

How to teach yourself data science from scratch

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Speakers



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Agenda

Low-code as a gateway to learning data science: Scott Fincher

How to teach yourself data science from scratch: Hans Samson & Scott Fincher

Learn data science by doing data science/soccer analytics: Hans Samson

Q&A

Why low-code is the gateway to learning data science

- Enables a broader range of users to access analytics
- User-friendly & intuitive for beginners to get started
- Codeless so you can build analytical solutions immediately
- The cherry on the top is when the low-code tool is also free of charge

Intuitive UX for ease of use

The screenshot displays the KNIME Analytics Platform interface. The top navigation bar includes 'Home', 'Heather-on-air-quality', 'Help', 'Preferences', and 'Menu'. The main toolbar contains 'Execute', 'Cancel', 'Reset', 'Create metanode', and 'Create component'. On the left, the 'Nodes' panel is open, showing a search bar and a list of nodes categorized by 'Manipulation' and 'Views'. The central workspace shows a workflow with the following nodes: CSV Reader, GroupBy (with a comment 'Add comment'), two Sorter nodes (labeled 'Best air quality' and 'Worst air quality'), two Table Cropper nodes, and a Dashboard node. The Dashboard node is annotated with 'Dashboard top 20 countries based on good and bad air quality'. Below the workflow, the 'Table' view is active, showing a table with 177 rows and 2 columns. The table data is as follows:

#	RowID	Country	Mean(AirQuality)
1	Row0	Afghanistan	37.214
2	Row1	Albania	51.874
3	Row2	Algeria	57.607
4	Row3	Andorra	43.75
5	Row4	Angola	15
6	Row5	Argentina	68.148
7	Row6	Armenia	22.27
8	Row7	Australia	80.598
9	Row8	Austria	83.491
10	Row9	Azerbaijan	29.897

Starter perspective

Beginners can ease into building workflows and prepare data quickly and efficiently with a targeted set of nodes.

The screenshot displays the KNIME Analytics Platform interface. The top bar shows the current project name "Heather-on-air-quality" and navigation options like Home, Help, Preferences, and Menu. Below the top bar is a toolbar with buttons for Execute, Cancel, Reset, Create metanode, and Create component. The main workspace is divided into several panels:

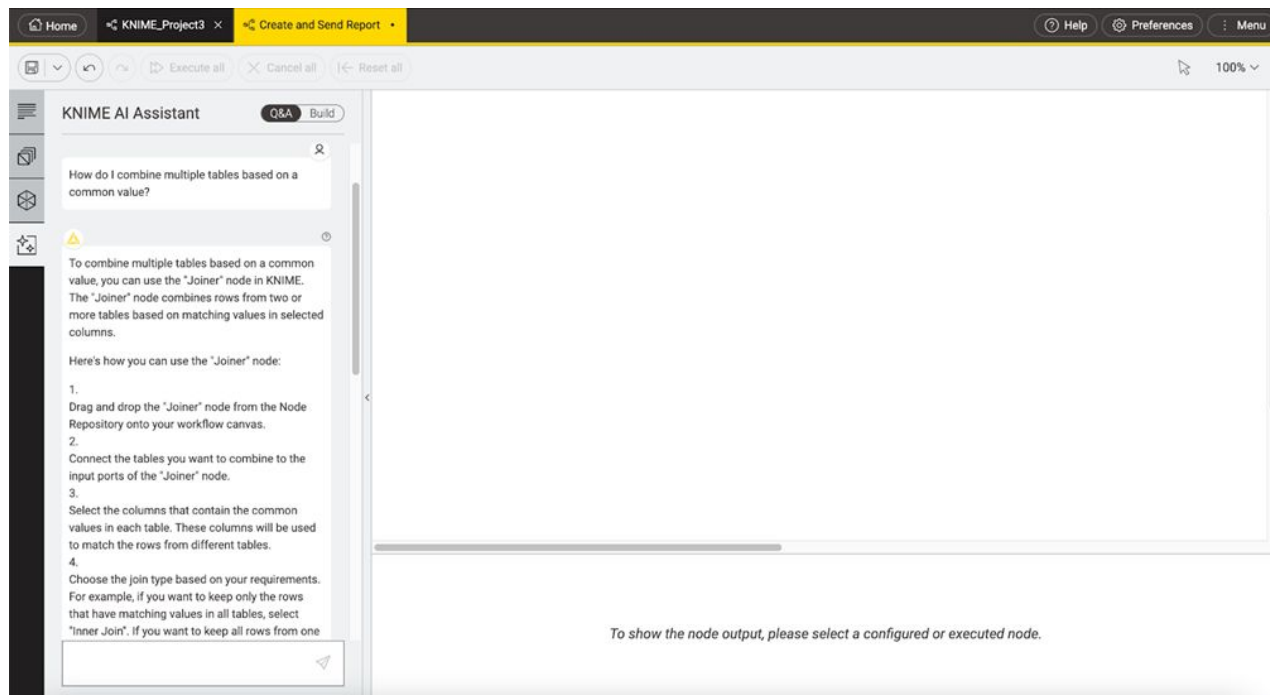
- Nodes > Results:** A search bar with "val" and a list of nodes including Value Lookup, Missing Value, Constant Value Column, Nominal Value Row Filter, and Missing Value Column Filter. A "Change filter settings" button is visible.
- Value Lookup:** A detailed view of the Value Lookup node. It explains that the node has two inputs: a data table and a dictionary table. It describes how to select a column in the data table and search keys in the dictionary table. It also mentions that missing values are treated as ordinary values and that the key column in the dictionary can also be a collection type.
- Workflow:** A visual representation of a workflow. It starts with a "By" node, which branches into two paths. Each path goes through a "Sorter" node (labeled "Best air quality" and "Worst air quality") and then a "Table Cropper" node. The outputs of these "Table Cropper" nodes are connected to a "Dashboard" node, which is labeled "Dashboard top 20 countries based on good and bad air quality".
- Data Table:** A table view showing the output of the workflow. The table has a header "Mean(AirQuality)" and a sub-header "Number (double)". The data rows are as follows:

Mean(AirQuality)
37.214
51.874
57.607
43.75
15
68.148
22.27
80.598
83.491
29.897
26.67

KNIME AI Assistant, K-AI

Q&A mode

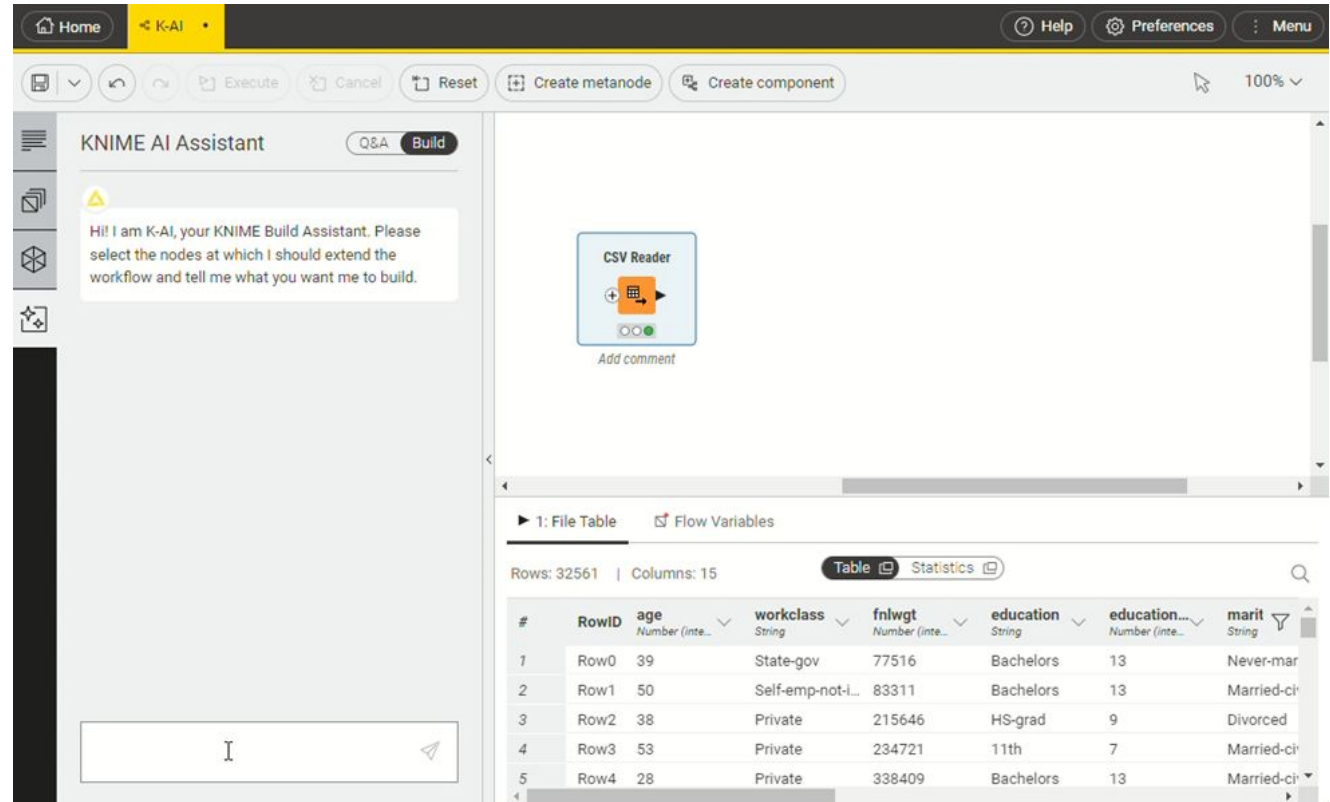
Fast, detailed responses help you find and accomplish what you need quickly



K-AI to build workflows from scratch

Build mode

Configures nodes for you based on your prompt



The screenshot displays the KNIME AI Assistant interface in Build mode. The top navigation bar includes 'Home', '< K-AI', 'Help', 'Preferences', and 'Menu'. The main toolbar contains 'Execute', 'Cancel', 'Reset', 'Create metanode', and 'Create component'. The left sidebar shows a menu with icons for home, list, document, cube, and plus. The central chat window, titled 'KNIME AI Assistant', has a 'Q&A' tab and a 'Build' button. The chat message reads: 'Hi! I am K-AI, your KNIME Build Assistant. Please select the nodes at which I should extend the workflow and tell me what you want me to build.' Below the chat is an input field with a cursor and a send icon. The main workspace shows a 'CSV Reader' node with a plus icon, a grid icon, and a right arrow icon. Below the node is an 'Add comment' button. The bottom section shows a table view with the following data:

#	RowID	age Number (inte...)	workclass String	fnlwgt Number (inte...)	education String	education... Number (inte...)	marit String
1	Row0	39	State-gov	77516	Bachelors	13	Never-mar
2	Row1	50	Self-emp-not-l...	83311	Bachelors	13	Married-ci
3	Row2	38	Private	215646	HS-grad	9	Divorced
4	Row3	53	Private	234721	11th	7	Married-ci
5	Row4	28	Private	338409	Bachelors	13	Married-ci

Easy access to resources to get started



A 300k+ strong
community of
KNIME experts



Online, self-paced
and in-class
learning



Books,
cheat sheets, and
sample workflows
to get you started



Pre-built
functionality to
jump-start
learning



User groups
and Data
Connects

Learn and share knowledge

Welcome to KNIME Community Hub

Access 20831 workflows, 1924 components and 243 extensions
provided by KNIME and our community.

...or browse curated collections of workflows and resources

Starter collection



Discover beginner-friendly examples, familiarize yourself with essential nodes, and integrate...



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First Steps with KNIME Reporting



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KNIME for Generative AI



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4 steps to start learning data science



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