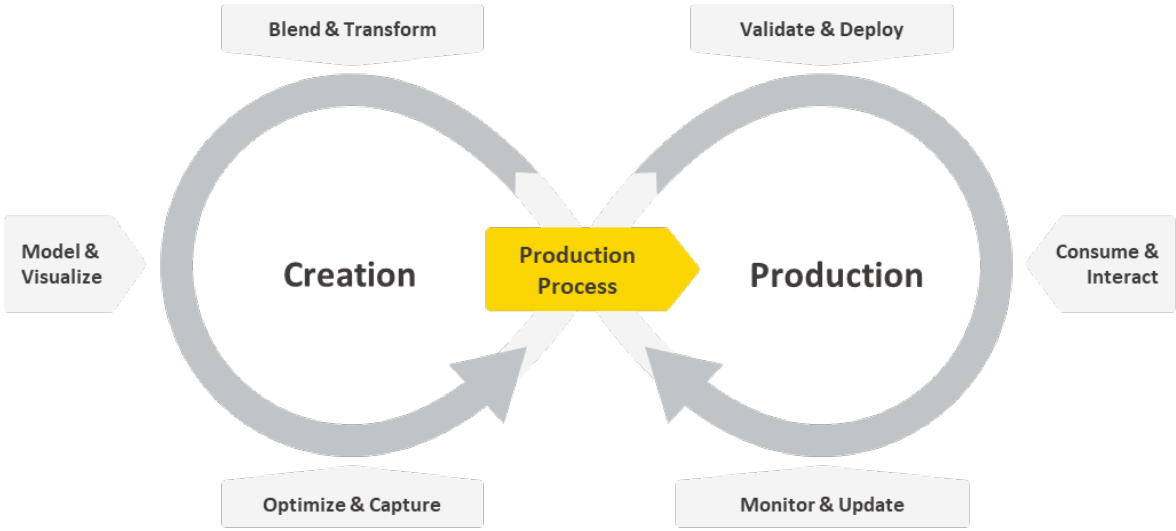


# Intro and Software News

KNIME Product Team

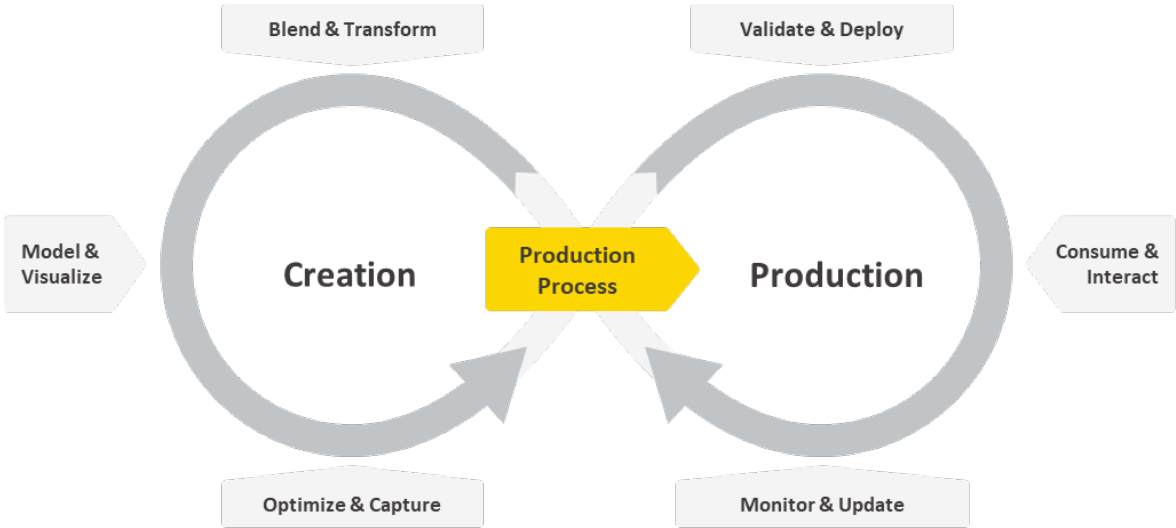
# The Data Science Life Cycle and KNIME Software



<b>KNIME Analytics Platform (open source)</b>
Low Code Data Science

<b>KNIME Hub</b>	
Team Collaboration	Governance and Deployment at Scale

# The Data Science Life Cycle and KNIME Software



KNIME Analytics Platform (open source)			
Low Code Data Science			
Data Access & Transformation	Analytics & GenAI	Visualization & Reporting	Community Extensions

KNIME Community Hub		KNIME Business Hub		
Team Collaboration		Governance and Deployment at Scale		
Shared Repository	Data Apps & API Services	Automation & Orchestration	Continuous Delivery of Data Science	AI Governance



# KNIME Analytics Platform

# KNIME Analytics Platform: Topics for today

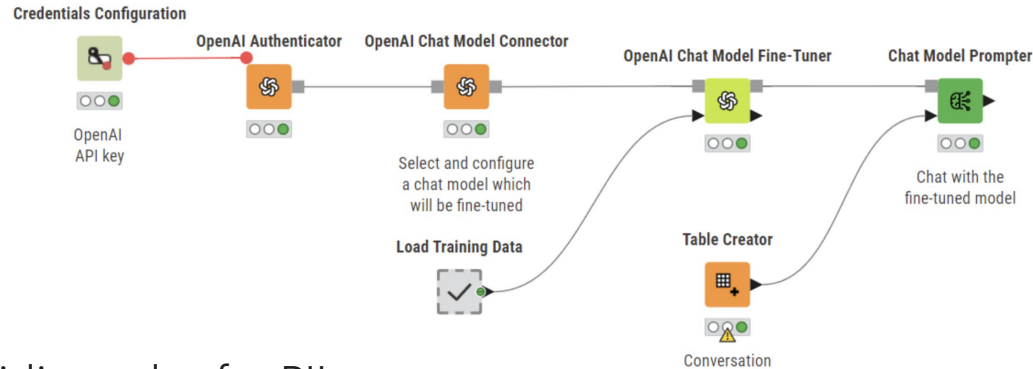
- KNIME Analytics Platform 5
- KNIME Reporting
- KNIME AI Extension and KNIME Workflow Assistant
  
- (101 more changes)

# Demo

# KNIME Analytics Platform: What's cooking

## GenAI related functionality

- OpenAI Chat Model Fine-Tuner



- Microsoft Presidio nodes for PII
  - Detection
  - Anonymization
  - Deanonymization

# KNIME Analytics Platform: What's cooking

## AI quality assurance with the Giskard Scanner node

- Analyzes end-to-end machine learning workflows
- Detects various kinds of issues
  - Performance
  - Robustness
  - And more

11 ISSUES DETECTED Robustness 11

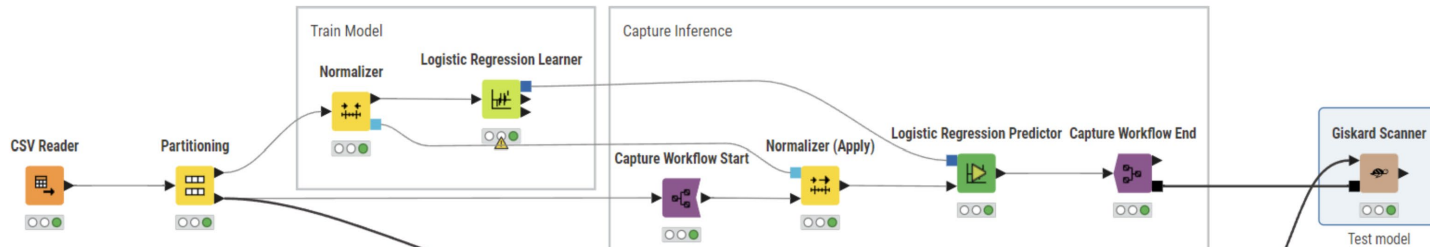
⚠ Your model seems to be sensitive to small perturbations in the input data. These perturbations can include adding typos, changing word order, or turning text into uppercase or lowercase. This happens when:

- There is not enough diversity in the training data
- Overreliance on spurious correlations like the presence of specific word
- Use of complex models with large number of parameters that tend to overfit the training data

To learn more about causes and solutions, check our [guide on robustness issues](#).

ISSUES 5 MAJOR 6 MEDIUM

Feature 'marital-status'	Add typos	Fail rate = 0.186	186/1000 tested samples (18.6%) changed prediction after perturbation	1000 samples affected (10.2% of dataset)	Show details
Feature 'marital-status'	Transform to title case	Fail rate = 0.171	171/1000 tested samples (17.1%) changed prediction after perturbation	1000 samples affected (10.2% of dataset)	Show details





# KNIME Analytics Platform: What's cooking

## New expression node

- Replacement for *String Manipulation*, *Math Formula*, *Rule Engine*, with modern UI and AI assistance
- Also coming: support multiple expressions and windowing to replace *Column Expression* node

The screenshot displays the KNIME Analytics Platform (Nightly Build) interface. The top navigation bar includes 'Home', 'summit2024-expressions', and utility icons for Help, Preferences, and Menu. Below the navigation bar are buttons for 'Execute', 'Cancel', 'Reset', 'Create metanode', and 'Create component'. The main workspace is divided into a left sidebar and a central canvas.

The left sidebar shows the 'CSV Reader' node configuration. It includes a description: 'Reads CSV files. To auto-guess the structure of the file click the Autodetect format button. If you encounter problems with incorrect guessed data types disable the Limit data rows scanned option in the Advanced Settings tab. If the input file structure changes between different invocations, enable the Support changing file schemas option in the Advanced Settings tab. For further details see the KNIME File Handling Guide [File Handling Guide](#).' A note states: 'Note: If you find that this node can't read your file, try the File Reader node. It offers more options for reading complex files.' Below this, it mentions: 'This node can access a variety of different file systems. More information about file handling in KNIME can be found in the official [File Handling Guide](#).' A section for 'Parallel reading' explains that individual files can be read in parallel if they are on the same machine, don't contain row delimiters, are not gzip compressed, have no lines or rows limited or skipped, and are not encoded with UTF-16 or UTF-16BE.

The central canvas shows a workflow diagram with two nodes: 'CSV Reader' (labeled 'Add comment') and 'Expression (Labs)' (labeled 'calculate decade'). An arrow connects the CSV Reader node to the Expression node.

At the bottom, a 'Table' view shows the output of the workflow. It displays 119 rows and 3 columns: '#', 'RowID', and 'Country'. The 'Country' column is expanded to show the 'Medal Count' for each row.

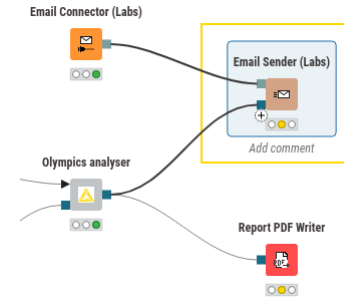
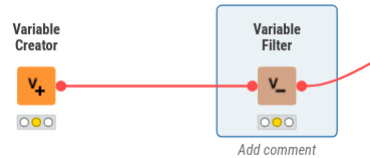
#	RowID	Year	Country	Medal Count
1	Row0	1920-01-01	AUS	5
2	Row1	1920-01-01	FRA	57
3	Row2	1920-01-01	GBR	29
4	Row3	1920-01-01	ITA	17
5	Row4	1920-01-01	USA	63
6	Row5	1924-01-01	AUS	25
7	Row6	1924-01-01	FRA	211
8	Row7	1924-01-01	GBR	181

# KNIME Analytics Platform: What's cooking

## Other quality of life enhancements (and more)

- Improved Reporting and Email Processing

- Variable Filter



- Performance, esp. for frequently used nodes
- Modern UI Enhancements (more than just keyboard shortcuts)



# KNIME Community Hub

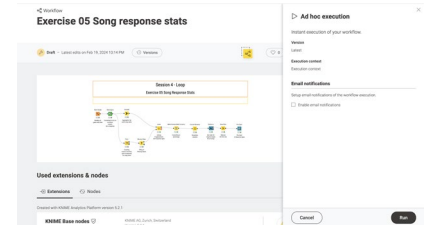
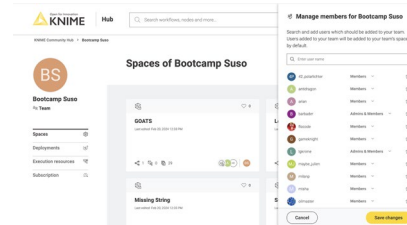
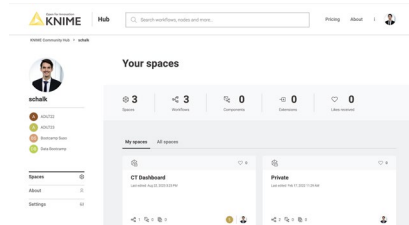
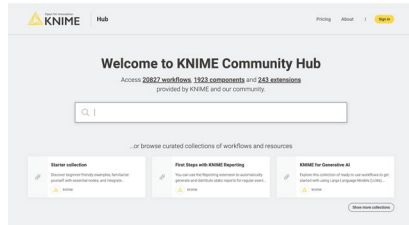
# KNIME Community Hub is a place to...

**Search and find**

**Store and share**  
using spaces

**Collaborate in**  
teams

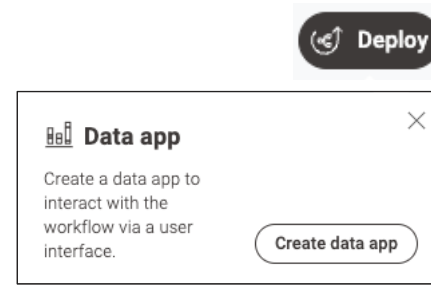
**Automate workflow**  
execution



Try it out at: [hub.knime.com](https://hub.knime.com)

# What's Cooking for Community Hub

- Deploy data apps
  - Control access of app usage
  - Manage workflow versions deployed
- Workflow editing in a browser - demo
- Workflow editing playground
  - An onboarding experience with the goal of learning visual workflow building
  - Targeted at people new to KNIME workflow editing



# Getting Started with KNIME Community Hub

- Check your email!
  - You'll receive a voucher for KNIME Community Hub
  - Redeem the voucher for one Team free for one month with 1500 execution credits\*

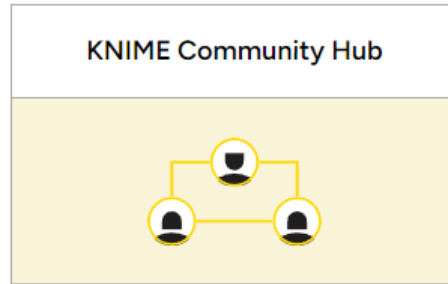
\* The voucher credits may require a day or two to appear in your account



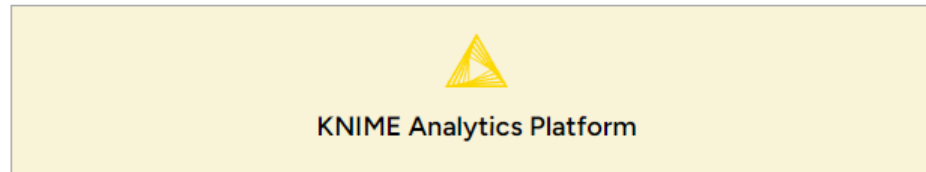
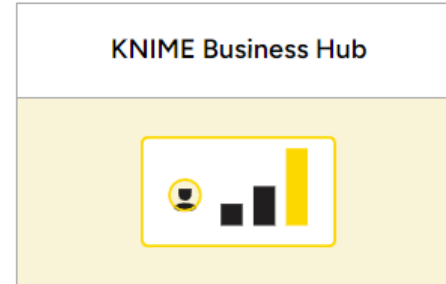
# KNIME Business Hub

# KNIME Business Hub

For individuals and small teams



For larger teams with business needs

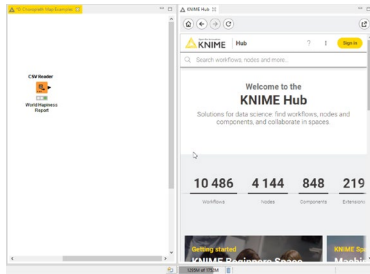


Build analytic solutions with an intuitive, low-code, no-code interface

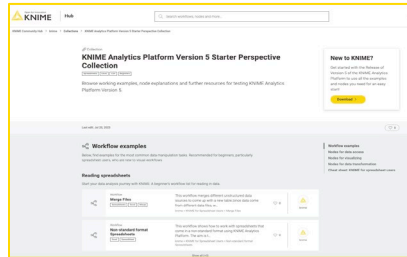


# Creating Community with KNIME Business Hub

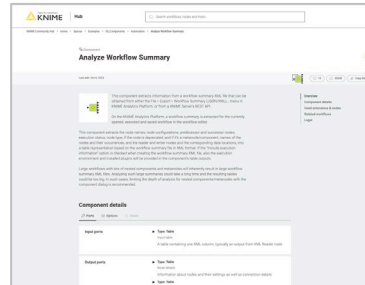
Share  
Expertise



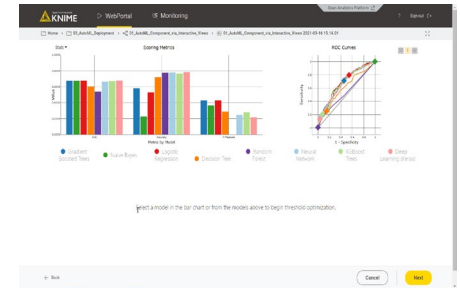
Build a  
Knowledge  
Base



Jump Start  
using  
Components



Make Data  
Analysis  
possible by  
everyone



# KNIME Business Hub: What's new

## Demo

# KNIME Business Hub: What's new

## How to use secrets in KNIME workflows

### Secrets Retriever node

- Allows user to select any number of secrets to use in the workflow
- Output ports dynamically adapt to selected secret types e.g. from flow variable to Microsoft Authentication or both
- In place of credentials and authenticator nodes

Secrets Retriever SharePoint Online Connector



Secrets Retriever Oracle Connector



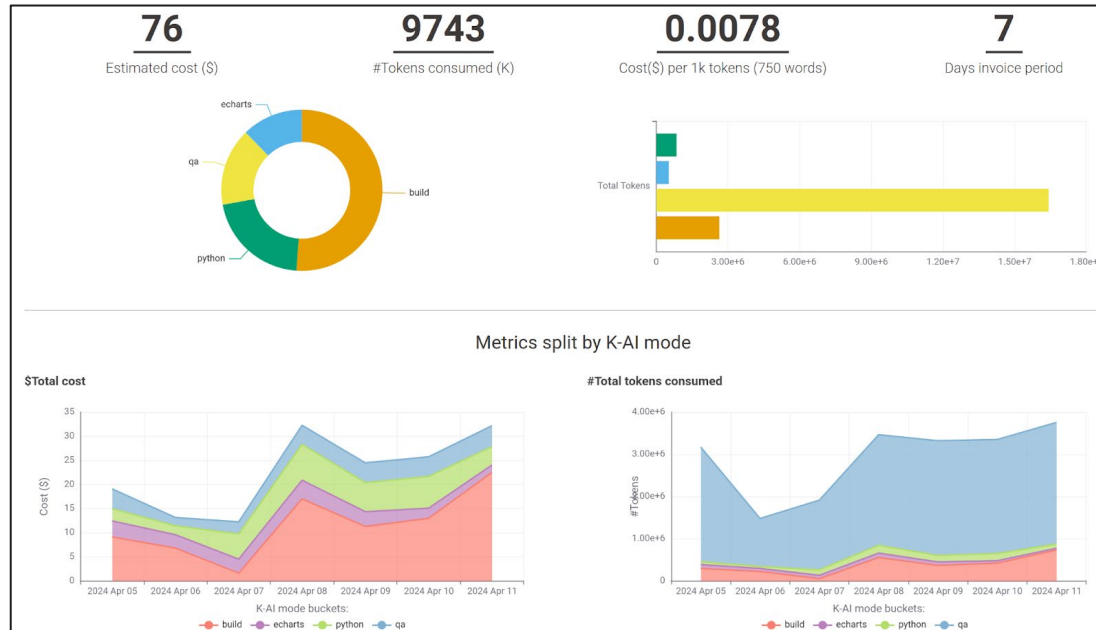
The screenshot shows the 'Secrets Retriever Node' configuration dialog. It lists three secrets with their names and a 'Flow variable name for secret' field. The first secret is 'Secret 1' with name 'Sharepoint'. The second is 'Secret 2' with name 'Oracle'. The third is 'Secret 3' with name 'Secret Team » Shared Google API key secret'. The 'Flow variable name for secret' field contains 'devSecret'. There are 'Add secret', 'Cancel', and 'Ok' buttons at the bottom.

Secret ID	Secret name	Flow variable name for secret
Secret 1	Sharepoint	devSecret
Secret 2	Oracle	
Secret 3	Secret Team » Shared Google API key secret	

# KNIME Business Hub: What's new

## Managing K-AI

- Configure K-AI to utilize a hosted AI (OpenAI, Azure AI)
- Ready-to-use data app for usage and cost monitoring
  - API endpoint allows customized analysis



# KNIME Business Hub: What's cooking

# KNIME Business Hub: What's cooking

## AI Model Management

Open for Innovation  
**KNIME** Hub

Search workflows, nodes and more...

KNIME Dev Business Hub > Hub administration > AI models

**KNIME Business Hub administration**

- License
- Users
- Teams
- Execution resources
- AI models**

### AI models

Name	Model
rf_model2	huggingface/knime_workflow

#### Register AI model

Name

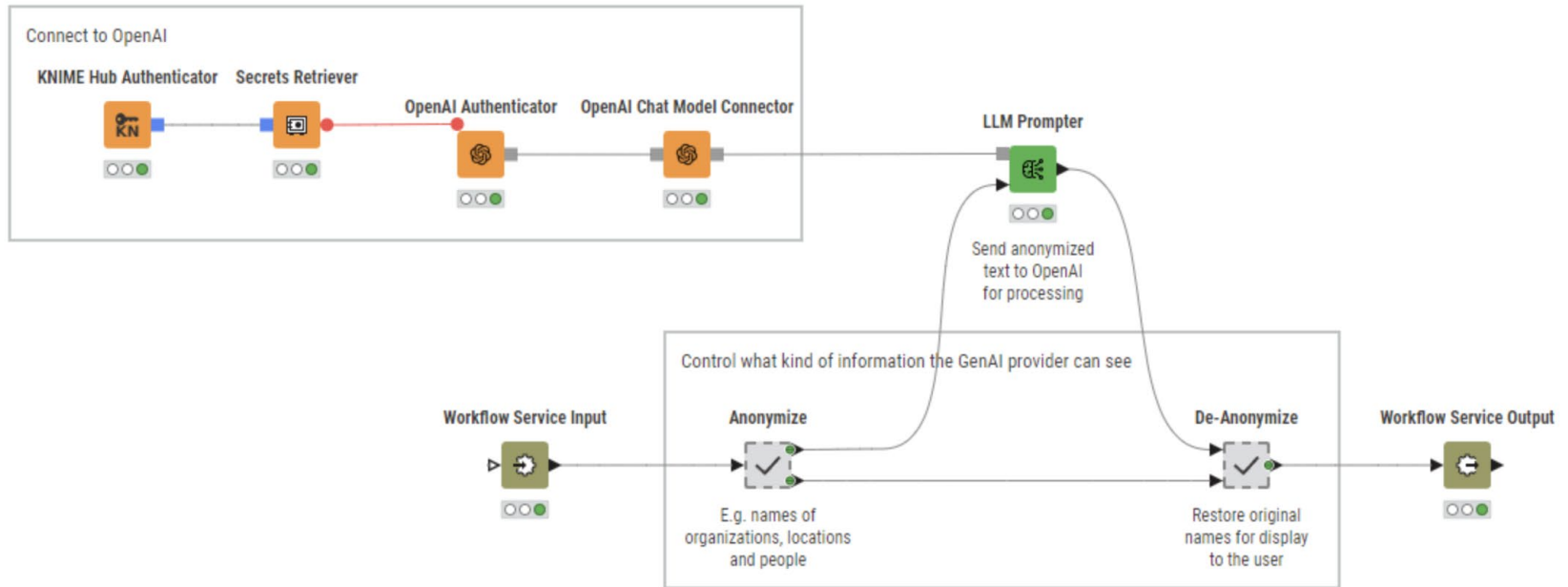
Config

Cancel Save changes

# KNIME Business Hub: What's cooking

## AI Proxy

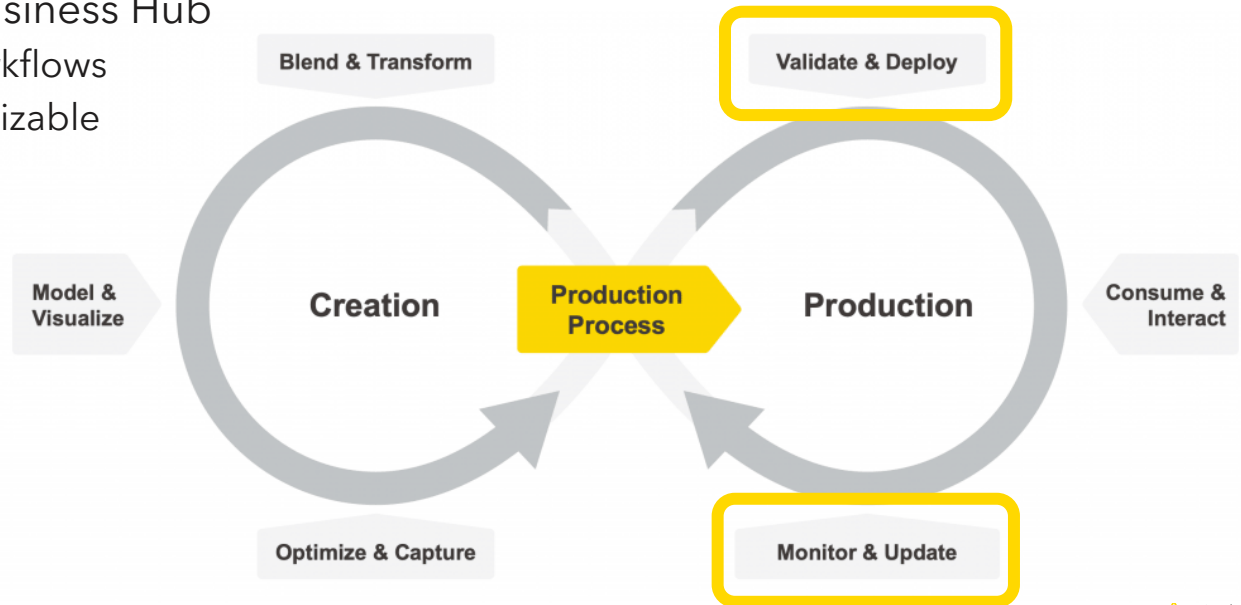
- Modify and validate requests of KNIME Business Hub users
  - Customizable via workflows



# KNIME Business Hub: Recap

## Continuous Deployment for Data Science (CDDS)

- Automate validation process when deploying workflows
- Automate monitoring and retraining of workflows in production
- Separation of development, validation and production environments
- Extension for KNIME Business Hub
  - Set of data apps and workflows
  - Ready-to-use but customizable

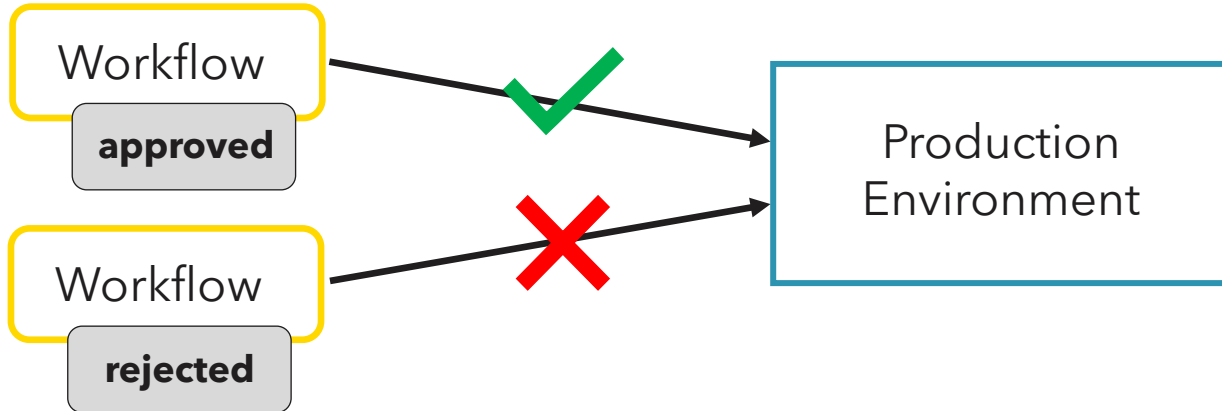




# KNIME Business Hub: What's cooking

## Safeguarding Production Environments

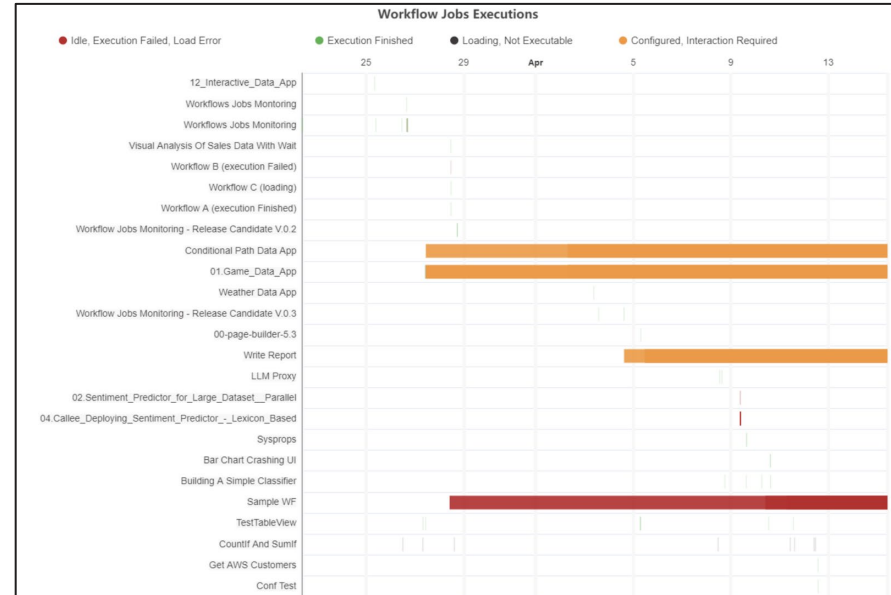
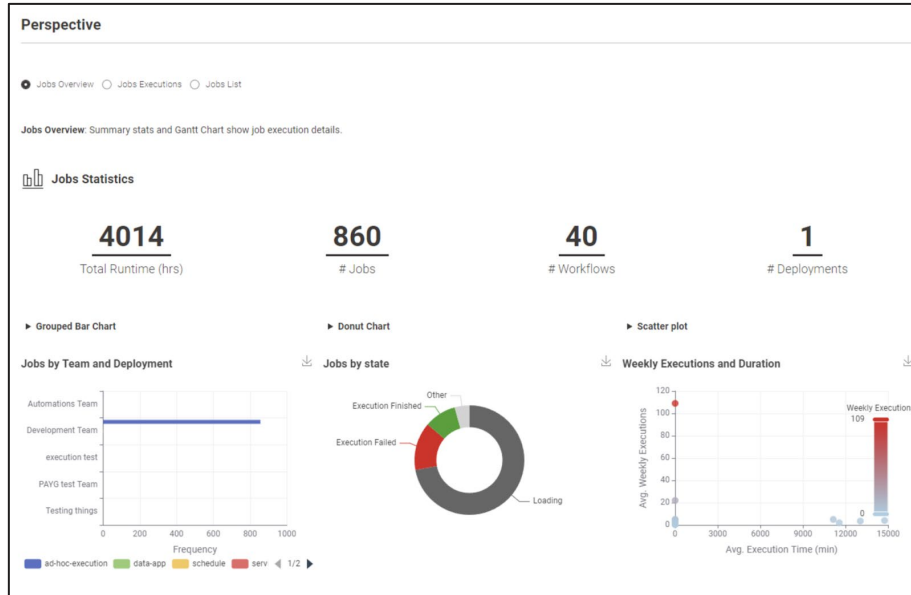
- Validation of workflows executed in production is enforced
  - Automated validation through triggers and (customizable) validation workflows
  - Manual approval by designated reviewers
- Workflows are labeled as being approved or rejected
- Configurable to meet individual compliance requirements



# KNIME Business Hub: What's cooking

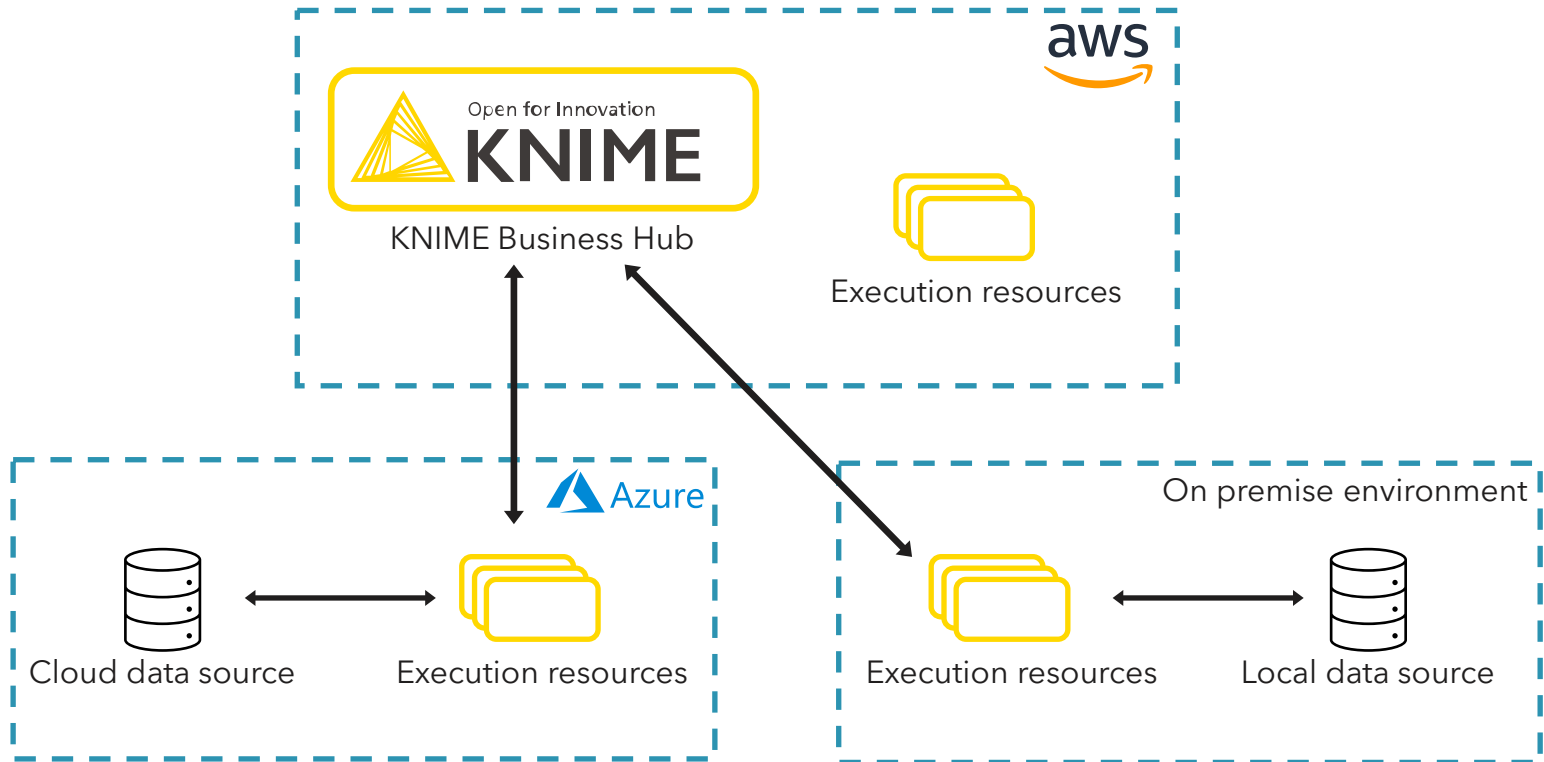
## Job Instrumentation

- Monitor jobs executed on KNIME Business Hub



# KNIME Business Hub: What's cooking

## Hybrid Execution



# KNIME Business Hub: What's cooking

## SCIM (System for Cross-domain Identity Management)

- Open standard for identity information management
- Let your identity provider manage your Hub team and user setup
- Supports various identity providers, e.g.
  - Microsoft Entra ID
  - Okta
  - and more

# KNIME Business Hub: What's cooking

## Job Viewer

The screenshot displays the KNIME Business Hub Job Viewer interface. The top navigation bar shows the URL `hub.knime.com/_jap-loader?jobId=0c942905-e3b3-4528-af4f-089a16f2483a` and a 'Finish update' button. The left sidebar contains the 'Joiner' node documentation, including a description, external resources, and port options. The main workspace shows a workflow diagram with nodes: 'Order Data Team Gauss', 'Date&Time-based Row Filter', 'Production Planning Data', 'Variable Creator', 'Upload Excel File With Targets', 'Joiner', 'Row Splitter', 'Delivery Risk Model', and 'Dashboard'. The 'Joiner' node is highlighted with a red 'X' icon, indicating a join result. Below the workflow, a table shows the join result with 7 rows and 11 columns. The table columns are: #, RowID, Order ID (String), Product, Total Price, Order Tim... (Local Date T...), Promised... (Local Date), Real Deliv... (Local Date), Payment... (String), Customer... (String), and Order ID (...). The table data is as follows:

#	RowID	Order ID (String)	Product	Total Price	Order Tim... (Local Date T...	Promised... (Local Date)	Real Deliv... (Local Date)	Payment... (String)	Customer... (String)	Order ID (...)
1	Row...	ON-25388	A	136	2023-05-14T1...	2023-05-31	2023-05-31	Paid	ID 127	ON-25388
2	Row...	ON-12136	B	2450	2023-05-14T1...	2023-06-03	2023-06-02	Invoiced	ID 127	ON-12136
3	Row...	ON-19338	D	7900	2023-05-15T1...	2023-06-02	2023-06-01	Paid	ID 132	ON-19338
4	Row...	ON-17433	A	235	2023-05-17T0...	2023-06-02	2023-06-02	Invoiced	ID 125	ON-17433
5	Row...	ON-18459	D	7933	2023-05-17T1...	2023-06-03	2023-06-02	Paid	ID 130	ON-18459
6	Row...	ON-14357	D	7616	2023-05-17T1...	2023-06-02	2023-06-01	Invoiced	ID 124	ON-14357
7	Row...	ON-11764	B	4486	2023-05-18T0...	2023-06-05	2023-06-05	Invoiced	ID 134	ON-11764

# KNIME Business Hub - Cloud Marketplaces



KNIME Business Hub - Basic  
KNIME Business Hub - Standard  
KNIME Business Hub - BYOL



Coming soon!

Thanks!