**Objective**

As an analytics consultant for JD Power and Associates, your task is to perform a competitive analysis of the entry-level luxury car market in the USA. This analysis will be based on insights derived from social media conversations on Edmunds.com discussion forums. The key goal is to provide actionable insights to the client without performing sentiment analysis.

**Tasks**

1. **Data Collection**
   * Write a Python scraper to extract messages from the *Entry-Level Luxury Performance Sedans* forum on Edmunds.com.
   * Gather approximately 5,000 posts, ensuring multiple brands and models are discussed without a single focus.
   * Choose either the oldest or newest posts and document the choice.
   * Save the data in a CSV file with columns: date and message.
2. **Task A: Test Zipf’s Law**
   * Econometrically test if the collected data supports Zipf’s Law.
   * Plot the top 100 most common words against the theoretical prediction without removing stopwords, stemming, or lemmatization.
3. **Task B: Identify Top Brands**
   * Identify the top 10 car brands based on word frequencies.
   * Replace car models with their respective brands and count each brand mention only once per message.
   * Provide a frequency table of the top 10 brands.
4. **Task C: Calculate Lift Ratios**
   * Compute lift ratios to identify associations between the top 10 brands.
   * Ensure mentions of brands separated by more than 5-7 words in a post are excluded.
   * Display the lift values in a table.
5. **Task D: Multi-Dimensional Scaling (MDS)**
   * Create an MDS map for the brands using Python.
   * Visualize their relationships based on the computed lift ratios.
6. **Task E: Insights from Lift and MDS**
   * Provide key insights from Tasks C and D to help the client understand brand associations.
7. **Task F: Identify Attributes**
   * Identify the 5 most frequently mentioned car attributes or features.
   * Associate these attributes with the top 5 brands.
8. **Task G: Client Recommendations**
   * Provide actionable recommendations based on insights from Task F.
9. **Task H: Aspirational Brand Analysis**
   * Identify the most aspirational brand in terms of user interest in purchasing or owning.
   * Detail the method and analysis used to measure aspirational interest.
   * Discuss the business implications for the identified brand.