

KNIME Community Hub User Guide

KNIME AG, Zurich, Switzerland
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Introduction

KNIME Community Hub is a KNIME-managed Hub instance.

It is a central place to collect the common knowledge base among the KNIME Community and it has search functionalities as well as collaboration capabilities.

On KNIME Community Hub you can search for nodes, extensions, components, and workflows made available by the community.

You can use these as blueprints and building blocks in **KNIME Analytics Platform**, and build workflows to solve your data science use cases.

KNIME Hub can also be used to upload and organize workflows in a central place, and to collaborate with other users on your projects.

Via KNIME Hub you can:

- Find workflows, components uploaded by KNIME Community
- Upload and organize your workflows and components in projects
- Create and manage projects
- Collaborate with other users on your projects

For more information about Team plan, the paid service offered on KNIME Community Hub that allows you to create a team, collaborate on a project with your colleagues, and execution capabilities, refer to the **Team Plan on KNIME Community Hub Guide**.

Search items and use them in KNIME Analytics Platform

You can find the KNIME Community Hub at the following address:

<https://hub.knime.com>

In the browser, you will access the KNIME Hub home page shown in [Figure 1](#).

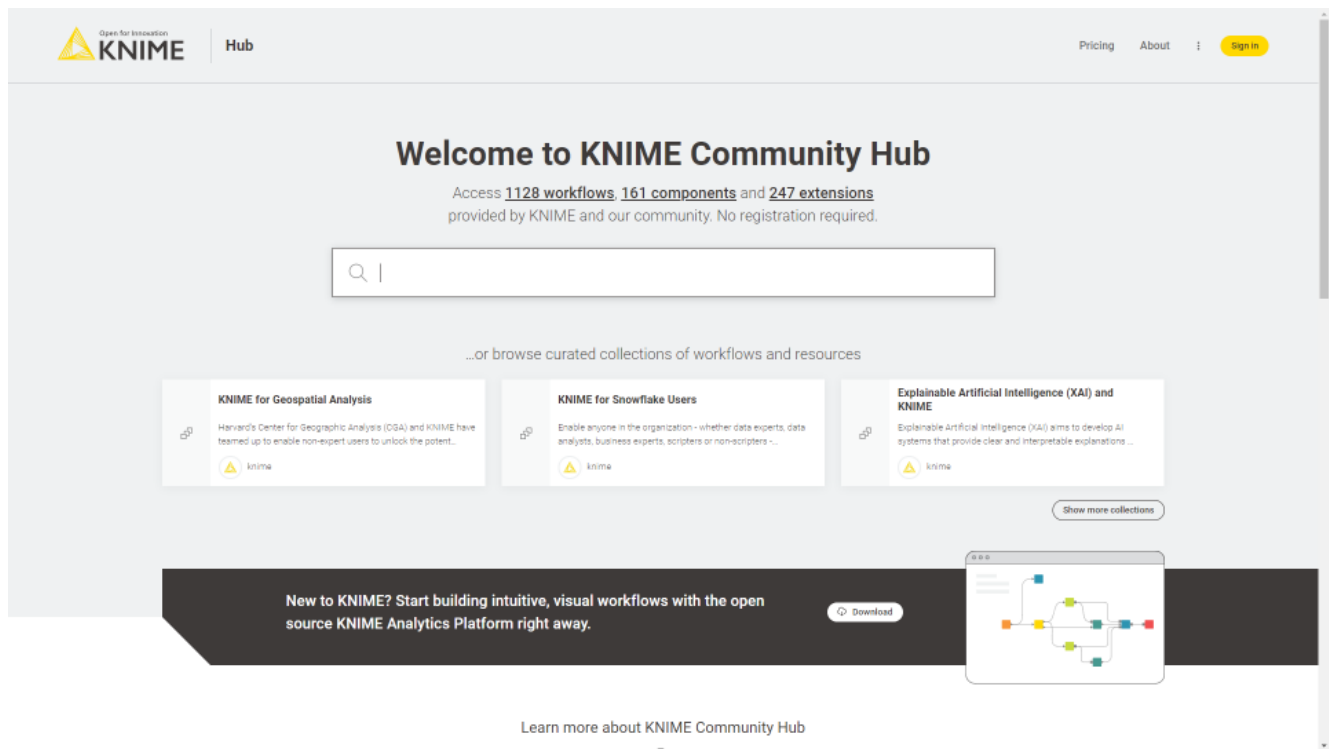


Figure 1. The KNIME Hub homepage

Search

Insert a keyword in the search bar to search among the following items publicly shared by the KNIME Community:

- Nodes
- Components
- Workflows
- Extensions
- Collections

Press *Enter* to visualize the results.

You will see a list of all the search results in tiles, with:

- An icon indicating if they are nodes, components, workflows or extensions
- The title
- Whether it is a *draft* or a *versioned* item (for components and workflows)



Find out more about versioning a workflow or a component in the [versioning](#) section.

- Tags, when available
- A preview of the description, when available
- The owner icon for workflows, and extensions
- The icon, for nodes and components

On top of the search results list, you can filter the results to list only nodes, components, workflows, extensions, or collections by clicking the respective tab, shown in [Figure 2](#).

The screenshot shows the KNIME Hub search results for 'Sentiment Analysis'. The search bar at the top contains 'Sentiment Analysis' and a search icon. To the right of the search bar are links for 'Pricing', 'About', and a 'Sign in' button. Below the search bar, the text 'KNIME Community Hub > Search' is visible. A yellow box highlights the '431 results' count and the filter tabs: 'All', 'Workflows', 'Nodes', 'Components', 'Extensions', and 'Collections'. The main content area displays a list of search results, each with a workflow icon, title, versioned status, description, tags, and owner information.

Workflow Icon	Title	Versioned	Description	Tags	Owner
	Sentiment Analysis	Versioned on Oct 13, 2023 5:56 PM	This workflow shows how to train a simple neural network for text classification, in this case sentiment analysis. The used netwo...	Deep learning, Keras, Text classification, +11	knime
	Sentiment Analysis	Versioned on Oct 13, 2023 5:56 PM	This workflow shows how to train a simple neural network for text classification, in this case sentiment analysis. The used netwo...	Deep learning, Keras, Text classification, +12	knime
	Sentiment Analysis (Classification) of Documents	Versioned on Oct 13, 2023 5:55 PM	This workflow shows how to import text from a csv file, convert it to documents, preprocess the documents and transform them into...	Sentiment analysis, NLP, Natural Language Processing, +2	knime
	Imbalanced Sentiment Analysis with XGBoost	Versioned on Oct 13, 2023 5:55 PM	This workflow shows how to import text from a csv file, convert it to documents, preprocess the documents and transform them into...	Sentiment analysis, NLP, Natural Language Processing, +4	knime
	Lexicon Based Approach for Sentiment Analysis	Versioned on Oct 13, 2023 5:55 PM	This workflow shows how to perform a lexicon based approach for sentiment analysis of IMDB reviews dataset. The dataset contains ...	NLP, Sentiment analysis, Text processing, +2	knime
	Sentiment Analysis with BERT	Versioned on Oct 13, 2023 5:56 PM	This workflow demonstrates how to do sentiment analysis by fine-tuning Google's BERT network. The idea is straight forward: A sma...		knime

Figure 2. The KNIME Hub search results

Click on a search result to access the relative page.

When searching for workflows and components, the items that have been versioned will

show up higher in rank than draft-only items. This ensures you to be able to easier find versioned workflows and components when searching on KNIME Hub.

Nodes

On the node page, as shown in [Figure 3](#), you will find:

1. The node function, name, and tags
2. The node owner
3. The node drag & drop element: You can drag & drop the element into the Workflow Editor of KNIME Analytics Platform to use the node directly to build a workflow or a component. See the [Drag & drop section](#) for more details on this feature.
4. The node likes (see the [Likes section](#) for more details on this feature) and a link icon to copy the node short link

For each node you can also find:

- An *Overview* with a description of the node functionality
- *Node details* where you can see information about *Input* and *Output* node ports, a description of the additional *Options*, and, when available, the *Views* that the node is able to produce
- In the section *Extension*, you can see the node extension and the extension owner
- Finally, in the section *Related workflows & nodes* you are provided with:
 - *Workflows* that are available on KNIME Hub and that contain the node
 - When available, the *Outgoing nodes*, that are the most popular nodes to follow the node when building a workflow.

1 Node / Source
CSV Reader
0.17 | Download

2 Copy link

3 Drag & Drop

4 Overview

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](#).

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.

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](#).

Parallel reading Individual files can be read in parallel if

- They are located on the machine that is running this node.
- They don't contain any quotes that contain row delimiters.
- They are not gzip compressed.
- No lines or rows are limited or skipped.
- The file index is not prepended to the RowID
- They are not encoded with UTF-16 (UTF-16LE and UTF-16BE are fine).

Node details

Ports Options Views

Output ports ▶ Type: Table
File Table
File being read with number and types of columns guessed automatically.

File System Connection (Dynamic Input) The file system connection.
Type: File System

Extension
The CSV Reader node is part of this extension.

KNIME Base nodes This features contains basic KNIME nodes.
KNIME AG, Zurich, Switzerland

Related workflows & nodes

Workflows Outgoing nodes

04 Data Transformation Exercise for transforming data. Perform data transformations with the Rule Engine, MapS.F.
Inome > Education > Self-paced Courses > Archive > 11-2016/16E Analytics Platform for Data Scientists - Basics (deprecated) > Exercises > 04 Data Transformation

01 Date and Time Manipulation Exercise for date and time manipulation. Transform date and time values from string to Df.
Inome > Education > Self-paced Courses > Archive > 13-2016/16E Analytics Platform for Data Scientists - Advanced (deprecated) > Exercises > 01 Date and Time Manipulation

Figure 3. A node page on KNIME Hub

Components

Components really are KNIME nodes that you create to bundle functionality. They have their own configuration dialog and their own composite views. Thus, also in the component page shown in [Figure 4](#) you will find similar information as for nodes.

1. The component name, optionally its latest version (see the [versioning](#) section for more details on this feature), and last edit date
2. The component owner
3. The component drag & drop element: You can drag & drop the element into the Workflow Editor of KNIME Analytics Platform to use the component directly to build a workflow. See the [Drag & drop section](#) for more details on this feature.

- The component likes (see the [Likes section](#) for more details on this feature), the count of downloads, and a link icon to copy the component short link.

For each component you can also find:

- An *Overview* with a description of the component functionality, if provided by the component owner
- *Component details*, where you can see information about the component’s *Input* and *Output* ports, a description of the additional *Options*, and, if available, the *Views* that the component is able to produce
- In the section *Used extensions & nodes* you can see the component extensions and nodes
- Finally, in the section *Related workflows* you are provided with *Workflows* that are available on KNIME Hub and that contain the component

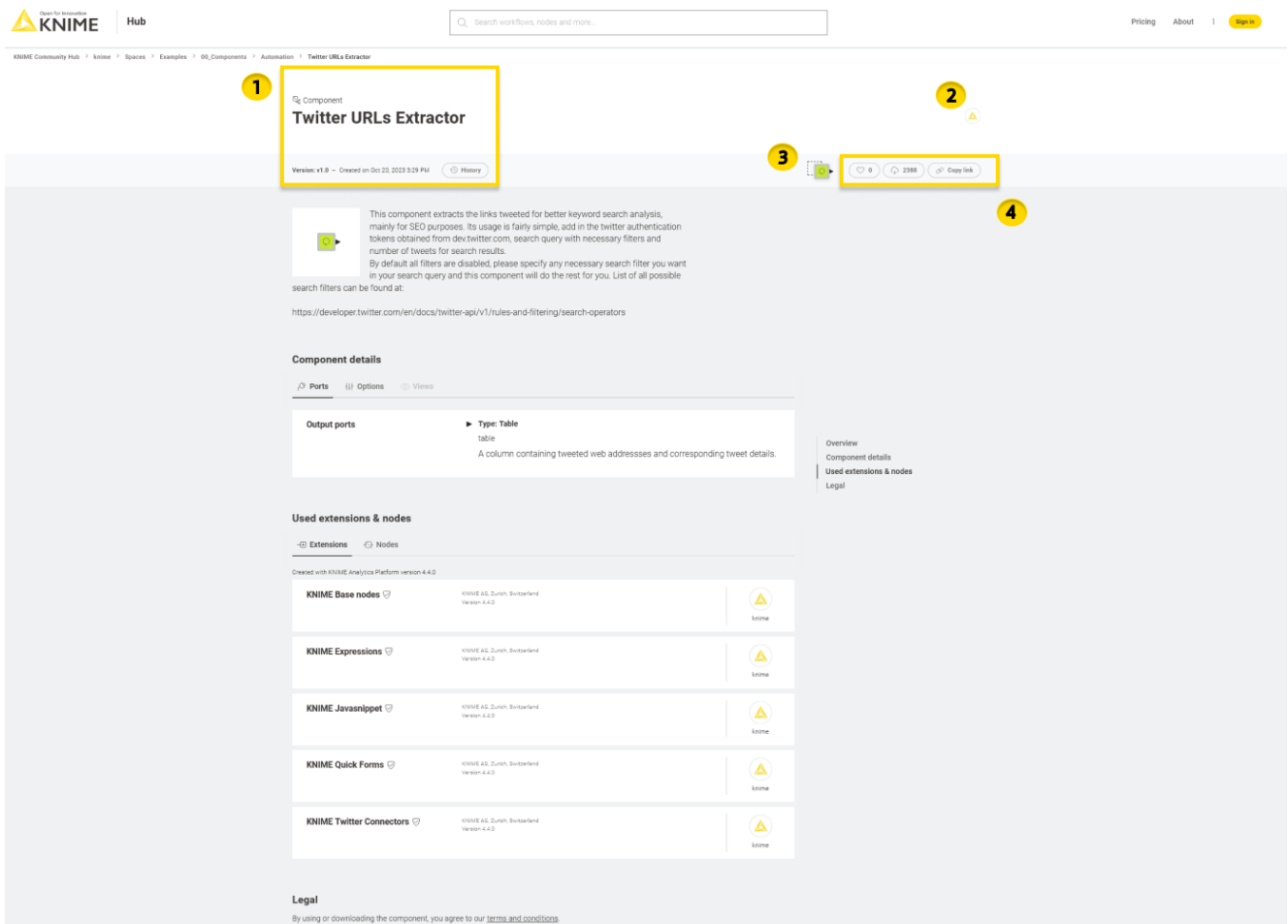


Figure 4. A component on KNIME Hub

Workflows

A workflow page typically has multiple useful information about the workflow such as:

1. The workflow title, tags, optionally its latest version (see the [versioning](#) section for more details on this feature), and its last edit date
2. The space owner where the workflow is contained and, if different from the space owner, the workflow developer
3. The workflow drag & drop element: You can drag & drop the element into a selected mount point in the [space explorer](#) of KNIME Analytics Platform. This will prompt an *Import* window which allows you to import the workflow into the mount point. See the [Drag & drop section](#) for more details on this feature.
4. The workflow likes (see the [Likes section](#) for more details on this feature), the count of downloads, and a link icon to copy the workflow short link.

For each workflow you can also find:

- An *Overview* with a description of the workflow when provided by the workflow developer
- *External resources* links to external resources such as KNIME blog posts, KNIME documentation, or any other interesting link that the workflow developer might want to provide
- In the section *Used extensions & nodes* you can see the workflow extensions and nodes, and the KNIME Analytics Platform that has been used to create the workflow

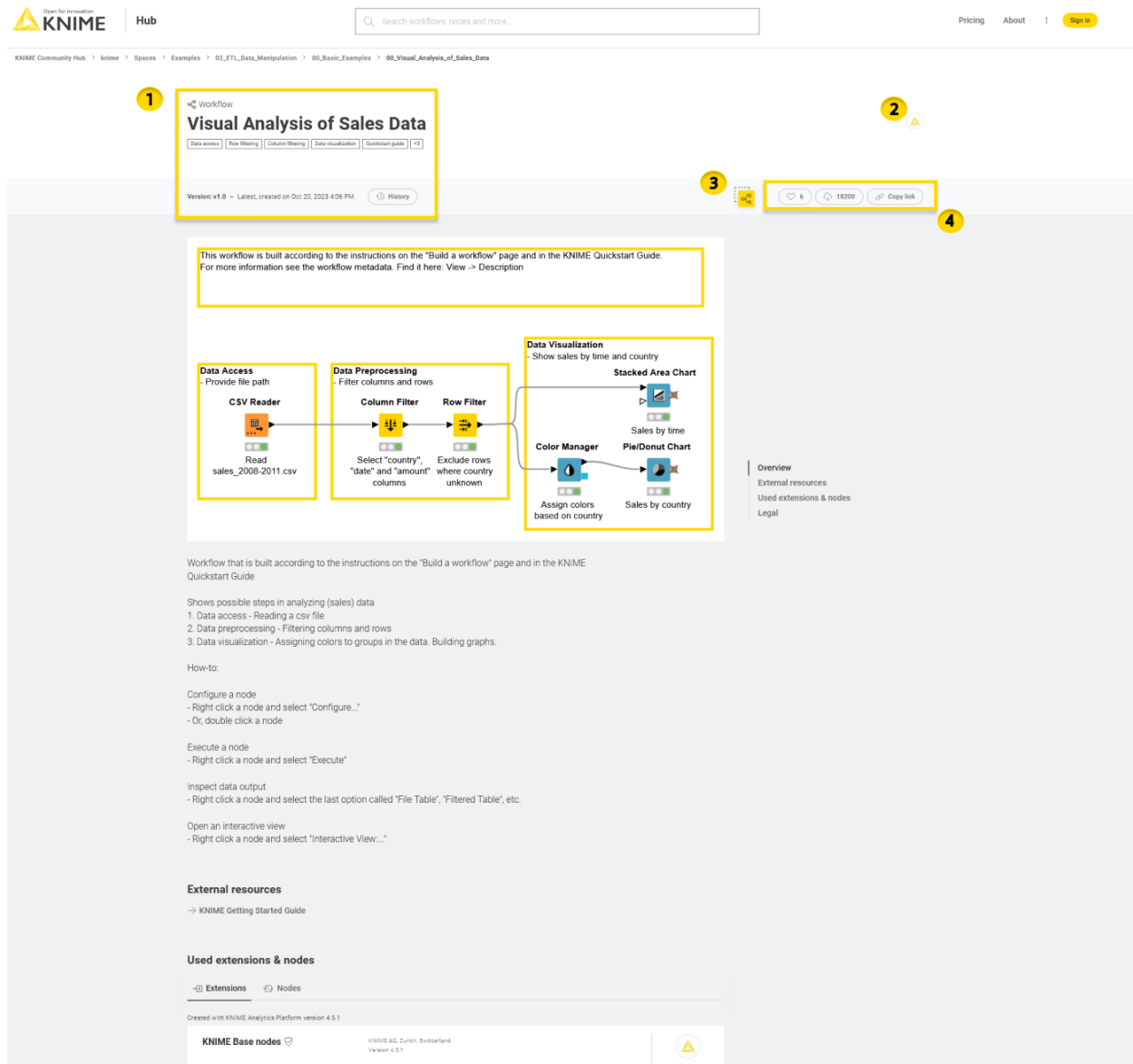


Figure 5. A workflow on KNIME Hub

Extensions

Extensions are collection of nodes that provide additional functionality such as access to and processing of complex data types, the use of advanced algorithms, as well as the use of scripting nodes, and so on.

KNIME Extensions are developed and maintained by KNIME, allowing you to access open source projects and add their functionality to your KNIME workflows. Community Extensions instead include functionality specific to various industries and domains. Some of these community extensions are classified as Trusted Community Extensions, which have been tested for backward compatibility and compliance with the KNIME usage model and quality standards, and Experimental Community Extensions, which come directly from the labs of our community developers. Finally, also Partner Extensions are available which provide

additional capabilities offered and maintained by our partners.

All these Extensions are available on KNIME Hub.

An extension page typically has multiple useful information about the extension such as:

1. The extension name and owner, version of the extension
2. The extension drag & drop element: You can drag & drop the element into the Workflow Editor of KNIME Analytics Platform. If the extension is not already installed this will prompt an *Install Extension* window which allows you to install the extension. See the [Drag & drop section](#) for more details on this feature.
3. The extension likes (see the [Likes section](#) for more details on this feature), and a link icon to copy the extension short link.

For each extension you can also find:

- An *Overview* with a description of the extension when provided
- *Included nodes* with a list of all the nodes that are part of the extension and that will be available once the extension is installed
- In the section *Related workflows*, you are provided with *Workflows* that are available on KNIME Hub and that contain the nodes that are part of the extension
- Finally, in the section *Legal & update site*, you can have legal information about the copyright and the update site information, with the type of the extension, version number, and the link to the [update site](#)

Collections

KNIME Collections on KNIME Hub allow upskilling users by providing selected workflows, nodes, and links about a specific, common topic.

One example of a collection can be found on KNIME Community Hub [here](#).

This collection, for example, contains:

- Workflow examples:

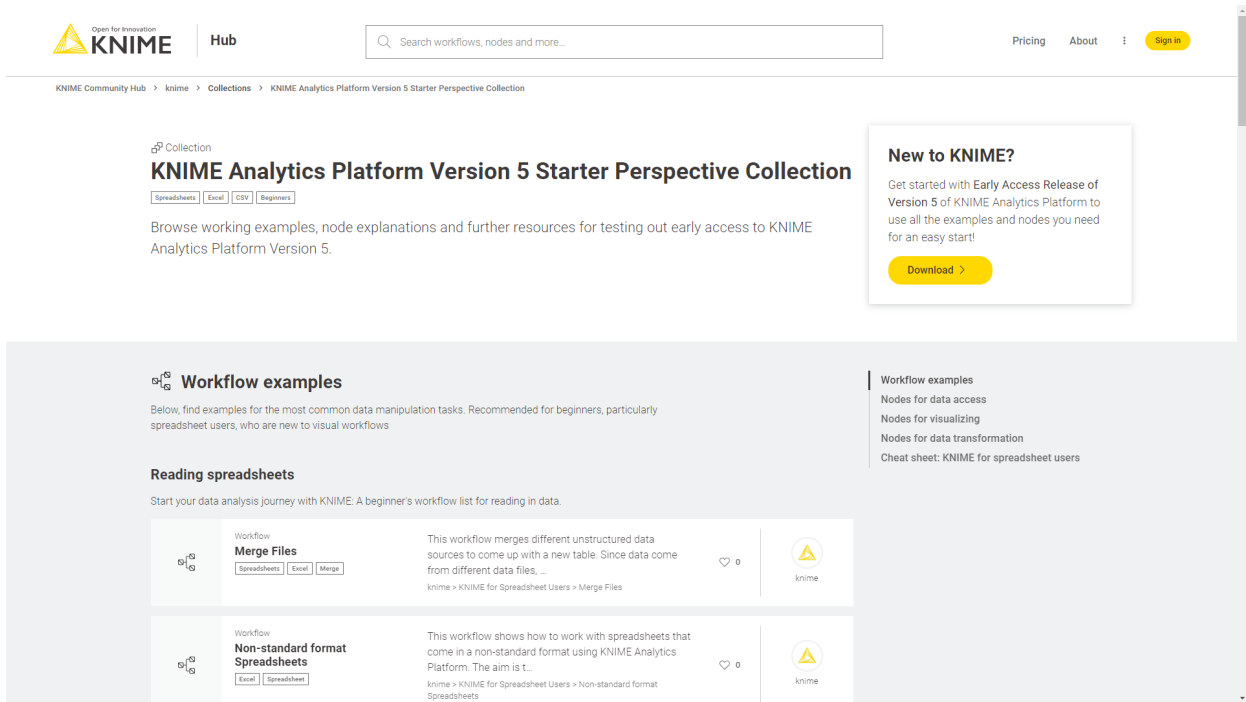


Figure 6. Example workflows in a collection on KNIME Hub

• Nodes:

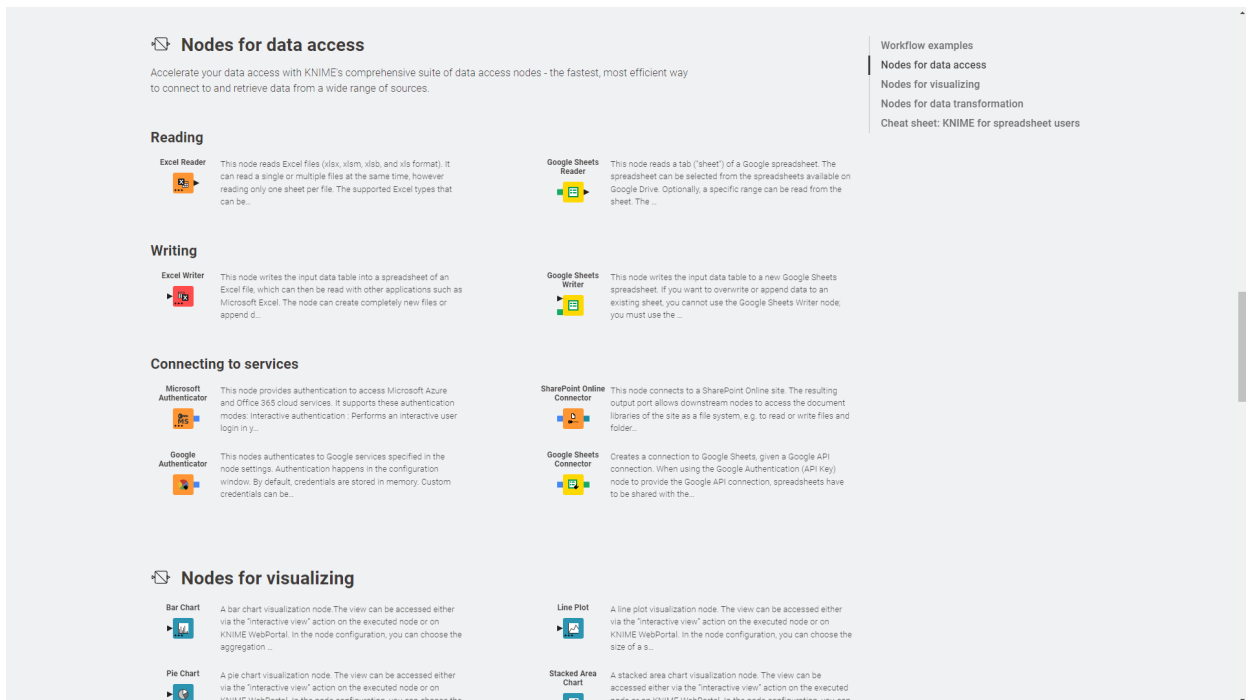


Figure 7. Nodes in a collection on KNIME Hub

• Links:

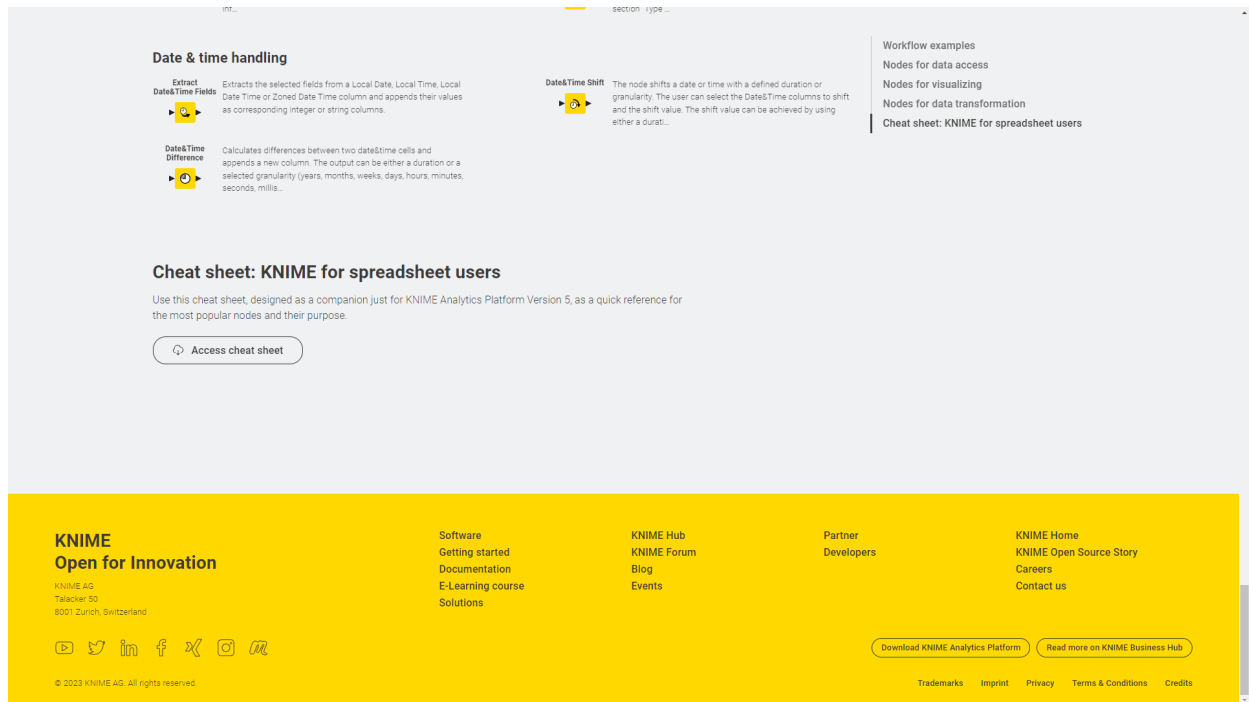


Figure 8. Additional links in a collection on KNIME Hub

Drag & drop

You can drag & drop nodes, components, extensions, and workflows from KNIME Hub to import them into KNIME Analytics Platform and use them right away to build your own workflow, install KNIME Extensions, and execute uploaded workflow into your local installation.

- **Node and components:** You can drag & drop a node or a component from KNIME Hub into your Workflow Editor in KNIME Analytics Platform. In case the node is part of an Extension that is not yet installed into your local installation of KNIME Analytics Platform or in case nodes that are part of extensions that are not yet installed are contained in the component, you will be asked if you want KNIME Analytics Platform to search and install the missing extension(s), as shown in [Figure 9](#).

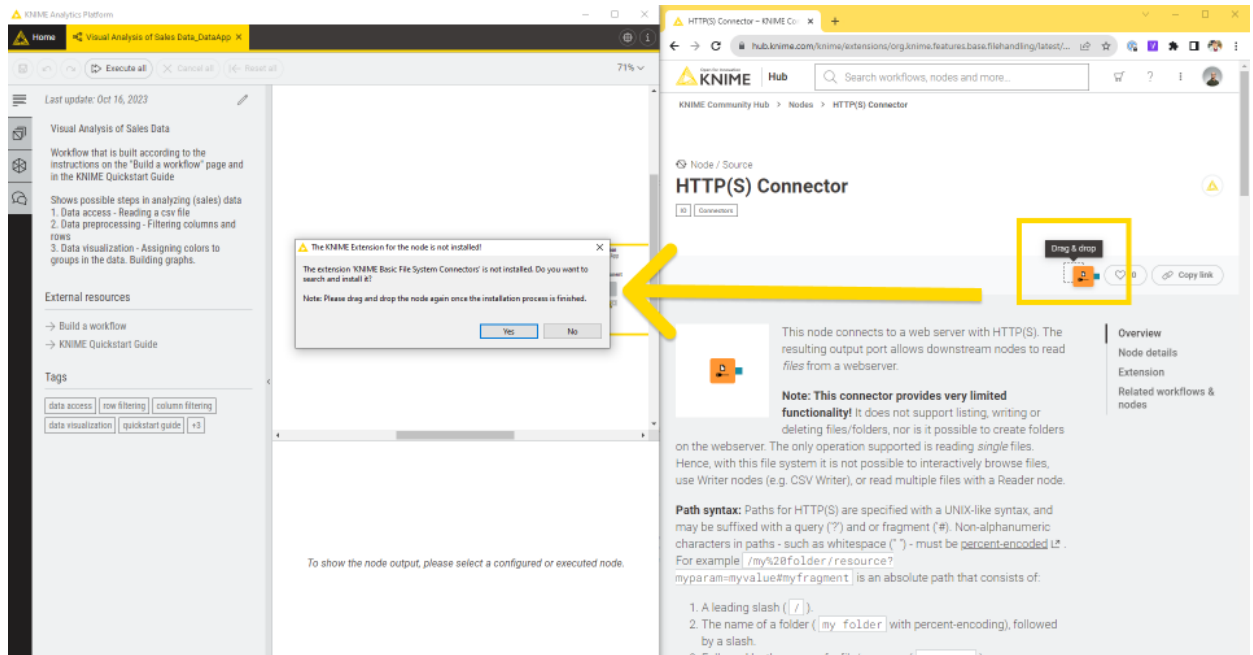


Figure 9. Drag & drop a node from KNIME Hub to KNIME Analytics Platform and install missing extension

- Extensions: You can drag & drop a specific extension into the Workflow Editor. KNIME Analytics Platform will search and install it. In order to be able to install the extension the extension's **update site** that is indicated at the end of the extension page in the section *Legal & update site* must be activated in KNIME Analytics Platform.

KNIME Hub as a repository

Not only does KNIME Community Hub serve as a repository for nodes, components, workflows, and extensions, ready to use in KNIME Analytics Platform via an easy drag & drop, but you can also use KNIME Community Hub to share your workflows with the KNIME Community or to store and organize your material in a private space.

Create a user account

First, if you do not have one already, create a KNIME user account. It will grant you access not only to KNIME Hub but also to other KNIME products, such as the KNIME Community Forum.

Go to [KNIME Hub](#), and in the top right corner of the page, click *Sign in*. Then select *Create account*. Fill in the required information and click *Create account*.

After confirming the link sent to your email address, you can sign in with your account. Click the user icon in the top right corner of KNIME Hub and select *Profile* from the menu to have access to your profile page. Here you can have an overview of the workflows and components you published, the extensions you published in case you have developed any of those, and the likes received. Also, you will have a list of the items you liked on KNIME Hub.

Change email address

If you want to change the email address of your KNIME user account (which is used for our forum, Community Hub and LearnUpon), then follow this section.

1. *If you have access to your old email address*
 1. If you want to keep your Credly badges, [follow this guide](#).
 2. Send an email **from your old email address** to change-email@knime.com, stating:

KNIME user account:
Old email address:
New email address:

2. *If you lost access to your old email address*

Send an email to change-email@knime.com, stating:

```
KNIME user account:  
Old email address:  
New email address:  
Verification: (e.g. score of your certificates)  
Help with Credly badges requested: Yes/No
```

KNIME Hub spaces

From your profile page or by clicking your profile icon and selecting *Spaces*, you will have access to the KNIME Hub spaces that are linked to your user account. A space is a KNIME Hub repository where you can store and share your workflows and components. When you register and sign in to KNIME Hub, two spaces will be automatically created. These are a *private* space and a *public* space, which have different **access permissions**. You can **manage** your spaces by changing their names or adding a description to them.


You can **upload** your items from KNIME Analytics Platform to the spaces you have access to. Moreover, you can **create** new spaces, both private and public. Finally, you can add **contributors** to your *public* spaces. All these functionalities will be explained in the following paragraphs.

Access permissions of spaces

You are the owner of your spaces. Each space is linked and assigned to a specific user.

Spaces can be *private* or *public*:

1. A *private* space is only accessible and manageable through your user account. Here, you can store various types of items like workflows, components, or data.
2. A *public* space, instead, is visible to the entire KNIME Community, where you can share your workflows and components. Everyone will then be able to download them, drag & drop them to their KNIME Analytics Platform and use it, as well as *like* your spaces or items, or copy a link to your space and share it with others.

It is also possible to switch a space from private to public and vice versa. To do so, go to the *private* space you want to make *public*, click the  icon on the top right part of the page, and under *Visibility*, select *Make public* (or vice versa, select *Make private*), as shown in **Figure 10**.

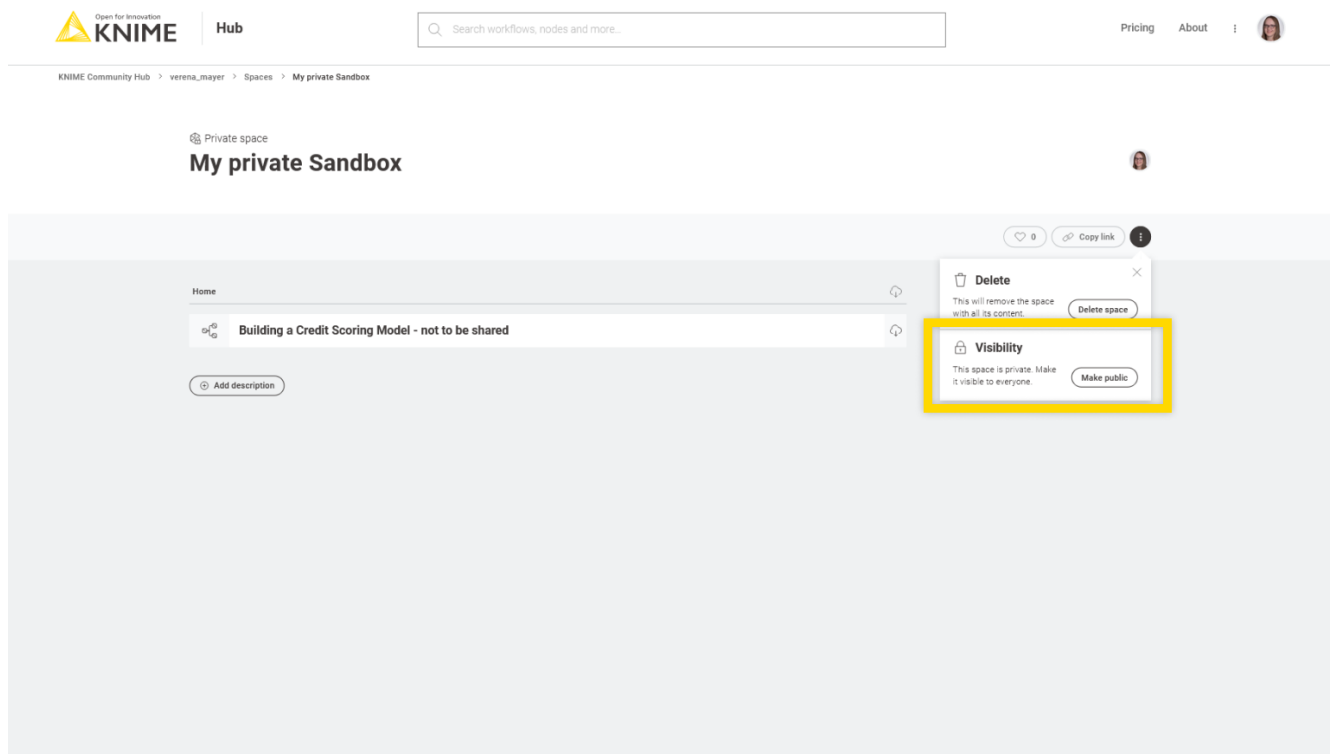




Figure 10. Change the visibility of a space on KNIME Hub

Manage your spaces

You can manage your spaces at any point in time by going back to the space page.

You can change the space's **name** by going to the space page and clicking the title. Insert the new name in the title field and click the  button or press *Enter* to save. Click the  button instead to discard your changes.

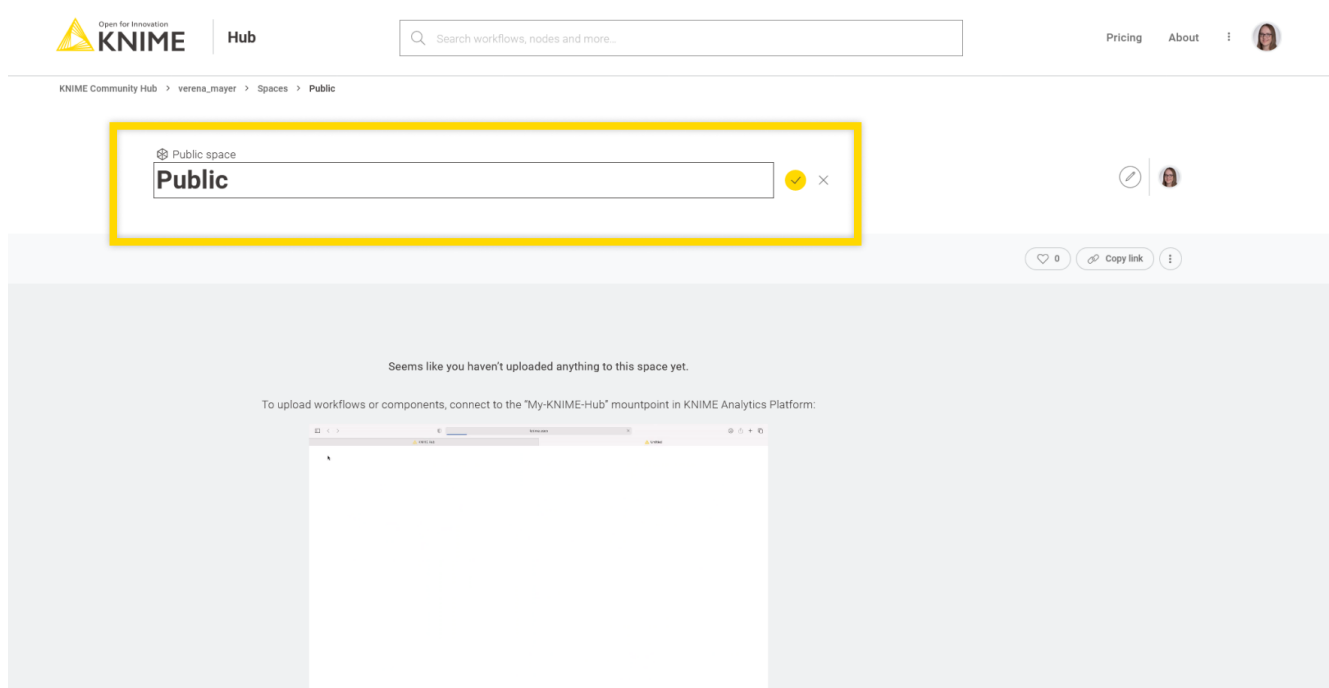


Figure 11. Change the name of a space

You can also add a **description** to your space by clicking *Add description* at the bottom of the space page. Again, click the yellow tick button or press *Enter* to save your changes, or the \times button to discard them.

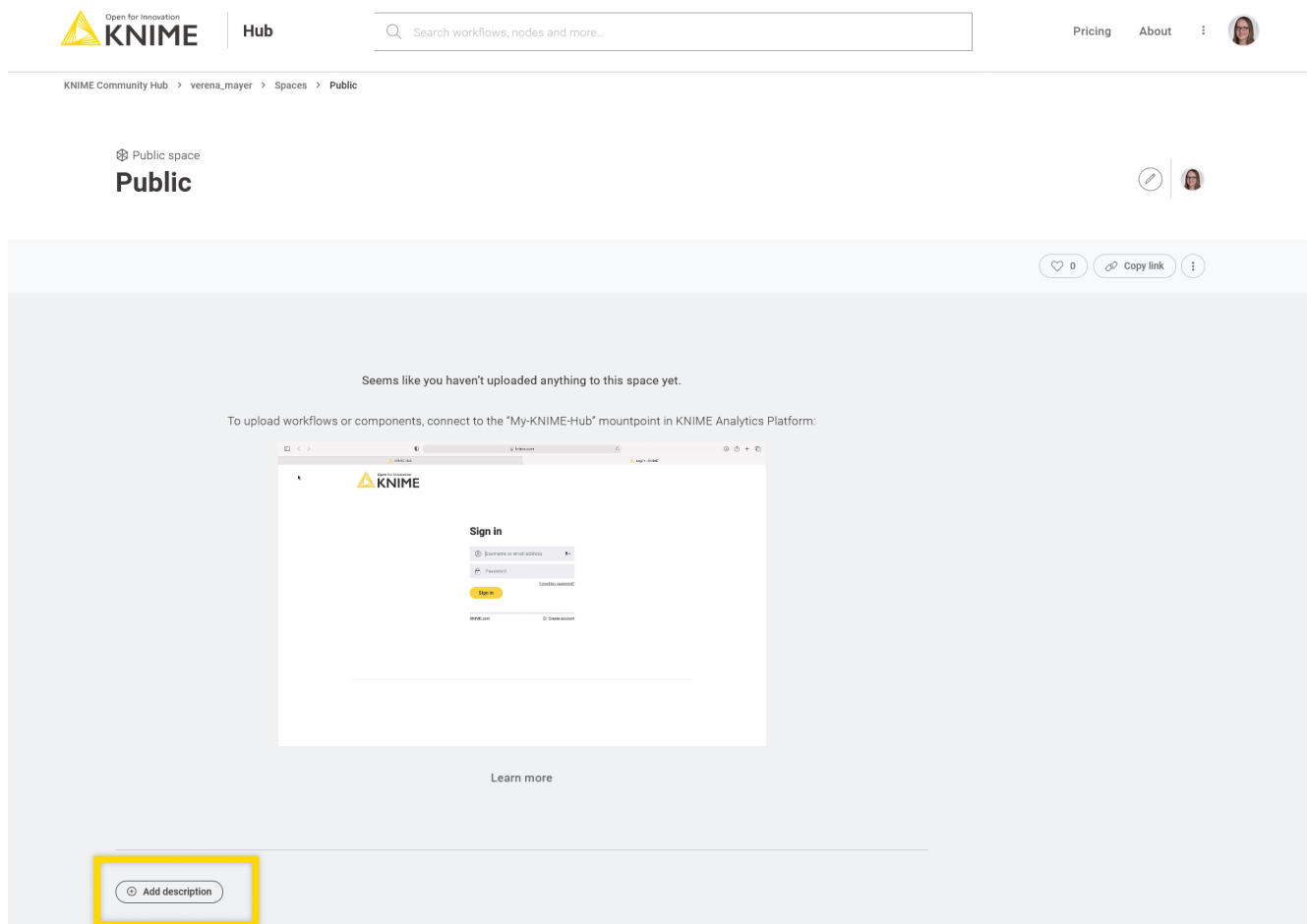


Figure 12. Add a description to a space

The description will be shown in the overview of your spaces in the corresponding space tile.

Create a new space

You can create a space from your profile's spaces overview. Here, the spaces you have access to are shown, ordered by the latest update. Go to the last tile *Create new space*, and select if you want to create a *Private space* or a *Public space*. You can choose a name for the space, and the space will be created.

Delete a space

To delete a space, you can go to the space page, click the **:** icon on the top right and select *Delete space*. You will be asked to insert the name of the space.

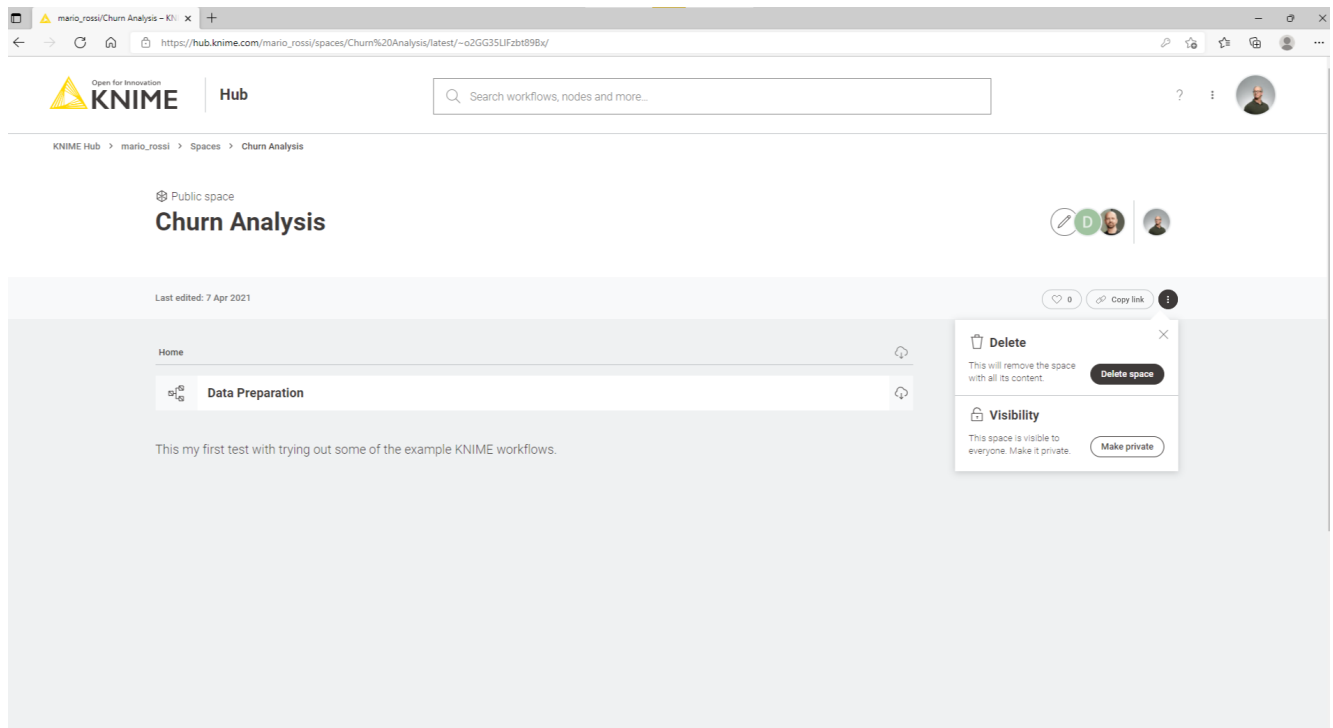


Figure 13. Delete a space from KNIME Hub

Connect to KNIME Hub

You can access KNIME Hub from the **KNIME Hub mount point** and upload your workflows and components directly from your local KNIME Analytics Platform instance to KNIME Hub.

KNIME Hub mount point

You can connect to your KNIME Hub account on KNIME Analytics Platform.

To do so, go to the Home page of KNIME Analytics Platform and sign in to KNIME Community Hub.

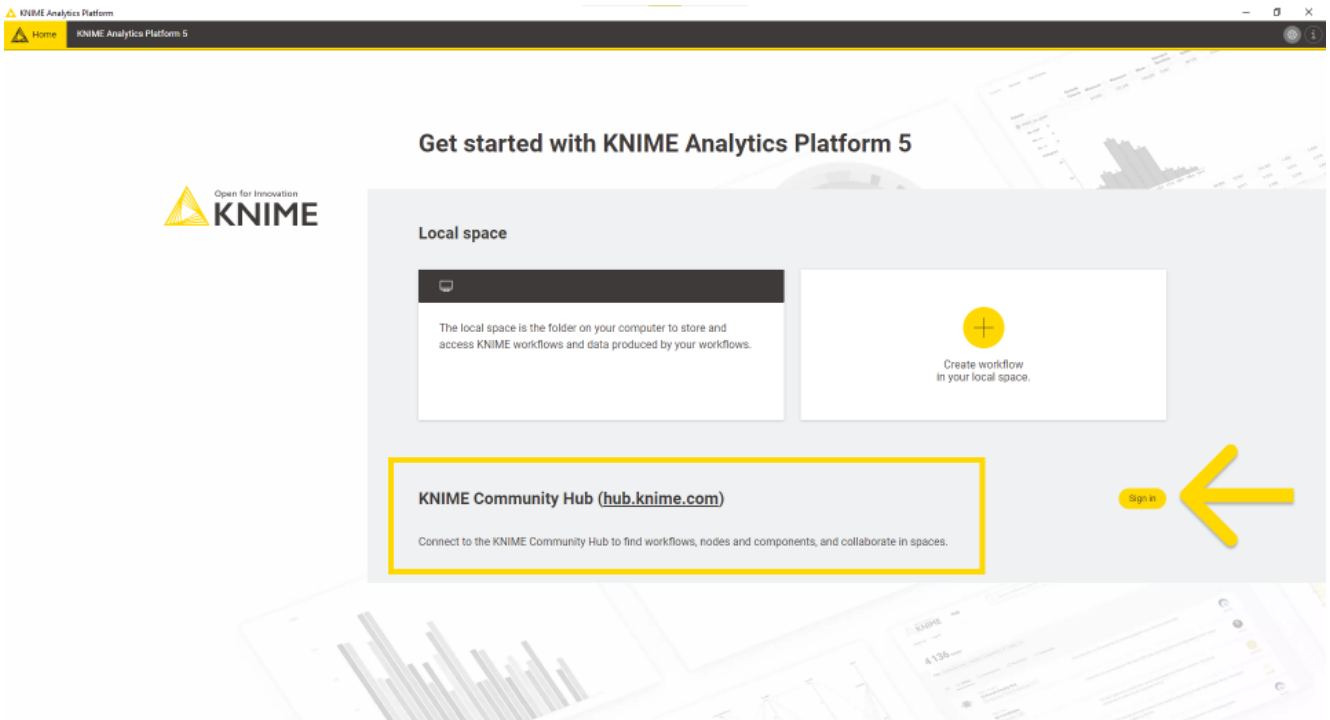


Figure 14. Connect to KNIME Hub from KNIME Analytics Platform

You will be redirected to the sign-in page if you are not connected in the current session already.

Once you are signed in, you will see all your spaces.

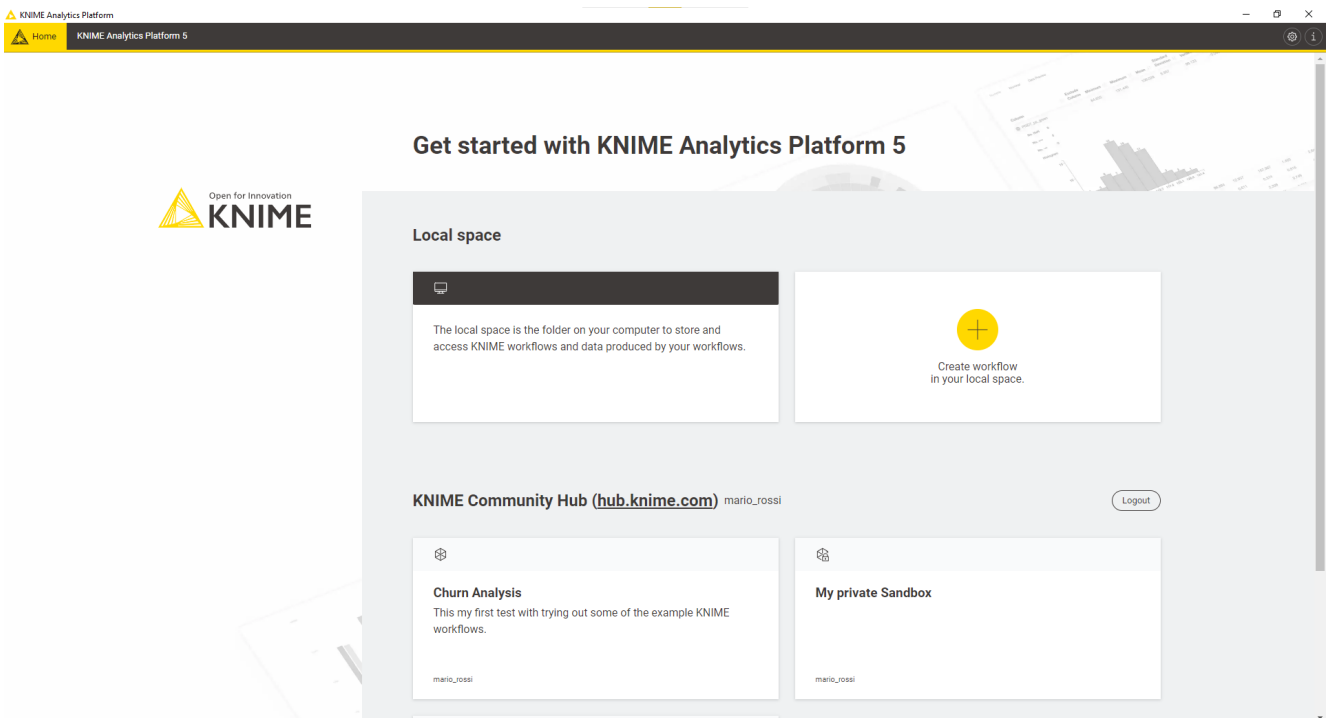


Figure 15. A user connected to KNIME Hub from KNIME Analytics Platform

Click on a space to access the items within the space. You can perform different types of operations on them:

- Upload items to your KNIME Hub spaces, download, duplicate, move, delete, or rename your items. More information about this functionality is provided in the next section.
- Open workflows as local copies or on KNIME Hub. You can find the respective buttons in the toolbar on top.
- Create folders to organize your items in the space. Click the *Create folder* button in the toolbar on top.

Upload items

Once you are connected to your KNIME Hub account from KNIME Analytics Platform, you can upload the desired items to your KNIME Hub spaces.

You can upload workflows or components to any of your spaces by right-clicking the item from the space explorer in KNIME Analytics Platform and selecting *Upload* from the context menu. A window will open where you will be able to select the location where you want to upload your workflow or component.

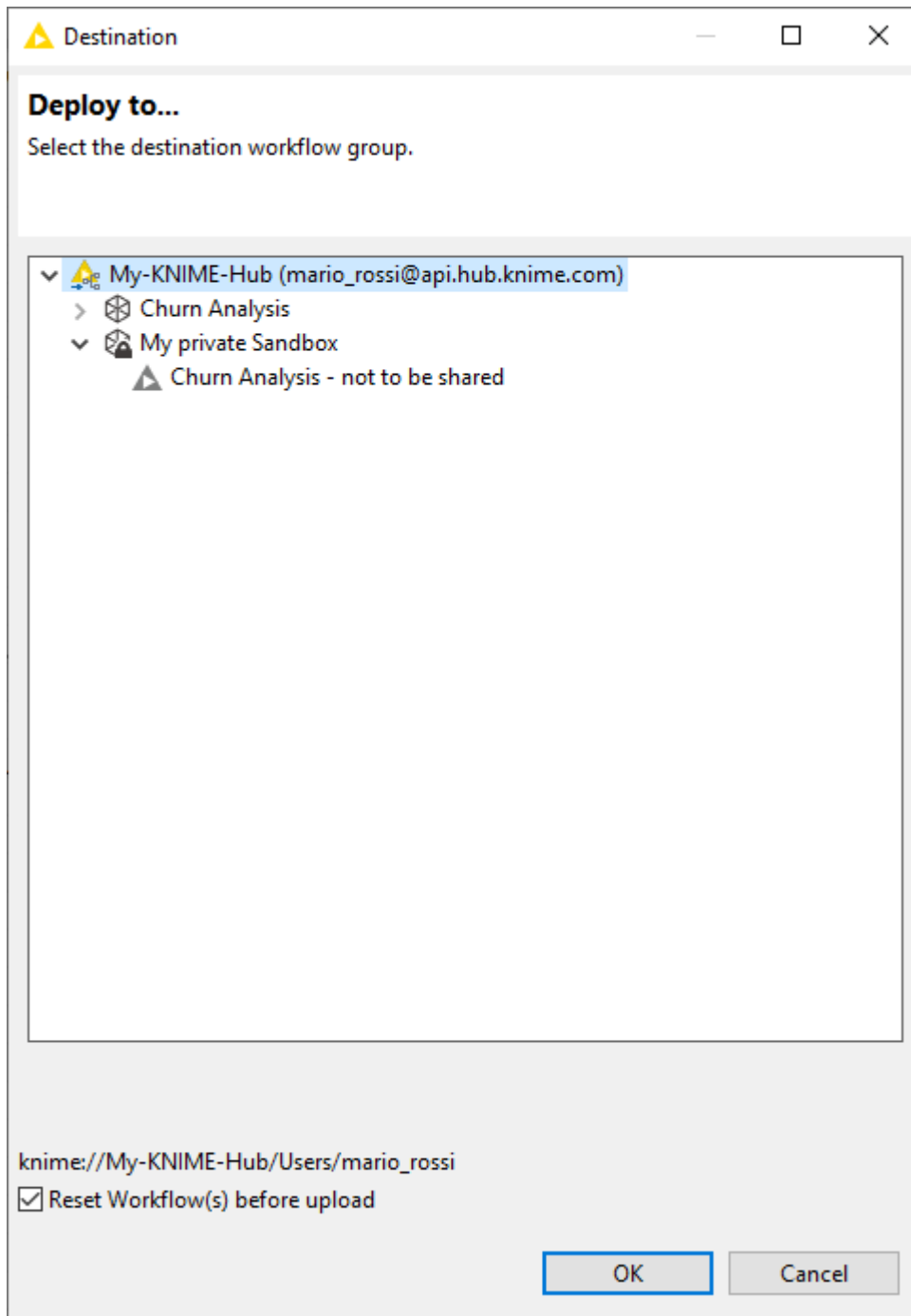


Figure 16. Upload a local item to your KNIME Hub mount point



Items that are uploaded to a public space will be available to everyone. Hence, be very careful with the data and information (e.g., credentials) you share.

Version items

When **uploading items to a space on KNIME Hub**, you will be able to keep track of their changes. Your workflow or component will be saved as a draft until a version is created.

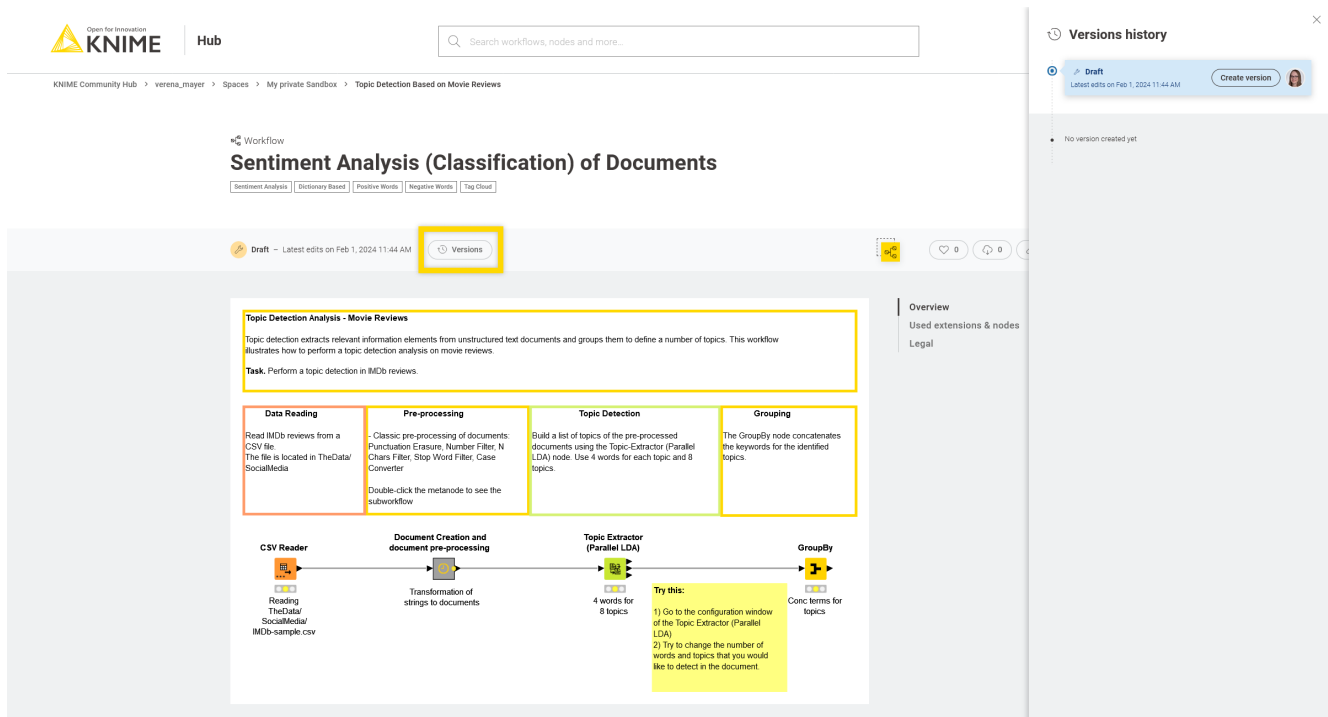
When you create versions of the items, you can then go back to a specific saved version at

any point in time in the future to download the item in that specific version.

Once a version of the item is created, new changes to the item will show up as draft.

Create a version of an item

Go to the item you want to create a version of by navigating through KNIME Hub and click *Versions*.




The screenshot shows the KNIME Hub interface for a workflow titled "Sentiment Analysis (Classification) of Documents". The workflow is currently in "draft" status, with the latest edit on Feb 1, 2024 at 11:44 AM. A "Versions" button is highlighted in the top right corner of the workflow area. The workflow itself is composed of four main stages: "Data Reading", "Pre-processing", "Topic Detection", and "Grouping". Each stage is represented by a colored box containing a description of the task and a list of nodes used. The "Data Reading" stage uses a "CSV Reader" node. The "Pre-processing" stage uses "Document Creation and document pre-processing" and "Transformation of strings to documents" nodes. The "Topic Detection" stage uses a "Topic Extractor (Parallel LDA)" node. The "Grouping" stage uses a "GroupBy" node. A "Try this:" section provides instructions for configuring the Topic Extractor node. On the right side of the interface, a "Versions history" panel is open, showing a "Draft" version created on Feb 1, 2024 at 11:44 AM, with a "Create version" button next to it.

Figure 17. Versioning of a workflow

A panel on the right opens where you can see all the versions already created and all the unversioned changes of the item since the last version was created.

Click *Create version* to create a new version. You can then give the version a name and add a description.

Show a version

In the *Versions history* panel, click the version you want to see, or click the  icon and select *Show this version*. You will be redirected to the item in that specific version.

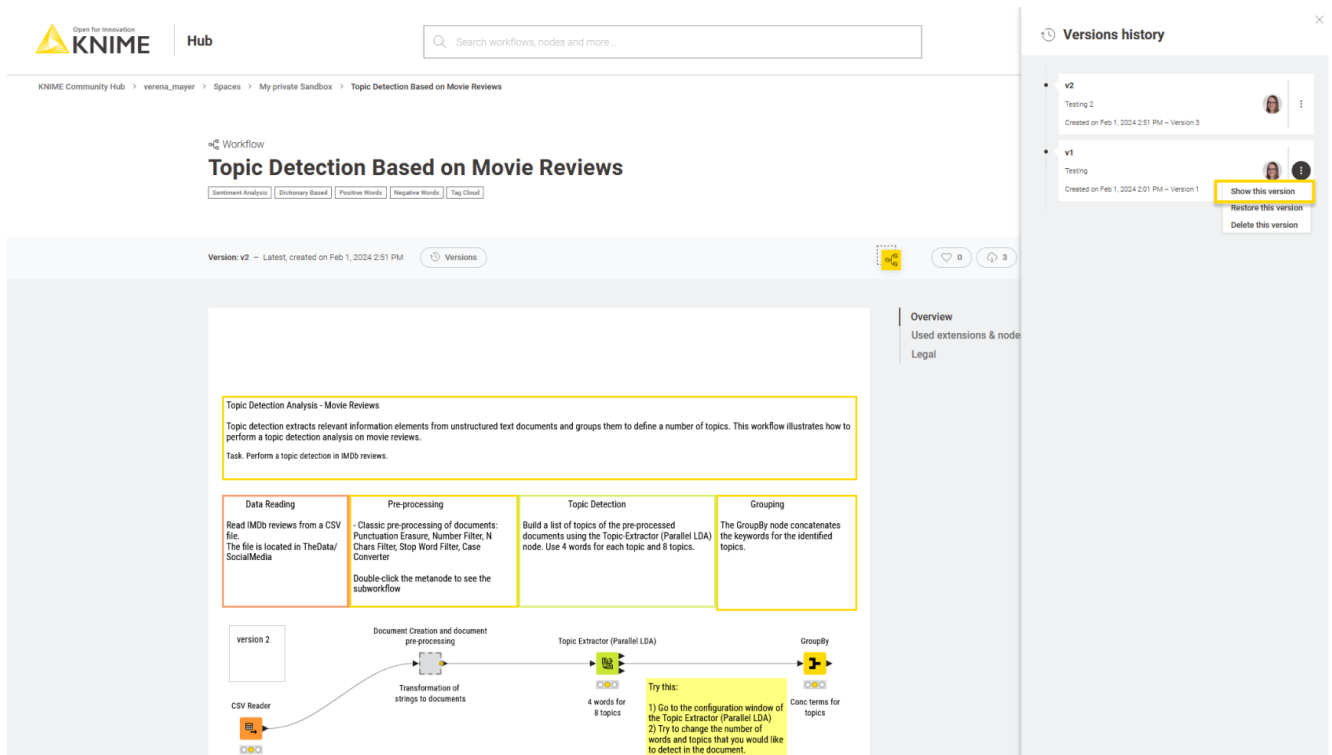



Figure 18. Show the versions of a workflow

To go back to the latest state of the item, click the selected version to unselect it.

Restore a version

To restore a version that you created, click the  icon in the version tile from the item history and select *Restore this version*.

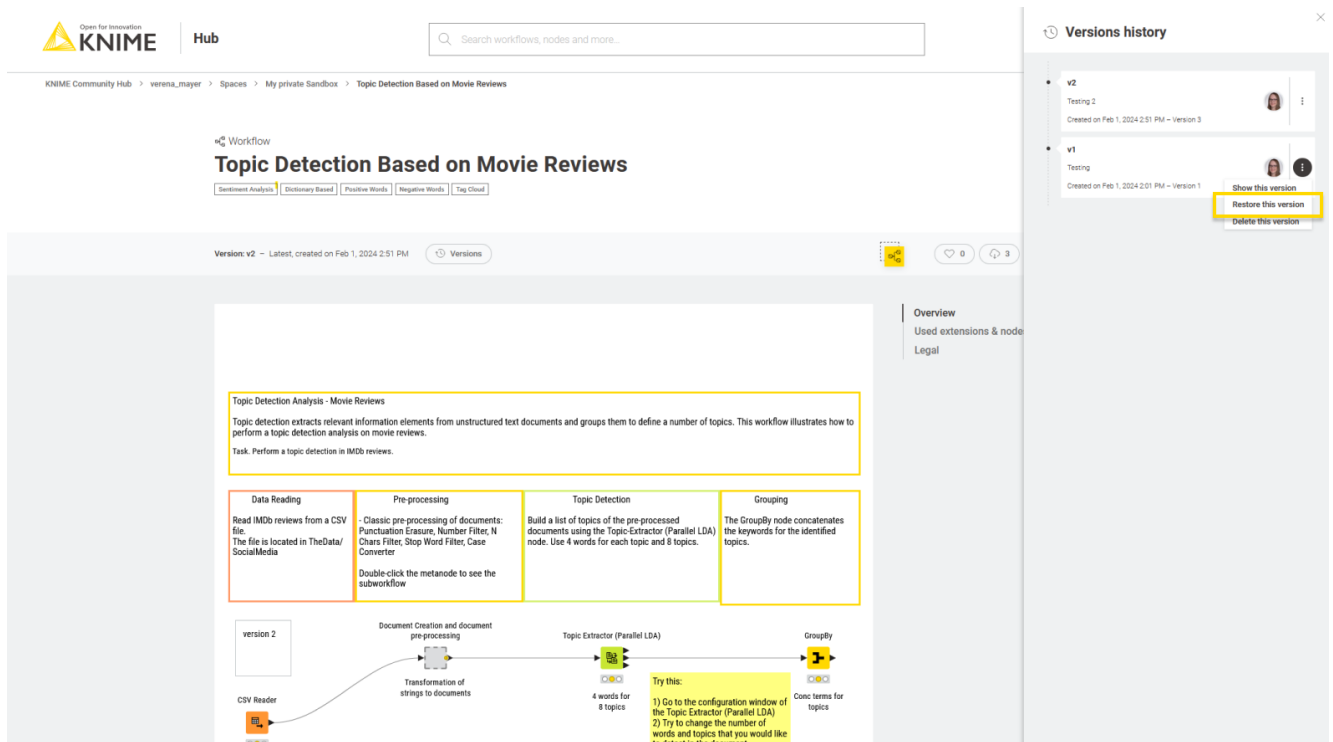



Figure 19. Restore the workflow as a draft

The version will be restored as a draft.

Delete a version

In the *History* panel, click the  icon for the version you want to delete and click *Delete*.

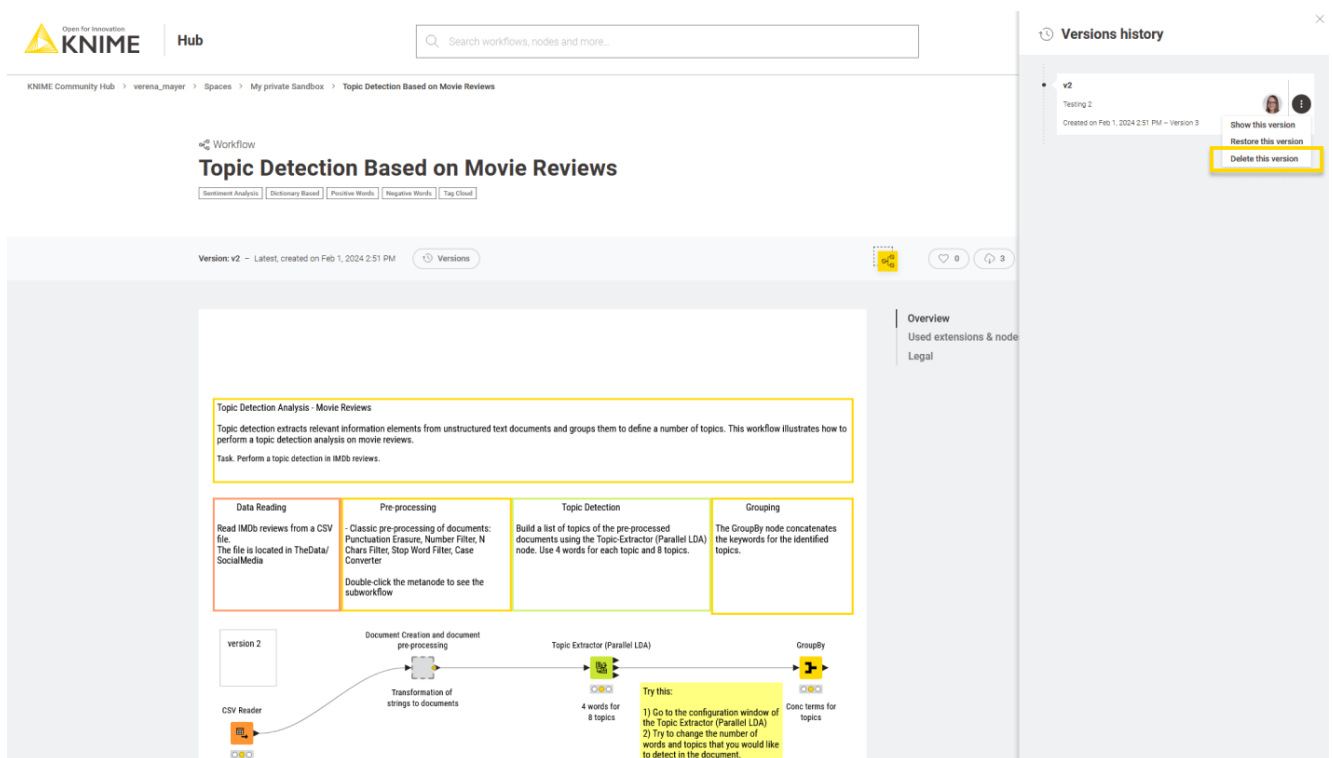


Figure 20. Delete a version

Move items


You can move items that you have uploaded to KNIME Hub to a new location within the space that contains the item, or to a different space that you have access to. To do this, you need to be connected to the KNIME Hub mount point on KNIME Analytics Platform. If you want to move items within the same space, drag the item in the space explorer, for example, to a subfolder. To move items from one space to another, right-click the item and select *Move to*. In the *Destination* window that opens, select the space to which you want to move the item to.



These changes will automatically apply to the space on KNIME Hub.

Delete items

You can also delete items that you uploaded to KNIME Hub. To do so, you can:

- Connect to KNIME Hub mount point on KNIME Analytics Platform. Right-click the item you want to delete and select *Delete...* from the context menu
- From KNIME Hub, sign in with your account and go to the item you want to delete. Click the  icon on the top right of the page and select *Delete workflow*.

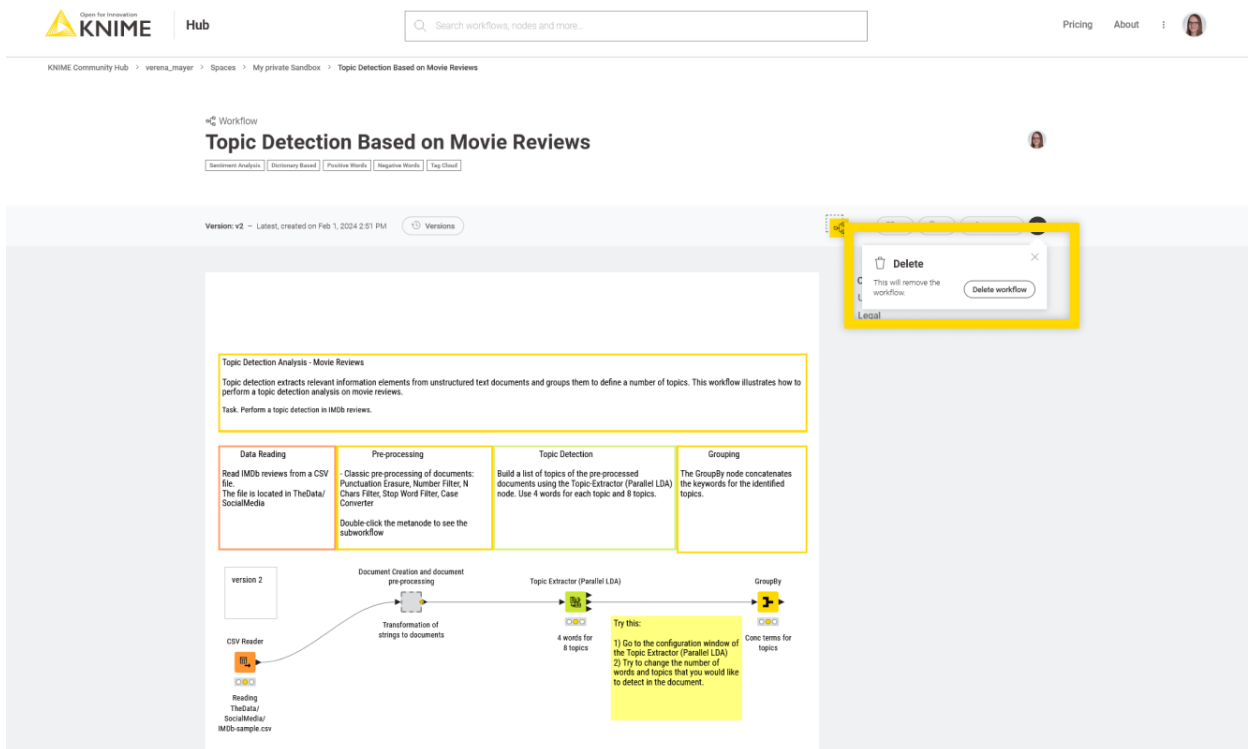


Figure 21. Delete a workflow from KNIME Hub

Community features on KNIME Hub

KNIME Community Hub is also the place where you can interact and collaborate with the KNIME Community.

Once you have created your profile and uploaded your items to your public spaces, you can share them with others, you can remain engaged in other people's work by liking items. Finally, you can also add other users from the KNIME Community as contributors to your public spaces. They will be able to access your space from their KNIME Hub profile and from their KNIME Hub mount point on KNIME Analytics Platform, download, and upload workflows or components. Add contributors to your spaces to collaborate on a project and keep all workflows always accessible in one place.

Share links to items on KNIME Hub

Go to any workflow, component, space, extension, or node on KNIME Hub and click the *Copy link* button on the top right, as shown in [Figure 22](#). You will copy to your clipboard a URL short link to the item that you can share with others.

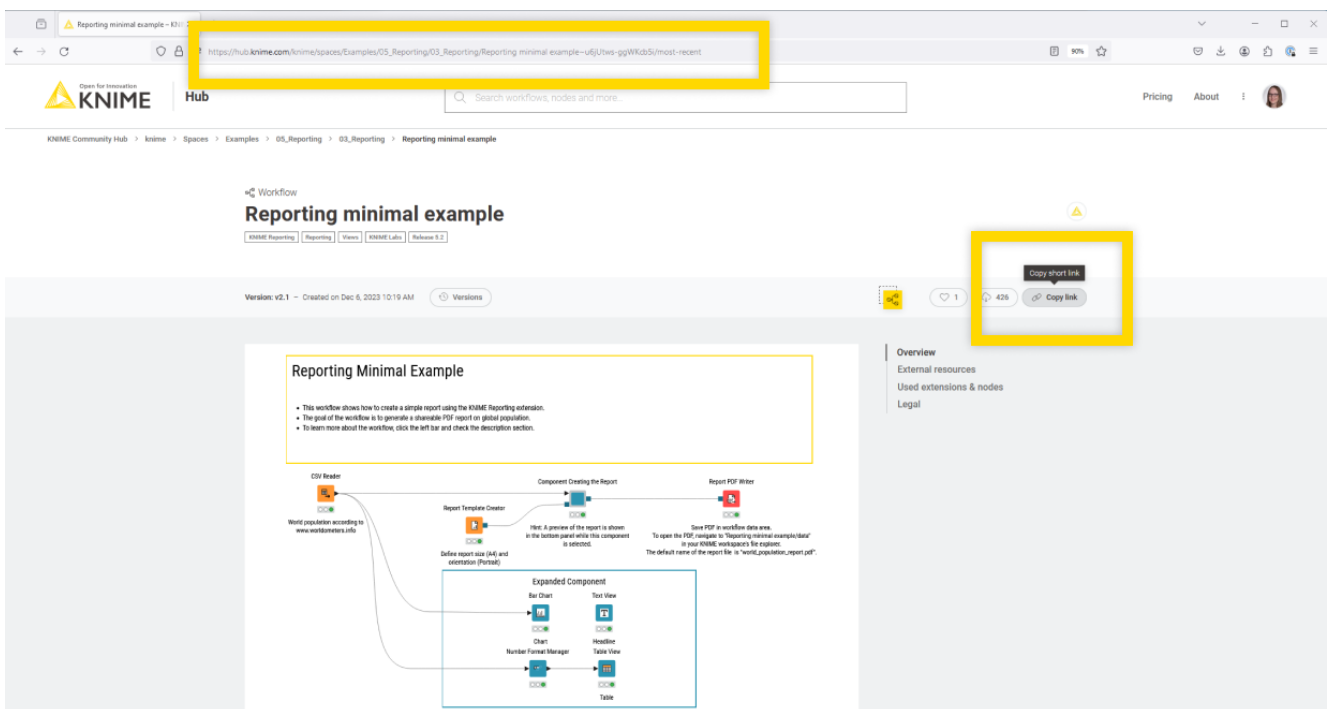


Figure 22. Click the link icon to copy the short link to your clipboard.

The short link is assigned uniquely to every item that is on KNIME Hub, regardless of its location. This means that even if the item is moved by its owner into a different space, the item will be reachable at the same short link.

The same rule is valid for the URL, which will be redirected to the new location automatically.

Like items on KNIME Hub

If you find an item on KNIME Hub that has been very useful for you or that you particularly like, you can leave a like by clicking the heart icon on the top right of the page. See how much the KNIME Community has been engaged in specific items by looking at the number of downloads and likes that a specific item has received, as shown in [Figure 23](#).

All the items you liked will be shown on your user profile under *About*.

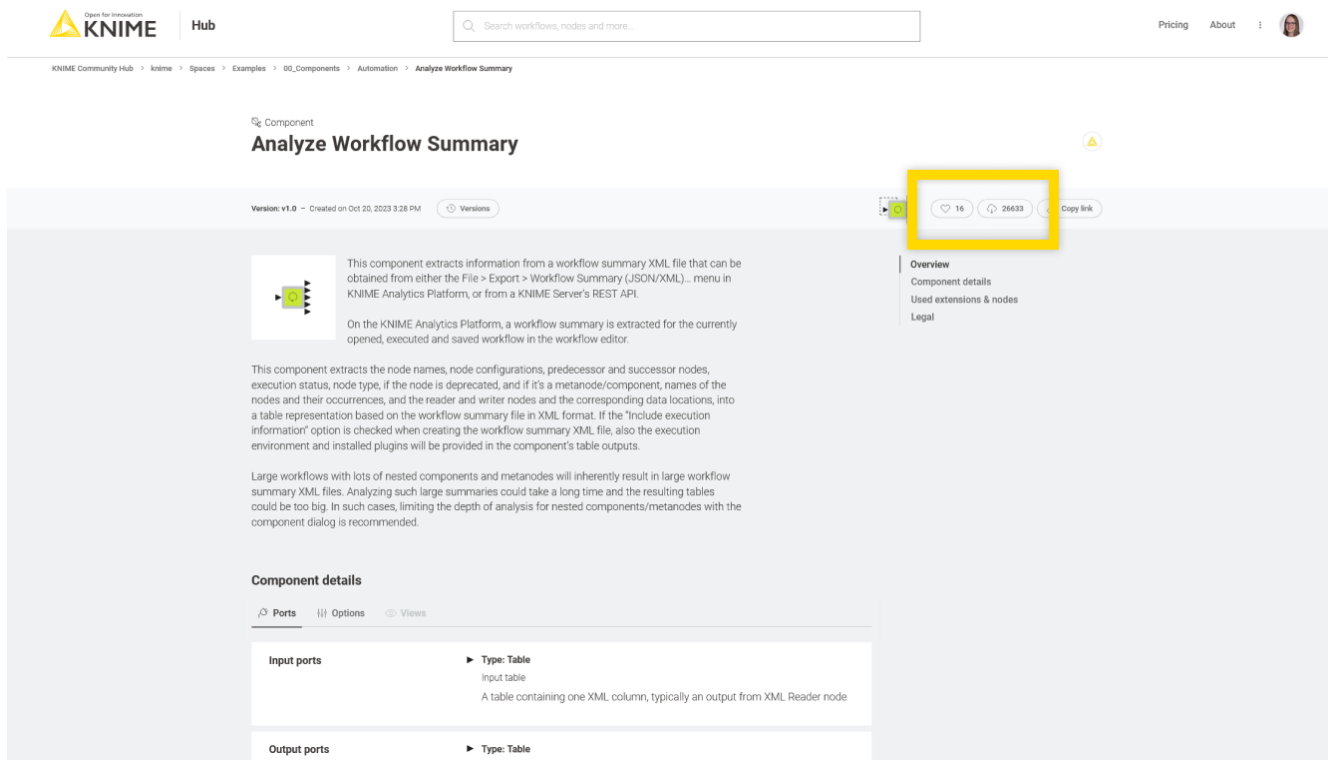


Figure 23. Number of downloads and likes of an item on KNIME Hub

Contributors

You can add any other user of KNIME Community as a **contributor** to any of your *public* spaces.

To add a user as a contributor to a *public* space, go to the space and click the pencil tool close to your profile icon.

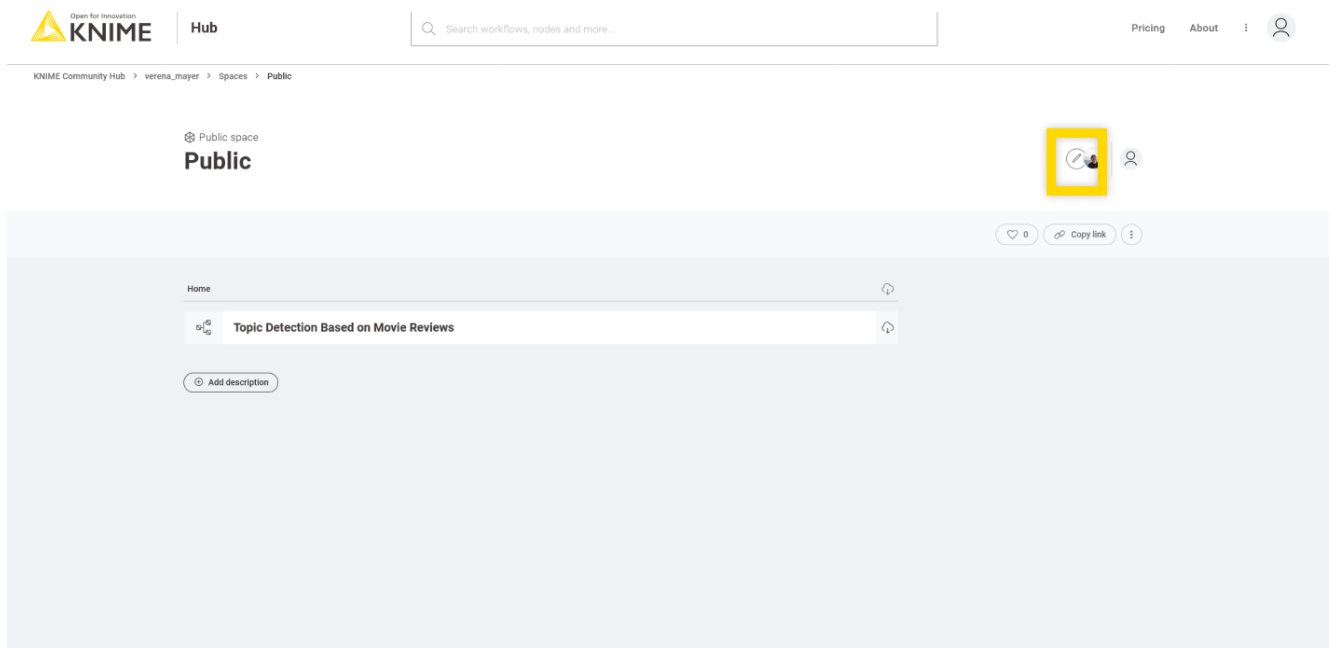


Figure 24. Add a contributor to a public space

In the *Manage space access* panel that opens, you can add contributors by inserting their KNIME Hub username. Then click *Add* and *Submit*.

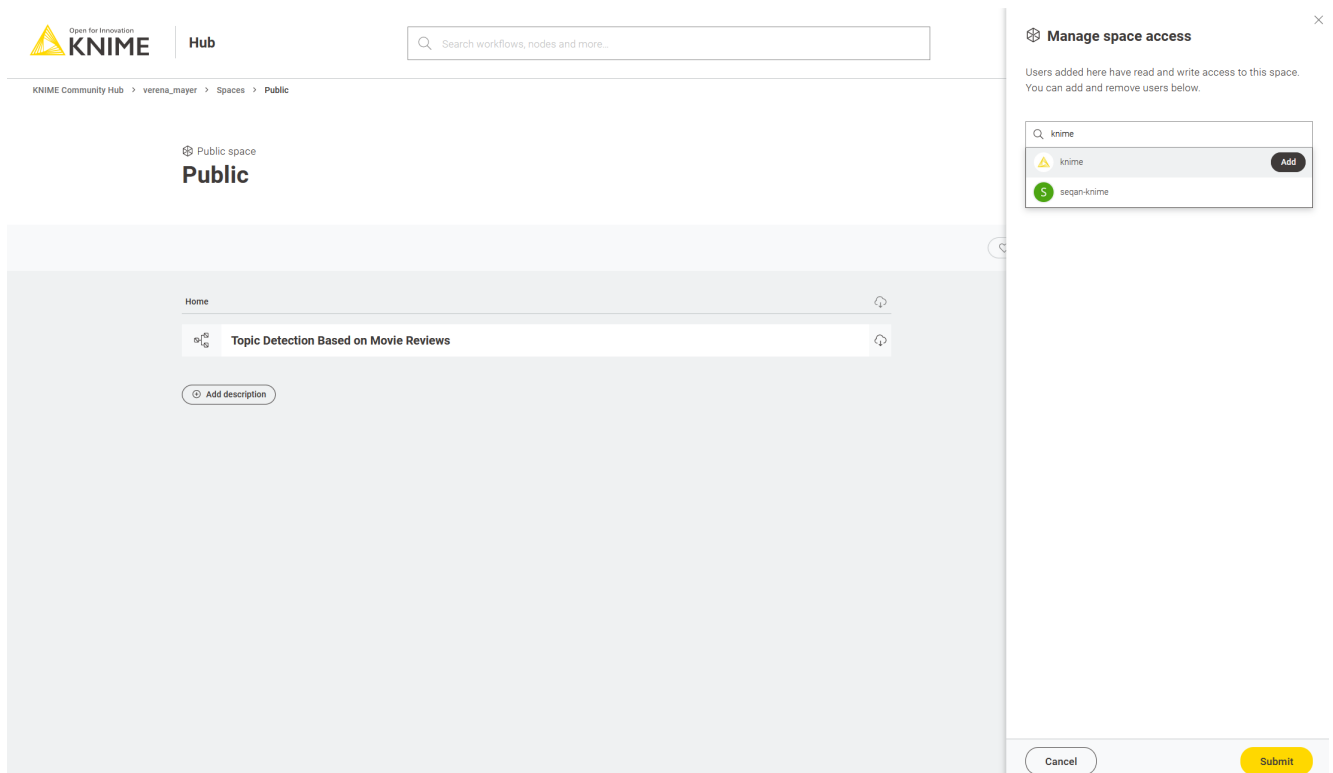



Figure 25. Manage contributors on a public space

In the same panel, you can also manage the contributors. Click on the  icon to remove a contributor from the space.

When you are added as a contributor to a space, you will be able to see the space under

Spaces in your profile page and also listed in your KNIME Hub mount point from KNIME Analytics Platform.

Contributors have edit rights for the space they are added to. They can add and edit workflows or components in the space. They do not have the same rights that the owner of the space has. Only the owner of a space can change the space name or change the space visibility to *private*.



Since contributors can only be added to *public* spaces, they will not have access to the space anymore if the space visibility is changed from *public* to *private*.

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