Data Orchestration At The Developers' Fingertips

The new role for developers in low-code data orchestration platforms

Low-code automation platforms are becoming dominant developer-friendly automation tools where we use visual interfaces with simple logic and drag-and-drop features instead of extensive coding. Then by default, these platforms should also take care of data orchestration across the increasing complexity of the data ecosystem and their associated frameworks, clouds, and storage systems. All with minimal setup effort and extremely rapid deployment. In this new developer world order, applications can be built in just days/weeks and not years.

> *"Many have claimed to offer low-code automation solutions before, but few have been able to live up to the expectations to drastically shorten time to market and provide the orchestration environment where developers only need to focus on what they love most: developing applications. This is also a boon for entrepreneurs that rely on software developers at huge expense and risk to build software from the bottom up where they can now build their applications on top of an automation stack that is of high quality in a reliable pre-built software environment."*

Veselin Pizurica, Founder & CTO of Waylay

Data Orchestration

To address the complexity of creating a data automation platform, the basic building blocks of the low-code platform should be small snippets of code that, like lego bricks, are reusable across different use cases. To implement logic to these code snippets, we need an extremely powerful rules engine that can orchestrate these code snippets to build and support these complex lego structures.

The data orchestration platform takes care of the following 4 major steps:

1. Data Ingestion

Data has to get into the system one way or another and data ingestion can be a mess when the data sources have their origin across different input channels as SQL databases, via MQTT, or just plain .txt logs. The Data Orchestration platform should be able to integrate all different data sources to process the required combined data set.

2. Data Processing

Collected data is rarely in the right format when entering the data automation platform. Data needs to be combined, unpacked, and decoded. At this step, also data aggregation is performed for use of data at a higher abstraction level.

3. Decision Making

Once the data is ready, it is time to make decisions based on rules and automated workflows. The low-code automation platform should provide an easy way to create rules and even have the ability to utilize AI or ML models and let these call the shots. By using a graphical interface in the automation rule designer instead of programming thousands of lines of code, the developer can focus on the fun part of creating automation flows and experiment with data.

4. Taking Actions

In the last stage, it is time to take action. Based on processed data and previous decisions, the platform should be able to take actions inside and outside of its ecosystem. Actions range from generating alarms to turn devices on/off, scheduling a field service engineer for a maintenance intervention, or sending quarterly usage figures to accounting for use-based invoicing.

The new role of the Developer

The best data orchestration platforms are flexible in each of the 4 steps described above. They allow integration with other platforms and provide a way to quickly define new logic.

And this is exactly where Waylay can make the difference: the Waylay IO data orchestration platform also takes care of serverless data storage, debugging, and deploying in the most flexible and secure way. The automation platform takes the role of a multi-skilled team and as a result, the ability to accelerate the delivery of new applications becomes one of the most important benefits. The new role of the developer is no longer writing thousands of lines of code, the developer becomes the Director of its data and data flows to deliver brilliant data automation applications without big budgets and expensive development teams.
The Waylay IO data orchestration platform allows the less experienced developers without a strong background or decades of experience to build apps as if they were full-stack developers and it allows highly skilled developers to work more efficiently.

For more information, visit www.waylay.io/io and try out Waylay IO with its $200 voucher to get you started.