ABSTRACT

The Grad-Chat project is a mobile application designed to bridge the gap between college juniors and seniors, fostering mentorship and community engagement to support academic and career success. Recognizing the challenges that junior students face in navigating college life, Grad-Chat enables them to seek guidance from experienced seniors who are eager to share insights and resources. The platform categorizes mentorship areas into Career Guidance, Placement, Event Management, and Study Tips, allowing juniors to connect with specific mentors based on their unique needs.

This Power BI dashboard provides a detailed analysis of the Grad-Chat platform's engagement metrics, offering insights into user behavior and preferences. By tracking metrics such as session counts, engagement levels (High, Medium, Low), and average feedback scores, the dashboard highlights key trends in mentorship interactions. Visualizations, including bar charts, tables, and a pie chart, illustrate the frequency of interactions in each mentorship area, identify the areas with the most positive feedback, and assess which mentorship categories experience the highest levels of engagement. These insights can inform platform improvements, identify strengths and gaps in mentorship activity, and ultimately enhance the overall mentorship experience by aligning resources with the most demanded areas.

The data-driven insights presented here support ongoing efforts to maximize Grad-Chat's impact, providing administrators and mentors with the information needed to optimize mentorship strategies, increase junior engagement, and foster a supportive college environment.

Problem Statement:

In many college settings, junior students often lack accessible, structured support as they navigate the challenges of academics, campus life, and career preparation. Although senior students possess valuable insights and experiences that could benefit juniors, there is often no organized system to facilitate this exchange of knowledge. This lack of structured mentorship opportunities leaves juniors without adequate guidance and prevents seniors from effectively contributing to the community.

The Grad-Chat platform seeks to address this gap by offering a mentorship app that connects juniors with seniors based on specific areas of interest, such as Career Guidance, Placement, Event Management, and Study Tips. However, to ensure the platform is meeting its goals effectively, it is essential to analyze key metrics that reflect engagement and satisfaction levels in these mentorship areas.

This Power BI dashboard is designed to provide actionable insights into Grad-Chat's performance. By examining metrics such as the count of sessions per mentorship area, engagement levels (High, Medium, Low), and feedback scores, the analysis reveals patterns in mentorship activity and identifies areas where juniors are seeking the most guidance. It also assesses the effectiveness of each mentorship category by analyzing average feedback scores, helping to highlight areas where mentorship is perceived positively. Additionally, the dashboard includes filters for engagement level and mentorship area, enabling stakeholders to customize their view and focus on specific areas of interest.

These insights are crucial for platform administrators, mentors, and other stakeholders who aim to refine the Grad-Chat experience. By understanding which mentorship areas are most utilized, which interactions are most engaging, and which receive the best feedback, the Grad-Chat platform can be optimized to provide meaningful support, enhance community engagement, and ultimately contribute to student success.

1. Analyzing Mentorship Engagement Levels in Grad-Chat
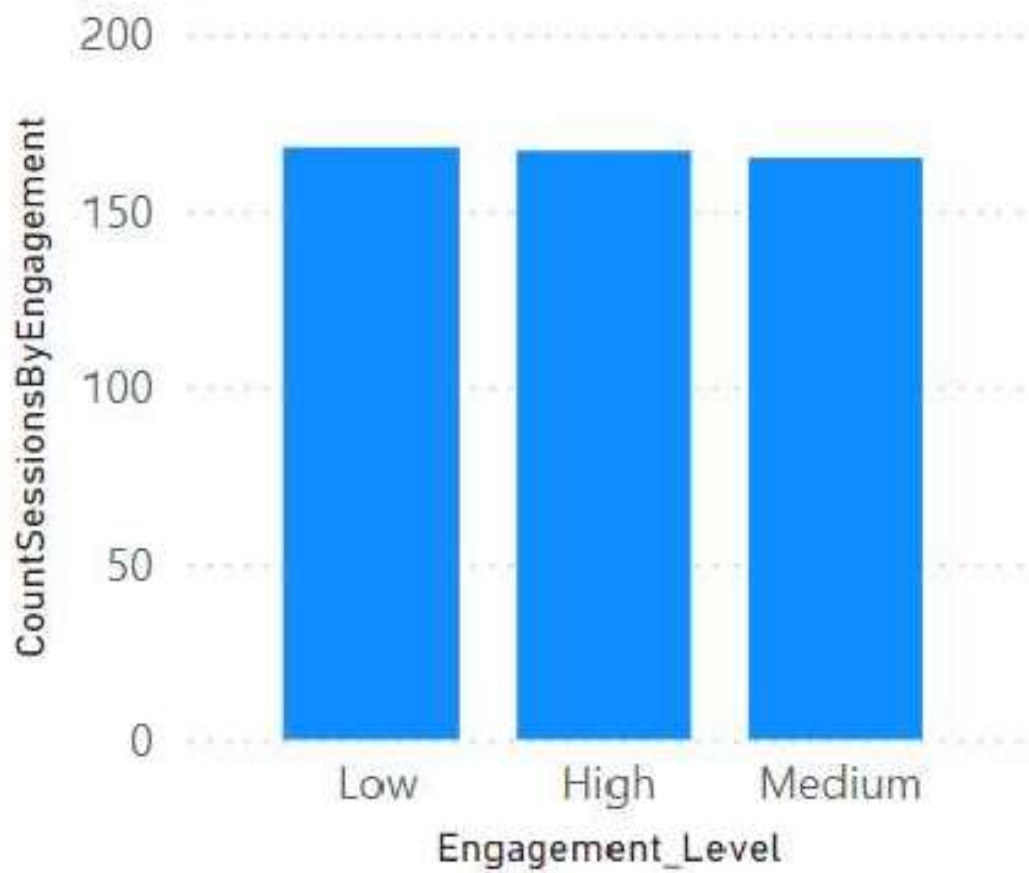
- **Purpose:**

The purpose of this report is to provide an in-depth analysis of mentorship engagement levels within the Grad-Chat platform, specifically focusing on the volume of mentorship sessions categorized by different engagement levels: Low, Medium, and High. This analysis aims to identify how actively juniors and seniors interact across various engagement levels, which can provide insights into the most effective areas for mentorship and inform strategies to increase meaningful connections. By visualizing the engagement distribution, stakeholders can evaluate the current usage patterns and identify areas that might benefit from targeted interventions to enhance mentorship quality and engagement.

- **Key Visuals:**

The "CountSessionsByEngagement by Engagement_Level" bar chart serves as the primary visual, showcasing the number of sessions for each engagement level (Low, High, and

Medium). This visual allows viewers to quickly assess which engagement level is the most common among mentorship sessions. The uniform heights of the bars in this case indicate a balanced distribution across the engagement categories, suggesting that all levels of engagement are being utilized consistently in mentorship interactions. This chart offers a clear view of where the bulk of mentorship engagement is concentrated, providing actionable insights for refining engagement strategies within the Grad-Chat platform.

CountSessionsByEngagement by Engagement_Level

2.Evaluating High Engagement Percentage and Session Counts Across Mentorship Areas in Grad-Chat
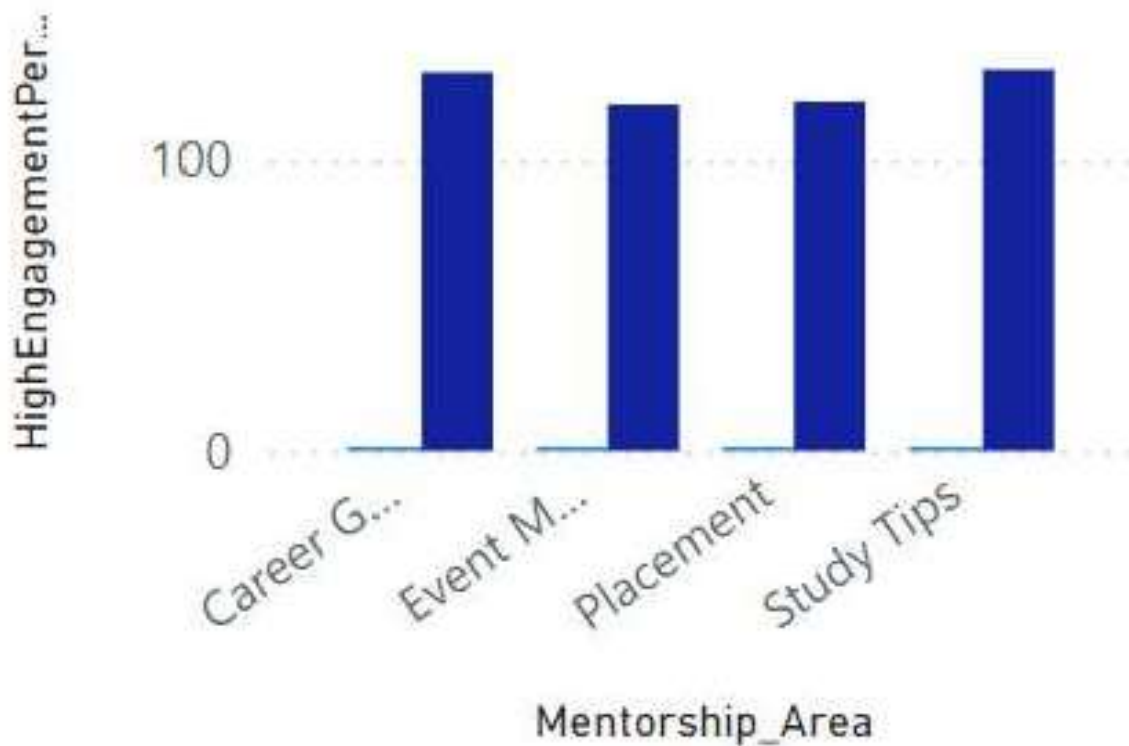
- **Purpose:**

This report aims to analyze mentorship engagement by evaluating the percentage of high-engagement sessions and total session counts across various mentorship areas within the Grad-Chat platform. By examining engagement metrics for key mentorship areas—Career Guidance, Event Management, Placement, and Study Tips—this analysis seeks to identify areas that generate the most impactful interactions. The purpose is to highlight which mentorship categories are receiving higher engagement and to determine where targeted improvements or resource allocations could further enhance mentorship effectiveness.

Key Visuals:

The clustered column chart "HighEngagementPercentage and CountSessionsByEngagement by Mentorship_Area" is the main visual in this report. It features dual metrics: the count of total sessions (dark blue) and the percentage of sessions with high engagement (light blue) for each mentorship area. This visual enables viewers to compare both the volume of interactions and the quality of engagement across different mentorship categories. For instance, if a mentorship area shows high session counts but low engagement percentage, it may indicate a need to improve interaction quality. Conversely, high engagement in areas with fewer sessions could suggest opportunities to scale these interactions. This chart offers a balanced view of both quantity and quality of mentorship interactions, aiding data-driven decision-making for improving mentorship engagement on Grad-Chat.

HighEngagementPercentage and CountSessionsByEngagement by Mentorship_Area

Legend: ● HighEngagementPerce... ● CountSessionsBy...

Y-axis: HighEngagementPer... (100, 0)

X-axis (Mentorship_Area): Career G..., Event M..., Placement, Study Tips

3. Mentorship Engagement and Feedback Insights

- **Purpose:**

This dashboard provides insights into user engagement and satisfaction with mentorship programs, segmented by specific focus areas such as "Study Tips" and "Placement." By examining the engagement rate and feedback scores, the dashboard aims to highlight areas of high and low satisfaction, enabling mentors and program administrators to identify strengths and potential areas for improvement. This analysis can support data-driven decisions to enhance the mentorship experience and tailor programs to better meet participant needs.

- **Key Visuals:**

□ **High Engagement Percentage Gauge**

This visual displays the proportion of users with high engagement in the mentorship program, providing a quick snapshot of overall program appeal and participant commitment.

□ **Average Feedback Score by Mentorship Area**

This bar chart shows the average feedback scores across different mentorship areas, such as "Study Tips" and "Placement." It helps in identifying which areas are receiving positive feedback and which might need adjustments to increase satisfaction and effectiveness.

33.40%

HighEngagementPercentage

AverageFeedbackScoreByArea by Mentorship_Area
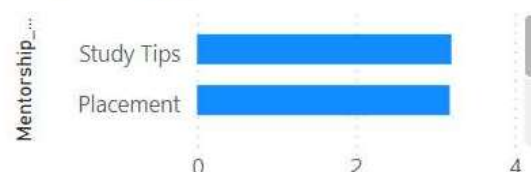
4. Total Sessions by Mentorship Area

- **Purpose:**

  This chart provides a comparison of the total sessions conducted across different mentorship areas, such as Career Guidance, Study Tips, Placement, and Event Management. By displaying session volume by area, the chart highlights where mentorship resources are most utilized, revealing areas of high demand and those with less engagement. This information can guide program managers in resource allocation and help in identifying which areas are most valued by participants, informing decisions on potential program adjustments or expansions.

Key Visuals

- This bar chart illustrates the distribution of total mentorship sessions across various focus areas, including Career Guidance, Study Tips, Placement, and Event Management. Each bar represents the total number of sessions within a specific area, providing a clear visual comparison of program activity levels.

- The chart helps identify the areas with the highest demand and engagement, which can inform strategic decisions around mentorship resource allocation. For example, areas with a high volume of sessions may indicate strong participant interest and may warrant additional resources or extended program offerings. Conversely, areas with fewer sessions might suggest a need for increased promotion, adjustment in session content, or re-evaluation of participant needs.

- This visual also aids in understanding trends in participant preferences, helping mentorship program managers align their efforts with the topics that are most valued by users. Overall, it offers a data-driven foundation for evaluating the effectiveness and reach of various mentorship areas, allowing for informed adjustments to meet participant demand more effectively.

TotalSessionsByArea by Mentorship_Area
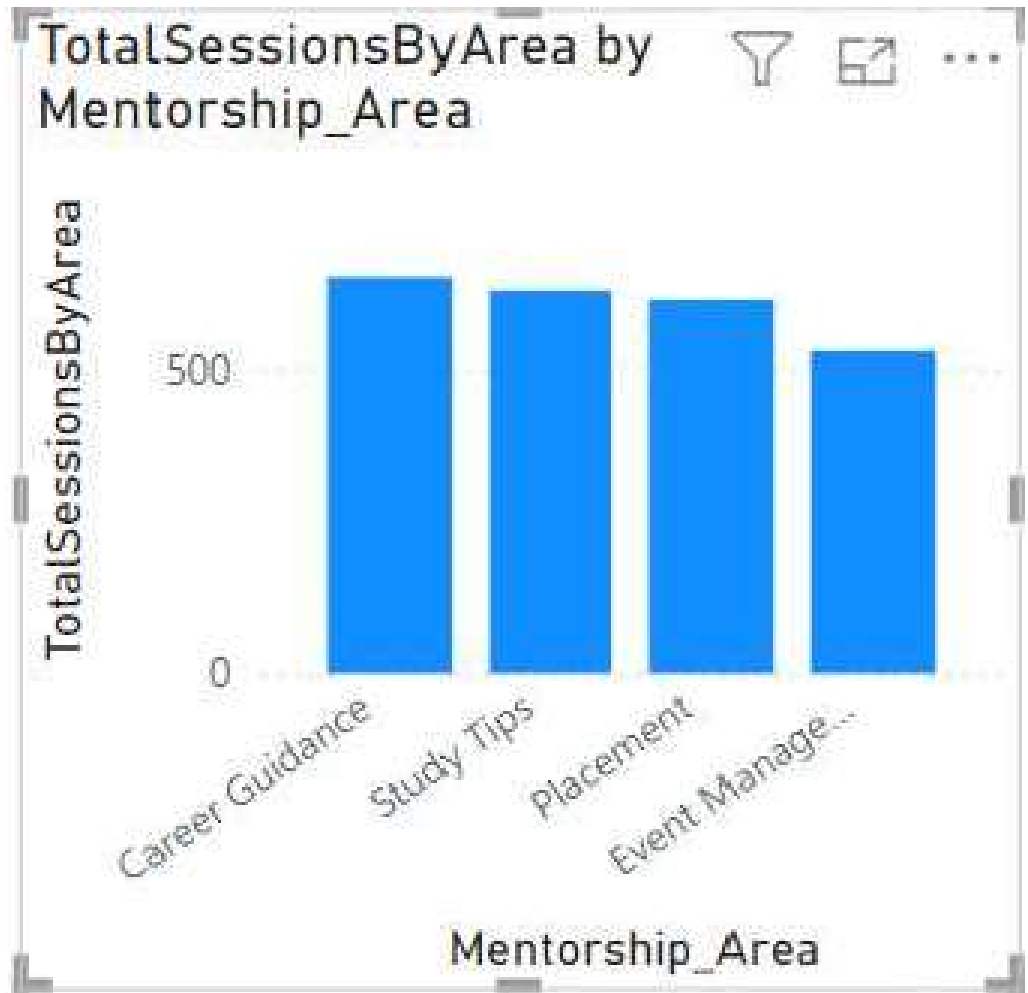
5. Engagement Levels and High Engagement Percentage by Senior ID

- **Purpose:**

  This table provides a breakdown of engagement levels among participants, segmented into high, medium, and low categories. It shows the total count of participants (Senior IDs) within each engagement level, the number of high engagement sessions, and the percentage of sessions that qualify as high engagement. This information is valuable for understanding overall engagement distribution and highlights the proportion of sessions that reach high engagement, helping program managers gauge the effectiveness of the mentorship program in terms of participant involvement. By monitoring these metrics, administrators can identify trends in engagement levels and consider strategies to increase overall participant engagement, especially within lower-performing segments.

- **Key Visuals:**

□ **Table of Engagement Levels**
  - This table breaks down participants into three engagement levels—Medium, High, and Low—based on the count of unique Senior IDs. Each row provides a detailed look at the distribution across these engagement levels, allowing program managers to quickly identify how many participants fall into each category.

□ **High Engagement Sessions Count**
  - The table includes a column for the count of high engagement sessions, showing the raw number of sessions that met the criteria for "high engagement." This metric serves as a benchmark for evaluating the quality and effectiveness of program sessions in engaging participants.

□ High Engagement Percentage

- The High Engagement Percentage column highlights the proportion of total sessions that meet high engagement criteria. This percentage offers an at-a-glance view of overall session quality and participant involvement. Monitoring this percentage over time can provide insight into the effectiveness of engagement strategies, and fluctuations can signal areas needing additional support or enhancement.

Count of Senior_ID	Engagement _Level	HighEngagement Sessions	HighEngagement Percentage ▼
165	Medium	167	1.01
167	High	167	1.00
168	Low	167	0.99
500		**167**	**0.33**

6. High Feedback Session Count by Mentorship Area

- **Purpose:**

The purpose of this visualization is to provide a summary of feedback effectiveness across different mentorship areas. By displaying the number of high-feedback sessions for each mentorship area, it highlights the areas where mentorship sessions are having the most positive impact according to participant feedback. This data allows the organization or mentors to identify which topics are resonating well with students or mentees, such as Career Guidance, Event Management, Placement, and Study Tips. Understanding these trends can help allocate resources, design targeted programs, and focus on areas with lower feedback to improve their effectiveness

- **Key Visuals:**

The key visual in this Power BI dashboard is a structured table displaying mentorship areas alongside the count of high-feedback sessions associated with each area. This format is highly effective for visual clarity and easy comparison, as each mentorship area—Career Guidance, Event Management, Placement, and Study Tips—is paired with the number of sessions that received positive feedback from participants. This breakdown allows viewers to quickly identify which mentorship topics have been most impactful based on participant feedback.

Each row in the table represents a specific mentorship focus area, which helps in observing patterns across different topics. For example, "Placement" has the highest number of high-feedback sessions with 59, suggesting that this area is particularly valued by students or mentees. In contrast, "Career Guidance" has a slightly lower count with 48, which may indicate areas for potential improvement or re-evaluation.

The total count, 214, displayed at the bottom, provides an aggregated view of the program's effectiveness, highlighting the cumulative reach and impact of the high-feedback sessions across all mentorship areas. This visual not only facilitates quick comparisons but also enables stakeholders to prioritize resources and efforts toward mentorship topics that have demonstrated greater engagement and satisfaction.

By presenting the data in this concise, table-based format, the dashboard supports data-driven decision-making for program enhancements, allowing mentors and program coordinators to refine their strategies and better meet mentees' needs.

HighFeedback SessionsCount	Mentorship_Area
48	Career Guidance
49	Event Management
59	Placement
58	Study Tips
214	

7. Average Feedback Score by Mentorship Area

- **Purpose:**

The purpose of this visualization is to present a breakdown of average feedback scores across different mentorship areas. By showing how each mentorship area, such as Study Tips, Placement, Event Management, and Career Guidance, performs in terms of average feedback, this visual provides insights into the perceived value and effectiveness of each mentorship topic based on participant responses. This helps program managers and mentors understand which areas are delivering the most impactful experiences and which might need improvement based on average feedback scores.
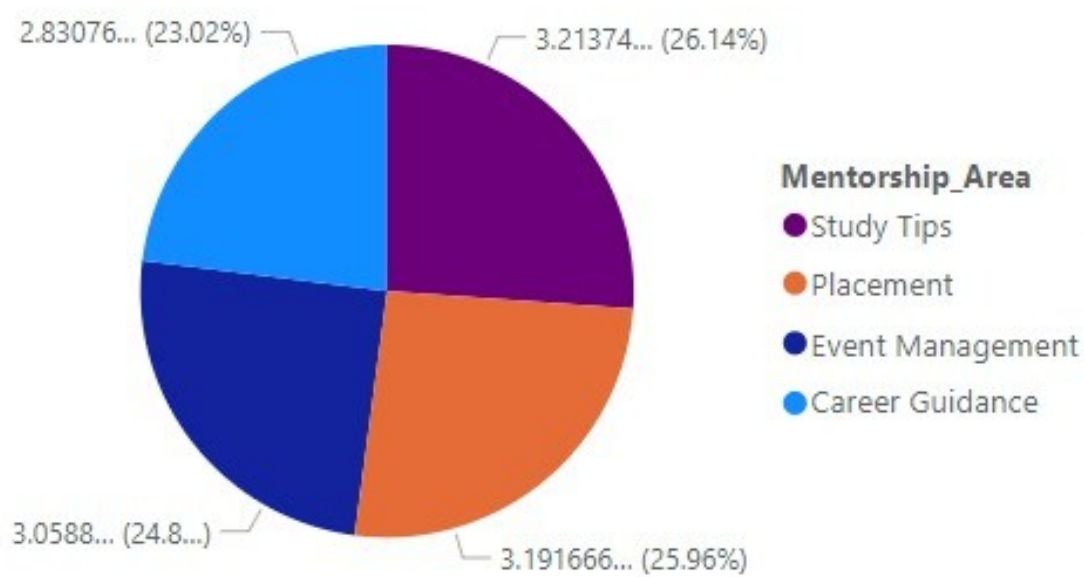
- **Key Visuals:**

The key visual in this Power BI dashboard is a pie chart that displays the average feedback score as a percentage for each mentorship area, with each slice representing a different area (Study Tips, Placement, Event Management, and Career Guidance). The color-coded segments make it easy to distinguish between areas, and the corresponding percentages and average scores are displayed alongside each slice.

In this chart, "Event Management" has the highest average feedback score at 3.21374, taking up 26.14% of the chart, suggesting it resonates well with participants. "Study Tips" has a slightly lower average score of 2.83076, occupying 23.02%, indicating room for improvement. Each slice of the pie provides a visual comparison, allowing viewers to quickly assess the relative performance of each mentorship area in terms of participant satisfaction.

This visual not only makes it easy to understand how each area ranks but also helps identify high-impact areas that are well-received and areas that may need more attention. By representing feedback data in a pie chart format, this dashboard supports data-driven adjustments to enhance the quality and focus of the mentorship program in line with participant needs and preferences.detailed sales figures for a specific crop type in a particular region. This feature supports data exploration and deeper insights.

AverageFeedbackScoreByArea by Mentorship_Area

2.83076... (23.02%)

3.21374... (26.14%)

3.0588... (24.8...)

3.191666... (25.96%)

Mentorship_Area
- Study Tips
- Placement
- Event Management
- Career Guidance

8. Engagement Level and Mentorship Area Filters

Purpose

The purpose of these slicers is to allow users to interactively filter data in the Power BI dashboard based on two key dimensions: Engagement Level and Mentorship Area. By enabling these filters, users can narrow down data to specific engagement levels (High, Medium, or Low) and particular mentorship areas (Career Guidance, Event Management, Placement, and Study Tips). This functionality provides a customized view of the data, allowing stakeholders to focus on specific areas of interest, whether it's high-engagement sessions across mentorship topics or feedback on a particular mentorship area. The slicers enhance data exploration and enable deeper insights by segmenting data according to user-selected criteria.

Key visuals

The key visuals here are two slicers that offer a clear and intuitive way to filter data in the dashboard. The Engagement Level slicer includes options to filter by High, Medium, and Low engagement, making it possible for users to assess how different levels of participant engagement correlate with feedback or performance across mentorship areas. This filter is useful for analyzing which sessions have the most impact or require attention based on engagement scores.

The Mentorship Area slicer allows users to select specific areas such as Career Guidance, Event Management, Placement, or Study Tips. By filtering the dashboard data by these categories, users can drill down into individual areas and understand the strengths and weaknesses of each.

Together, these slicers provide a dynamic, user-friendly way to interact with the data, encouraging a focused analysis of engagement trends and feedback by mentorship topic. This interactive filtering capability allows for a more tailored approach to evaluating and enhancing the mentorship program, helping stakeholders make data-driven decisions to optimize engagement and participant satisfaction across various areas.

Engagement_Level

- [ ] High
- [ ] Low
- [ ] Medium

Mentorship_Area

- [ ] Career Guidance
- [ ] Event Management
- [ ] Placement
- [ ] Study Tips

Overall Dashboard Creation

The Mentorship Program Engagement Dashboard provides key insights into participant engagement and satisfaction across mentorship areas. The dashboard includes metrics like High Engagement Percentage to show overall participant involvement, Average Feedback Score by Area to assess satisfaction with specific topics, and Total Sessions by Mentorship Area to highlight participant demand. Additionally, the Engagement Levels Summary table categorizes participants into high, medium, and low engagement, helping identify areas for improvement. Together, these visuals offer a data-driven foundation for optimizing mentorship strategies and enhancing participant experience.
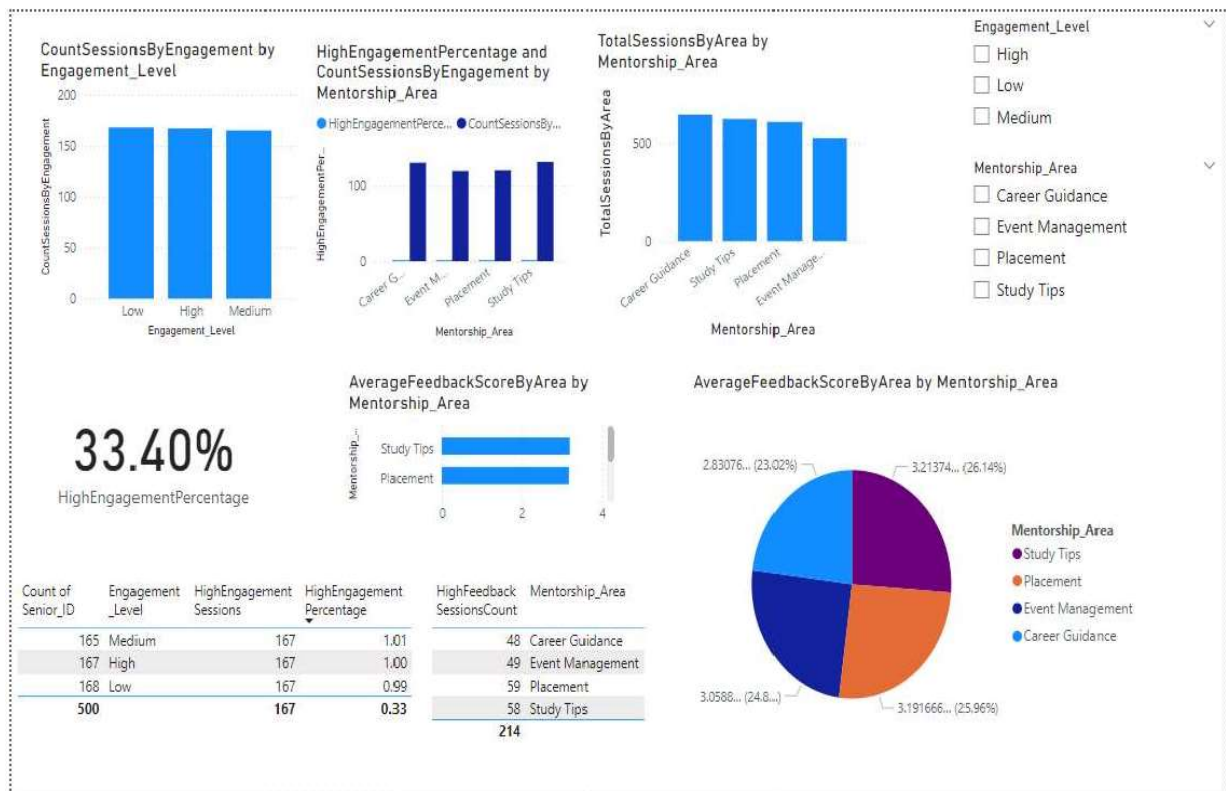
Conclusion

The **Mentorship Program Engagement Dashboard** provides a clear, data-driven overview of participant engagement and satisfaction across key areas of the program. Through insightful visuals such as High Engagement Percentage, Average Feedback Scores by Area, and Total Sessions by Mentorship Area, the dashboard highlights both strengths and areas for improvement within the mentorship program. By segmenting engagement levels and analyzing feedback, program administrators can identify high-demand topics and understand participant preferences. This project empowers stakeholders with actionable insights to refine mentorship strategies, improve resource allocation, and ultimately enhance the overall participant experience. Moving forward, these analytics will serve as a valuable foundation for continuous improvement, ensuring the mentorship program effectively meets participant needs and maximizes its impact.