



Industry: Furniture manufacturer and reseller

Deliverables:

- KPI, Dashboards
- Reports
- Insights
- Customer DeDup

Technology: Google Big Query, Google Data Flow, Google Pub/Sub, Google Cloud Storage, Google Cloud Dataproc, Google Cloud Functions, Google Data Studio, Python, Spark, Azure SQL, PHP Laravel

Country: USA

Project Goal:

The main goal of the project was to align customer's corporate as well as non-corporate data across various parameters and to help the client identify customer patterns. Our professionals also aimed at drastically eradicate the data duplication and manual errors because of the different systems install at different stores and locations. The most important purpose behind the project was to build a robust system to enable the client gain unbound yet accurate futuristic insights.

Challenges:

- The Volume and Velocity of the data was a great challenge for the client.
- Different data sets that included customer data were having distinct data structures.
- There were various distributors as well as manufacturers who had their own individual software for maintaining customer data. Thus, it was a challenging task to sync all the data.
- Licensee's stores and main stores had different software which ultimately resulted in double entries, multiple phone number entries, different addresses, etc.
- Marketing division had to face the biggest challenge of all time - they were unable to identify whether the entries in different software belonged to a single customer or varied customers.
- Also, the client was not able to identify the buying patterns, buying capacity, product likings, preferred stores, etc. of the customers and thus they couldn't offer them the best deals.
- Manually entered data had lots of misspellings, abbreviations and other typo errors.

“Rendered an out-of-the box solution to line-up customer journey and footprints across various data sets and stores. Our professionals analyzed various data sets using Google Data Studio, Big Query as well as Google Cloud engine helping us achieve consolidated a single customer view of millions of records in a blink!”



Solution:

- The Client data was messy, and our solution was built to work with it. We find matches even when there are major data quality issues. Data that is hand-typed can have misspellings, abbreviations and other typos we match them using powerful text similarity algorithms. Different people and systems format data differently. We parse out names, addresses and any text to make smart comparisons.
- Using advanced machine learning and statistics, our solution learns the best way to identify similar records in any dataset. Learn the specifics of our research-driven approach to record matching and entity resolution. With active learning, our solution keeps track of labeled and unlabeled pairs and their currently learned weights. At any time, there will be a record pair our solution will believe have a near a 50% chance of being a duplicate or distinct. For identification of the deduplication records our system uses the following steps

- Matching records
- Making smart comparisons
- Grouping duplicates
- Choosing a good threshold
- Special cases

Features:

- De-duplicating customer records
- Combining lists of addresses or businesses
- Master data management
- Merging different database systems
- Creating a master list of Customer, products & parts
- Cleaning up lists of names and emails
- Finding contributions in campaign finance
- Cross-referencing government records
- Centralize Combine BI Reports

The main aim of the project was to line-up customer journey and footprints across various data sets and stores. The client wanted to rigorously gain insights over customer purchasing patterns and align the data from all the sources including the licenses as well as corporate stores in order to optimally use resources. The experts at KCS conducted deep research and clearly understood their requirements while offering them a robust Data Analytics and Engineering Solution.

The unification of various data sets into google Big Query and deducing using various cloud services helped achieve golden customer records, enhance the customer journey and brand experience; thus achieving a new benchmark. Various Data sets were analyzed using Google Data Studio, Big Query as well as Google Cloud engine helping us achieve consolidated with a single customer view of millions of records in a blink!

Our experts clubbed all the data and used various logics to trace the pattern while analyzing varied parameters. The interactive interface not only enabled the client to customize reports according to their requirements but also helped them derive meaningful insights. With our out-of-the-box solution, the client was able to trace customer preferences, their buying capacity and patterns, product likings as well as preferred stores. The client could simply offer them the best deals on the insights derived from customer patterns. The client could also monitor overall business performance and make informed decisions with the help of few clicks using personalized single-view dashboard.

Drilling into critical business KPI's to identify and highlight areas that need improvement and work on data derived from multiple sources became easy. Our scalable Google Data Studio solution helped in analyzing real-time data coming from various stores about different customers. The client now has consolidated data relating to the various regions they sell which helped cater better service and expand their business. The solution not only relived the client for the hazard of distinguishing customers and tracing their buying patterns but also helped them eradicate data repetition and duplication.

Result:

Our intelligent solution helped the client conduct better business analytics. It benefited the client with better management of data, increased transparency and enhanced service delivery improving customer experience. Data Analytics helped the client develop new strategies. The client was able to get a single-holistic view of performance across all the segments. The interactive visuals and detailed reports unlocked critical business insights by tracking customer behavior, buying patterns, purchase frequency, preferred stores etc.

We provided the client with specifically crafted solution for enhanced productivity. We left no stones unturned in the quest to build a precise solution that could meet the client's needs. We truly understand our client's requirements, thus offering fit-to-purpose solutions for a better experience and interactivity.



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