REACTOR

Let's Put it in Context:

Use Purpose-Built, Industry-Specific Data Models for AI and BI Time to Value

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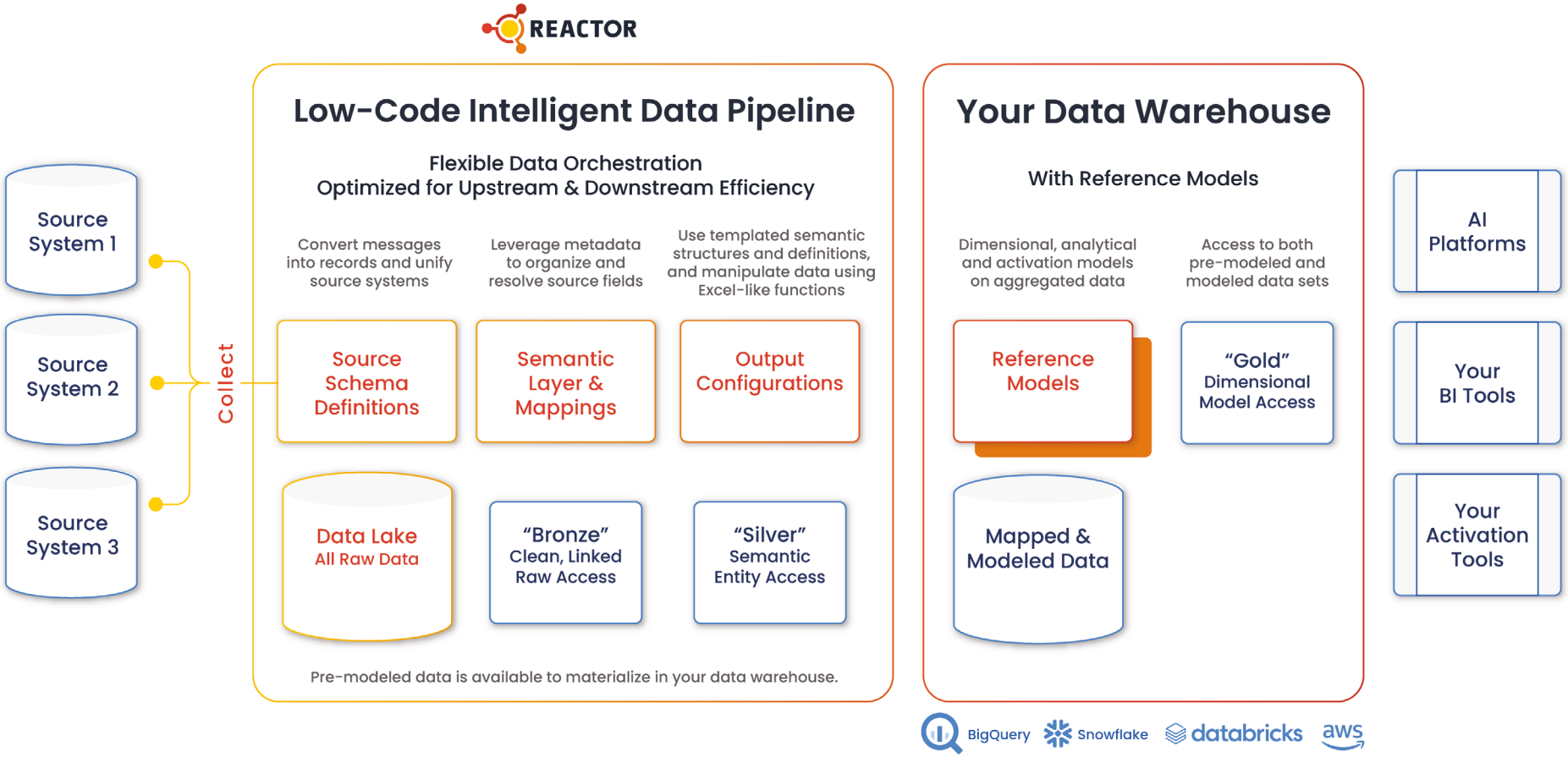
Introduction: The cloud changes everything

Cloud data warehouses can transform the way you run your business, revealing the drivers and detractors of profitable growth. But cloud data warehouses can also become expensive dumping grounds for unusable data.

A useful and cost effective data infrastructure requires more than just a data warehouse filled with raw data, dependent upon brute-force data engineering to map and model data into useful business output.

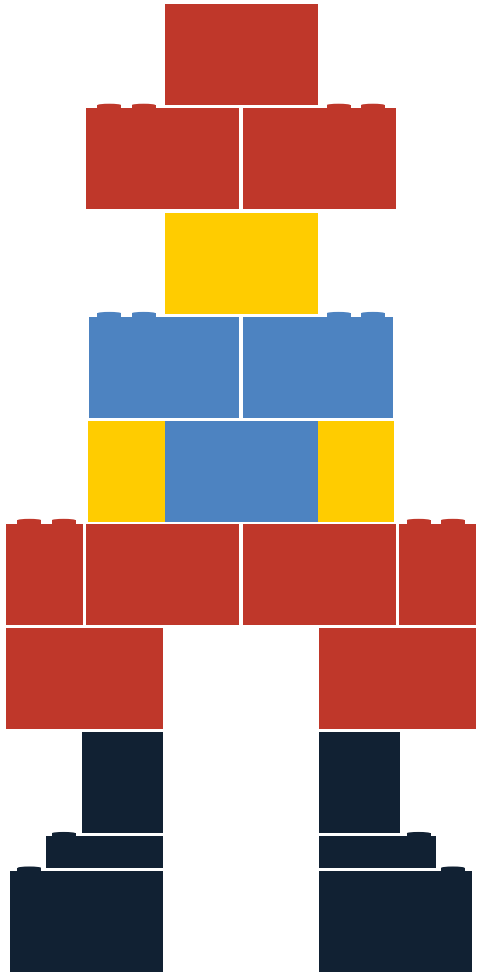


In 1978, **LEGO** introduced a brand new line of construction sets branded LEGO Space. The sets in the series included parts and features built for science fiction adventure and were among the first to include the now-iconic LEGO minifigure. Winning toy of the year in Germany and the UK in 1979, LEGO Space helped drive a 50% increase in sales for LEGO that year.

LEGO's strategy for LEGO Space – and every other theme that LEGO has launched since that early success – is to engage customers by making it easy to open a box and quickly experience the joys and benefits of a finished product. Through detailed instructions and clear pictorials, the toy company makes it easy for builders to get started quickly without limiting their future ability to create just about anything their imagination allows with the individual bricks included in each set.

This same guided approach to building can be applied to data models, especially useful for achieving fast, low-risk, and low-cost models suited for purpose in specific vertical industries like retail commerce.

In data engineering, one might equate individual data elements along with their semantic meaning, labels, and metadata as the buildable "bricks," with analytical or behavioral models landed in a data warehouse, ready for visualization or orchestration as the finished sets.



For data practitioners across industries, **there are many benefits of having predefined and prebuilt data models for analysis and activation.** The key is implementing a data architecture that supports prebuilt models without restricting the future customization of models and outputs in the process.

Here are a few key benefits of predesigned, prebuilt data models:

Time and Cost Savings:

Employing predefined and prebuilt data models can save time while achieving useful analytical and behavioral models. Analysis-ready models eliminate the need for manual data engineering, science, and analysis, all of which can be time-consuming and prone to error. Analysts save time that would otherwise be spent developing data models from scratch.

Semantic Consistency:

Predefined and prebuilt data models can ensure consistency across the analytical metrics and outputs like dashboards and visualizations. With predefined models, it is easier to ensure that data is organized consistently, which makes it easier to unify and understand data from different sources. Prebuilt models can help ensure that data is structured and presented consistently across all functions and departments, reducing confusion and errors. Different departments can collaborate more easily and work towards a common understanding of the data, promoting better decision-making.

Model Reusability:

Predefined and prebuilt data models can be reused for different analytical and data activation use cases. This can be particularly beneficial for retail businesses that have multiple brands or products, or seek to apply common metrics and models to disparate marketing or sales channels, or stages of an order lifecycle or customer journey.

Better insights:

By providing consistent measurement and reporting over time, predefined and prebuilt data models can help uncover new insights that might not be apparent with ad-hoc models. By starting with a solid foundation, businesses can more easily explore new patterns and relationships in their data.

Model Agility:

Prebuilt data models, when run on the right architecture and data pipelines, can be modified and adjusted to suit changing business needs and emerging trends more quickly than building new data models from scratch.

Data Compliance:

Prebuilt data models can be designed to comply with industry regulations and best practices, ensuring that data is handled securely and appropriately.

Improved Accuracy / De-Risked Data Projects:

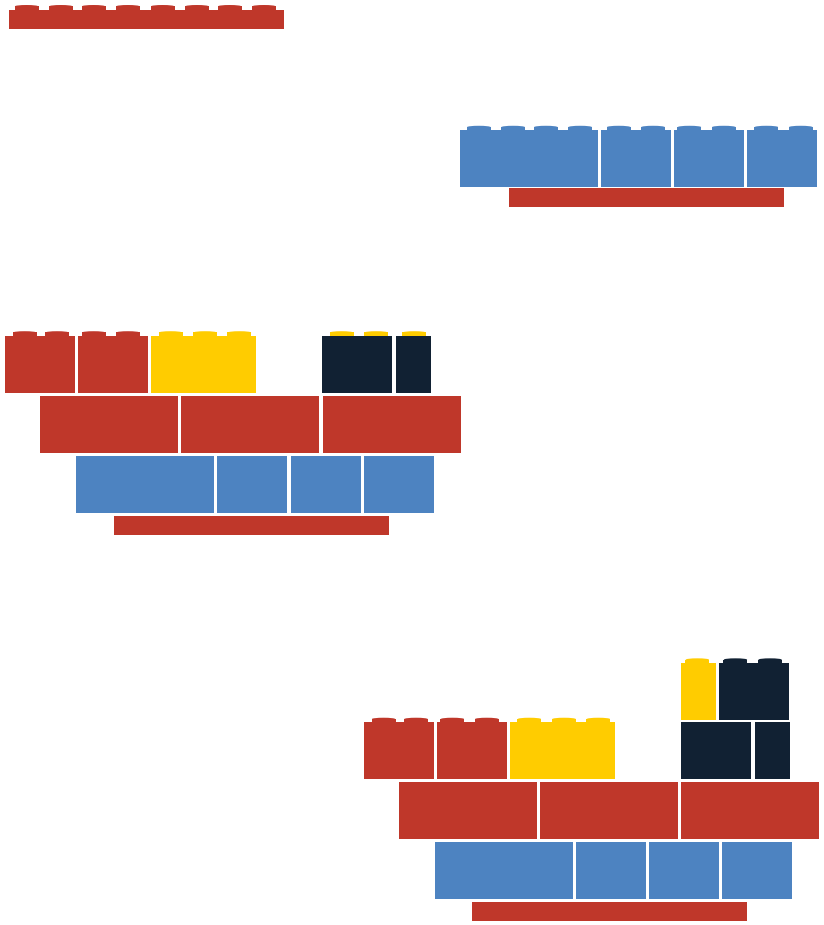
Prebuilt data models can help improve data accuracy by minimizing the risk of errors and inconsistencies that can occur when building data models from scratch.

Specific Purpose, Specific Model

Like LEGO sets that get creative builders started with guided instruction, prebuilt data models can help organizations improve their data management and analysis capabilities, promote collaboration across departments, and ultimately make better decisions based on data-driven insights at lower cost, time, and project risk.

LEGO's creative diversification that began decades ago with LEGO Space has continued with the proliferation of predesigned sets across interests and franchises, from sports and robots to princesses and ninjas.

As with LEGO, specific industries like retail have seen a proliferation of useful, prebuilt data models fit for purpose. Some of these data models still exist in the form of standalone applications like Customer Data Platforms (CDPs) and BI solutions. Increasingly though, these models are built or landed in open data infrastructure components (sometimes called the "Modern Data Stack"), with open data warehouses like Google Bigquery and Snowflake at the center.



What can retail decision-makers accomplish with prebuilt data models running in the Modern Data Stack?

Here are just a few examples:

Marketing Attribution Model:

This model helps in determining which marketing channels and campaigns are driving the most traffic and revenue.

Customer Segmentation Model:

This model groups customers based on similar characteristics such as demographics, behavior, and purchase history to personalize marketing efforts and improve targeting.

Lifetime Value Model:

This model calculates the expected revenue a customer will generate throughout their relationship with the business to prioritize acquisition and retention efforts.

Merchandising Performance Model:

This model helps retailers analyze the performance of their products by tracking metrics such as sales, margins, and inventory turnover. It is useful for identifying top-performing products and optimizing product mix.

Pricing Optimization Model:

This model helps retailers optimize their pricing strategies by analyzing market trends, competitor pricing, and customer behavior. It is useful for maximizing profits and staying competitive.

Product Affinity Model:

This model identifies which products are frequently purchased together to inform cross-selling and upselling efforts.

Inventory Optimization Model:

This model helps retailers optimize their inventory levels by predicting demand, identifying slow-moving products, and minimizing stockouts. It is useful for reducing costs and maximizing profits.

Supply Chain Management Model:

This model helps retailers manage their supply chain by tracking inventory levels, logistics, and supplier performance. It is useful for reducing costs, improving efficiency, and ensuring product availability.

Store Performance Model:

This model helps retailers analyze the performance of their physical stores by tracking metrics such as foot traffic, sales per square foot, and customer behavior. It is useful for optimizing store layout, staffing, and marketing.

Fraud Detection Model:

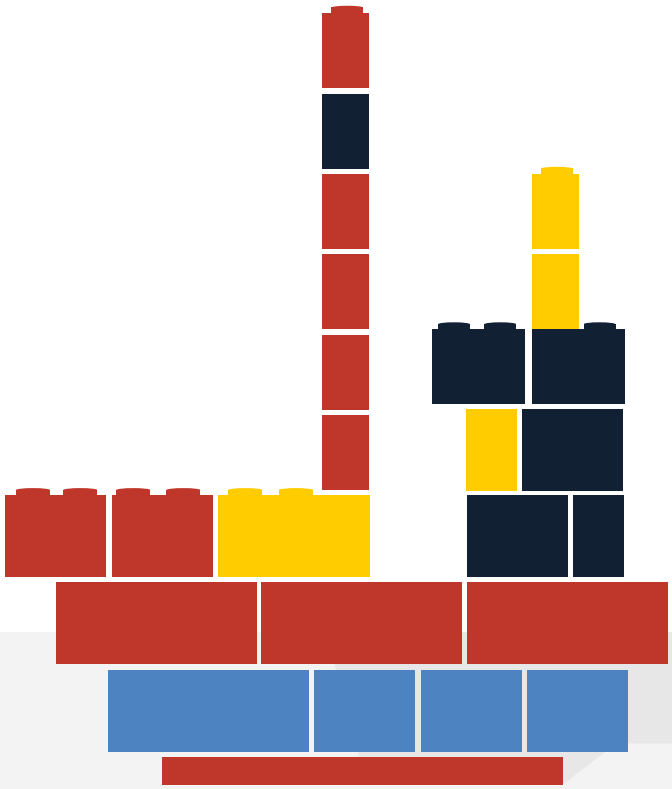
This model helps retailers detect fraudulent transactions by analyzing patterns in transaction data. It is useful for reducing losses and protecting against financial risk.

Build the Right Tool for the Job

Like the LEGO sets available for purchase today, the list of useful data models in an industry like retail commerce is almost endless. (If it's been a while since you last picked up and built a LEGO set, it's never too late to become a LEGO maniac!)

When it comes to data engineering, data science, and data analytics in your industry, now is the time to explore the rich and diverse analytical and behavioral models available. Starting with prebuilt models will reduce your engineering time, expense, and risk.

If you build or land your models in a modern cloud data warehouse like Bigquery or Snowflake, integrated with modern tooling, you'll have all the benefits of immediate time-to-value, and all of the flexibility to extend and customize your future-proof models as end-user needs and use cases dictate – just like a LEGO set.



Future Proof your Data Stack with Industry Specialization

The list of useful data models in an industry like retail commerce is almost endless. When it comes to data engineering, data science, and data analytics in your industry, now is the time to explore the rich and diverse analytical and behavioral models available. Starting with pre-built models will reduce your engineering time, expense, and risk.

Find out more about all **nine characteristics of a Future-Proof Cloud Data infrastructure** in our comprehensive exclusive ebook.

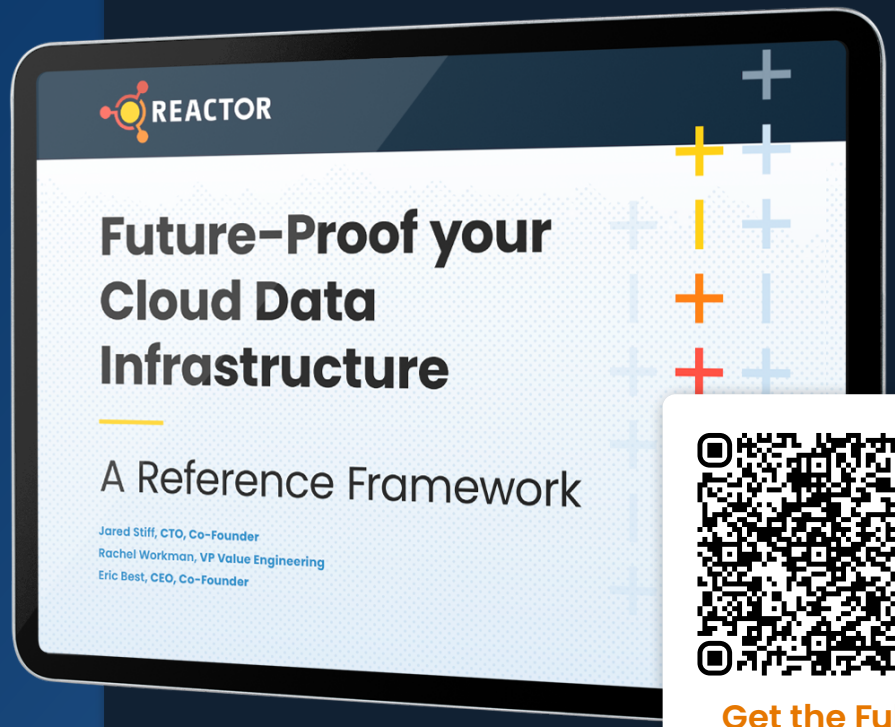
Contact Reactor to learn more and get started today!

REACTOR

Reactor provides the fastest, most efficient path to useful, business-ready data for generative AI, analytics and activation. Built for retailers of any size or complexity, Reactor transforms your unique data infrastructure into an easy-to-use, no-code environment that's accessible to everyone — no engineering degree required. Reactor onboards and ingests data from business critical systems and applications, landing clean, well-defined data modeled directly in your data warehouse.

REACTOR

Put Your Data to Work.



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