Namita Meena  
22HS10037 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**1. Evaluate Emotion, Gaze, and MetaKGP Scores:**

**Prompt:**Analyse the emotion scores, gaze metrics, and MetaKGP data for each candidate. Identify the dominant emotions displayed during their introduction and assess their potential impact on overall communication.  
**Response:**  Python code for giving a descriptive analysis of all three

**2. Separate Graphs for Emotion, Gaze, and MetaKGP:**

**Prompt:**Generate individual graphs for emotion scores, gaze metrics, and MetaKGP data. Ensure each graph clearly represents the distinct data sets to facilitate a focused analysis of each factor.  
**Response:** Python code for giving 3 individual graphs

**3. Comparing Graph Representations:**

**Prompt:**Compare the effectiveness of using separate graphs versus combined representations for emotions, gaze, and metadata. Which approach provides clearer insights for performance evaluation, and why?

**Response:** If your goal is to provide detailed feedback and analyse each factor's impact on a candidate's performance, separate graphs are the better choice.

**4. Factor Weighting and Overall Score Calculation:**

**Prompt:**Interpret the data from emotions, gaze, and metadata. Assign appropriate weightage to each factor based on their significance

**Response:** emotions (40%), gaze (30%), and metadata (30%)—and calculate an overall performance score. Visualize the results with a bar chart and a table.  
Overall Score=(Emotions Score×0.40)+(Gaze Score×0.30)+(Metadata Score×0.30)

**5. Emotional Stability and Communication Effectiveness:**

**Prompt:**Assess how emotional stability or fluctuations in candidates' behaviour might influence their communication effectiveness. Consider how emotions like confidence, anxiety, or excitement could impact their performance.

**6. Transcript Analysis for Communication Quality:**

**Prompt:**Analyse the transcript scores to evaluate each candidate's communication quality. Focus on key factors such as fluency, clarity, and coherence.

**Response:**  Python code for giving a descriptive analysis

**7. Identifying and Excluding Irrelevant Data:**

**Prompt1:** Explain the prominence of the 'id' field in the data. Determine whether it is essential forcommunication analysis, and, if not, modify the code to exclude 'id' from the visualizations and re-focus on key communication metrics.

**Response:**  Nature of id: It seems to be a unique identifier or sequential numbering that doesn't contribute to understanding fluency, engagement, confidence, or other communication aspects. Impact on Visualization: The high values overshadow other important metrics, making it harder to interpret the actual communication scores.  
  
**Prompt2:** Modify the code to exclude non-relevant columns like id from the analysis. Re-evaluate Key Metrics: Focus on metrics like positive, negative, confident, concise, enthusiastic, and speech\_speed that directly impact communication effectiveness.

**8. Transcript Metrics Weighting and Scoring:**

**Prompt:**Interpret the transcript data and assign weightages to key communication metrics—positivity, negativity, confidence, conciseness, enthusiasm, and speech speed. Calculate an overall transcript score using these weighted factors, and display the results in a bar chart.

**Response:** Weightage Assignment for Each Metric: To calculate an overall score for each candidate's transcript, let's assign weightages based on the importance of each metric: Positive: 20% Negative: 10% (inverted to reward lower scores) Confident: 25% Concise: 15% Enthusiastic: 20% Speech Speed: 10% (normalized around an optimal range).

**9. Overall Transcript Score Interpretation:**

**Prompt:**Interpret the overall transcript scores for each candidate, detailing their performance across communication metrics such as positivity, confidence, and clarity. Highlight top performers and areas where improvement is needed.

**Response:**

**Top Performers:**

* **Candidate 2 (0.81):** Highest score due to strong positivity, confidence, and enthusiasm, with balanced speech speed.
* **Candidate 1 (0.78):** Strong in positivity and confidence, with moderate enthusiasm, making them a solid communicator.
* **Candidate 9 (0.74):** High enthusiasm and confidence contribute to effective communication.

**Moderate Performers:**

* **Candidate 3 (0.72):** Strong speech speed but lower positivity and confidence.
* **Candidate 6 (0.71):** Good confidence and enthusiasm, with balanced speech speed.
* **Candidate 7 (0.69):** Strong confidence and positivity but needs improvement in clarity and pacing.

**Areas for Improvement:**

* **Candidate 10 (0.70):** Low confidence and enthusiasm, with high negative scores.
* **Candidate 4 (0.70):** Good positivity and conciseness but lower confidence.
* **Candidate 5 (0.67):** Moderate scores across the board, lacking standout performance.
* **Candidate 8 (0.67):** Lowest score, needs improvement in confidence, positivity, and conciseness.

**10. Text Analysis for Key Themes and Expertise:**

**Prompt:**Perform a detailed text analysis of the candidate transcripts to identify recurring themes, tone, confidence, and potential areas of expertise. Highlight how these factors contribute to the candidate's communication style.

**11. Recruitment and Confidence Scoring:**

**Prompt:**Analyse only the words related to recruitment in the transcripts and assign scores to each candidate based on these keywords. Create a table showing each candidate’s scores for recruitment-related terms and confidence levels.

**12. Weighting Recruitment and Confidence Metrics:**

**Prompt:**Assign weightage to confidence and recruitment-related terms according to their importance (e.g., 40% for confidence and 60% for recruitment). Calculate the overall score for each candidate and visualize the results in a bar graph.

**13. Consolidating Scores from All Data Sets:**

**Prompt:**Create a new table that consolidates each candidate’s overall scores across all three data sets—emotions, gaze, and transcript data. Visualize the combined scores using a bar chart.

**14. Combined Graph for Emotion, Transcript, and Text Data:**

**Prompt:**Merge the graphs for emotion data, transcript scores, and transcript text analysis into one comprehensive visualization. Use this combined graph to draw clear insights from all the data.