Project Summary

This project explores the QS World University Rankings 2025 dataset using Advanced Excel techniques to analyse global university performance. The analysis focuses on understanding the key factors influencing university rankings, identifying trends, and comparing performance metrics such as academic reputation, student-faculty ratios, sustainability, and research output. The project uses pivot tables, conditional formatting, correlation analysis, and visual dashboards to extract meaningful insights and support data-driven conclusions.

Project Objectives

- To identify the factors that most strongly influence university rankings and overall performance.
- To measure the correlation between various metrics and overall score.
- To analyse trends in university rankings over time and identify rising and declining institutions.
- To categorize and visualize universities based on research output, sustainability, and other performance indicators.
- To present findings through interactive Excel dashboards and visual storytelling for easier interpretation.

Project Insights

Correlations Insights

- Academic Reputation scores demonstrate a very strong correlation of 0.90 with overall scores, highlighting their significant influence in the QS methodology.
- Employer Reputation scores show a strong correlation of 0.78 with overall scores, reinforcing their important role in the QS methodology.
- Academic Reputation and Employer Reputation show a strong positive correlation of 0.86, indicating that universities with higher academic prestige also tend to have better employer reputation scores.
- Faculty-Student Score shows a negative correlation of -0.42 with university rankings, implying that institutions with lower Faculty-Student Scores (i.e., smaller faculty-to-student ratios) tend to rank higher.
- International Faculty Score shows a positive correlation of 0.35 with the Overall Score, suggesting their mild positive influence in determining institutional rankings.

Regional Insight

- Analysis by country and region reveals that top-ranked universities are primarily concentrated in the United States, the United Kingdom, and parts of Asia, with institutions from these areas excelling in academic reputation, employer reputation, and research output
- African universities tend to have lower rankings but show potential for improvement with increased focus on internationalization and research collaboration.

Rising and Declining Universities

- **Technische Universität Bergakademie Freiberg** has made the most significant improvement in its ranking, rising from **1401** in 2024 to **380** in 2025, a remarkable climb of 1021 positions.
- On the other hand, **Universidad Nacional de Ingeniería Peru** has experienced the largest decline in its ranking, falling from **951** in 2024 to **1201** in 2025, a drop of 250 positions.

Final Conclusion

The QS Rankings data reveals that institutional reputation and research impact are the most influential factors in global university rankings. While infrastructure metrics like student-to-faculty ratio and sustainability play important roles, it's the academic and employer perceptions that dominate score contributions. Through this project, we gain a clearer understanding of how various performance indicators interact, allowing universities, policymakers, and students to make more informed decisions. Advanced Excel tools proved highly effective in uncovering patterns, trends, and correlations, making this a powerful method for data-driven academic benchmarking.