

Assignment feedback: Jurgita Cepure

What you did well:

Analysis:

This was a well-executed script. You successfully imported datasets and demonstrated strong data validation techniques, effectively using methods such as `describe()`, statistical summaries, and visualizations to assess data quality. Excellent work on implementing functions for data validation, which improves code efficiency and reproducibility. Your visualizations were well-structured, with clear labeling and formatting, making it easy to interpret the insights. Your analysis provided strong and relevant descriptions of code outputs in the Jupyter Notebook, effectively guiding the reader through your process. The variety of plots used to explore trends was excellent, with most being well-formatted and intuitive.

Report:

Your report was well-structured, demonstrating a clear and logical analytical approach. You provided a well-defined scope and systematically analyzed appointment trends and resource utilization. The inclusion of key business questions helped to contextualize your findings, and your visualization choices were effective in conveying insights. Your seasonal trend analysis was particularly strong, offering valuable insights into NHS resource allocation and peak appointment times. The discussion on appointment wait times and staffing distributions provided additional depth to your analysis. Including a section on data limitations was a great addition, ensuring transparency in your findings. Your recommendations were well-founded and practical.

Presentation

Your presentation was structured effectively, providing a clear background of the project and key aspects to consider. You did a great job of explaining the metrics used and developing visualizations that aligned well with the business scenario. Your discussion of trends was insightful, and your explanation of the utilization summary was particularly strong. The recommendations you presented were well-researched and logical, offering practical solutions to NHS challenges.

Areas for growth:

Analysis:

Consider creating functions for plot generation, as this would streamline the code and avoid repetitive lines, making your script more efficient. While your visualizations were clear, a legend for the "Appointments Seasonality Trend by ICB Location" would have made interpretation easier. Additionally, incorporating trendlines or confidence bands for line plots could enhance readability and help users better gauge patterns over time. In terms of the Twitter data, further exploring sentiment analysis or identifying key phrases could add more depth to the analysis. Also, consider balancing absolute vs. relative numbers (e.g., using percentages instead of raw counts) to improve comparability across different datasets.

Report:

To strengthen the report, explicitly link identified trends to actionable business decisions. For instance, when discussing peak appointment periods, suggest specific staffing or scheduling changes to help the NHS better manage demand. The Twitter analysis was an interesting addition, but its practical relevance to NHS operations could be more clearly articulated. How could NHS stakeholders use social media insights to make operational improvements? Additionally, including measurable targets or KPIs (, a recommended capacity utilization rate or an optimal ratio of appointment types) would make your recommendations more impactful. Adding a discussion on potential biases or gaps in the data would further enhance the credibility of your analysis.

Presentation:

Consider adding more detail when discussing trends, particularly in tying them back to the business problem. For instance, why is there a shortage of specialists, and how can this insight help NHS stakeholders make informed decisions? Why are other practice staff increasing at specific times? Providing evidence to support these claims would strengthen the analysis. While the Twitter data was deemed not particularly useful, it would still be helpful to briefly discuss why it didn't provide value and how social media data could be leveraged differently. Additionally, consider adding data labels to key charts so stakeholders can quickly interpret numerical insights. A slide discussing issues and limitations would also be beneficial, detailing what additional data could improve the analysis. Expanding on success measures would make the recommendations more actionable by explaining exactly how implementing them would address the observed trends. Overall, this was a strong presentation!!

Jurgita, you demonstrated strong analytical skills, effectively validating and structuring your data while providing insightful visualizations. Your seasonal trend analysis and utilization insights were particularly valuable. Overall, this was a well executed project with insightful findings. Great work!