**ETL Report for Team 7 - LearnwithWiDa**

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# **1. TITLE**

ETL Report on Customer Transaction Data on Moniepoint from 2023-2024

# **2. OBJECTIVE**

The objective of this ETL process is to extract customer transaction data from the source given to us, clean and transform the data, and load it into a SQL database for transaction trend analysis.

# **3. Data Sources (Extract Phase)**

- Moniepoint-Document-2024-11-01T10-47-1.pdf

# **4. Data Extraction Process**

- Used a website called bankstatementconverter.com to convert the file from PDF to a CSV file for use in an Excel sheet.

# **5. Data Transformation Process**

- Two rows were merged into one in the extracted data.  
 - Started from the date column and manually separated it into two rows.  
 - Standardized date format to YYYY-MM-DD.  
 - Used space delimiter to split transaction reference into two columns.  
 - Used space delimiter for settlement credit, settlement debit, balance before, balance after, and charges.  
 - Used space delimiter to split beneficiary, beneficiary institution, and source from double rows to single rows.  
 - Extracted debit and credit from transaction reference.  
 - Dropped unnecessary columns like reversal status, RRN, Terminal ID, and narration.  
 - Used TRIM and CLEAN functions to standardize character lengths.

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# **6. Data Loading Process**

- Loaded the transformed data into Excel initially and then into SQL for analysis.

# **7. Challenges and Solutions**

- Issue: Multiple entries in one row.  
 Solution: For the date, due to absence of a delimiter, it was arranged manually; other columns with multiple entries were split using the space delimiter.

# **8. Summary and Next Steps**

Summary:  
 - The ETL process successfully extracted Moniepoint customer transaction data from a PDF file for the period 2023–2024.  
 - Data irregularities such as merged rows and inconsistent formatting were manually corrected and standardized.  
 - Key fields like debit, credit, date, balance, and transaction reference were separated and cleaned.  
 - Non-essential columns were dropped to streamline the dataset.  
 - The cleaned data was loaded into an SQL database for querying and analysis.  
 Next Steps:  
 - Build Looker dashboards to visualize monthly transaction volumes, debit and credit flows, and top beneficiaries.  
 - Create Looker Explores and Looks for dynamic reporting.

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# **9. Appendix**

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| --- | --- |
| Column Name | Description |
| Date | Transaction date in YYYY-MM-DD format |
| Debit | Amount debited from the account |
| Credit | Amount credited to the account |
| Balance Before | Balance before transaction |
| Balance After | Balance after transaction |
| Transaction Reference | Unique transaction ID |
| Beneficiary | Name of the fund recipient |
| Institution | Financial institution of the beneficiary |
| Charges | Fees or charges associated with the transaction |

Excel Functions Used:

- =TRIM to remove extra spaces

- =CLEAN to clean non-printable characters

- =TEXT("yyyy-mm-dd") to format dates.