Data Analytics Training Capstone Project Report

Project Title: Data Analytics Training

Project Duration:

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# 1. Project Overview

The Data Analytics Training Capstone Project was designed to assess and visualize the performance and participation of employees enrolled in a structured data analytics training program. The training covered four core modules:  
- Excel for Data Analysis  
- SQL for Data Querying  
- Python for Data Science  
- Power BI for Visualization  
  
The project aimed to collect training outcomes, generate insights through data analytics, and build an interactive dashboard for stakeholders.

# 2. Objectives

- Track participation and module completion.  
- Analyze average scores across modules.  
- Evaluate completion rates.  
- Identify top-performing departments and individuals.  
- Build a visual dashboard for decision-makers.

# 3. Data Description

- Total Records: 50 training entries  
- Participants: 10 unique individuals  
- Departments: Finance, HR, Marketing, IT, Sales  
- Modules: Excel, SQL, Python, Power BI  
- Fields Captured: Participant, Department, Module, Score, Completion Status, Date Completed

# 4. Key Insights

✔ Total Participants: 10 unique employees participated.  
  
✔ Average Score: ~79.6 across all modules.  
  
✔ Completion Rate: ~70% of all modules were marked as completed.  
  
✔ Module Performance:  
- The Excel module had the highest average score.  
- Python showed the widest variation in scores, indicating a need for deeper engagement.  
  
✔ Department Participation:  
- The IT and Finance departments had the most consistent participation.

# 5. Dashboard Highlights

The Excel dashboard includes:  
- KPIs: Total participants, average score, and completion rate.  
- Bar Chart: Average Score by Module.  
- Pie/Line Charts (optional for future): Completion status breakdown and time-series completions.  
- Raw Data Sheet: Full data for filtering and auditing.

# 6. Tools Used

- Microsoft Excel: Data storage, analysis, and dashboard creation  
- Pivot Tables & Charts: Data aggregation and visualization  
- Python (Pandas/OpenPyXL): Data generation and report automation

# 7. Conclusion

The dashboard provides a clear view of training outcomes and allows stakeholders to identify trends in performance, participation, and completion. These insights will guide future training improvements and help tailor modules to employee needs.

# 8. Recommendations

- Consider providing additional support for lower-performing modules (e.g., Python).  
- Integrate feedback forms to capture qualitative input.  
- Expand the dashboard with interactive slicers and filters.