Pargo Tech Assessment | Yacoob Fakier

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# Document list

|  |  |
| --- | --- |
| Item | Filename |
| Unprocessed data | Pargo Case Data.xlsx |
| SQL script to investigate unprocessed data | meta data investigation.sql |
| Transformed data | customer.csv  parcels.csv  pickuppoints.csv |
| Tableau dashboard |  |

# Tech Stack Used

* SQL Server
* R Studio
* Microsoft SQL Server Management Studio
* Mircosoft Excel
* Tableau

# ETL Process Steps

1. Establish ODBC connection to local hosted SQL Server database
2. Install packages to read excel data source (***Pargo Case Data.xlsx***)
3. Write data to SQL Server using R (ODBC connection)
4. Investigate metadata (unprocessed data i.e. customers, pickup points and parcels)
   * See SQL script located in GitHub branch (***meta data investigation.sql***)
5. Investigate each table and all its columns for:
   * Data types
   * Consistency
   * Exceptions processing
6. Transform data using R Studio (***ETL Script.R***)
   1. Install R Studio packages to transform data source formats
   2. Read data into R Studio and perform data transformations on following fields:
      * Order Date
      * Customer Cell
      * Province
      * Waybill
7. Load data (***customer.csv, parcels.csv and pickuppoints.csv***) to SQL Server database for reporting to Tableau

# Tableau Report Methodology

The report is created for the following:

* audience:
* Area/province manager
* National manager
* Metric show cases:
  + activity per region and province
  + daily waybill numbers
  + detailed worksheet views for:
    - Suburbs
    - Overall daily activity

# Recommendations to be included in next phase of report are:

* Location heat maps for specific waybills
* Create metrics to show profitable locations (sales – courier charges)
* Investigate potential for ranking orders by importance i.e. weight, profitability, customer activity