BUSINESS REQUIREMENT DOCUMENT(BRD)

1. **Subscriber Behavior Analysis by Course Type**
    - *Problem Statement*: Examine how subscriber numbers vary across different types of courses (is_paid vs. free). Use SQL to aggregate and analyze trends in course subscriptions, and visualize subscriber patterns across various subjects in Power BI to determine which course types are more effective in attracting audiences.
2. **Revenue and Pricing Optimization**
    - *Problem Statement*: Analyze the relationship between course pricing and subscriber engagement. Using SQL, assess if there's an optimal price range that maximizes the number of subscribers for paid courses. In Power BI, visualize how different pricing tiers affect subscriber numbers and identify pricing strategies that could optimize revenue without sacrificing accessibility.
3. **Time-Based Trends in Course Creation**
    - *Problem Statement*: Investigate trends in course creation over time by extracting month and year data from the published_timestamp field. Use SQL to categorize data by these time periods and identify seasonal spikes or declines in new course launches. Visualize this data in Power BI to understand peak times for course publishing on Udemy, which can inform content release strategies.
4. **Engagement Analysis Across Skill Levels**
    - *Problem Statement*: Determine the engagement levels for different course difficulty levels (level). Use SQL to calculate average subscribers and reviews for beginner, intermediate, and advanced courses. Visualize the engagement trends in Power BI to uncover which skill levels attract the most users, potentially guiding content recommendations for targeted audiences.
5. **Content Duration and Lecture Count Impact on Course Value**
    - *Problem Statement*: Analyze the correlation between content_duration and num_lectures to determine course value for users. Use SQL to calculate the ratio of lectures to content duration, providing insights into whether longer courses or those with more lectures lead to higher engagement. Visualize this in Power BI to help Udemy understand the ideal balance between course length and lecture count.
6. **Subject Popularity and Subscriber Distribution**
    - *Problem Statement*: Explore how the subject variable influences subscriber distribution. Use SQL to identify the subjects with the highest average subscribers and compare engagement across different topics. Visualize subject popularity in Power BI, allowing Udemy to tailor its course catalog based on subscriber interest.
7. **Conversion Rate Analysis for Reviews and Subscribers**
    - *Problem Statement*: Calculate the ratio of num_reviews to num_subscribers to assess user engagement and conversion rates. In SQL, identify which courses have the highest review-

to-subscriber ratio, indicating higher user satisfaction or engagement. Visualize this metric in Power BI to highlight courses that may be highly impactful or need improvement.

8. **Trend Analysis of Paid vs. Free Courses by Duration**
    - *Problem Statement*: Compare content_duration for paid and free courses to understand how course duration affects pricing strategies. Use SQL to compute average duration for both categories and visualize in Power BI, providing insights on optimal content length for each type.
9. **Impact of Published Date on Course Success**
    - *Problem Statement*: Analyze the effect of the published_timestamp on course success by examining subscriber counts for courses published in different years. Use SQL to extract year-based data and aggregate subscriber numbers, and then use Power BI to reveal how recent courses compare to older ones in terms of engagement.
10. **Identification of Top-Performing Course Categories**

- *Problem Statement*: Identify top-performing course categories by analyzing subject, num_subscribers, and num_reviews. Use SQL to rank subjects based on total subscribers and reviews, and display this in Power BI to help Udemy focus on high-demand categories for future course development.