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nCino Tableau Visualizations

Introduction

A common constraint faced by Banks using nCino is the limited reporting capability inherent in Salesforce. The out-of-the-box Salesforce report writing suite can render useful reports and dashboards to support workflow management, however, the executive dashboards and business intelligence functionalities are limited. Among the limitations that result in decreased adoption at the executive level are the following:

- Only 4 tables can be queried in any given report.
- Only up to 3 dashboard filters can be used on any given dashboard.
- Each report can only have 1 report formula.
- Visualization options are limited to line, bar, pie, and tile charts.

Banks can overcome these limitations by leveraging Salesforce's Business Intelligence tool, Tableau.

This article aims to demonstrate examples of Tableau Visualizations built using nCino data, enabling institutions facing nCino reporting challenges to understand the platform's possibilities when using sophisticated data analysis tools.

Loan Pipeline Overview Dashboard

Below is an image of a dashboard that should have practical use for any lender, loan sales manager, or credit executive:
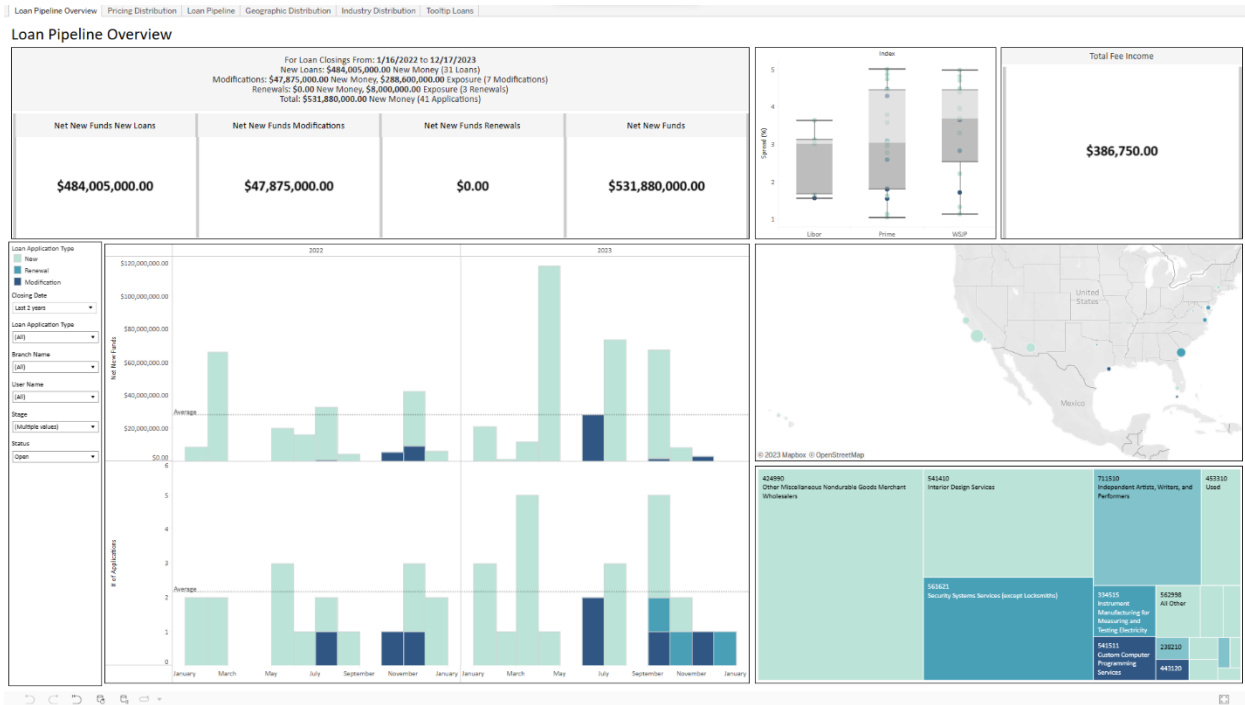
The dashboard helps the user answer the following questions:

- What is driving portfolio growth? Is the growth from new originations, modifications, or renewals?
- Are there any industry or geographical concentrations?
- How does the portfolio compare to last year?
- What is in the pipeline for next quarter?

This information is conveyed through numerical data and color coding throughout the dashboard. For example, in aggregate reports like the interactive map and box plot, the darker the blue, the higher the concentration of modifications. Similarly, the lighter the blue, the higher the concentration of new loans.

Tableau users may create an unlimited number of user-defined filters to customize data visualizations. Though Salesforce also has this capability, Salesforce limits the user to three filters. In the example provided, the user can zoom in by application type, branch, user, loan stage, and loan status. The data source for this dashboard searches the Loan Team Member table first when defining what data to query. The result is that a user's name will only appear in the filter when a user is on a loan team. When a user's name is picked, only loans for that user are visible. This feature allows the dashboard to analyze specific lenders, underwriters, closers, portfolio managers, and others. This capability is not available in Salesforce, because defined data sources in Salesforce cannot extend beyond that specific data source's linear parent-child relationships (4 layers deep).

The dashboard contains chart types that are not available in Salesforce, such as the dynamic header, the indexed box and whisker plot, and the interactive map that uses the billing address of the borrower to plot the loan exposure. In this example, the box and whisker plot containing spread data by index is

particularly useful. Lenders can see clearly if yields are being unintentionally sacrificed when modifying credit, or if there are outliers in a pipeline that require additional attention.

The dashboard also leverages report formulas. Salesforce has this capability, but the user is limited to one report formula per report. In Tableau, there is no limit. One use case for report formulas in this dashboard is for tracking closing dates across closed and pipeline loans. If a loan is closed, the closing date is the same as the date closed. If a loan is not closed, the closing date is the projected closing date. Using this logic, the reports can plot the portfolio onto one timeline without needing to build formula fields in the database directly.

Interactive tooltips are available when a user hovers over something. Embedding charts within charts allows users to digest the details of a report without overcrowding the visualization. Below is an example of interactive tool tips:
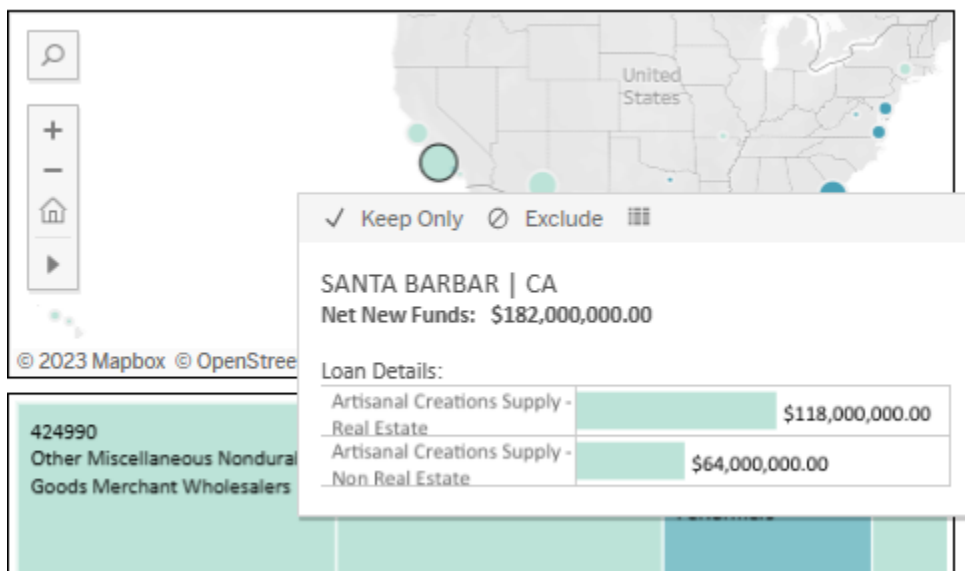

The dashboard can be embedded directly in Salesforce by downloading a free plugin. When the dashboard is embedded into Salesforce, the same Tableau features remain available. The user may download views, open the visualization in full-screen mode, save personalized views, and navigate between view tabs. See below for an example:
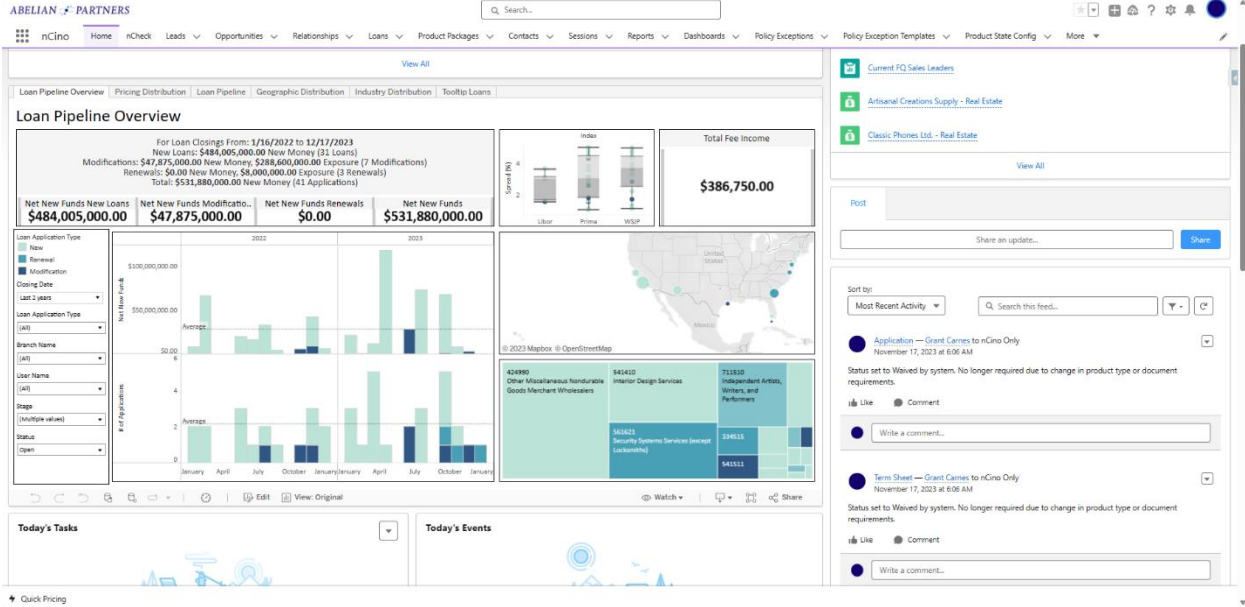
In addition, the dashboard can be embedded in Salesforce records with filters from Salesforce automatically applied. For example, when this dashboard is rendered on a particular user's page, a user ID can be automatically applied as a filter to show the dashboard from that user's perspective. See below for an example:
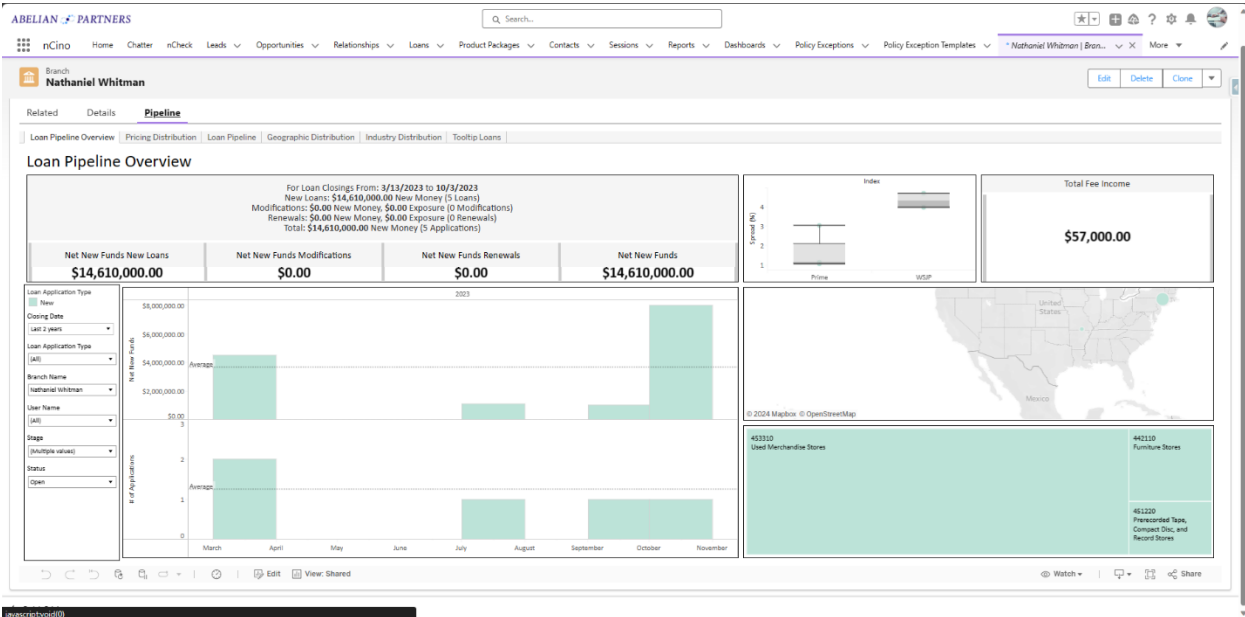
Finally, on the Tooltip Loans tab, an action was created to automatically redirect the user to the Salesforce record for the loan when they click on the Loan Name. See the below images for an example:
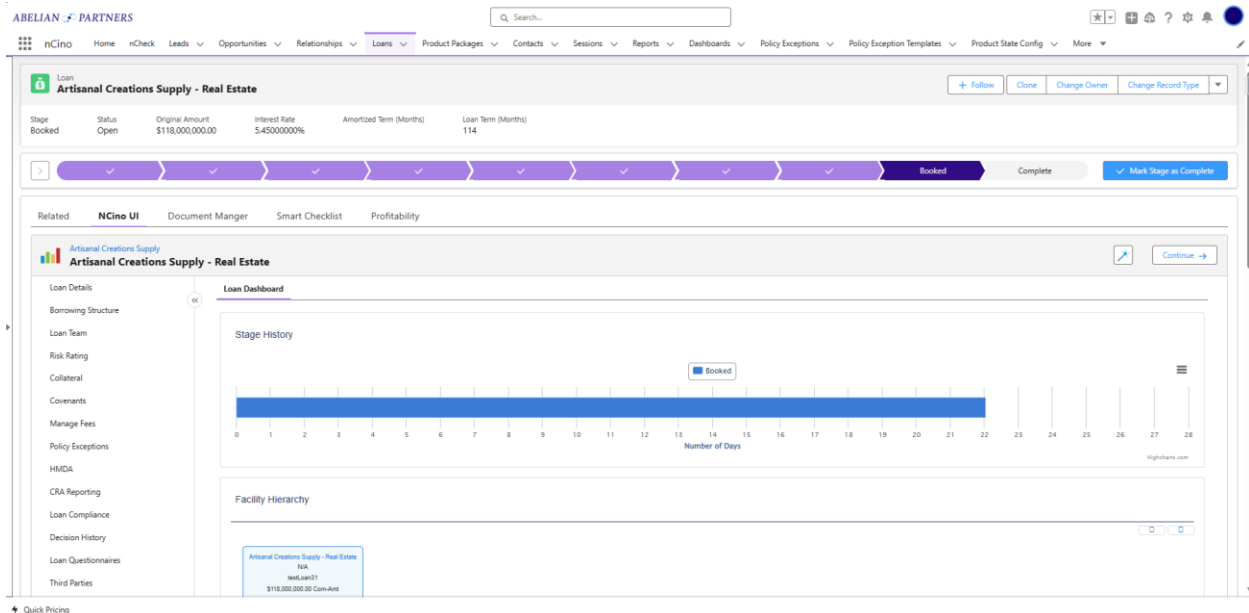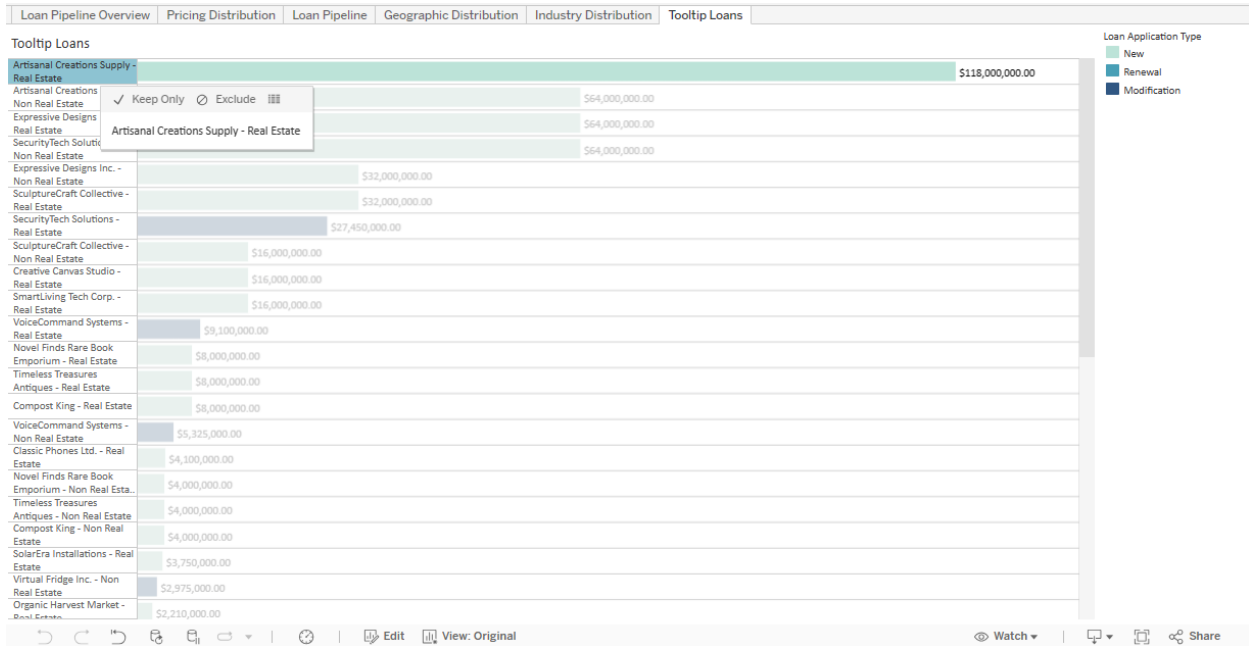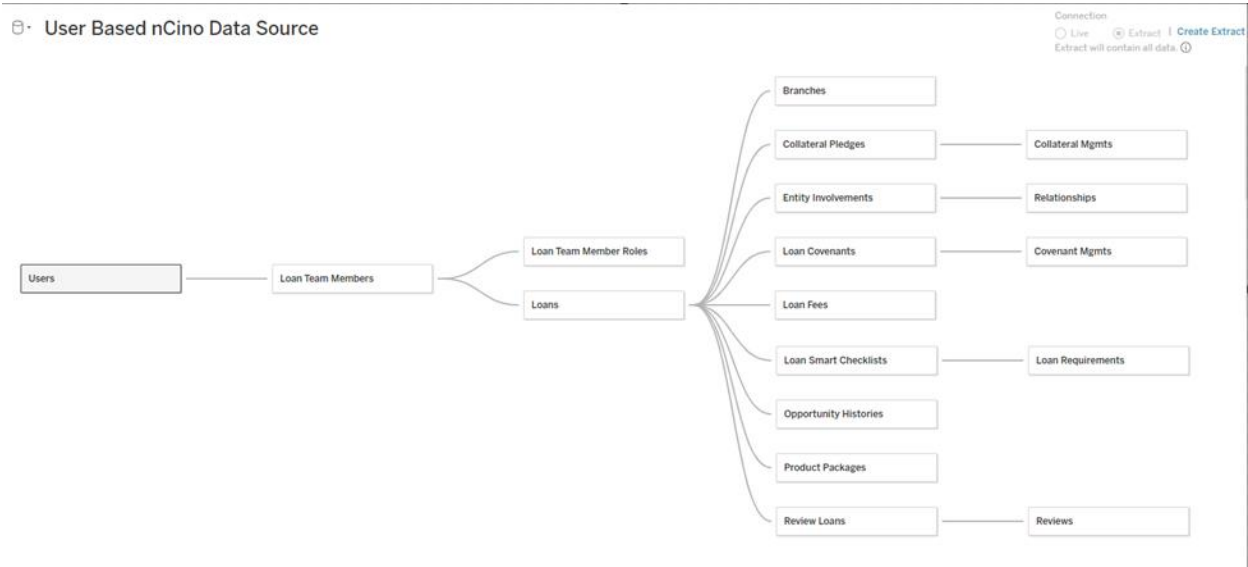
The Data Source

The example dashboard was built from a custom nCino data source. The ability to configure data sources explicitly in Tableau is the largest differentiator between Tableau and native Salesforce reporting. Native Salesforce reports rely on a single defined data source and can only query up to 4 tables at a time, sequenced in direct parent-child relationships. Tableau does not have these limitations. If there are keys on each table from which to join, inner and outer joins of all varieties are supported.

Below is the screenshot for the data source that supports this Dashboard:

As shown above, the data source contains far more than 4 tables. In addition, the tables are not all oriented in direct parent-child relationships. The data source can traverse junctions and swaps between parent and child seamlessly.

Because the data source starts with the User table, when the dashboard is filtered by user, all other tables are automatically filtered to only show records that are derived from that user.

Though this data source focuses explicitly on Salesforce data, Tableau can be combined with other data sources from a Bank's data warehouse, access databases, or Excel sheets. If required, a Bank could blend nCino data with other data and present those visualizations in nCino without importing any new data into nCino.

Conclusion

All the visualizations in this article were done using the cloud version of Tableau Desktop, Tableau Cloud. All of these examples could also be done with just Tableau Desktop, or with CRM Analytics. Regardless of the product choice, because Tableau can be used with any data set at the Bank (not just an nCino data set), the marginal utility of the additional Tableau licenses is high. Adoption at the executive level requires nCino teams to demonstrate the value added to the Bank by harnessing nCino data. Well-designed Tableau visualizations are an easy way to show this value.