Is there a reason people subscribe more to paid courses as compared to free courses?

**THE DATA DESIGN PROCESS**

**Step 1: Data exploration**

I explored the data on the Power Query Editor by inspecting all the columns and rows closely.

**Step 2: Data Cleaning**

I ensured that each column had the correct data type. Added column to separate the year from published time stamp. Removed duplicated entries. Finally, I closed and applied the data into power query

**Step 3: Data Analysis Overview and Visualizations**

Power BI was the tool used to create reports for analysis and Data Analysis Expressions (DAX) was used to create certain measures to further provide insights.

Problem/Question:

1. Which subject has the most courses, and what does that suggest about Udemy's course offerings?

Findings/Insights:

The dataset analysis revealed that the most popular courses are in Web Development and Business Finance, suggesting a high demand for technological expertise. In contrast, there are comparatively fewer courses available in areas like graphic design and musical instruments, indicating either a reduced demand or fewer offerings in these fields. This insight could guide decisions on how to balance the platform's course library by increasing the number of courses offered in these areas.

Problem/Question:

1. Is there a relationship between high course reviews and the number of students subscribed to a course?

Findings/Insights:

The table visual showed that subjects with higher reviews tend to have significantly higher subscribers. This suggests that students may use the number of reviews as a measure of course quality and popularity, thereby subscribing to these courses. Courses with very few reviews often struggle to gain engagements. Udemy could use this insight to encourage instructors to solicit reviews from students to enhance course visibility and success.

Problem/Question:

1. What is the average price of courses in each subject, and which subjects tend to have higher-priced courses?

Findings/Insights:

The tree map reveals that courses under web development and business finance tend to have the highest average prices across all levels, possibly due to their high demand or technicality. Meanwhile, a subject like Music Instrument has lower average course prices. This could suggest that professional courses are highly priced, while hobby-related courses like instrumental attract a more budget-conscious audience.

Problem/Question:

1. How long are the courses on average in each category, and how might course duration impact student engagement?

Findings/Insights:

The table visual showed that web development courses generally have longer average durations, often exceeding 5 hours, while subjects like Musical Instruments have shorter course duration of about 3 hours. The longer durations for technical courses may reflect the complexity and depth of the topics covered, whereas shorter courses in Musical Instruments may cater to students looking for less time-intensive learning. This could influence Udemy's strategy for tailoring course lengths based on the subject matter and student preferences for more concise learning experiences.

Problem/Question

1. Is there a reason people subscribe more to paid courses as compared to free courses?

Findings/Insights:

The report shows that there are about 3362 free courses on Udemy and about 310 paid courses. The donut chart shows that 69.48% of subscribers go for paid courses, while only 30.52% go for free courses. This suggests that paid courses are often more comprehensive and in-depth, also, people often perceive paid courses as higher quality. Subscribers may believe that paying for a course guarantees better instruction, materials and structure compared to free courses. Hence, Udemy should focus on increasing the number of paid courses in order to drive more subscribers and increase their revenue.