

PROBLEM STATEMENT -

You are a data analyst working with an EdTech startup that wants to grow its offerings in recorded lectures. The company has collected data from various EdTech websites but needs your expertise to make sense of it.

Your task is to clean and analyse this data to uncover valuable insights. To ensure the startup can effectively leverage this information, you will create a dashboard that presents following insights. Your analysis will help the company identify areas for improvement and opportunities for growth in their recorded lecture services. The most Important Emphasis should be category wise.

1. Examine the distribution of course types across categories to uncover trends and insights, enabling the client to strategically determine which course types to launch in specific categories for maximum impact and alignment with learner demand, also count the number of courses by category and sub-category.
2. Calculate the average number of views for each category, sub-category, and language to provide insights into viewer engagement patterns and inform strategic content development.
3. Identify the most commonly taught skills in today's educational landscape based on the data given based on category to ensure course offerings remain relevant and aligned with current job market demands.
4. What is the distribution of various Languages in which a particular course is created?
5. Determine the language preferences for each category based on viewer preferences, so that clients can optimise course accessibility and better align content with audience demand. Clients only want to analyse this data for the top 5 categories based on user preferences.
6. Investigate the relationship between the availability of subtitles and the number of views for courses to determine how subtitle options may impact viewer engagement and accessibility.
7. Identify the top three instructors for each category and subcategory based on ratings to highlight educators who consistently deliver high-quality content and effectively engage learners so that they can be approached by your client to make content for them and make this visual as static.
8. Examine the relationship between course duration and the number of views to understand how the length of a course may influence viewer engagement and preferences for each category and sub-category, if course duration has a month (in each month only 60 hours of content) and for flexible schedules make the timing as 200 hours.

In the context of recorded lectures, we need to investigate whether the variety of skills offered within each category and subcategory has a measurable impact on viewership