

Analytic Functions

Automated Execution of Runtime Libraries for Common Use Cases

D&B Analytics Studio operates using a standard set of Databricks Runtime 5.5 libraries for Python, R, Java, and Scala. By default, these libraries come pre-installed for ready user access. A complete list can be found here: <https://docs.databricks.com/release-notes/runtime/5.5.html>.

At the D&B Analytics Studio user level, D&B has locked down the ability to install additional open source code libraries that have not gone through a security review or maintenance process evaluation.

This document covers the additional libraries developed by D&B's Advanced Analytics Team to enable faster processing of common use cases such as customer file matching to a DUNS Number and automated machine learning Risk and Marketing model developed. In addition, you may submit a request to add other standardized or custom libraries using the documented process.

1. **DUNS Match API** – Upload an unmatching customer/vendor file using a standard input template, execute smart entity matching to the associated D&B record, and assigns a DUNS.
2. **D&B Automated Scorecard** – Python packages to enable users to build automated scorecard models using Monotonous binning. The packaged library provides the following functions:
 - a. Feature selection using Coverage, Correlation and IV Binning
 - b. Transformation of variables
 - c. Stepwise regression to identify variables
 - d. Coefficient check to identify the correct variables
 - e. Performance comparison against other scores
 - f. Creation of card
 - g. Scoring function to score raw dataset.
3. **Propensity Model** – An end to end framework enabling customers to identify a qualified list of prospects within the analytical sandbox. Built on a Machine Learning platform, provides advanced statistical support using less resource and shorter time frame than full-

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D&B Analytics Studio

scale custom modeling. Propensity Model helps with propensity and response scoring of prospects typically used for sales/marketing. The two primary objectives are to

- a. Identify companies with a similar high value prospect profile based on the prospect input list provided by the customer
 - b. Find companies which would respond to marketing campaigns
- 4. Automated Tools** - Dun & Bradstreet has two automated model development solution to enable quicker turn-around time for model development and deployment:
- a. D&B Automated Scorecard
 - b. D&B Automated Machine Learning Model

These tools have been curated according the D&B Data, with both tools offering flexibility to the customer in terms of development/usability.

- 5. Machine Learning Library for Risk Analytics** - Python function to enable modelers to combine traditional credit/fraud detection techniques with advanced Machine Learning models.
- 6. Credit Limit Model** – coming in 2H2020
- 7. Loss Given Default Model** – coming in 2H2020
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Library Request Process – If user wants to add library – this is the established process to add pre-built or custom libraries. Incremental charge may apply.

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