

Streaming Applications made easy with Datalyzer

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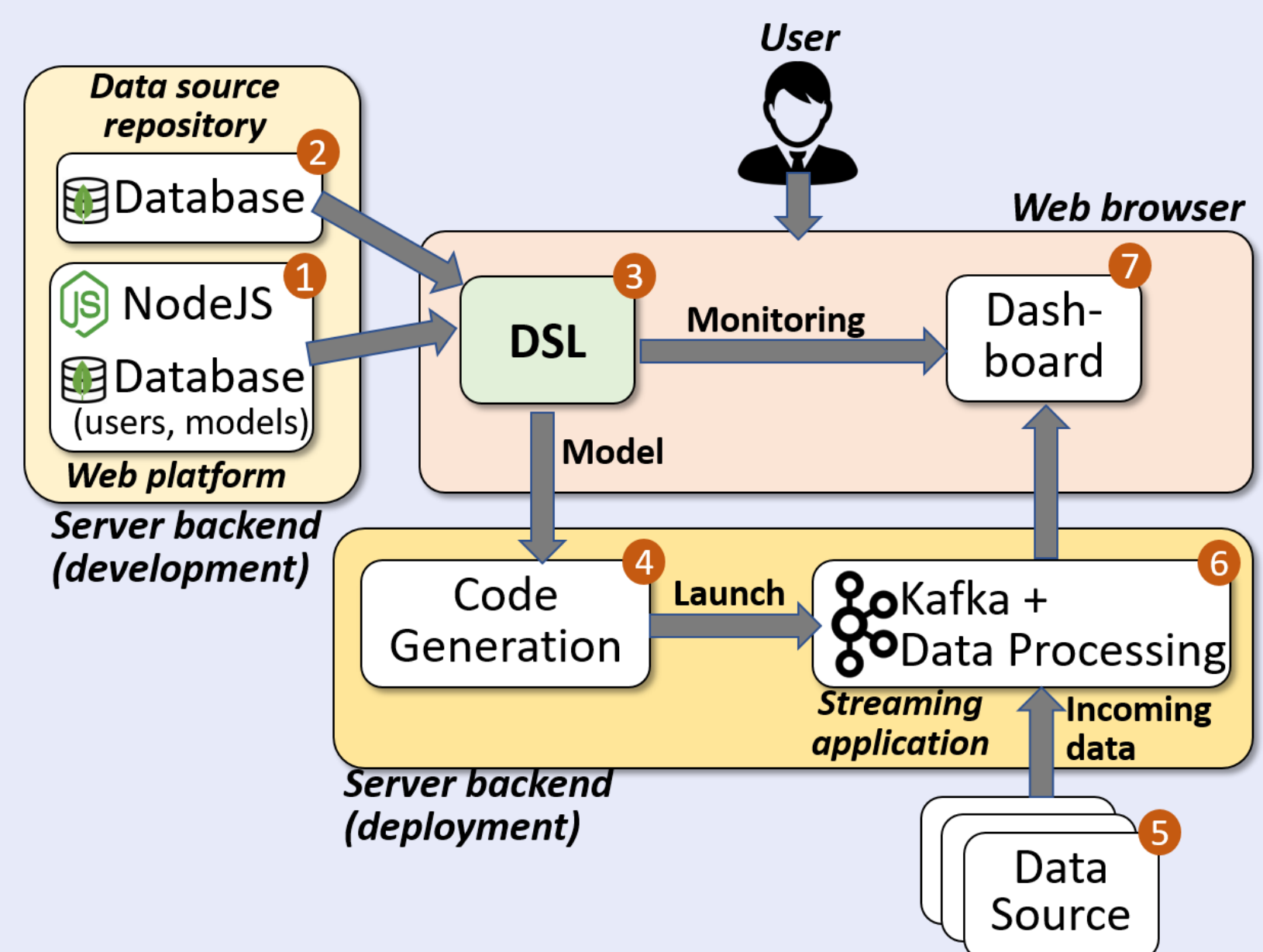
What is a Datalyzer?

A cloud-based platform to build streaming data applications based on a domain-specific visual language (DSL) to facilitate programming by non-experts.

Main features:

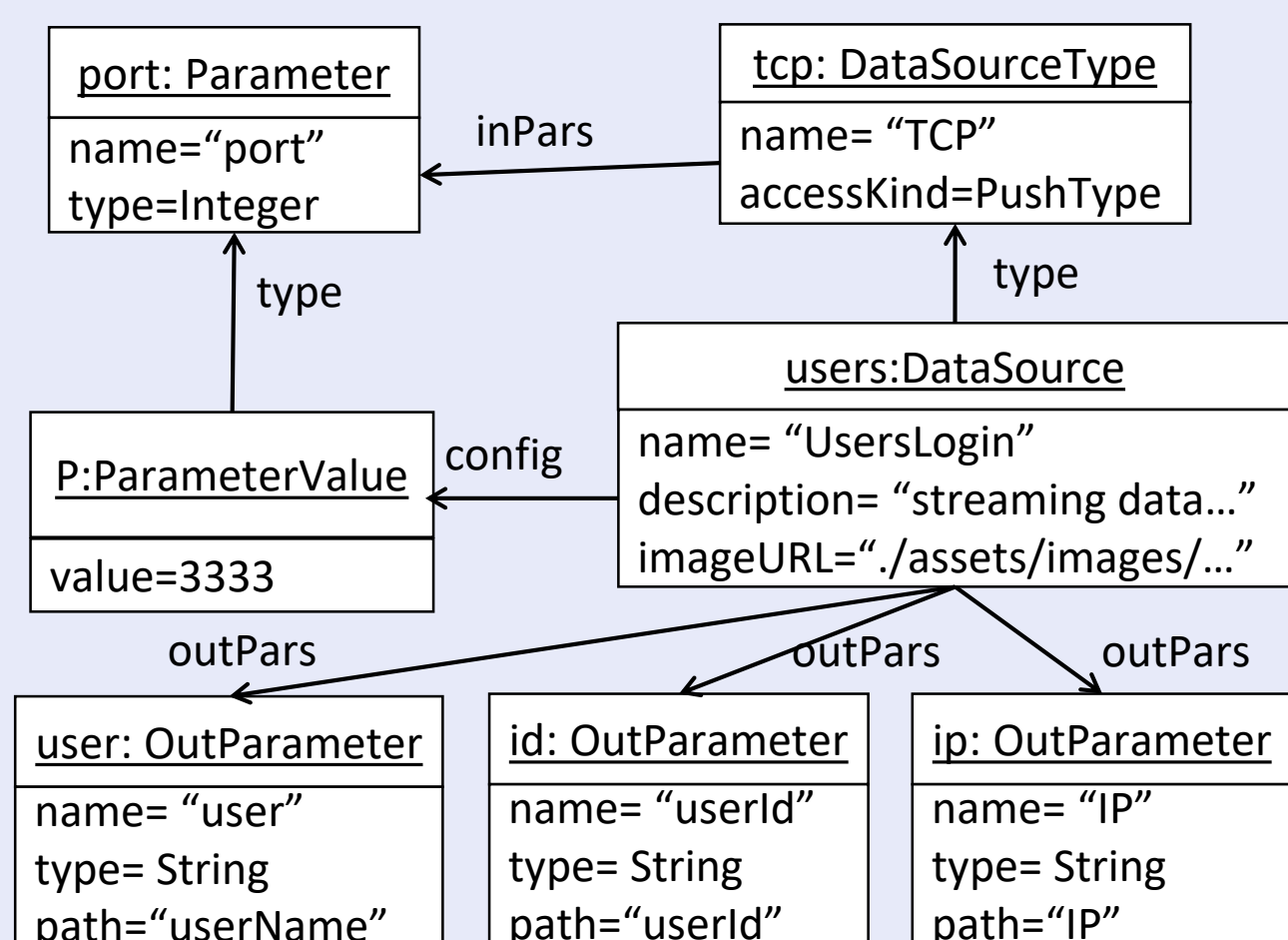
- Follows model-based development principles.
- Automated code synthesis and deployment on the cloud.
- Extensible by describing heterogenous data sources in a common format.

Tool Architecture



Data Sources

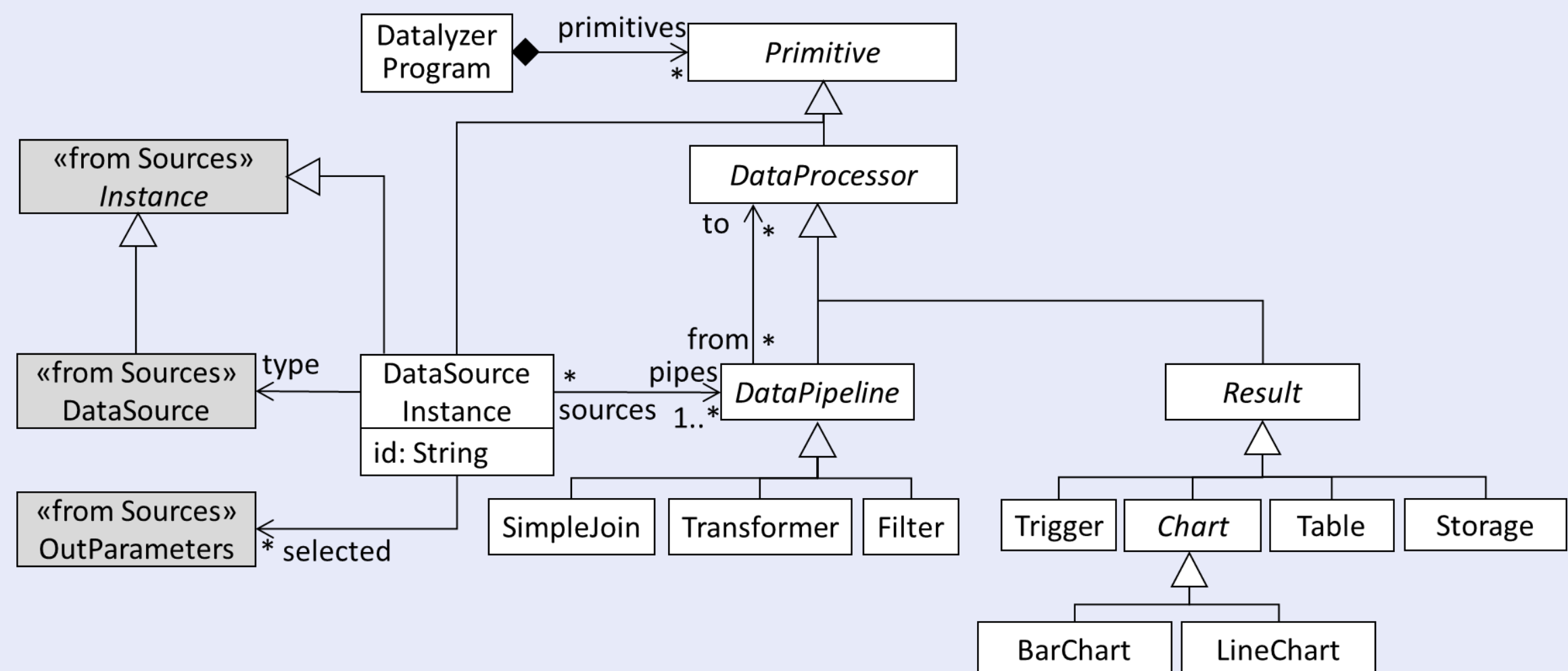
- Creates live data streams out of any source type.
- Uniform description model for data sources, which facilitates the incorporation of new sources.
- The model distinguishes between *data source* and *data source type*. An example is shown below.



Description of one Data Source

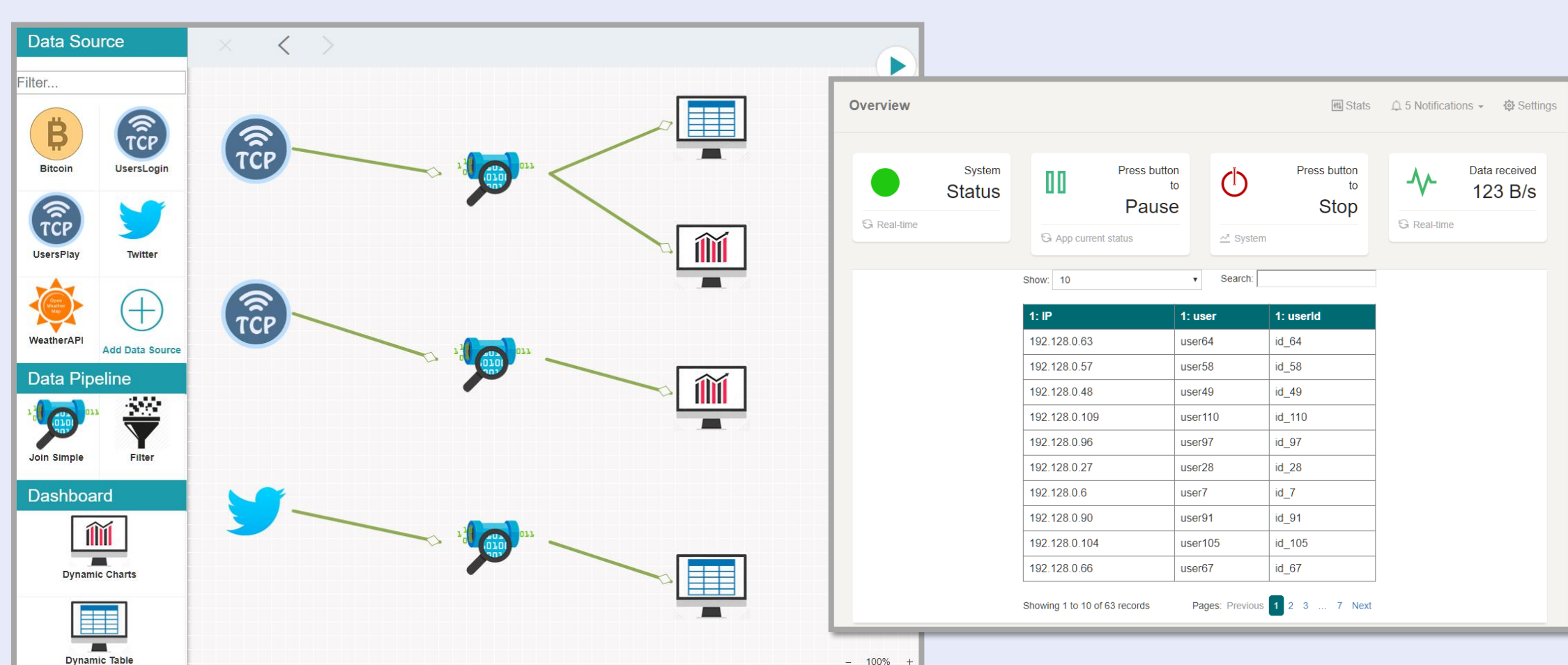
DSL editor

- Developed in Javascript. Uses a drag and drop mechanism.
- Based on the meta-model shown below.
- Generates an application model which is the input of the code generator.



Datalyzer meta-model excerpt

Datalyzer: example



a) DSL example

b) Dashboard

The application receives data from 3 different data sources (2 from a TCP socket connection, the other from Twitter) which are connected to 3 data pipelines. The application code is generated and executed in an autonomous way. The data flows can be monitored by tables and dynamic charts in the dashboard, as configured with the DSL. The dashboard also contains buttons to control the application execution.