Project One: Data Quality Plan

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DAT 325: Data Validation: Quality and Cleaning

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# Purpose Statement

# Good data is essential for any business. It may give proper choices, smoother work, and trust. Bad or mixed data could lead to incorrect plans, loss of money, and damage to a reputation. Examining the data from the new company now can ensure it functions properly and is usable. Spending time and money to check it now might prevent significant problems later, such as double entries, incorrect reports, or violating rules. Clean data can also reveal opportunities we have missed, spark new ideas, and maintain steady growth. Additionally, it may significantly improve team morale and client confidence.

# Organizational Goals

To successfully integrate the new firm's data, our organization aims to accomplish the following goals:

# 1.Ensure High-Quality Data Standards

We may establish shared data quality standards for both firms. The plan should verify that the data aligns with the five main traits—accuracy, validity, completeness, consistency, and timeliness. Doing so could reduce mistakes, eliminate duplicate records, and increase confidence in the system. In practice, data profiling and transformation would spot and fix flaws before merging for us today (Sebastian Coleman, 2013).

2.Improve Operational Efficiency

Having data that's clear and measured might allow us to streamline work steps, even automate tedious tasks. Take sales and staff numbers—if they are accurate, we could estimate future workloads, potentially reduce hourly spend, and close scheduling gaps. Good data could cut delays, freeing crews for creative work today.

3.Ensure Regulatory Compliance

During integration, we should meet every rule and privacy promise. Simple checks, such as data validation and regular audits, plus hiding or encrypting private information, might help. Following those steps likely protects customers' trust, keeps legal trouble at bay, and may save the brand's overall good name (Rao & Selvamani, 2015).

# Data Quality Characteristics and Procedures

# I will focus on the following critical data quality dimensions:

* **Accuracy** – Ensuring data values reflect the real-world facts they represent (e.g., correct addresses and contact information).
* **Validity** – Making sure data conforms to defined formats, rules, and business constraints (e.g., phone numbers contain the correct number of digits).
* **Completeness** – Verifying all required data fields are populated to avoid incomplete analyses and flawed decisions.
* **Consistency** – Maintaining uniform data across different systems and sources, reducing integration errors.
* **Timeliness** – Keeping data current and available to meet operational needs and support prompt decision-making (Sebastian-Coleman, 2013).

These characteristics will be monitored through profiling, automated validation scripts, and ongoing quality audits throughout the integration process.

# Security and Personnel Responsibility

Keeping data private and secure seems vital for any business that wants to maintain its credibility. Sensitive information will often be encrypted or even anonymized when that seems proper. Access is typically limited to individuals with the proper role, so not everyone can view everything.

The company will assign clear roles—such as data stewards, custodians, and security officers—to oversee how data is handled. Risk management may be necessary to prevent leaks, misuse, or any rule-breaking that could harm finances or reputation. Leaders should regularly review security rules, check who has accessed files, and conduct brief training sessions to address any gaps.

Balanced rules aim to protect key data while still allowing analysts to use what they need for teamwork and decision-making. Overall, the effort supports growth.

## References

Rao, R. V., & Selvamani, K. (2015). Data security challenges and its solutions in cloud computing. *Procedia Computer Science, 48,* 204–209. <https://doi.org/10.1016/j.procs.2015.04.171>

Sebastian-Coleman, L. (2013). *Measuring data quality for ongoing improvement: A data quality assessment framework.* Elsevier Science & Technology.