DATA+AI SUMMIT BY databricks

The Power of Low-Code in the AI Era

Using Intuitive Tools for Complex Data Work

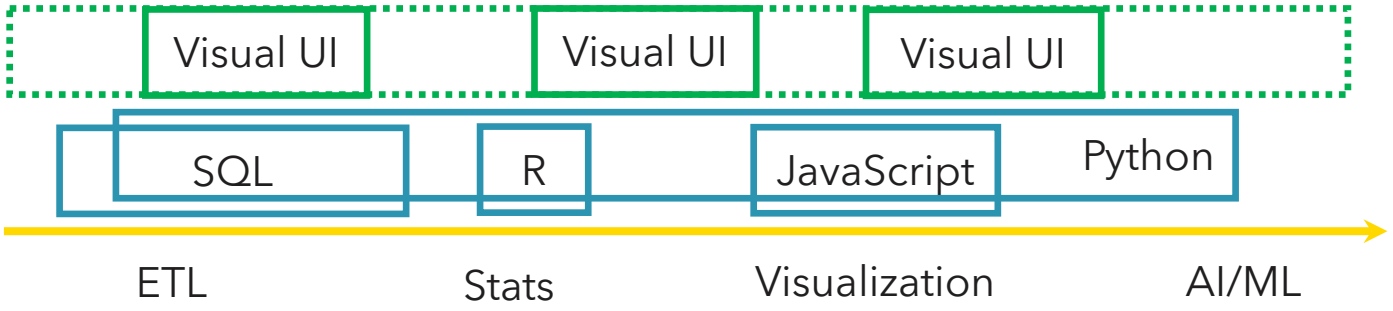
Michael Berthold, KNIME

Agenda

- Low Code for Data Science
- GenAI and KNIME
- Databricks and KNIME
- Low Code in the AI Era
- Summary

Low Code for Data Science

No-Code on top of code-based programming languages

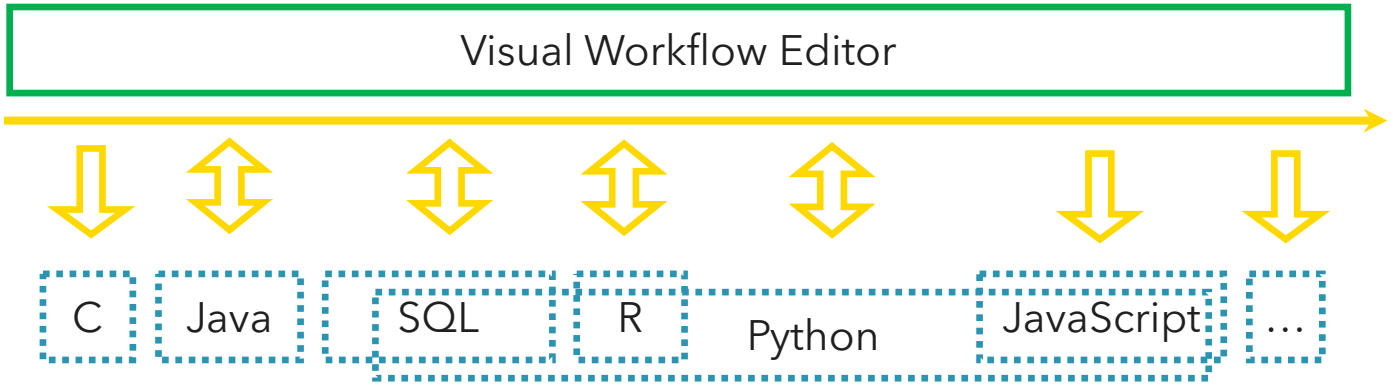


Low Code

- allows to quickly create standard parts of the solution…
- …and translates to code.
- adding/editing code required for more functionality.

Low Code for Data Science

Visual Workflows as complete programming language

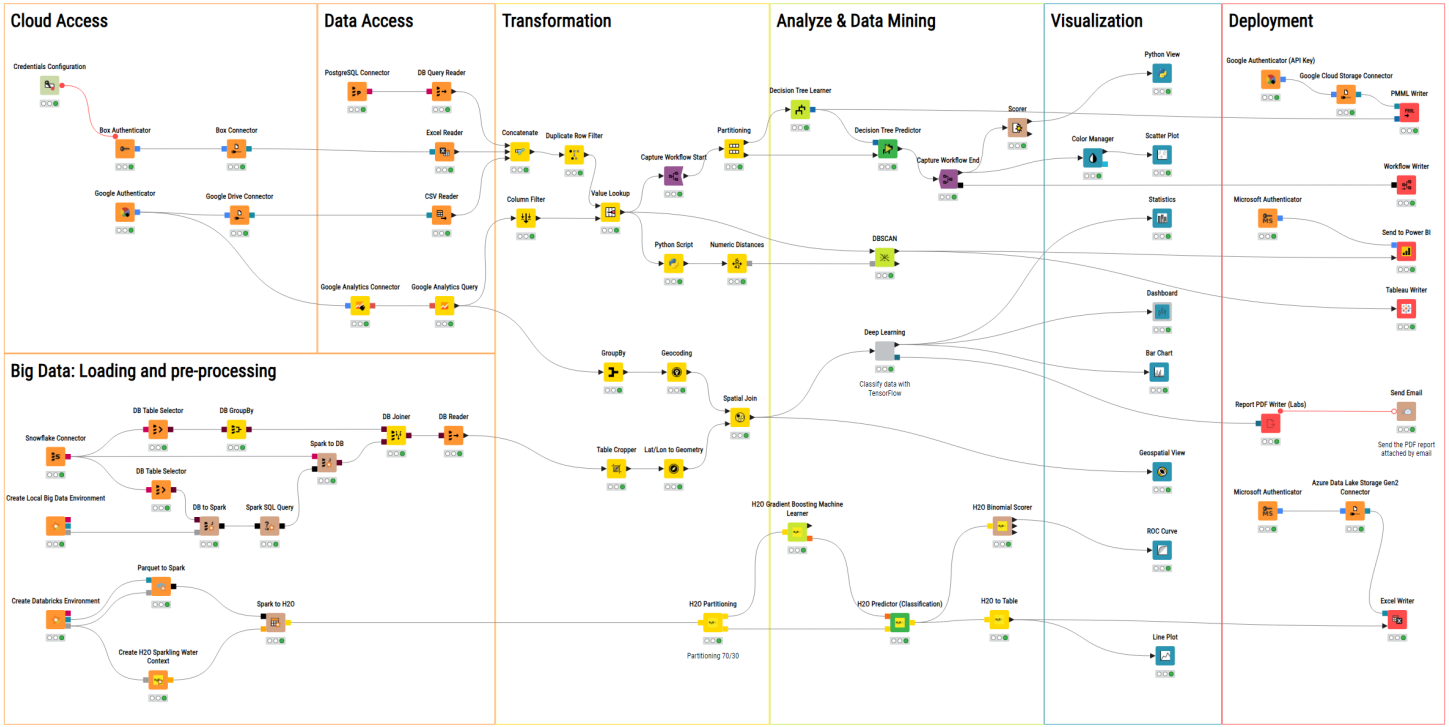


Visual Workflows

- programming language for complete dataflow
- uses implementations in various technologies
- allows to embed code pieces of select technologies

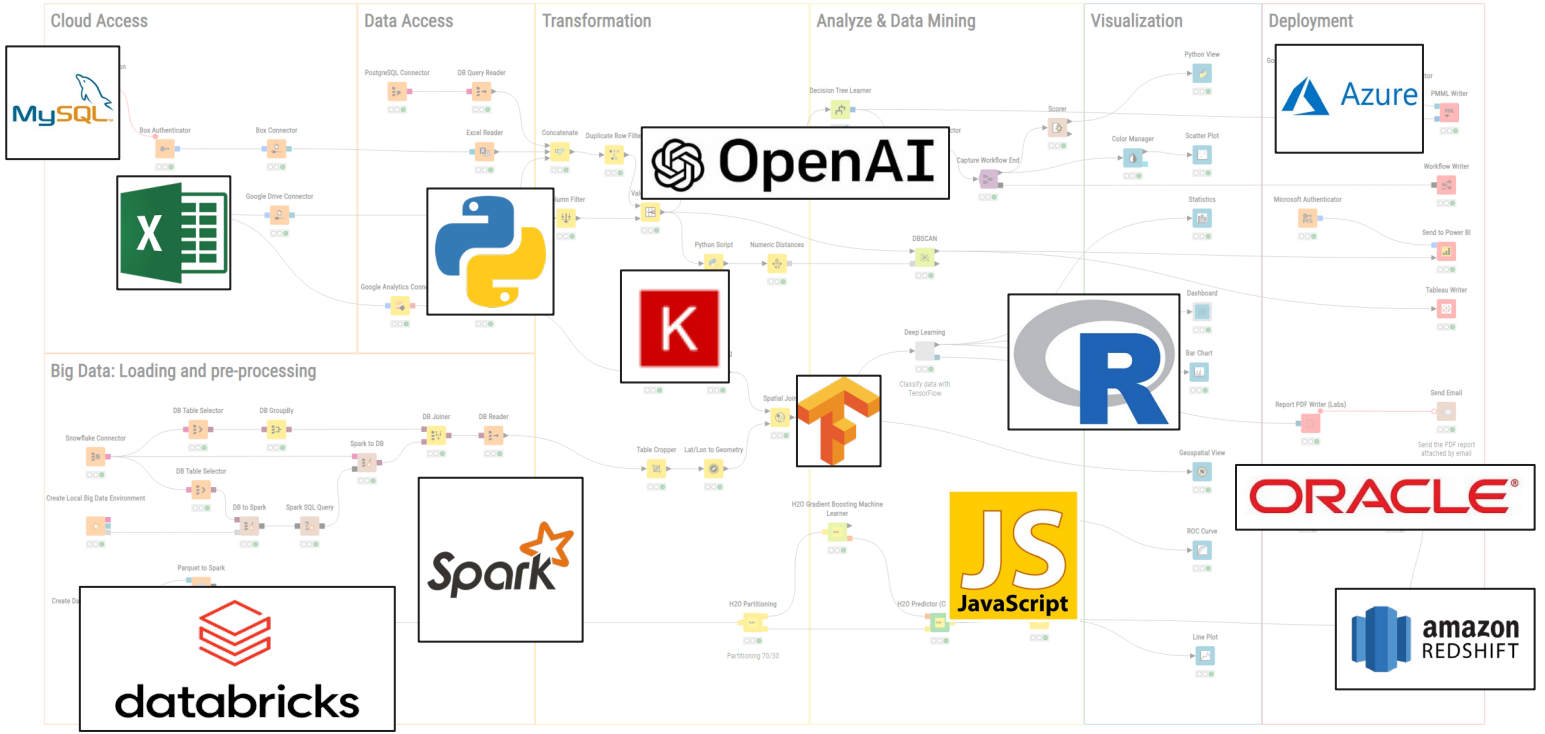
Low Code for Data Science

Provide techniques & capabilities to all types of users

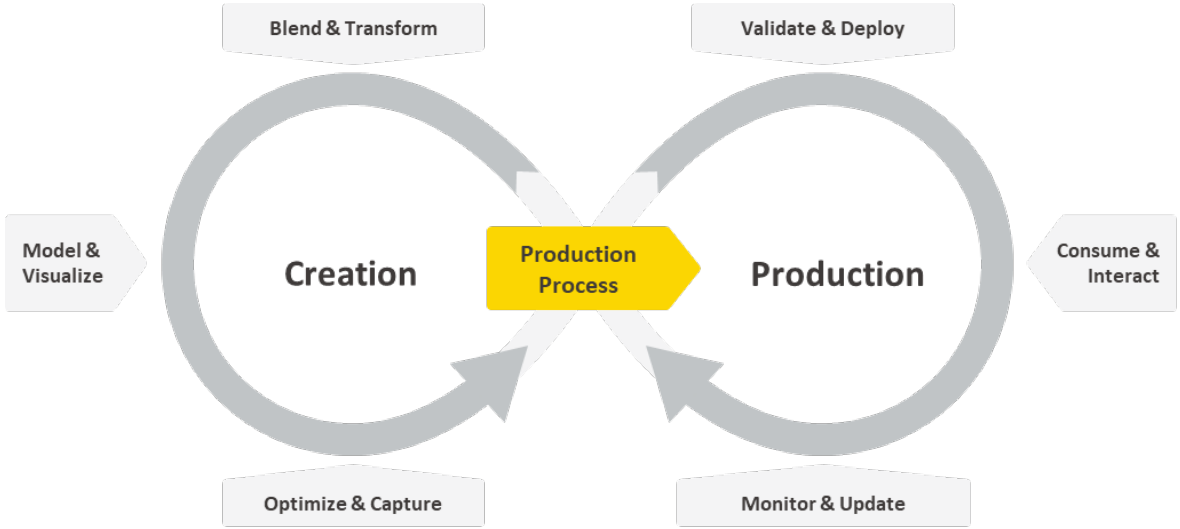


Technology Under the Hood

Low-code removes the need to learn languages and interfaces



The Data Science Life Cycle & KNIME Software



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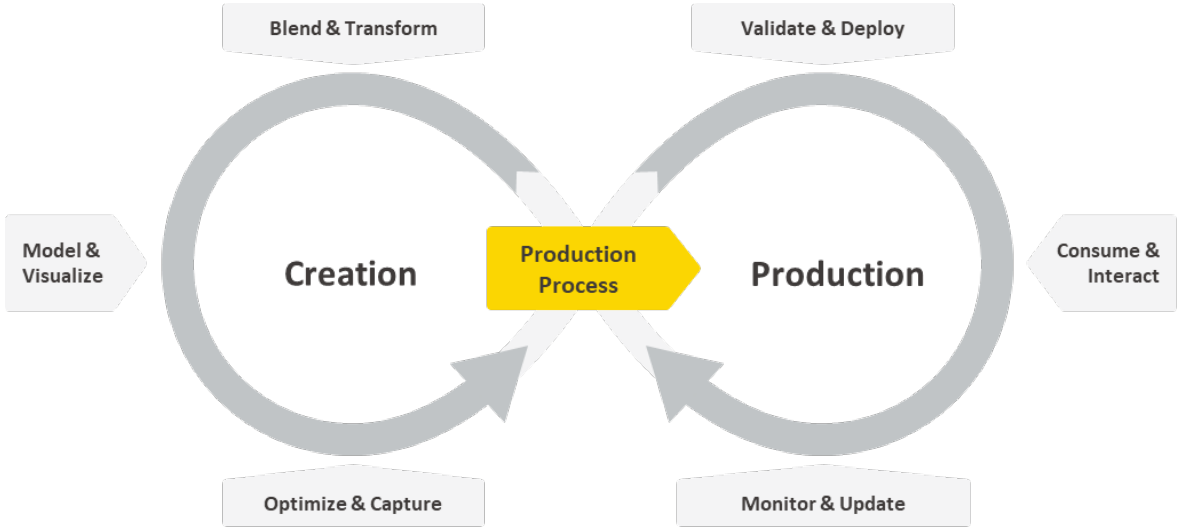

KNIME Analytics Platform				KNIME Community Hub	KNIME Business Hub			
Low Code Data Science				Team Collaboration	Governance and Deployment at Scale			
Data Access & Transformation	Analytics & GenAI	Visualization & Reporting	Community Extensions	Shared Repository	DataApps & API Services	Automation & Orchestration	Continuous Delivery of Data Science	AI Governance

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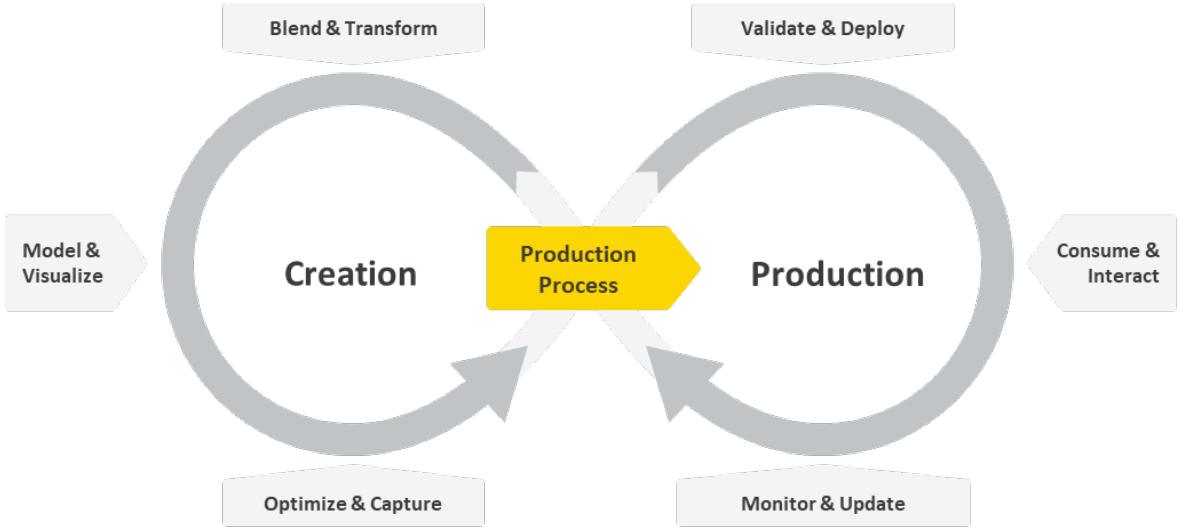

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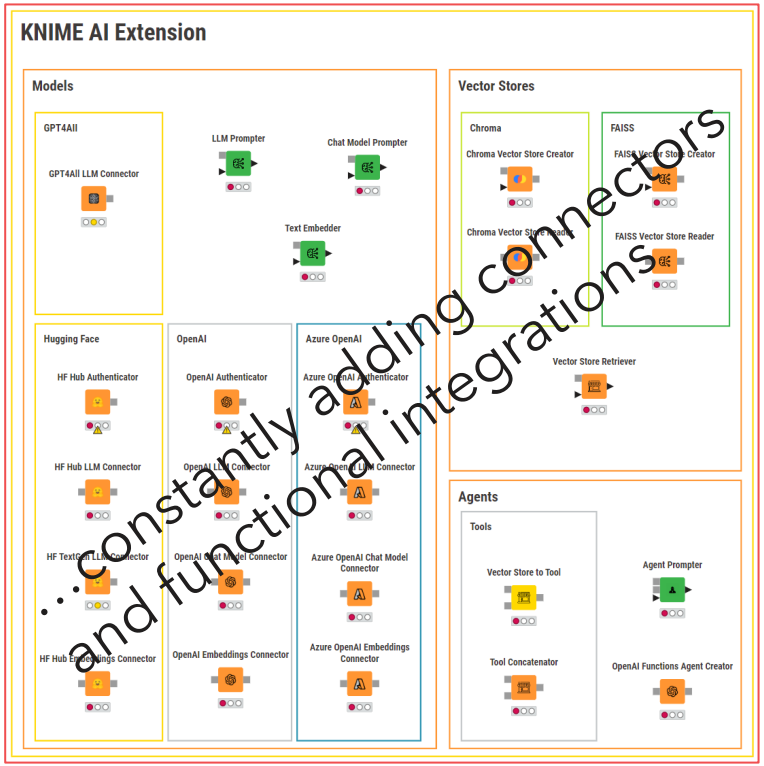
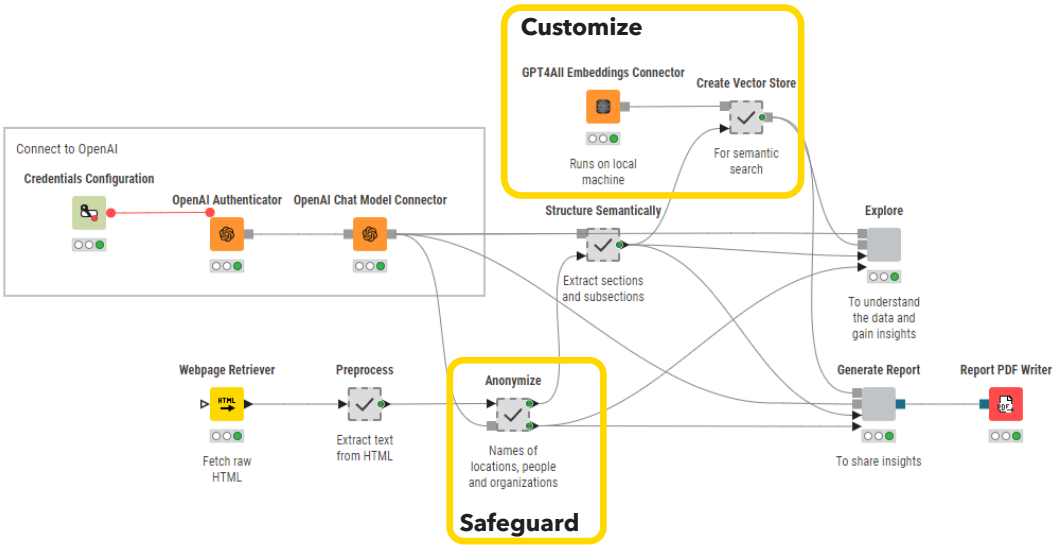
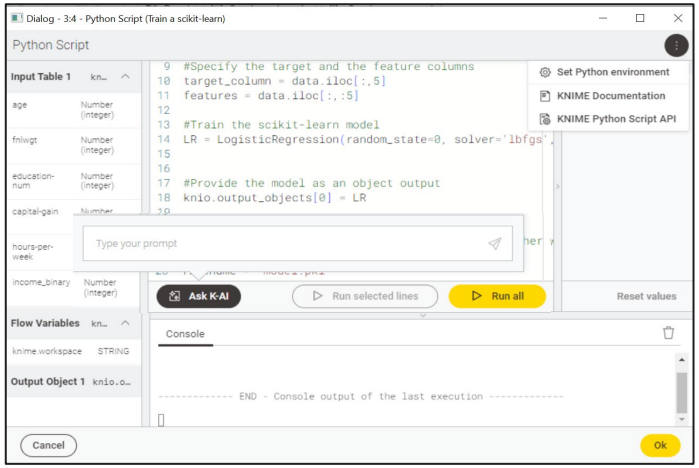
Gen AI Extensions in KNIME

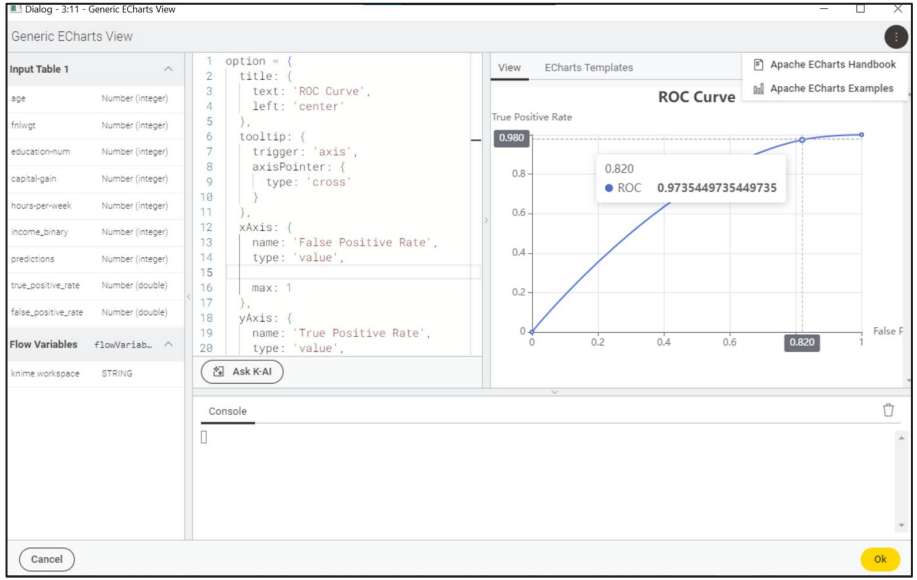


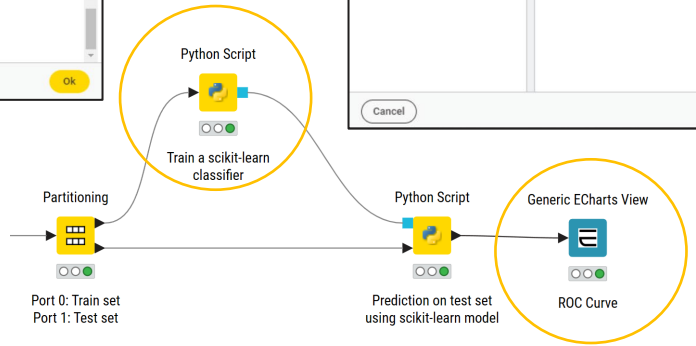


AI Assisted Code and Low Code Data Science

Leveraging Code in Visual Programming:







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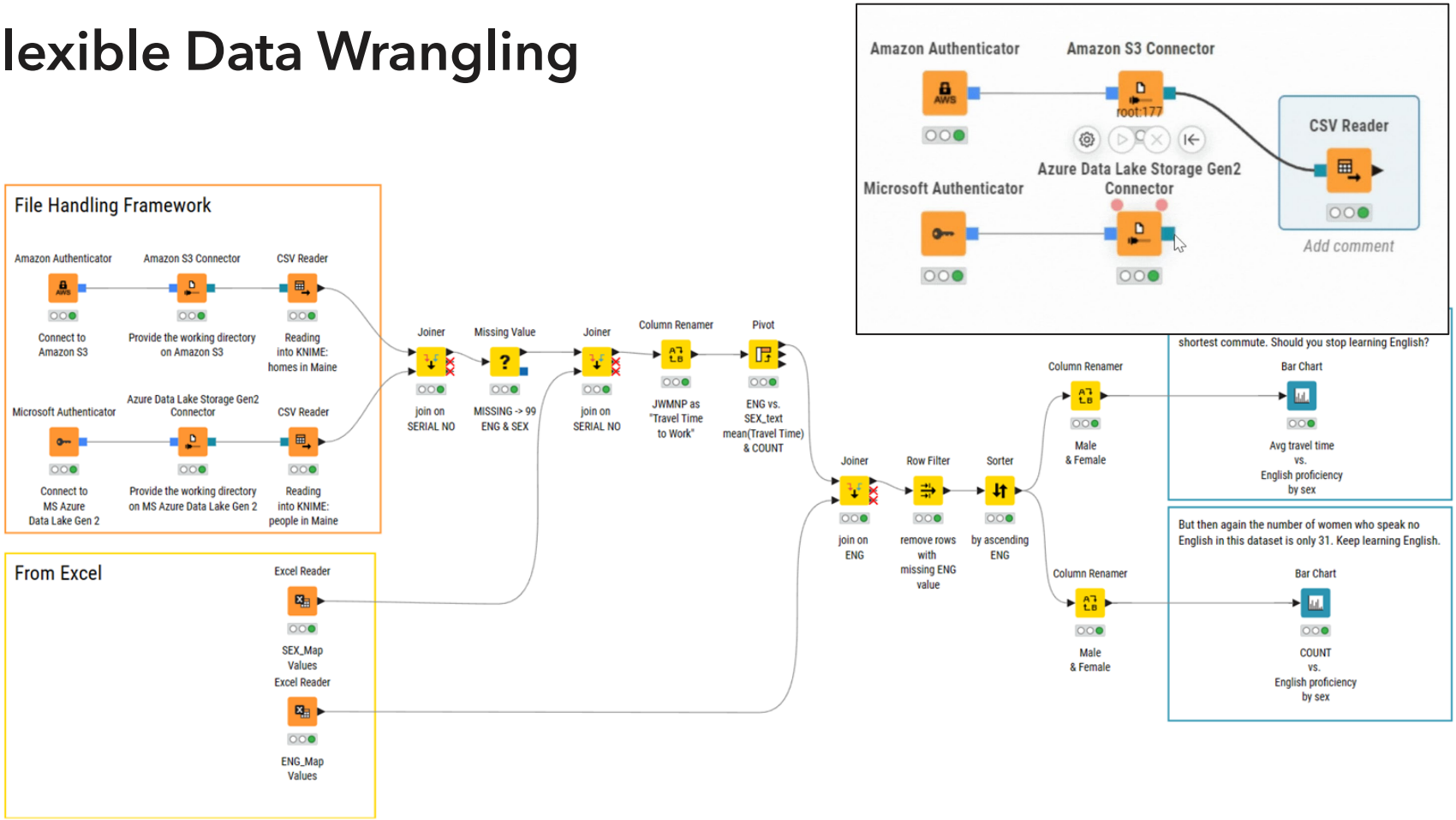
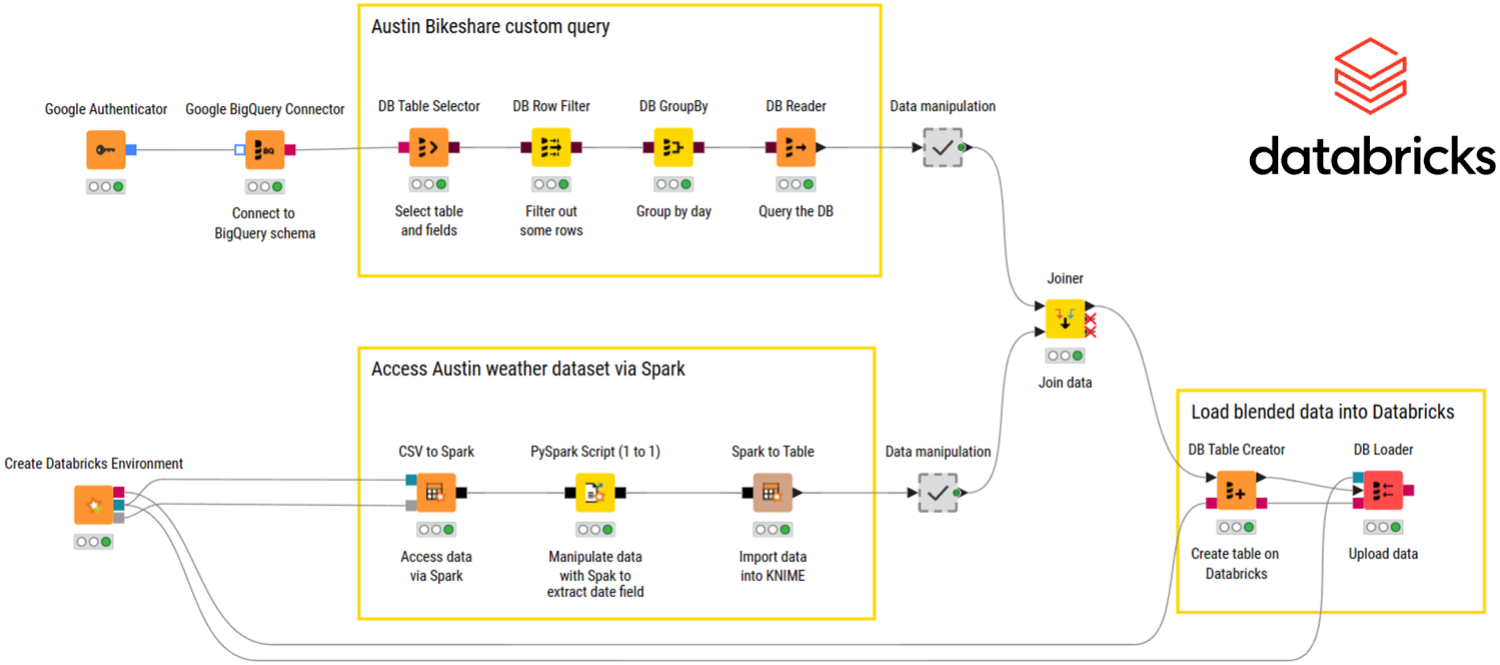
Flexible Data Wrangling



Flexible Data Wrangling - Databricks Integrations



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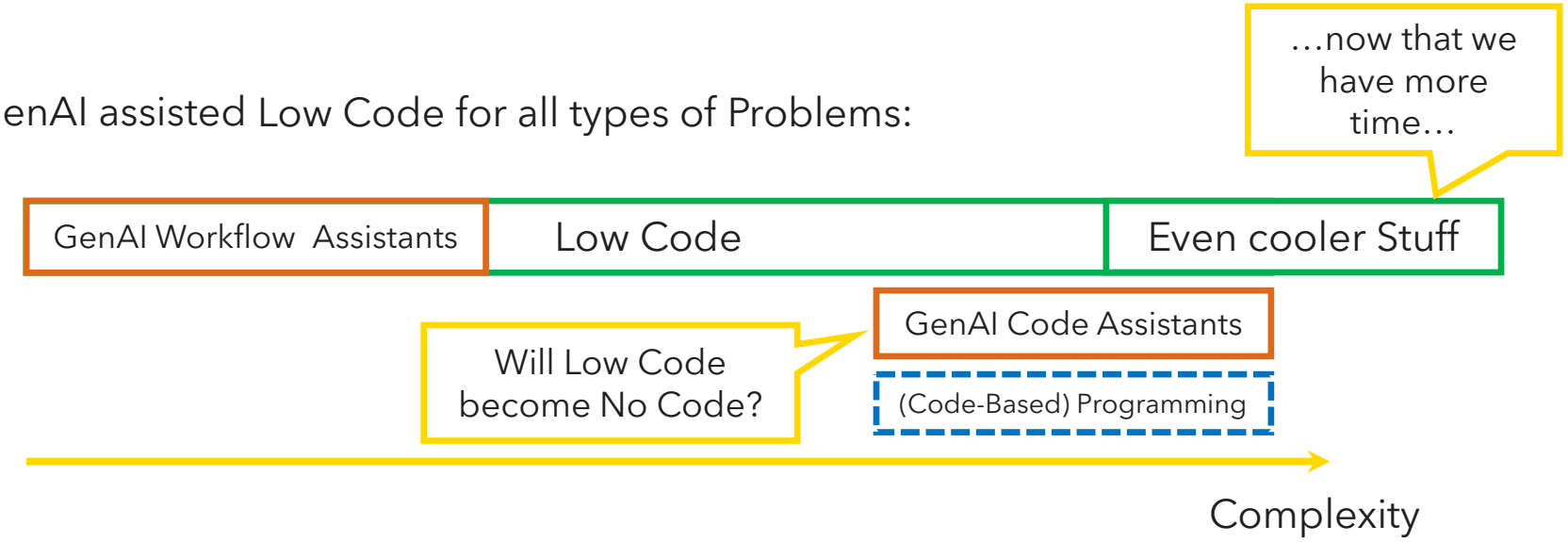
With GenAI…:

GenAI assisted Low Code for all types of Problems:



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Low Code for Data Science

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The Future of Low Code in the AI Era

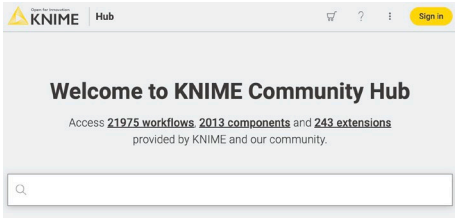
Summary

KNIME is Leveraged Across All Major Industries

& Across a Broad Range of Use Cases

Department		
Production	• Quality Control & Defect Detection • Process Optimization • Product Lifecycle Management • …	• Predictive Maintenance • Product Optimization & Testing • Energy Consumption Monitoring & Optimization • …
Data Science & IT	• ETL/ELT • Data, Model, & AI Governance • Model Development • …	• Streamlining Tech Stack • Upskilling Analysis • Usage Tracking • …
Supply Chain	• Demand Forecasting • Inventory Optimization • Supplier Performance Analysis • …	• RFX Management • Contract Administration • Risk Management • …
FP&A	• Budgeting & Forecasting • Financial Modeling and Scenario Analysis • Closing Reporting • …	• Transaction Loss • Regulatory Reports • Variance Analysis • …
Sales & Marketing	• Best Customer Prediction • Campaign Analysis • Churn Prediction • …	• Competition Analysis • Merchandising Analytics • Website Analytics & SEO • …
Customer Support/Success	• Customer Experience • Customer Intelligence • Sentiment Analysis • …	• Customer Segmentation • Feature Adoption • Renewal Prediction • …
R&D	• Streamlining Drug Discovery • Target Identification and Validation • Lead Optimization • …	• Biomarker Discovery • Drug Repurposing • Clinical Trial Design • …
Others	• Risk Analysis • Fraud Detection • Sustainability Analysis • …	• CO2 Footprint Detection • Energy Analysis • Employee Attrition • …

Browse 20,000+ working examples:



hub.knime.com

Driving Quantifiable Business Outcomes

Top-Line Impact

Revenue Gains

$300M
incremental revenue

Retail

Optimizing Promotional Analytics

Risk Reduction

$4M
per incident

Insurance

NLP for Regulatory Compliance 'Fines are bad'

Bottom-Line Impact

Efficiency

70%
time savings for auditors

Financial Services

Anomaly Detection ETL & Automation

Workforce Upskilling

10.000+
citizen data scientists

Manufacturing

Transforming the Enterprise - Data Literacy

What Customers Have to Say About KNIME

Finance

"We've experienced time savings of over 80% in pilot projects and a lead time reduction of month-end controlling tasks from 2 days to 30 mins."

Sales

"The [Data Visions] community told me about this great tool – it only took me 2-3 weeks to build my first workflow (while working on other tasks in parallel)."

Marketing

"1,300 events are supported via automation. Cost per registrant has reduced by 92.9% and ad savings have totaled $2,899,000."

IT

"The projects that we work on require out of the box thinking, which means we need custom, extensible solutions. KNIME makes projects easier to build, because they are still being built in a single software environment."

Production

"We reduced feedback loops from six months to four weeks and generated savings of $1,000,000 in a single business department."

HR

"Because the data scientists all come from a statistics background and code in R daily, they are happy that KNIME gives them the flexibility to keep working in R while remaining in one uniform platform."

In a Nutshell: Data Science in the Real World

What's the essence of the job:

- Create (complex) data (science) processes, often together with other experts
- Develop gut feeling for "this is odd" moments (some "Eureka!", some "ouch!")

What's usually not part of the job:

- Inventing, writing, optimizing new algorithms
- Caring about the details of the underlying technology
- Worrying about interfaces of different tools
- Worrying about library versions and (backwards) compatibility

Data Scientists are people who know *what* methods do, but not necessarily *how*!

(and boy, are there many methods to know…)