Business Rule Engine

Jare

Java Rule Engine

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Business Rule Engine: General

- Rule Engine – Apply tests/checks to data by using rules: Files, Databases, Streams, any data

- Rules/group of rules and actions created through web user interface

- Rules and group of rules to define complex rule scenarios

- Actions to update/modify data or other actions after rules are processed

- All parts situated in a project and can be exported to a Zip file – one file that can be executed by the ruleengine

- Can be used to test data, for quality checks, KPI's, to filter data, to update data
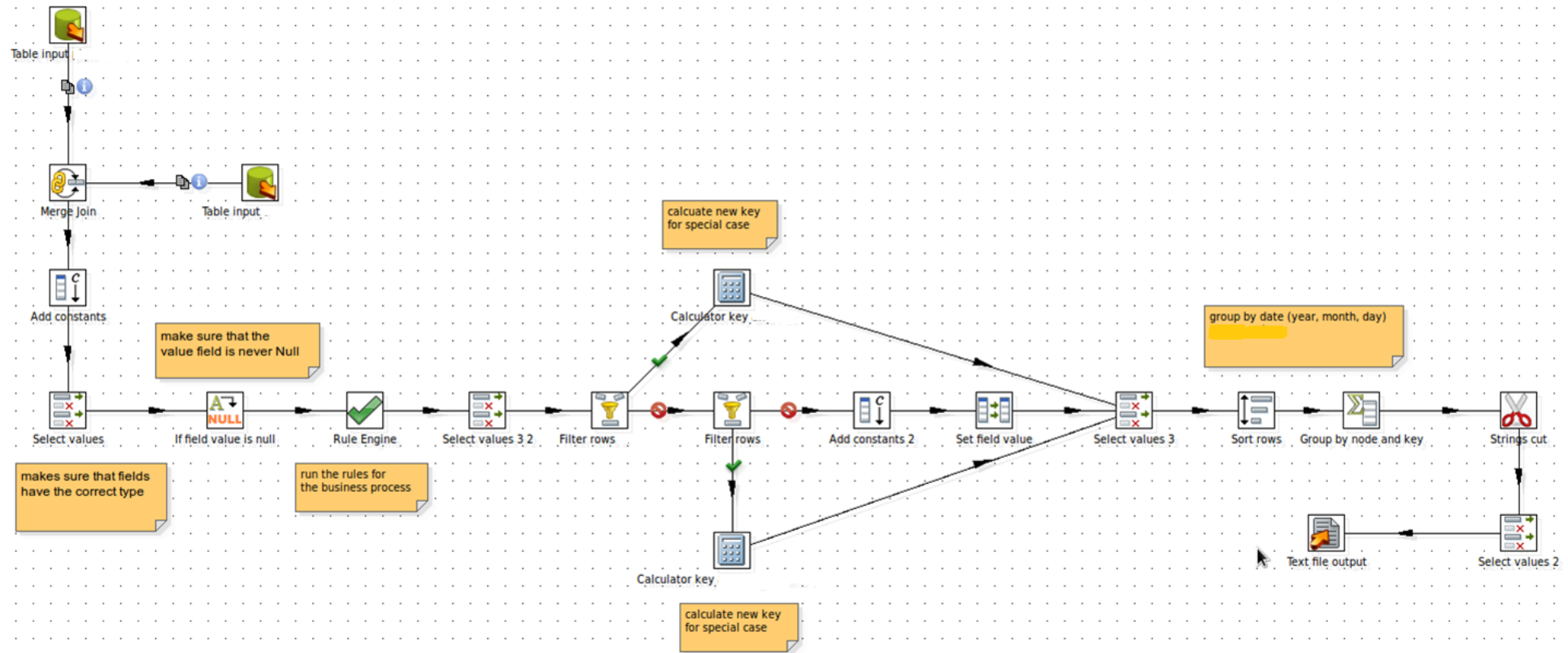
Business Rule Engine: Usage

- Written in Java. Runs everywhere, small footprint

- Extendible: additional checks, rules, actions easily created

- Universal – <u>any</u> Java Objekt can be evaluated

- Use cases:

    - Standalone applications

    - Embedded in applications ; also web applications

    - Runs on a server, in a virtual machine (VM) or as a container (Docker)

    - Plugin available for Pentaho Data Integration tool

    - Run as a standalone Socket Server, waiting for connections

Business Rule Engine: Groups and Rules

- Groups and Rules connected with and/or conditions

- Rules check data against an expected value or against another field

- Group of rules can pass the tests/checks although some rules might have failed (when using „or" conditions)

- Results of a test/check can trigger one or multiple actions

- Several actions are already pre-defined

- Actions can be any Java code – e.g. update of data/database, send messages, calculations, etc.

without Rule Engine: ETL example

with Rule Engine: same ETL

Business Rule Engine: Advantages

- Enforces the seperation of responsibilities

- Any level of complexity for the logic is possible

- Rules are external to ETL tool, application code, web code and **NOT** embedded/mixed with code or IT processes

- Maintenance of rules and actions can be done externally: Business user, superuser, developer

- Application code, ETL processes and code in general is simplified and easier to overview and maintain; big plus for quality and reducing cost

- Logic is transparent to the user (separated from IT code)

- Universally usable and extendible

- Open Source & free of licence cost

Business Rule Engine: Status

- Rule Engine stand-alone or server: available

- Pentaho Data Integration Plugin Step: available

- Documentation on core design, checks, actions, web gui: available

- Web GUI for the maintenance of rules and actions: available