Subject: Data Issues Found During Profiling and Cleaning - Immediate Action Required

Dear Andrew,

I hope this email finds you well.

As part of our ongoing efforts to ensure data accuracy and reliability, we have conducted a comprehensive data profiling and cleaning process for the XYZ Company Sales Data File No:"xyzcompany_sales_V1". During this review, we identified several critical issues that need your immediate attention and resolution. Below is a detailed report of the findings:

Error Findings Report

Title: First Stage Data Profiling and Cleaning

Purpose: This report identifies and summarises various data issues found during the data profiling and cleaning process, along with recommended actions for resolution.

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1. Missing Values

Issue: Partial or Incomplete Values in Customer Names

• Status: Found

• Example: "Yes, Daniel"

• **Action:** Check with the source provider to obtain complete data.

Issue: Missing Spaces

• Status: Found

• **Action:** Check with the source provider to get the corrected data.

Shipping Fees Missing

• **Issue:** Order ID 1377 has shipping fees missing.

• Status: Found

• Action: Verify and correct the shipping fees with the source provider.

2. Data Outside Range

Issue: Quantity Values Less Than 18 and Greater Than 100

• Status: Found

• Example: Quantity 19,000

• Action: Check with the source provider.

Issue: Dates on Transactions Earlier Than the Business Start Date

• Status: Found

• Example: Year 2013

• Action: Check with the source provider.

Issue: Codes (e.g., Postal Codes or Zip Codes) Outside the Range of Defined Values

• Status: Issues Found

• Action: Check with the source provider.

3. Malformed Data

Issue: Truncated Names

Status: FoundExample: "daniel"

• Action: Check with the source provider.

Issue: Abnormal Length of Words

• Fields Affected: Order ID, Quantity, Shipping Price

• Example: Quantity shows 19,000, Product (Sauces) shows -400

• Action: Check with the source provider.

4. Business Rules Violations

Issue: Order Total Greater Than Customer's Credit/Purchasing Limit

Example: Product (Sauces) shows -400
Action: Check with the source provider.

Issue: Values Outside Cutoff Values/Outliers

• Example: Quantity shows 19,000, Product (Sauces) shows -400

• Action: Check with the source provider.

Issue: Negative or Positive Values

• Example: "SOPHIA MOORE -84" in Quantity

• Action: Check with the source provider.

Issue: Incorrect Date Range

• Example: Year 2013

• Action: Check with the source provider.

Issue: Shipped Date Earlier Than Order Date

• Example: A date from 1381 in Order ID column, 2013 year date

• **Action:** Check with the source provider.

5. Inconsistent Values

Issue: Order Date Contains Order ID

• Status: Found

• Action: If necessary, check with the source provider.

Issue: Order Items Not Associated with an Order

• Status: Need to check

• Action: Check with the source provider.

6. Duplicate Order IDs

Issue: Order ID 1381 appears twice with the same details.

• Status: Found

• **Action:** Check with the source provider to eliminate duplicates.

7. Order Date and Ship Date Conflicts

Issue: Some orders have shipping dates before the order dates, which is logically incorrect.

- Example: Order ID 1370 and 1371 have the same order date and shipping date.
- Action: Check with the source provider to correct the dates.

8. Postcode Missing for Ship State

Issue: The "Ship State Postcode" is missing in the summary table.

• **Status:** Found

• **Action:** Check with the source provider to obtain the missing postcode.

9. Incorrect City Name Format

Issue: Order ID 1376 has "NY-Newyork" which should be "New York, NY".

• Status: Found

• Action: Correct the format to "New York, NY" and check with the source provider.

10. Category Specifics Missing

Issue: Order ID 1384 lists "Jam only" but lacks further details on the category type.

• Status: Found

• Action: Check with the source provider to provide complete category details.

11. Order Quantity Discrepancy

Issue: Order ID 1368 shows a quantity of 19000 which seems unusually high.

• Status: Found

• Action: Verify with source provider.

We kindly request that you review the issues listed above and provide the necessary corrections or additional information as soon as possible. Your prompt response will help us maintain the integrity of our data and continue our work without further delays.

Thank you for your immediate attention to this matter. Please let me know if you need any additional information or clarification regarding the issues outlined in the report.

Best regards,

Ann
Data Analyst
ABC Company