



PLATFORM DEEP DIVE / Plugins

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PLATFORM DEEP DIVE / Plugins /

Custom Plugins / Documents

plugin / Using the plugin / Generating docs based on templates / Generating from HTML templates

The Document Management Plugin allows you to generate documents based on previously defined document templates. This example specifically covers generating documents using HTML templates.

Creating a template

Use the **WYSIWYG** editor to create a document template.

The screenshot shows the FLOWX.AI platform interface. On the left, there is a sidebar with navigation links for Processes, Content Management, and Plugins. The main area displays two sections: 'Process Definitions' and 'Published'.

Process Definitions

- Drafts / In progress**
- | Name | Version | Edited at | Edited by | Actions |
|------|---------|-----------------------|----------------|---------|
| s... | 1 | 30 Sep 2022, 5:41 PM | Silviu Grigore | ▶ ⚒ ⋮ |
| d... | 2 | 30 Sep 2022, 2:32 PM | andrei antal | ▶ ⚒ ⋮ |
| t... | 1 | 30 Sep 2022, 11:15 AM | QA FlowX | ▶ ⚒ ⋮ |
| T... | 4 | 30 Sep 2022, 10:20 AM | QA FlowX | ▶ ⚒ ⋮ |
- Published**
- | Name | Version | Published at | Published by | Actions |
|------|---------|-----------------------|----------------|---------|
| A... | 1 | 03 Oct 2022, 8:12 AM | QA FlowX | ▶ ⚒ ⋮ |
| C... | 19 | 30 Sep 2022, 3:08 PM | Silviu Grigore | ▶ ⚒ ⋮ |
| d... | 1 | 30 Sep 2022, 10:34 AM | Bogdan Ionescu | ▶ ⚒ ⋮ |
| T... | 1 | 30 Sep 2022, 10:18 AM | QA FlowX | ▶ ⚒ ⋮ |

User Profile

DC John Doe

Sending the request

1. Create a process that includes a **Kafka send event node** and a **Kafka receive event node** (one for sending the request and one for receiving the reply).
2. Configure the first node (Kafka Send Event) by adding a **Kafka send action**.

3. Add the **Kafka topic** to which the request should be sent.
4. Fill in the message with the following expected values in the request body:

Parameters

Custom From integration

Topics

```
ai.flowx.in.qa.document.html.generate.v1
```

Message

```
1  {
2    "clientType": "PF",
3    "documentList": [
4      {
5        "customId": "123456",
6        "templateName": "test_doc",
7        "language": "en",
8        "data": {
9          },
10       "includeBarcode": true
11     }
12   ]
13 }
```

Advanced configuration

Show Headers

```
1  {"processInstanceId": ${processInstanceId}}
```

- **documentList**: A list of documents to be generated with properties (name and value to be replaced in the document templates)
- **customId**: Client ID
- **templateName**: The name of the template to be used
- **language**
- **includeBarcode**: True/False
- **data**: A map containing the values that should be replaced in the document template. The keys used in the map should match the ones defined in the

HTML template.

ⓘ INFO

Kafka topic names can be set by using (overwriting) the following environment variables in the deployment:

- **KAFKA_TOPIC_DOCUMENT_GENERATE_HTML_IN** - default value:
`ai.flowx.in.qa.document.html.generate.v1` - the topic that listens for the request from the engine
- **KAFKA_TOPIC_DOCUMENT_GENERATE_HTML_OUT** - default value:
`ai.flowx.updates.qa.document.html.generate.v1` - the topic on which the engine expects the reply

The above examples of topics are extracted from an internal testing environment. When setting topics for other environments, follow the pattern `ai.flowx.updates.{environment}.document.generate.v1`.

⚠ CAUTION

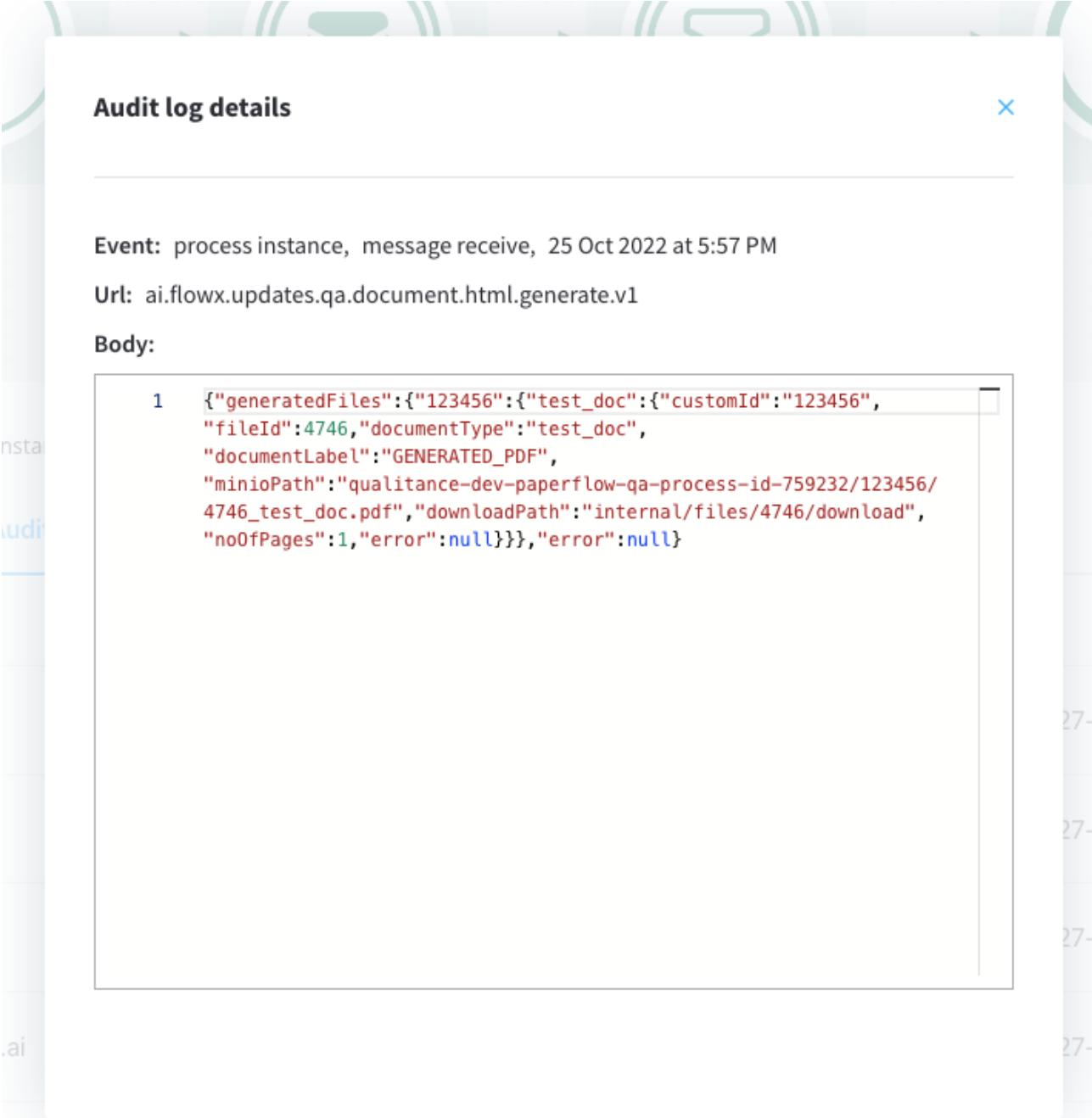
The engine listens for messages on topics with specific naming patterns. Make sure to use an outgoing topic name that matches the pattern configured in the engine.

Reply

ⓘ INFO

You can view the response by accessing the **Audit log** menu.

The response will be sent on the output Kafka topic defined in the Kafka Receive Event Node. The response will contain the following information:



Audit log details

Event: process instance, message receive, 25 Oct 2022 at 5:57 PM

Url: ai.flowx.updates.qa.document.html.generate.v1

Body:

```
1 {"generatedFiles":{"123456":{"test_doc":{"customId":"123456",  
"fileId":4746,"documentType":"test_doc",  
"documentLabel":"GENERATED_PDF",  
"minioPath":"qualitance-dev-paperflow-qa-process-id-759232/123456/  
4746_test_doc.pdf","downloadPath":"internal/files/4746/download",  
"noOfPages":1,"error":null}}}, "error":null}
```

Values expected in the event body:

- **generatedFiles**: List of generated files.
 - **customId**: Client ID.
 - **fileId**: The ID of the generated file.
 - **documentType**: The name of the document template.
 - **documentLabel**: A label or description for the document.
 - **minioPath**: The path where the converted file is saved. It represents the location of the file in the storage system, whether it's a MinIO path or an S3 path, depending on the specific storage solution.
 - **downloadPath**: The download path for the converted file. It specifies the location from where the file can be downloaded.
 - **noOfPages**: The number of pages in the generated file.
 - **error**: If there were any errors encountered during the generation process, they would be specified here. In the provided example, the value is null, indicating no errors.

Example of generated file response received on

KAFKA_TOPIC_DOCUMENT_GENERATE_HTML_IN topic :

```
{  
  "generatedFiles": {  
    "123456": {  
      "test_doc": {  
        "customId": "123456",  
        "fileId": 4746,  
        "documentType": "test_doc",  
        "documentLabel": "GENERATED_PDF",  
        "minioPath": "qualitance-dev-paperflow-qa-process-  
id-759232/123456/4746_test_doc.pdf", //or S3 path, depending  
on your storage solution  
        "downloadPath": "internal/files/4746/download",  
      }  
    }  
  }  
}
```

```
        "noOfPages": 1,  
        "error": null  
    },  
},  
"error": null  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Documents plugin / Using the plugin / Generating docs based on templates / Managing HTML templates

In the Document Management Plugin, you have the flexibility to define and manage HTML templates for generating documents. These templates can incorporate various types of parameters to customize the content. Let's explore the different types of parameters and their specifications:

Configuring HTML templates

Text parameters

Text parameters are used to include dynamic text in the template. For example, you can include the company name and registration number in an offer document. Here's an example of HTML template specifications:

Lorem ipsum: Test Company SRL, dolor sit amet RO1234567.

```
<p><strong>Lorem ipsum: <span th:text="${companyName}">
</span></strong>, dolor sit amet <strong><span
th:text="${cui}"></span></strong>. </p>
```

Data specifications:

```
{
  "data": {
    "companyName": "Test Company SRL",
    "cui": "RO1234567"
  }
}
```

Dynamic tables - repeatable rows

Dynamic tables are useful when you want to display a table with repeatable rows. Each row can represent a different element from a generated list of objects. Here's an example of HTML template specifications:

Lorem ipsum The greatest offer - deluxe edition dolor sit amet, consectetur adipiscing elit. Nullam ante quam, dictum et accumsan quis, laoreet id lorem. Mauris bibendum consequat viverra. Ut accumsan volutpat augue. Cras id tortor hendrerit, fringilla ligula et, consequat quam. Proin quis dui et nisi ullamcorper pretium nec eu nulla. Sed ut sapien ac arcu accumsan varius. Proin faucibus augue tellus, at ultrices sapien vestibulum non. Nam pellentesque augue eu molestie sagittis.

Name	Value
Price (USD/MWh)*	25
Distribution rate (USD/MWh)**	C1 category: 27, C2 category: 29
Subscription price / day / place of consumption***	C1 category: 1.25, C2 category: 1.32
Period of validity of the price	Validity time fixed price Monday, from the start date of delivery to the date of completion of delivery
Payment term	90 days

```
<table>
  <thead>
    <tr class="headings">
      <th class="column-title">Name</th>
      <th class="column-title">Value</th>
    </tr>
  </thead>
  <tbody>
    <tr class='even pointer' th:each="row: ${offerValuesRows}" id="tablerow">
      <td th:each="header: ${offerValuesHeader}" th:text="${row.get(header)}">
    </tr>
  </tbody>
</table>
```

Data specifications:

```
"data": {  
    "offerValuesHeader": [  
        "Name",  
        "Value"  
    ],  
    "offerValuesRows": [  
        { "Name": "Price (USD/MWh)", "Value": "25" },  
        { "Name": "Distribution rate (USD/MWh)", "Value": "C1 category: 27, C2 category: 29" },  
        { "Name": "Subscription price / day / place of consumption", "Value": "C1 category: 1.25, C2 category: 1.32" },  
        { "Name": "Period of validity of the price", "Value": "Validity time fixed price Monday, from the start date of delivery to the date of completion of delivery" },  
        { "Name": "Payment term", "Value": "90 days" }  
    ]  
}
```

Dynamic tables - repeatable table

This type of dynamic table allows you to display a table multiple times based on the elements of a generated list of objects. Here's an example of HTML template specifications:

Oferta Denumire oferta este aplicabila urmatoarelor locuri de consum:

Loc de consum	Distribuitor	Cod CLC	Modalitate introducere consum	Tip consum	Categorie consum (MWh)	Consum total anual (MWh)
Lorem ipsum	Distribuitor 1	123456	Lorem ipsum kghf	Lorem ipsum	Lorem ipsum	Lorem ipsum

Loc de consum	Distribuitor	Cod CLC	Modalitate introducere consum	Tip consum	Categorie consum (MWh)	Consum total anual (MWh)
Lorem ipsum	Distribuitor 2	131313	Lorem ipsum tryuty	Lorem ipsum	Lorem ipsum	Lorem ipsum

```

<p>Offer:</p>
<div th:each="type: ${consumptionPoints}">
<table>
    <thead>
        <tr>
            <th> Usage place </th>
            <th> Distributor </th>
            <th> CLC code </th>
            <th> Usage method input </th>
            <th> Usage type </th>
            <th> Usage category \n(MWh) </th>
            <th> Total usage \n(MWh) </th>
        </tr>
    </thead>
    <tbody>
        <tr th:if="${type.consumptionPoint.empty}">
            <td colspan="7" No information available here!
        </td>
        </tr>
        <tr th:each="consumptionPoint : ${type.consumptionPoint}\=">

```

```
<td><span  
th:text="${consumptionPoint.consumptionPoint}"> Usage place  
</span></td>  
      <td><span  
th:text="${consumptionPoint.distribuitor}"> Distributor  
</span></td>  
      <td><span th:text="${consumptionPoint.clcCode}">  
Cod CLC </span></td>  
      <td><span  
th:text="${consumptionPoint.consumerInputMethod}"> Usage  
method input </span></td>  
      <td><span  
th:text="${consumptionPoint.consumerType}"> Usage type  
</span></td>  
      <td><span  
th:text="${consumptionPoint.consumerCategory}"> Usage  
category \n(MWh) </span></td>  
      <td><span  
th:text="${consumptionPoint.totalAnnualConsumption}"> Total  
usage \n(MWh) </span></td>  
    </tr>  
  </tbody>  
</table>  
</div>
```

Data specifications:

```
"data": {  
  "consumptionPoints": [  
    {  
      "consumptionPoint": [  
        {  
          "consumptionPoint": "Lorem ipsum",
```

```
        "distribuitor": "Distributor 1",
        "clcCode": "123456",
        "consumerInputMethod": "Lorem ipsum",
        "consumerType": "Lorem ipsum",
        "consumerCategory": "Lorem ipsum",
        "totalAnnualConsumption": "Lorem ipsum"
    }
]
},
{
    "consumptionPoint": [
        {
            "consumptionPoint": "Lorem ipsum",
            "distribuitor": "Distributor 2",
            "clcCode": "131313",
            "consumerInputMethod": "Lorem ipsum ipsum",
            "consumerType": "Lorem ipsum",
            "consumerCategory": "Lorem ipsum",
            "totalAnnualConsumption": "Lorem ipsum"
        }
    ]
}
]
```

Dynamic sections

Dynamic sections allow you to display specific content based on certain conditions. For example, you can display a paragraph only when a certain condition is met. Here's an example of HTML template specifications:

PJ section, visible only if pjClient = true

```
<span th:if="${pjClient==true}">
    <p><b>PJ section, visible only if pjClient = true</b>
</p>
    <p><span th:text="${termTechnicalServices}"></span></p>
</span>
<span th:if="${pjClient==false}">
    <p><b>PF section, visible only if pjClient = false</b>
</p>
    <p><span th:text="${termInsuranceServices}"></span></p>
</span>
```

Data specifications:

```
"data": {
    "pjClient": true
}
```

Images

You can include images in your final document by referencing them in the template. Here's an example of HTML template specifications:

Thank you,
LOREM IPSUM

John Smith
Administrator



Helen Smith
President



Test Company SRL, RO1234567

Hughes Michelle Sophie
Your function here,



```
<td class='align'></td>
```

Data specifications:

```
"data": {  
    "signature": "INSERT_BASE64_IMAGE"  
}
```

Barcodes

If you want to include a barcode, you can set the `includeBarcode` parameter to true.

For information on how to use barcodes and OCR, check the following section.

» [OCR plugin](#)

Lists

Lists are useful for displaying values from selected items in a checkbox as a bulleted list. Here's an example of HTML template specifications:

Income source:

- Income 1
- Income 2
- Income 3
- Income 4

```
<div th:if="${incomeSource != null}">
    <h3>Income source:</h3>
    <ul>
        <li th:each="item : ${incomeSource}" th:text="${item}"></li>
    </ul>
</div>
```

Data specifications:

```
{
    "data": {
        "incomeSource": [
            "Income 1",
            "Income 2"
        ]
    }
}
```

```
    "Income 2",
    "Income 3",
    "Income 4"
]
}
```

Examples



Download a PDF sample generated based on the HTML example, [here](#).

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Documents plugin / Using the plugin / Uploading a new document

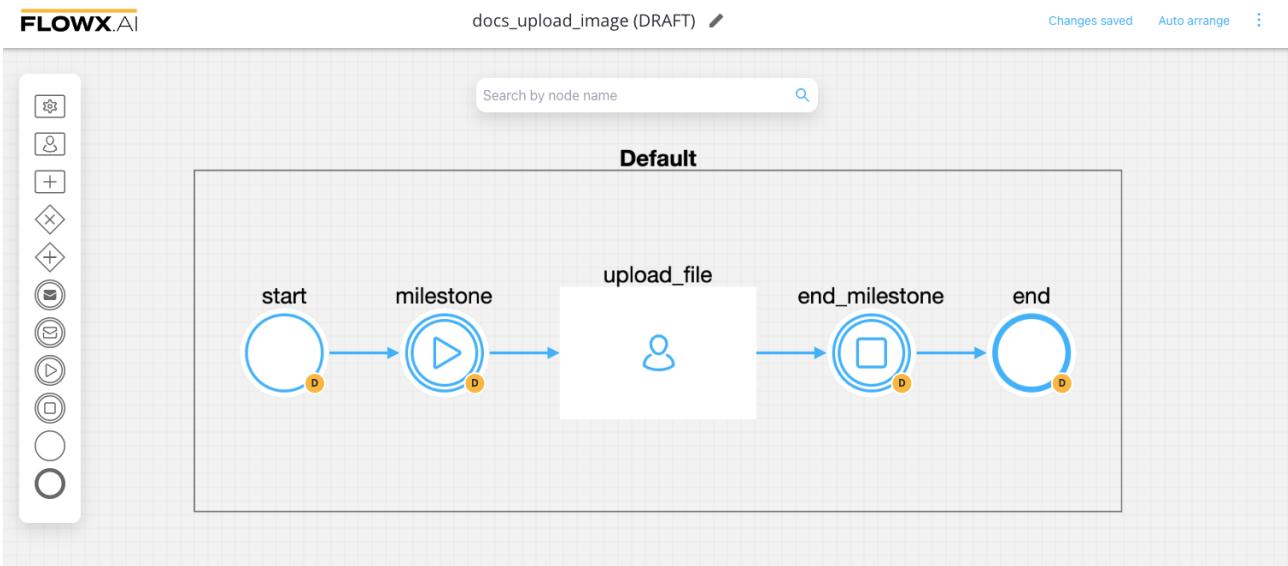
You can integrate document upload into a

The fallback content to display on prerendering by adding a user task node with an **Upload action**. This allows users to interact with the process and choose which file to upload.

(!) INFO

User task

The fallback content to display on prerendering enable you to define and configure UI templates and actions for specific template config nodes, such as an upload file button.



To upload a document using a process, follow the next steps.

Defining the process

1. Create a process definition.
2. Add the necessary nodes, including **start/end nodes**, **start/end milestone nodes**, and a **user task node**.
3. Configure the user task node:
 - Configure the node settings.
 - Configure the upload action, including topics, document type, and folder.

- (UI) Configure the upload button.

Configuring the process definition

User task node

Node Config

- **Swimlane:** Choose a swimlane (if there are multiple swimlanes in the process) to restrict access to specific user roles. If there's only one swimlane, the value is "Default".
- **Stage:** Assign a stage to the node.
- **Topic Name:** Specify the topic name where the process engine listens for the response. This topic should be added to the platform and match the topic naming rule for the engine to listen to it. The default value is `ai.flowx.updates.qa.persist.files.v1`, extracted from `KAFKA_TOPIC_DOCUMENT_PERSIST_IN`.

⚠ CAUTION

A naming pattern must be defined in the

The fallback content to display on prerendering configuration to use the specified topics. It's important to ensure that all events starting with the configured pattern are consumed by the Engine. For example, the `KAFKA_TOPIC_PATTERN` is the topic name pattern where the Engine listens for incoming

The fallback content to display on prerendering events.

- **Key Name:** This key will hold the result received from the external system. If the key already exists in the process values, it will be overwritten.

Node: **upload_file** (ID: 727115)

Node Config	Actions				
General Config Node name <input type="text" value="upload_file"/> Can go back? <input checked="" type="checkbox"/>					
Flow Names <input type="text" value="Leave empty if this node is to be included in all flows"/>					
Swimlane <input type="text" value="Default"/> <input type="text" value="Stage"/>					
Response Timeout <input type="text" value="Response Timeout (PT30S)"/>					
Data stream topics <input checked="" type="button" value="Custom"/> <input type="button" value="From integration"/> <table border="1"><tr><td>Topic Name</td><td>Key Name</td></tr><tr><td>ai.flowx.updates.qa.persist.files.v1</td><td>files</td></tr></table>	Topic Name	Key Name	ai.flowx.updates.qa.persist.files.v1	files	
Topic Name	Key Name				
ai.flowx.updates.qa.persist.files.v1	files				

[Add stream](#)

Task Management

Update task management? 

 Force Task Management Plugin to update information about this process after this node.

Actions

Actions edit

- **Action Type:** Set it to Upload File.
- **Trigger Type:** Choose Manual to allow user-triggered action.
- **Required Type:** Set it as Optional.
- **Reputable:** Check this option if the action can be triggered multiple times.
- **Autorun Children:** When enabled, the child actions defined as mandatory and automatic will run immediately after the parent action is finalized.

Action Edit

ID: 725773

Name

upload_file

Order

1

Timer Expression

Upload File

Automatic Manual

Mandatory Optional

Repeatable

Autorun Children?

Allow BACK on this action?

Parameters

- Topics:** Set it to `ai.flowx.in.document.persist.v1`, extracted from `KAFKA_TOPIC_DOCUMENT_PERSIST_IN`.
- Document Type:** Set it to BULK.
- Folder:** Allows you to configure a value by which the file will be identified in the future.
- Advanced Configuration (Show Headers):** Represents a JSON value that will be sent in the headers of the Kafka message.

!(INFO)

Kafka topic names can be customized by overwriting the following environment variables during deployment:

- `KAFKA_TOPIC_DOCUMENT_PERSIST_IN` - default value:
`ai.flowx.in.qa.document.persist.v1`
- `KAFKA_TOPIC_DOCUMENT_PERSIST_OUT` - default value:
`ai.flowx.updates.qa.document.persist.v1`

The above examples of topics are extracted from an internal testing environment. When setting topics for other environments, follow this pattern:
`ai.flowx.updates.{{environment}}.document.persist.v1`.

Parameters

Topics

```
ai.flowx.in.qa.document.persist.v1
```

 Replace Values

Document Type

```
BULK
```

 Replace Values

Folder

```
1234_${processInstanceId}
```

 Replace Values

Advanced configuration

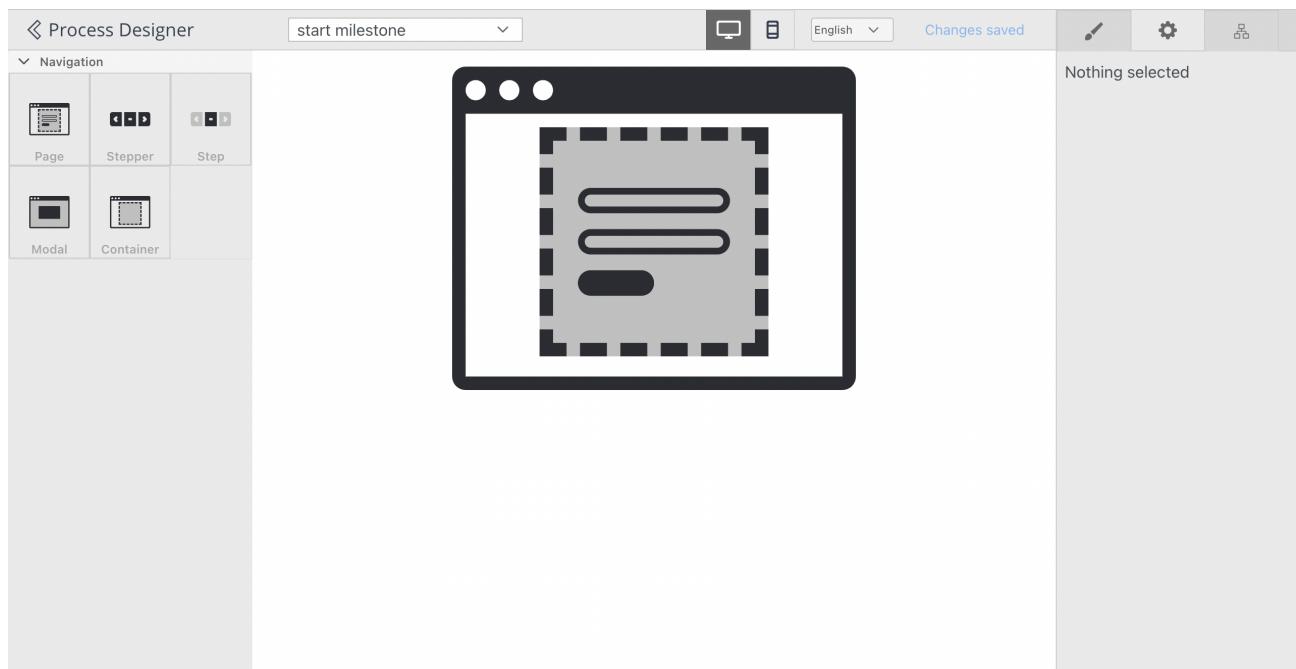
Show Headers

Data to send

Milestone nodes

You can configure start and end milestone nodes before and after the user task. Additionally, you can add a modal template (e.g., a **Page**) to the start milestone

node to display a modal screen, as shown in the example above.



Receiving the reply

The reply body is expected to contain the following values:

- **customId**: The client ID.
- **fileId**: The ID of the file.
- **documentType**: The document type.
- **minioPath**: The path where the uploaded file is saved. It represents the location of the file in the storage system, whether it's a MinIO path or an S3 path, depending on the specific storage solution.
- **downloadPath**: The download path for the uploaded file. It specifies the location from where the file can be downloaded.
- **noOfPages**: The number of pages in the document.

! INFO

You can view the response by accessing the **Audit log** menu.

Audit log details

Event: process instance, message receive, 13 Oct 2022 at 2:46 PM

Url: ai.flowx.updates.qa.document.persist.v1

Body:

```
1  {"customId": "1234_727605", "fileId": 4718, "documentType": "BULK", "documentLabel": null,
  "minioPath": "bucket-path-qa-process-id-727605/1234_727605/4718_BULK.png",
  "downloadPath": "internal/files/4718/download", "noOfPages": null, "error": null}
```

```
{  
  "customId" : "1234_727605",  
  "fileId" : 4718,  
  "documentType" : "BULK",  
  "documentLabel" : null,  
  "minioPath" : "bucket-path-qa-process-id-
```

```
727605/1234_726254/4718_BULK.png",
  "downloadPath" : "internal/files/4714/download",
  "noOfPages" : null,
  "error" : null
}
```

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PLATFORM DEEP DIVE / Plugins / Custom Plugins / Documents plugin / Using the plugin / Converting documents to different formats

CAUTION

Currently, the supported conversion method is from **PDF** to **JPEG**.

Sending the request

To create a process that converts a document from PDF to JPEG format, follow these steps:

1. Create a process that includes a **Kafka send event** node and a **Kafka receive event** node. The **send node** is used to send the conversion request, and the **receive node** is used to receive the reply.

2. Configure the first node (**Kafka send event**) by adding a **Kafka send action**.

Here is an example:

The screenshot shows the FLOWX.AI platform interface. At the top, it displays the project name "pdf_to_jpeg (DRAFT)" and various status indicators. Below the header is a toolbar with icons for creating nodes like start, end, and various message types. A search bar labeled "Search by node name" is also present.

The main workspace shows a workflow diagram titled "Default". It consists of four nodes: "start", "convert_request", "convert_reply", and "end". The "convert_request" node is highlighted with a yellow border and contains a small icon of an envelope. Arrows connect the nodes in sequence: start → convert_request → convert_reply → end.

A modal dialog is open for the "convert_request" node, titled "Node: convert_request (ID: 725262)". This dialog has two tabs: "Node Config" and "Actions", with "Actions" being the active tab. Under "Actions", there is a section for "Kafka Send Action" which is currently selected. The "Kafka Send Action" dropdown menu is open, showing "Kafka Send Action" as the active option. There are also checkboxes for "Automatic" (checked) and "Mandatory" (checked).

3. Specify the **Kafka topic** where you want to send the conversion request:

Parameters

Custom

From integration

Topics

```
ai.flowx.in.qa.document.convert.v1
```

4. Fill in the body of the message request:

Message

```
1 { "fileId": 4152, "to": "image/jpeg" }
```

- `fileId`: The file ID that will be converted
- `to`: The file extension to convert to (in this case, "jpeg").

INFO

You can set the Kafka topic names by overwriting the following environment variables during deployment:

- `KAFKA_TOPIC_FILE_CONVERT_IN` - default value:
`ai.flowx.in.qa.document.convert.v1` - the topic that listens for conversion requests from the engine

- `KAFKA_TOPIC_FILE_CONVERT_OUT` - default value:
`ai.flowx.updates.qa.document.convert.v1` - the topic on which the engine expects the reply

The examples provided above are extracted from an internal testing environment. When setting topics for other environments, use the pattern `ai.flowx.updates.{{environment}}.document.convert.v1`.

CAUTION

Make sure to use an outgoing topic name for the reply that matches the pattern configured in the

The fallback content to display on prerendering , as it listens for messages on topics with specific names.

Receiving the reply

INFO

You can view the response by accessing the **Audit log** menu.

The response will be sent to the outgoing Kafka topic (defined on the Kafka receive event node) and can be accessed as follows:

Node: convert_reply (ID: 725260)**Node Config****General Config**

Node name

convert_reply

Can go back?

Swimlane

Default



Stage

**Response Timeout**

Response Timeout (PT30S)

Data stream topics**Custom****From integration**

Topic Name

ai.flowx.updates.qa.document.convert.v1

Key Name

jpegFiles

**Add stream****Values expected in the reply body:**

- **customId**: The client ID.
- **fileId**: The file ID.
- **documentType**: The document type.
- **documentLabel**: The document label (if available).
- **minioPath**: The path where the converted file is saved. It represents the location of the file in the storage system, whether it's a MinIO path or an S3 path, depending on the specific storage solution.
- **downloadPath**: The download path for the converted file.
- **noOfPages**: The number of pages in the converted file (if available).
- **error**: Any error message in case of an error during the conversion process.

Audit log details

Event: process instance, message receive, 13 Oct 2022 at 4:15 PM

Url: ai.flowx.updates.qa.document.convert.v1

Body:

```
1  {"customId":"1234_727705","fileId":4152,  
 "documentType":"BULK","documentLabel":null,  
 "minioPath":"qualitance-dev-paperflow-qa-process-id-727705  
 /1234_727705/4722_BULK.jpg","downloadPath":"internal/  
 files/4152/download","noOfPages":null,"error":null}
```

cess ir
s

b40-8

b40-8

b40-8

flowx.ai

Process instance

Start

T35btaaz-ab67-4e7a-db40-8

Response:

```
{  
 "customId": "1234_727705",
```

```
"fileId": 4152,  
"documentType": "BULK",  
"documentLabel": null,  
"minioPath": "qualitance-dev-paperflow-qa-process-id-  
727705/1234_727705/4152_BULK.jpg",  
"downloadPath": "internal/files/4152/download",  
"noOfPages": null,  
"error": null  
}
```

Please note that the actual values in the response will depend on the specific conversion request and the document being converted.

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Documents plugin / Using the plugin / Splitting a document

You can split a document into multiple parts using the Documents Plugin. This feature is useful, for example, when a user uploads a bulk scanned file that needs to be separated into separate files.

Sending the request

To split a document, follow these steps:

1. Create a process and add a **Kafka send event node** and a **Kafka receive event node**. These nodes are used to send the request and receive the reply.
2. Configure the first node, Kafka send event node by adding a **Kafka send action**.

The screenshot shows the FLOWX.AI process editor interface. At the top, it displays the project name "split_docs (DRAFT)" and various status indicators. On the left, there is a sidebar with icons for settings, users, and other process elements. The main workspace shows a workflow diagram titled "Default" with four nodes: "start", "split_request", "split_reply", and "end". Arrows connect "start" to "split_request", "split_request" to "split_reply", and "split_reply" to "end". The "split_request" node is highlighted with a yellow border. Below the workspace, a modal window titled "Action Edit" is open for the "split_request" node. The modal contains fields for "Name" (set to "split_request"), "Order" (set to "1"), and a "Kafka Send Action" dropdown. It also includes checkboxes for "Automatic" (checked) and "Mandatory" (checked). A "Save" button is at the bottom right of the modal.

Node: **split_request** (ID: 727240)

Actions

Action Edit

ID: 728253

Name: split_request

Order: 1

Timer Expression

Kafka Send Action

Automatic Manual

Mandatory Optional

Save

3. Specify the **Kafka topic** to which you want to send the request.

Parameters

Custom

From integration

Topics

```
ai.flowx.in.document.split.v1
```

4. Fill in the body message request:

Message

```
1  {
2      "fileId":4742,
3      "parts": [
4          {
5              "documentType": "BULK",
6              "customId": "1234_759769",
7              "pagesNo": [1,2]
8          }
9      ]
10 }
```

Advanced configuration

Show Headers

```
1  {"processInstanceId": ${processInstanceId}}
```

- **fileId**: The ID of the file to be split.
- **parts**: A list containing information about the expected document parts.
 - **documentType**: The document type.
 - **customId**: The client ID.

- **shouldOverride**: A boolean value (true or false) indicating whether to override an existing document if one with the same name already exists.
- **pagesNo**: The pages that you want to separate from the document.

(!) INFO

You can customize the Kafka topic names by overwriting the following environment variables during deployment:

`KAFKA_TOPIC_DOCUMENT_SPLIT_IN` - default value:

`ai.flowx.in.qa.document.split.v1` - this is the topic that listens for the request from the engine

`KAFKA_TOPIC_DOCUMENT_SPLIT_OUT` - default value:

`ai.flowx.updates.qa.document.split.v1` - this is the topic on which the engine expects the reply

The above examples of topics are extracted from an internal testing environment. When setting topics for other environments, follow this pattern:

`ai.flowx.updates.{{environment}}.document.split.v1`.

⚠ CAUTION

The Engine listens for messages on topics with specific names. Make sure to use an outgoing topic name that matches the pattern configured in the Engine.

Receiving the reply

You can view the response by accessing the Audit log menu. The reply will be sent to the Kafka topic specified in the Kafka receive event node.

Node: **split_reply** (ID: 728352)

Node Config

General Config

Node name

Can go back?

Swimlane



Response Timeout

Data stream topics

Topic Name

Key Name



The response body will contain the following values:

- **docs**: A list of documents.
 - **customId**: The client ID.
 - **fileId**: The ID of the file.
 - **documentType**: The document type.
 - **minioPath**: The storage path for the document.
 - **downloadPath**: The download path for the document.
 - **noOfPages**: The number of pages in the document.

Audit log details

Event: process instance, message receive, 25 Oct 2022 at 2:36 PM

Url: ai.flowx.updates.qa.document.split.v1

Body:

```
1 {"docs": [{"customId": "1234_759769", "fileId": 4743, "documentType": "BULK", "documentLabel": null, "minioPath": "qualitance-dev-paperflow-qa-process-id-759770/1234_759769/4743_BULK.pdf", "downloadPath": "internal/files/4743/download", "noOfPages": 2, "error": null}], "error": null}
```

Here's an example of the response JSON:

```
{  
  "docs": [  
    {
```

```
"customId": "1234_759769",
"fileId": 4743,
"documentType": "BULK",
"documentLabel": null,
"minioPath": "qualitance-dev-paperflow-qa-process-id-759770/1234_759769/4743_BULK.pdf",
"downloadPath": "internal/files/4743/download",
"noOfPages": 2,
"error": null
}
],
"error": null
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Documents plugin / Using the plugin / Updating and deleting document files

The documents plugin provides functionality for updating and deleting files associated with documents. You can update existing files or remove them from a document.

Updating files

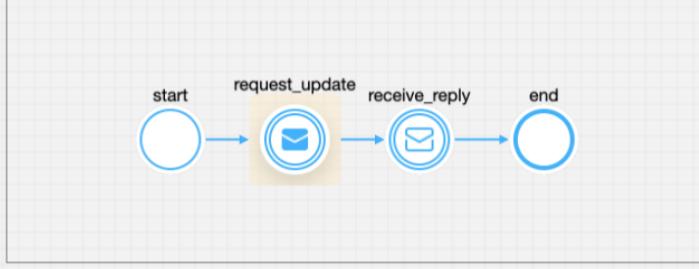
Sending the request

To update files, follow these steps:

1. Create a process and add a **Kafka send event node** and a **Kafka receive event node** (one for sending the request and one for receiving the reply).
2. Configure the first node (Kafka send event) by adding a **Kafka send action**.

doc_update (DRAFT) 

Changes saved 



Default

start → request_update → receive_reply → end

Node: **request_update** (ID: 763601)

Node Config Actions

Actions +  update_document + 

Action Edit

ID: 762019

Name: update_document

Order: 1

Timer Expression:

Kafka Send Action 

Automatic Manual

Mandatory Optional

Repeatable

3.Specify the **Kafka topic** to send the request to.

Parameters

Custom From integration

Topics

```
ai.flowx.in.qa.document.update.file.v1
```

4. Fill in the body of the request message:

Message

```
1  {
2    "fileId": 4749,
3    "customId": "test_763879"
4 }
```

Advanced configuration

Show Headers

```
1  {"processInstanceId": ${processInstanceId}}
```

- **fileId**: The ID of the file.
- **customId**: The client ID.
- **documentType**: The document type.



INFO

Kafka topic names can be customized by overwriting the following environment variables during deployment:

- `KAFKA_TOPIC_FILE_UPDATE_IN` - default value:
`ai.flowx.in.qa.document.update.file.v1`
- `KAFKA_TOPIC_FILE_UPDATE_OUT` - default value:
`ai.flowx.updates.qa.document.update.file.v1`

The above examples of topics are extracted from an internal testing environment, when setting topics for other environments, follow the next pattern, for example, `ai.flowx.updates.{{environment}}.document.update.file.v1`.

CAUTION

Make sure to use an outgoing topic name that matches the pattern configured in the Engine, as the Engine listens for messages on topics with specific naming patterns.

Receiving the reply

Audit log details

Event: process instance, message receive, 26 Oct 2022 at 4:22 PM

Url: ai.flowx.updates.qa.document.update.file.v1

Body:

```
1  {"customId":"test_763879","fileId":4749,  
 "documentType":"BULK","documentLabel":null,  
 "minioPath":"qualitance-dev-paperflow-qa-process-id-763879  
 /test_763879/4749_BULK.pdf","downloadPath":"internal/  
 files/4749/download","noOfPages":null,"error":null}
```

Values expected in the reply body:

- customId = client ID
- fileId = file ID
- documentType = document type
- documentLabel = document label
- minioPath = minio path for the updated file
- downloadPath = download path for the updated file
- error = error description

Example:

```
{  
  "customId": "test_763879",  
  "fileId": 4749,  
  "documentType": "BULK",  
  "documentLabel": null,  
  "minioPath": "qualitance-dev-paperflow-qa-process-id-  
763879/test_763879/4749_BULK.pdf",  
  "downloadPath": "internal/files/4749/download",  
  "noOfPages": null,  
  "error": null  
}
```

Deleting files from a document

Used to delete files after bulk upload.

Sending the request

1. Create a process in which you add a **Kafka send event node** and a **Kafka receive event node** (one to send the request, one to receive the reply).
2. Configure the first node (Kafka send event) - add a **Kafka send action**.

FLOWX.AI delete_doc (DRAFT) Changes saved

Default

```
graph LR; start((start)) --> deleteRequest((delete_request)); deleteRequest --> receiveReply((receive_reply)); receiveReply --> end((end))
```

Node: **delete_request** (ID: 766633)

Node Config	Actions
<input type="button" value="Actions +"/> <input type="button" value="deleteDocument"/> <input type="button" value=""/>	<h3>Action Edit</h3> <p>ID: 765241</p> <p>Name <input type="text" value="deleteDocument"/></p> <p>Order <input type="text" value="1"/></p> <p>Timer Expression <input type="text"/></p> <p>Action Type: <input type="button" value="Kafka Send Action"/></p> <p>Execution Options:</p> <ul style="list-style-type: none"><input checked="" type="radio"/> Automatic <input type="radio"/> Manual<input checked="" type="radio"/> Mandatory <input type="radio"/> Optional<input type="checkbox"/> Repeatable

3. Add the **Kafka topic** where to send the request:

Parameters

Custom From integration

Topics

```
ai.flowx.in.qa.document.delete.file.v1
```

4. Fill in the body message request:

Message

```
1  {
2    "customId": "1234_763417",
3    "fileId": 4747,
4    "documentType": "BULK"
5 }
```

Advanced configuration

Show Headers

```
1 {"processInstanceId": ${processInstanceId}}
```

- fileId - the id of the file
- customId - the client ID
- documentType - document type

! **INFO**

Kafka topic names can be set by using (overwriting) the following environment variables in the deployment:

`KAFKA_TOPIC_FILE_DELETE_IN` - default value:

`ai.flowx.in.qa.document.delete.file.v1`

`KAFKA_TOPIC_FILE_DELETE_OUT` - default value:

`ai.flowx.updates.document.delete.file.v1`

The Engine is listening for messages on topics with names of a certain pattern, make sure to use an outgoing topic name that matches the pattern configured in the Engine. ...

Receiving the reply

Audit log details

Event: process instance, message receive, 26 Oct 2022 at 12:35 PM

Url: ai.flowx.updates.qa.document.delete.file.v1

Body:

```
1  {"customId":"1234_763417","fileId":4747,"documentType":"BULK",
  "error":null}
```

Values expected in the reply body:

- customId = client ID
- fileId = file ID
- documentType = document type
- error = error description

Example:

```
{  
  "customId": "1234_763417",  
  "fileId": 4747,  
  "documentType": "BULK",  
  "error": null  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Documents plugin / Using the plugin / Getting URLs for documents

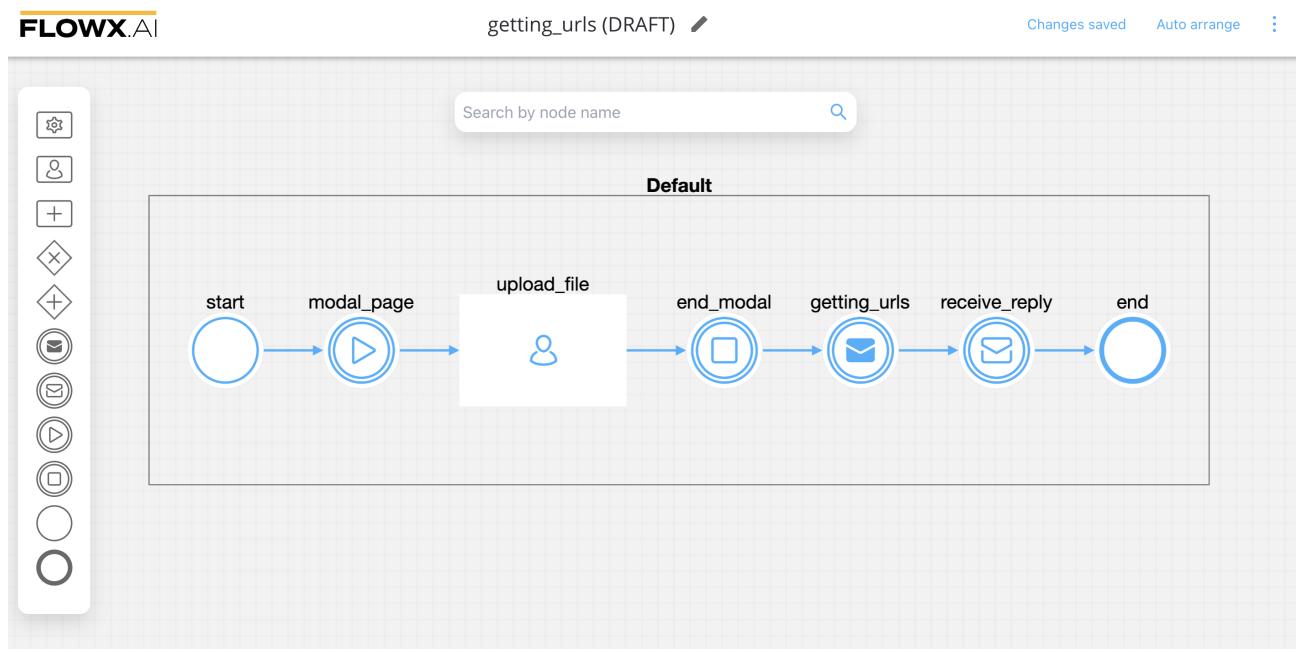
In certain scenarios, you may need to obtain URLs that point to uploaded documents to be used by other integrations. This requires adding a custom action to your process that requests the URLs from the Documents Plugin.

Sending the request

To retrieve document URLs and use them, for example, in the Notification Plugin to attach them to emails, follow the next steps:

1. Create a process and include the following nodes:

- a **Kafka Send Event Node**,
- a **Kafka Receive Event Node**
- a **User Task Node**
- **Start / End <ilestone Nodes** to **create a modal**



2. Configure the **User Task Node** and add an **Upload Action** to it.

Action Edit

ID: 769898

Name

upload_file_action

Order

1

Timer Expression

Upload File



Automatic Manual

Mandatory Optional

Repeatable

Autorun Children?

Allow BACK on this action?

Save

3. Configure the parameters for the **Upload Action**:

Parameters

Topics

```
ai.flowx.in.qa.document.persist.v1
```

 Replace Values

Document Type

```
#{processInstanceId}
```

 Replace Values

Folder

```
1234_#{processInstanceId}
```

 Replace Values

Advanced configuration

Show Headers

```
1 {"processInstanceId": ${processInstanceId}}
```

INFO

For more details on uploading a document and configuring an upload action, refer to the following sections:

Upload document

Upload action

4. Configure the Kafka Send Event Node by adding a **Kafka Send Action** and specifying the **Kafka topic** to send the request to:

Parameters

Custom From integration

Topics

ai.flowx.in.qa.document.urls.v1

5. Fill in the body of the request message for the action:

Message

```
1 ↴ {  
2 ↴   "types": [  
3 ↴     "${processInstanceId}", "${processInstanceId}"  
4 ↴   ]  
5 }
```

Advanced configuration

Show Headers

```
1 {"processInstanceId": ${processInstanceId}}
```

Save

- **types** - a list of document types

6. Configure the **Kafka Receive Event Node** by adding the kafka topic on which the response will be sent.

FLOWX.AI getting_urls (DRAFT) Changes saved Auto arrange ⋮

Default

```
graph LR; end_modal((end_modal)) --> getting_urls((getting_urls)); getting_urls --> receive_reply((receive_reply)); receive_reply --> end((end))
```

Search by node name 🔍

Node: **receive_reply** (ID: 766487) ▲ ✖

Node Config

Swimlane Default ▼

Stage ▼

Response Timeout

Response Timeout (PT30S)

Data stream topics

Custom From integration

Topic Name	Key Name
ai.flowx.updates.qa.document	receiveReply
 	

Save

! INFO

Kafka topic names can be set by using environment variables:

- `KAFKA_TOPIC_DOCUMENT_GET_URLS_IN` -
`ai.flowx.in.qa.document.urls.v1` - the topic that listens for the request from the engine
- `KAFKA_TOPIC_DOCUMENT_GET_URLS_OUT` -
`ai.flowx.updates.qa.document.urls.v1` - the topic on which the engine will expect the reply

The example topic names above are from an internal testing environment.

When setting topics for other environments, follow this pattern:

`ai.flowx.updates.{{environment}}.document.urls.v1`.

⚠ CAUTION

The Engine listens for messages on topics with specific naming patterns.

Ensure that your outgoing topic name matches the pattern configured in the Engine.

Receiving the reply

Audit log details

Event: process instance, message receive, 27 Oct 2022 at 12:26 PM

Url: ai.flowx.updates.qa.document.urls.v1

Body:

```
1  [{"success":true,"fullName":"1234_771853/4752_771853.pdf",
  "fileName":"1234_771853/4752_771853","fileExtension":"pdf",
  "url":"http://minio:9000/
  qualitance-dev-paperflow-qa-process-id-771853/1234_771853/
  4752_771853.pdf?X-Amz-Algorithm=AWS4-HMAC-SHA256&
  X-Amz-Credential=minio%2F20221027%2Fus-east-1%2Fs3%2Faws4_r
  equest&X-Amz-Date=20221027T092616Z&X-Amz-Expires=604800&
  X-Amz-SignedHeaders=host&
  X-Amz-Signature=76885166e179263cfabaf00d6cd57ca38d08d31f8f0
  502b3d89d160183c92b56"}]
```

The response body is expected to contain the following values:

```
[  
 {  
   "success": true,
```

```
        "fullName": "1234_771853/4752_771853.pdf",
        "fileName": "1234_771853",
        "fileExtension": "pdf",
        "url": "
<http://SOME_URL/1234_771853/4752_771853.pdf?X-Amz-
Algorithm=SOME_ALGORITHM&X-Amz-Credential=SOME_CREDENTIAL&X-
Amz-Date=20210223T113621Z&X-Amz-Expires=604800&X-Amz-
SignedHeaders=host&X-Amz-Signature=>"  

    }  

]
```

- **success**: A boolean indicating whether the document exists and the URL was generated successfully.
- **fullName**: The full name of the document file, including the directory path.
- **fileName**: The name of the document file without the extension.
- **fileExtension**: The extension of the document file.
- **url**: The full download URL for the document.

Was this page helpful?

PLATFORM DEEP DIVE / Plugins /

Custom Plugins / Documents

plugin / Using the plugin / Listing stored files

If you are using an S3-compatible cloud storage solution such as **MinIO**, the stored files are organized into buckets. A bucket serves as a container for objects stored

in Amazon S3. The Documents Plugin provides a REST API that allows you to easily view the files stored in the buckets.

To determine the partitioning strategy used for storing generated documents, you can access the following key in the configuration:

```
application.file-storage.partition-strategy
```

```
application:  
  defaultLocale: en  
  supportedLocales: en, ro  
  jaeger.prefix: document  
  #fileStorageType is the configuration that activates one  
  FileContentService implementation. Valid values: minio /  
  fileSystem  
  file-storage:  
    type: s3  
    disk-directory: MS_SVC_DOCUMENT  
    partition-strategy: NONE
```

The `partition-strategy` property can have two possible values:

- **NONE**: In this case, documents are saved in separate buckets for each process instance, following the previous method. **PROCESS_DATE**: Documents are saved in a single bucket with a subfolder structure based on the process date. For example: `bucket/2022/2022-07-04/process-id-xxxx/customer-id/file.pdf`.

REST API

The Documents Plugin provides the following REST API endpoints for interacting with the stored files:

List buckets

GET `documentURL/internal/storage/buckets`

This endpoint returns a list of available buckets.

List Objects in a Bucket

GET `documentURL/internal/storage/buckets/BUCKET_NAME`

This endpoint retrieves a list of objects stored within a specific bucket. Replace `BUCKET_NAME` with the name of the desired bucket.

Download File

GET `documentURL/internal/storage/download`

This endpoint allows you to download a file by specifying its path or key.

Was this page helpful?

PLATFORM DEEP DIVE / Plugins /  **Custom Plugins /**  **Notifications**

plugin / Using the plugin / Managing notification templates

You can create and manage notification templates using

The fallback content to display on prerendering web app, by accessing the dedicated section.

The screenshot shows the FLOWX.AI Platform's sidebar navigation on the left, which includes sections for Media Library, Plugins (selected), Task Manager, All tasks, Hooks, Stages, Allocation rules, Out of office, Notification templates (selected), Document templates, General Settings, Generic Parameters, Integration management, Licensing, Access management (with子菜单Users, Roles, Groups), and Audit Log. At the bottom of the sidebar is a user profile for John Doe. The main content area is titled 'Notification Templates' and contains two tables: 'Drafts / In progress' and 'Published'. The 'Drafts / In progress' table has three entries:

Name	Version	Edited at	Edited by	Actions
Stunning Template	2	18 Oct 2022, 3:26 PM	John Doe	
Amazing Template	1	18 Oct 2022, 3:21 PM	Jane Doe	
Exquisite Template	1	18 Oct 2022, 3:18 PM	Bess Twishes	

The 'Published' table has three entries:

Name	Version	Published at	Published by	Actions
Cool Template	21	20 Sep 2022, 4:30 PM	John Doe	
Awesome Template	1	03 Aug 2022, 11:48 AM	Jane Doe	
Creative Template	1	08 Jun 2022, 11:11 AM	Bess Twishes	

Configuring a template

To configure a document template, first, you need to select some information stored in the **Body**:

1. **Type** - could be either MAIL or SMS notifications
2. **Forward on Kafka** - if this checkbox is ticked, the notification is not being sent directly by the plugin to the destination, but forwarded to another adapter (this is mandatory for SMS notifications templates, as they require an external adapter)
3. **Language** - choose the language for your notification template
4. **Subject** - enter a subject

The screenshot shows the FLOWX.AI platform interface for creating a notification template. The left sidebar contains navigation links for Processes, Content Management, Plugins, and General Settings. The main workspace is titled "Notifications Template - ExampleTemplate". It has tabs for "Body" (selected) and "Data model". The "Body" tab displays a rich text editor with a toolbar and a preview area. The preview area shows a mail template with the following content:

Subject: Contract [(\${firstInput})]

Content:

Salut

Salut #firstInput! #secondInput, ne bucurăm sa te avem alături!

Găsești toate detailele în brosura atașată acestui email.

At the bottom right of the preview area are "Save" and "Publish" buttons.

Editing the content

You can edit the content of a notification template by using the **WYSIWYG** editor embedded in the body of the notification templates body.

Configuring the data model

Using the

The fallback content to display on prerendering

, you can define key pair values (parameters) that will be displayed and reused in the editor. Multiple parameters can be added:

- STRING
- NUMBER
- BOOLEAN
- OBJECT
- ARRAY (which has an additional `item` field)

The screenshot shows a modal window titled "Documents Templates - ExampleTemplate". The window has two tabs at the top: "Body" and "Data model", with "Data model" being active. The "Data model" tab displays a form for defining attributes. The first attribute is named "firstInput" and its type is set to "STRING". A "Mandatory" toggle switch is turned on. At the bottom of the form are "Close" and "Save" buttons. To the right of the modal, a tooltip or dropdown menu is visible, showing a list item "New value" with a "Actions" button.

After you defined some parameters in the **Data Model** tab, you can type "#" in the editor to trigger a dropdown where you can choose which one you want to use/reuse.

The screenshot shows the configuration interface for a notification template. On the left, there is a sidebar with the following navigation items:

- Enumerations
- Substitution tags
- Content models
- Languages
- Source systems
- Plugins
 - Task Manager
 - All tasks
 - Hooks
 - Stages
 - Notification templates**
 - Document templates
- General Settings
 - Generic Parameters
 - Licensing
 - Access management
 - Users
 - Roles
- Groups

The main panel title is "Notifications Templates - Test_notification_template". It has tabs for "Body" (which is selected) and "Data model". The "Body" tab contains the following fields:

- Type: MAIL
- Forward on Kafka
- Language: Romanian-ro
- Romanian-ro subject
- A "Source" button with a clipboard icon.
- A rich text editor toolbar with various icons for text styling and layout.

» WYSIWYG Editor

Testing the template

You can use the test function to ensure that your template configuration is working as it should before publishing it.

The screenshot shows a configuration interface for a notification template. At the top, it says "Notifications Templates - Test_notification_template". Below that, there are tabs for "Body" (which is selected) and "Data model".
Type: MAIL (selected from a dropdown).
Forward on Kafka: An unchecked checkbox.
Language: Romanian-ro (selected from a dropdown).
Romanian-ro subject: A text input field containing "#test_data".
Source: A button with a document icon and the word "Source".
Toolbar: A rich-text editor toolbar with various icons for bold, italic, underline, etc., and a "Format" dropdown.

In the example above, some keys (marked as mandatory) were not used in the template, letting you know that you've missed some important information. After you enter all the mandatory keys, the notification test will go through:



Welcome!

Inbox x

Notification Test <notification@flowx.ai>

to me ▾

Welcome !

Reply

Forward

Other actions

When opening the contextual menu (accessible by clicking on the breadcrumbs button), you have multiple actions to work with the notifications templates:

- Publish template - publish a template (it will be then displayed in the **Published** tab), you can also clone published templates
- Export template - export a template (JSON format)
- Show history - (version history and last edited)

The screenshot shows a list of notification templates. A context menu is open over the second template in the list, which was last edited on 18 Oct 2022 at 3:26 PM by John Doe. The menu options are: Publish template, Export template, Show history, and Delete. The 'Delete' option is highlighted in red.

Edited at	Edited by
18 Oct 2022, 3:26 PM	John Doe
18 Oct 2022, 3:21 PM	Jane
Published at	Published by
20 Sep 2022, 4:30 PM	Jane Doe
03 Aug 2022, 11:48 AM	John Doe

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Notifications

plugin / Using the plugin / Sending a notification

The plugin can be used for sending many kinds of notifications such as emails or SMS notifications. It can be easily integrated in one of your business processes.

Configuring the process

To configure a business process that sends notifications you must follow the next steps:

- use
The fallback content to display on prerendering
web app to create/edit a **notification template**
- use
The fallback content to display on prerendering
to add a **Message send task** and a **Message received task**
- configure the needed **actions**
- configure the request body
- configure the needed **Kafka topics**

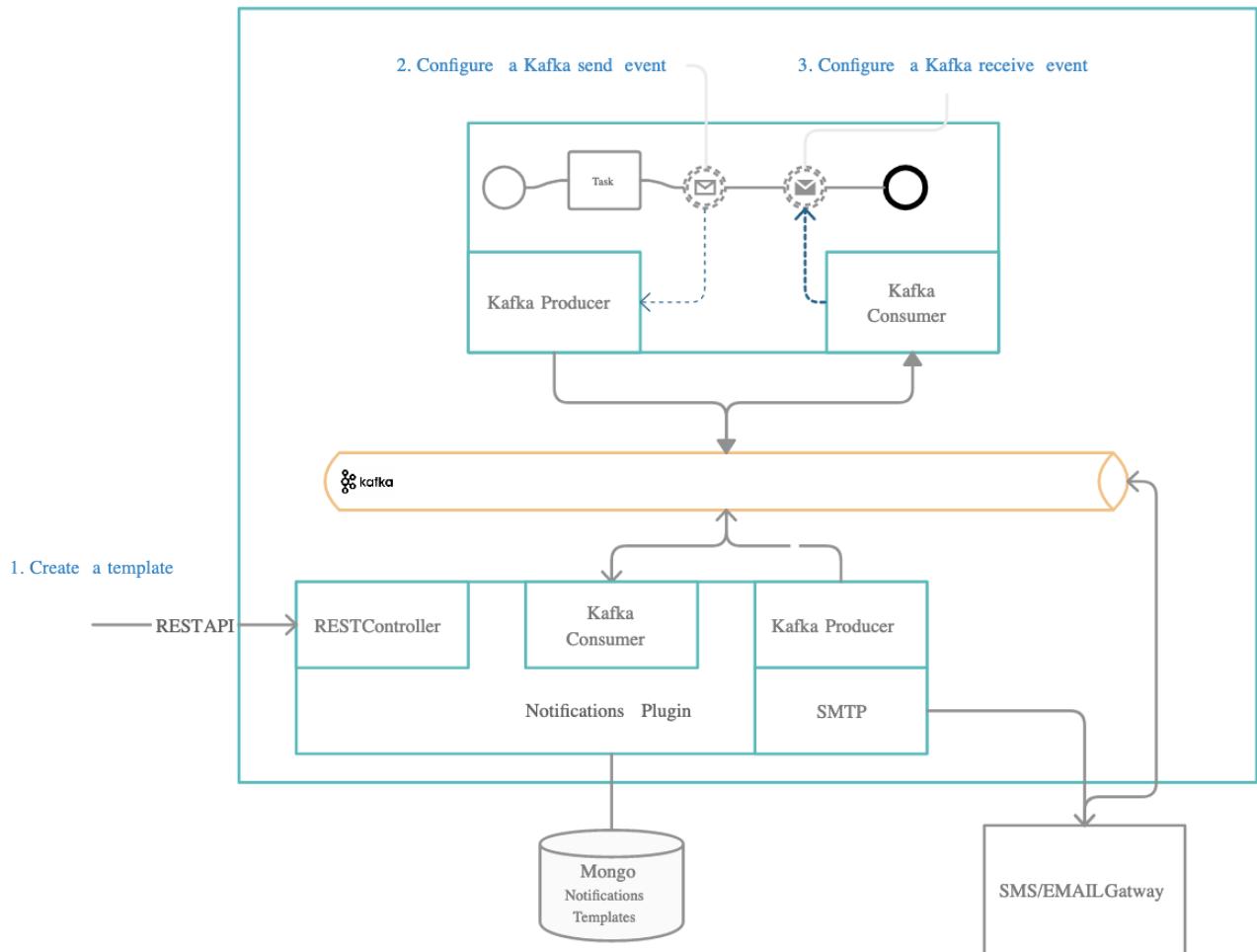
The following values are expected in the request body:

Key	Definition	
language	The language that should be used	Mandatory

Key	Definition	
templateName	The name of the notification template that is used	Mandatory
channel	Notification channel: SMS/MAIL	Mandatory
receivers	Notification receivers: email/phone number	Mandatory
senderEmail	Notification sender email	Optional
senderName	Notification sender name	Optional
attachments	Attachments that are sent with the notification template (only used for MAIL notifications)	Optional

(!) INFO

Check the detailed example below.

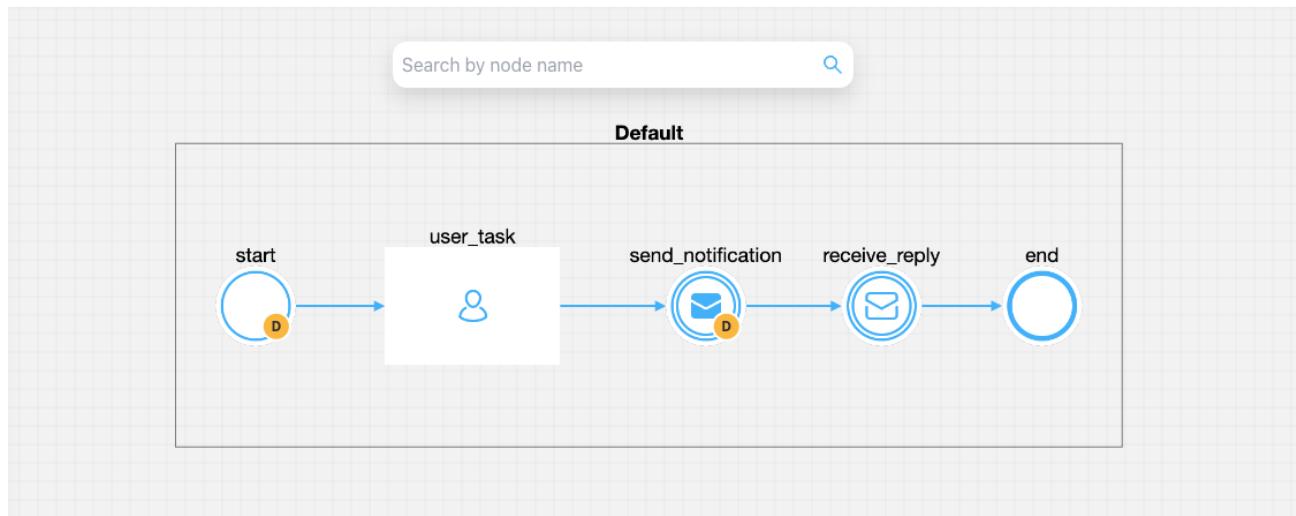


Define needed Kafka topics

Kafka topic names can be set by using environment variables:

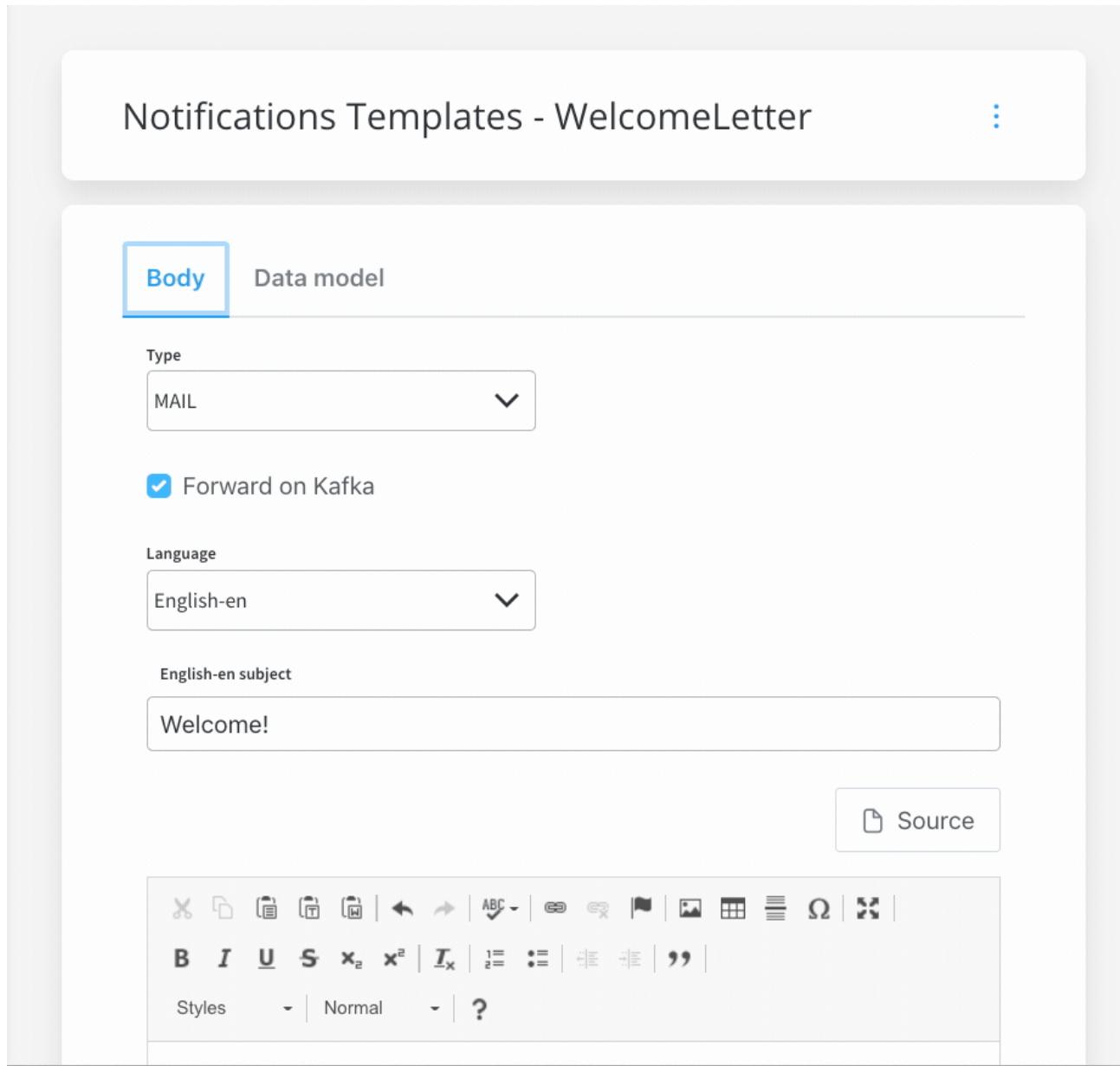
- `KAFKA_TOPIC_NOTIFICATION_INTERNAL_IN` - topic used to trigger the request to send a notification
- `KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT` - topic used for sending replies after sending the notification

Example: send a notification from a business flow



Let's pick a simple use-case, say we need to send a new welcome letter when we onboard a new customer. The steps are the following:

1. Configure the template that you want to use for the welcome email, see the previous section, [Managing notification templates](#) for more information.



2. Use the FLOWX.AI Designer to add a **Message send task** and a **Message received task**.
3. On the **Message send task** add a proper configuration to the action, the Kafka topic and request body message to be sent:
 - **Topics** - KAFKA_TOPIC_NOTIFICATION_INTERNAL_IN - flowx-notifications-qa

- **Message** (expected parameters):
 - templateName
 - channel
 - language
 - receivers
- **Headers** - it is always `{"processInstanceId": ${processInstanceId}"}`

Kafka Send Action

Automatic Manual

Mandatory Optional

Repeatable

Autorun Children?

Parameters

Custom From integration

Topics

```
flowx-notifications-qa
```

Message

```
1 {  
2   "templateName": "welcomeLetter",  
3   "channel": "MAIL",  
4   "language": "en",  
5   "receivers": ["john_doe@email.com"]  
6 }  
7  
8
```

Advanced configuration

Show Headers

```
1 {"processInstanceId": ${processInstanceId}}
```

Save

4. On the **Message received task** add the needed topic to receive the kafka response - **KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT** -
ai.flowx.updates.qa.notification.request.v1.

Node: **generate_notif_receive** (ID: 743211) ▼ X

Node Config

General Config

Node name

generate_notif_receive

Can go back?

Swimlane

Default

Stage

Response Timeout

Response Timeout (PT30S)

Data stream topics

Custom

From integration

Topic Name

ai.flowx.updates.qa.notification.send.v1

Key Name

receiveNotification



Add stream

Save

5. Run the process and look for the response (you can view it via the **Audit log**) or checking the responses on the Kafka topic defined at **KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT** variable.

Audit log details

Event: process instance, message receive, 19 Oct 2022 at 5:24 PM

Url: ai.flowx.updates.qa.notification.request.v1

Body:

```
1 {"identifier":null,"templateName":"welcomeLetter","language":"en","error":null}
```

7b89870...
dit Log
7442261!
7442261!
7442261!
7442261!

Process Instance

Message send

57b89870-dc1c-4e6e-87f0-3ff7442261!

Response example at **KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT**:

```
{  
  "identifier": null,  
  "templateName": "welcomeLetter",  
  "language": "en",  
  "error": null  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Notifications plugin / Using the plugin / Sending an email with attachments

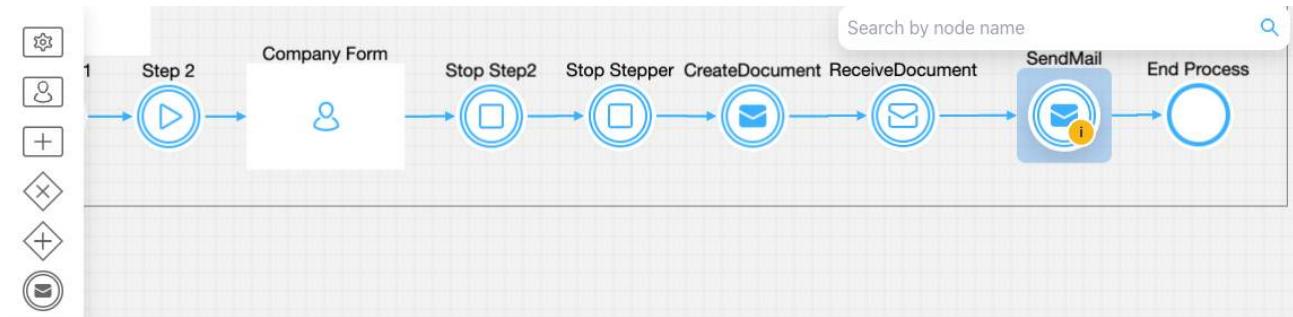
To use the notification plugin for sending emails with attachments, you must define the same topic configuration as for sending regular notifications. A notification template must be created, and the corresponding Kafka topics must be defined.

» [Send a notification](#)

Defining process actions

Example: send an email notification with attached files from a business flow

Let's pick a simple use-case. Imagine we need to send a copy of a contract signed by a new customer. Before setting the action for the notification, another action must be defined, so the first one will save the new contract using the documents plugin.



Node: **SendMail** (ID: 479601)

Node Config	Actions
<div style="display: flex; align-items: center;"> Actions + sendemail + ✖ </div>	<div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p>Message</p> <pre> 1 { 2 "processInstanceId" : "\${processInstanceId}", 3 "templateName": "Academy_Mail_Template", 4 "channel": "MAIL", 5 "receivers": ["\${application.company.email}"], 6 "language": "en-US", 7 "contentParams": { 8 "firstInput": "\${application.company.id}", 9 "secondInput": "\${application.client.FirstName}" 10 }, 11 "attachments": [12 { 13 "path": "\${generatedDocs.generatedFiles.1234.AcademyTemplate.minioPath}", 14 "filename": "\${generatedDocs.generatedFiles.1234.AcademyTemplate.documentType}" 15 } 16 } </pre> </div>

» Uploading a new document

The steps for sending the notification are the following:

Step 1: Configure the template that you want to use for the email, see the [Managing notification templates](#) section for more information.

Step 2: Check that the needed topics are defined correctly on the following environment variables:

KAFKA_TOPIC_NOTIFICATION_INTERNAL_IN

KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT

Step 3: Use the

The fallback content to display on prerendering
to add a new **Kafka send event** action to the correct node in the process definition.

Step 4: Add the proper configuration to the action, the Kafka topic and message to be sent.

The message to be sent to Kafka will look something like:

```
{  
  "templateName" : "contractCopy",  
  "identifier" : "text",  
  "language": "en",  
  "receivers" : [ "someone@somewhere.com" ],  
  "contentParams" : {  
    "clientId" : "clientId",  
    "firstName" : "first",  
    "lastName" : "last"  
  },  
  "attachments" : [ {  
    "filename" : "contract",  
    "path" : "MINIO_BUCKET_PATH/contract.pdf"  
  } ]  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / 📦 Custom Plugins / 📦 Notifications plugin / Using the plugin / Forward notifications to an external system

If the Notification service is not directly connected to an SMTP / SMS server and you want to use an external system for sending the notifications, you can use the notification plugin just to forward the notifications to your custom implementation.

Define needed Kafka topics

Kafka topic names can be set by using environment variables:

- `KAFKA_TOPIC_NOTIFICATION_INTERNAL_IN` - topic used to trigger the request to send a notification
- `KAFKA_TOPIC_NOTIFICATION_EXTERNAL_OUT` - the notification will be forwarded on this topic to be handled by an external system
- `KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT` - topic used for sending replies after sending the notification

Example: send a notification from a business flow

Let's pick a simple use case. Imagine we need to send a new welcome letter when we onboard a new customer. You must follow the next steps:

1. Configure the **template** that you want to use for the welcome email, use the **WYSIWYG Editor**

 CAUTION

Make sure that the **Forward on Kafka** checkbox is ticked, so the notification will be forwarded to an external adapter.

2. Configure the data model for the template.
3. To configure a document template, first, you need to define some information stored in the **Body**:
 - **Type** - MAIL (for email notifications)
 - **! Forward on Kafka** - if this box is checked, the notification is not being sent directly by the plugin to the destination, but forwarded to another adapter
 - **Language** - choose the language for your notification template
 - **Subject** - enter a subject

Notifications Templates - WelcomeLetter

⋮

[Body](#) [Data model](#)

Type

MAIL

Forward on Kafka

Language

English-en

English-en subject

Welcome!

 Source

Hi, #firstName #lastName , this is a notification!

From: #senderName

#senderEmail

body p span

[Save](#)

[Publish](#)

Notifications Templates - WelcomeLetter

Body Data model

Name	Type	Mandatory	Actions
lastName	STRING	false	
firstName	STRING	false	
senderName	STRING	false	
senderEmail	STRING	false	

4. Use the FLOWX.AI Designer to create a process definition.
5. Add a **Kafka send event node** and a **Kafka receive event node** (one to send the request, one to receive the reply).
6. Check if the needed topic (defined at the following environment variable) is configured correctly: `KAFKA_TOPIC_NOTIFICATION_INTERNAL_IN`.
7. Add the proper configuration to the action, the Kafka topic, and the body message.

Kafka Send Action ▼

Automatic Manual

Mandatory Optional

Repeatable

Autorun Children?

Parameters

Custom From integration

Topics

flowx-notifications-qa

Message

```
1  {
2    "templateName": "welcomeLetter",
3    "channel": "MAIL",
4    "language": "en",
5    "receivers": ["john_doe@email.com"]
6  }
7
8
```

Advanced configuration

Show Headers

```
1  {"processInstanceId": ${processInstanceId}}
```

INFO

Forward on Kafka option will forward the notification to an external adapter, make sure the needed Kafka topic for forwarding is defined/overwritten using the following environment variable: `KAFKA_TOPIC_EXTERNAL_OUT`.

7. Run the process and look for the response (you can view it via the **Audit log**) or by checking the responses on the Kafka topic

The screenshot shows a modal window titled "Audit log details". Inside, there's a section for an "Event: process instance, message receive, 19 Oct 2022 at 5:24 PM" and a URL "Url: ai.flowx.updates.qa.notification.request.v1". Below this, a "Body:" section contains a JSON object:

```
1  {"identifier":null,"templateName":"welcomeLetter","language":"en","error":null}
```

At the bottom of the modal, there are three buttons: "Process Instance", "Message send", and a button with the ID "57b89870-dc1c-4e6e-87f0-3ff7442261". The background of the main application shows a list of audit logs with IDs like 7b89870..., 7442261..., and 7442261....

Response example at `KAFKA_TOPIC_NOTIFICATION_INTERNAL_OUT`:

```
{  
  "templateName": "welcomeLetter",  
  "receivers": [
```

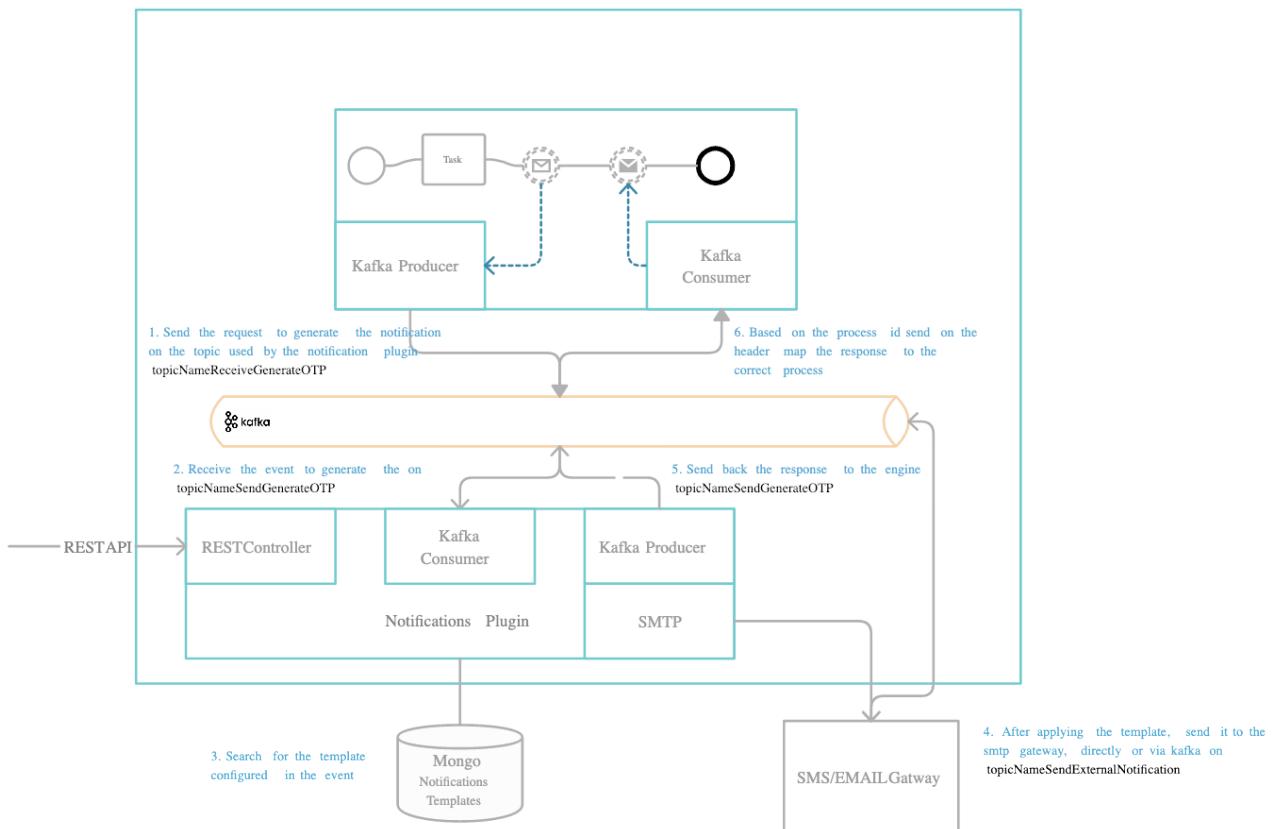
```
    "john.doe@mail.com"  
],  
"channel": "MAIL",  
"language": "en"  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Notifications plugin / Using the plugin / OTP flow / Generate OTP

There are some cases when you will need to generate an OTP (One Time Password) from a business flow, for example when validating an email account.

The notifications plugin handles both the actual OTP code generation and sending the code to the user using a defined [notification template](#).



Define needed Kafka topics

Kafka topic names can be set by using environment variables:

- `KAFKA_TOPIC_OTP_GENERATE_IN`
- `KAFKA_TOPIC_OTP_GENERATE_OUT` - after the OTP is generated and sent to the user, this is the topic used to send the response back to the Engine.

⚠ CAUTION

The Engine is listening for messages on topics with names of a certain pattern, make sure to use an outgoing topic name that matches the pattern configured in the Engine.

Request to generate an OTP

Values expected in the request body:

- `templateName`: the name of the notification template that is used (created using the [WYSIWYG editor](#))
- `channel`: notification channel: SMS / MAIL
- `recipient`: notification receiver: email / phone number
- notification template content parameters (for example, `clientId`): parameters that should be replaced in the [notification template](#)

Parameters

Custom From integration

Topics

```
ro.flowx.qa.notification.otp.in.generate.v1
```

Message

```
1  {
2      "templateName": "otpMail",
3      "channel" : "MAIL",
4      "language": "en-US",
5      "clientId" : "${application.client.identificationData.personalIdentificationNumber}",
6      "recipient" : "${application.client.contactData.email.emailAddress}",
7      "contentParams":
8          {
9              "clientId": "${application.client.identificationData.personalIdentificationNumber}"
10         }
11     }
12 }
13 }
```

Advanced configuration

Show Headers

```
1  {"processInstanceId": ${processInstanceId}}
```

Response from generate OTP

Values expected in the reply body:

- processInstanceId = process instance ID
- clientId = the client id (in this case the SSN number of the client)
- channel = notification channel used
- otpSent = confirmation if the notification was sent: true or false

- error = error description, if any

Example:

The screenshot shows a modal window titled "Audit log details". Inside, there's a summary of an event: "Event: process instance, message receive, 18 Oct 2022 at 4:12 PM" and "Url: ai.flowx.updates.qa.notification.otp.generate.v1". Below this, under "Body:", a JSON object is displayed in a code editor-like area:

```
1  {"processInstanceId":739452,"clientId":"1871201460101",
  "channel":"MAIL","otpSent":true,"error":null}
```

At the bottom of the modal, there are navigation links: "flowx.ai", "Process Instance", "Execute action", and "action25".

Example: generate an OTP from a business flow

It is important to identify what is the business identifier that you are going to use to validate that OTP, it can be, for example, a user identification number.

1. Configure the templates that you want to use (for example, an SMS template).
2. Check that the needed topics are configured correctly: the topic used to generate OTP (`KAFKA_TOPIC_OTP_GENERATE_IN`) and the topic used to receive the response (`KAFKA_TOPIC_OTP_GENERATE_OUT`).
3. Use the FLOWX.AI Designer to add a new Kafka send event to the correct node in the process definition.
4. Add the proper configuration to the action, the Kafka topic, and configure the body message.

Kafka Send Action

 Automatic Manual Mandatory Optional RepeatableAutorun Children? Allow BACK on this action?

Parameters

Topics

ai.flowx.in.qa.notification.otp.generate.v1

Message

```
1  {
2    "templateName": "otpSMS",
3    "language": "en-US",
4    "channel": "SMS",
5    "clientId": "${application.client.identificationData.personalIdentificationNumber}",
6    "recipient": "${application.client.contactData.mobilePhone.phoneNumber}"
7 }
```

Advanced configuration

Show Headers

```
1 {"processInstanceId" : ${processInstanceId}, "destinationId": "register_contact_data", "callbacksForAction": "action21" }
```


5. Add a node to the process definition (for the Kafka receive event).
6. Configure on what key you want to receive the response on the process instance params.

Topic Name	Key Name
ro.flowx.updates.qa.notification.otp.generate.v1	otpCheck

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Notifications plugin / Using the plugin / OTP flow / Validate OTP

Define needed Kafka topics

Kafka topic names can be set by using environment variables:

- `KAFKA_TOPIC_OTP_VALIDATE_IN` - the event sent on this topic (with an OTP and an identifier) will check if the OTP is valid
- `KAFKA_TOPIC_OTP_VALIDATE_OUT` - the response for this request will validate an OTP, the reply is sent back to the Engine on this topic

CAUTION

The Engine is listening for messages on topics with names of a certain pattern, make sure to use an outgoing topic name that matches the pattern configured in the Engine.

Request to validate an OTP

Values expected in the request body:

- `processInstanceId` = process instance ID

- client id = the user unique ID in the system
- channel = notification channel: SMS/MAIL
- otp = OTP code that you received, used to compare with the one that was sent from the system

Example:

```
{  
    "processInstanceId": 12345,  
    "clientId": "1871201460101",  
    "channel": "MAIL",  
    "otp": "1111"  
}
```

Reply from validate OTP

Values expected in the reply body:

- client id = the user unique id in the system
- channel = notification channel used
- otpValid = confirmation if the provided OTP code was the same as the one sent from the system

Example:

The screenshot shows a modal window titled "Audit log details" with a close button (X). The modal displays the following information:

Event: process instance, message receive, 18 Oct 2022 at 5:33 PM

Url: ai.fluxx.updates.qa.notification.otp.validate.v1

Body:

```
1  {"processInstanceId":0,"clientId":"1871201460101",
  "channel":"MAIL","otpValid":true}
```

Example: validate an OTP from a business flow

Similar to the generation of the OTP you can validate the OTP that was generated for an identifier.

1. Check that the needed topics are configured correctly:
(`KAFKA_TOPIC OTP_VALIDATE_IN` and
`KAFKA_TOPIC OTP_VALIDATE_OUT`)
2. Add the actions for sending the request to validate the OTP on the node that contains the 'Generate OTP' actions
3. Add the proper configuration to the action, the Kafka topic and configure the body message.

Parameters

Custom From integration

Topics

```
ai.flowx.in.qa.notification.otp.validate.v1
```

Message

```
1  {
2    "clientId" : "${application.client.identificationData.personalIdentificationNumber}",
3    "channel" : "MAIL",
4    "otp" : "${email.otpValue}"
5 }
```

Advanced configuration

Show Headers

Data to send

[Add Key](#)

[Save](#)

4. Add a node to the process definition (for the **Kafka receive event**)
5. Configure on what key you want to receive the response on the process instance parameters

Node: **register_contact_data** (ID: 735010)

Node Config

Actions

Custom

From integration

Topic Name

Key Name

ai.flowx.updates.qa.notification.otp.valida

otpValid

Task Management

Update task management?



ⓘ Force Task Management Plugin to update information about this process after this node.

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Task management / Using allocation rules

Allocation rules are meant to define when tasks should be auto-assigned to users when they reach a **swimlane** that has a specific role configured (for example, specific tasks will be assigned for the *front office* and specific tasks for the *back office* only).

Allocation rules																													
<input type="text" value="Search by process name"/>																													
Add process :																													
Process																													
▼ Swimlanes Process + :																													
<table border="1"><thead><tr><th>Swimlane</th><th>Allocation</th><th>Edited at</th><th>Edited by</th><th></th></tr></thead><tbody><tr><td>BACKOFFICE</td><td>backoffice@email.com</td><td>09 Aug 2022, 10:30 AM</td><td>John Doe</td><td> </td></tr><tr><td>OFFICEADMIN</td><td>admin@email.com</td><td>03 Aug 2022, 7:00 PM</td><td>John Doe</td><td> </td></tr><tr><td>SUPERVISOR</td><td>same as execution rights</td><td>03 Aug 2022, 9:16 AM</td><td>John Doe</td><td> </td></tr><tr><td>FRONTOFFICE</td><td>frontoffice@email.com</td><td>03 Aug 2022, 9:16 AM</td><td>John Doe</td><td> </td></tr></tbody></table>					Swimlane	Allocation	Edited at	Edited by		BACKOFFICE	backoffice@email.com	09 Aug 2022, 10:30 AM	John Doe		OFFICEADMIN	admin@email.com	03 Aug 2022, 7:00 PM	John Doe		SUPERVISOR	same as execution rights	03 Aug 2022, 9:16 AM	John Doe		FRONTOFFICE	frontoffice@email.com	03 Aug 2022, 9:16 AM	John Doe	
Swimlane	Allocation	Edited at	Edited by																										
BACKOFFICE	backoffice@email.com	09 Aug 2022, 10:30 AM	John Doe																										
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SUPERVISOR	same as execution rights	03 Aug 2022, 9:16 AM	John Doe																										
FRONTOFFICE	frontoffice@email.com	03 Aug 2022, 9:16 AM	John Doe																										
Parallel Gateways Process + :																													

INFO

Tasks will always be allocated depending on the users load (number of tasks) from current/other processes. If there are two or more users with the same number of assigned tasks, the task will be randomly assigned to one of them.

Accessing allocation rules

To access the allocation rules, follow the next steps:

1. Open

The fallback content to display on prerendering

2. From the side menu, under **Task Management**, select the **Allocation rules** entry.

Swimlane	Allocation	Edited at	Edited by
OFFICEADMIN	o...	03 Aug 2022, 7:00 PM	John Doe
SUPERVISOR	s...	03 Aug 2022, 9:16 AM	John Doe
BACKOFFICE	b...	03 Aug 2022, 9:16 AM	John Doe
FRONTOFFICE	f...	03 Aug 2022, 9:16 AM	John Doe

Adding process and allocation rules

To add process and allocation rules, follow the next steps:

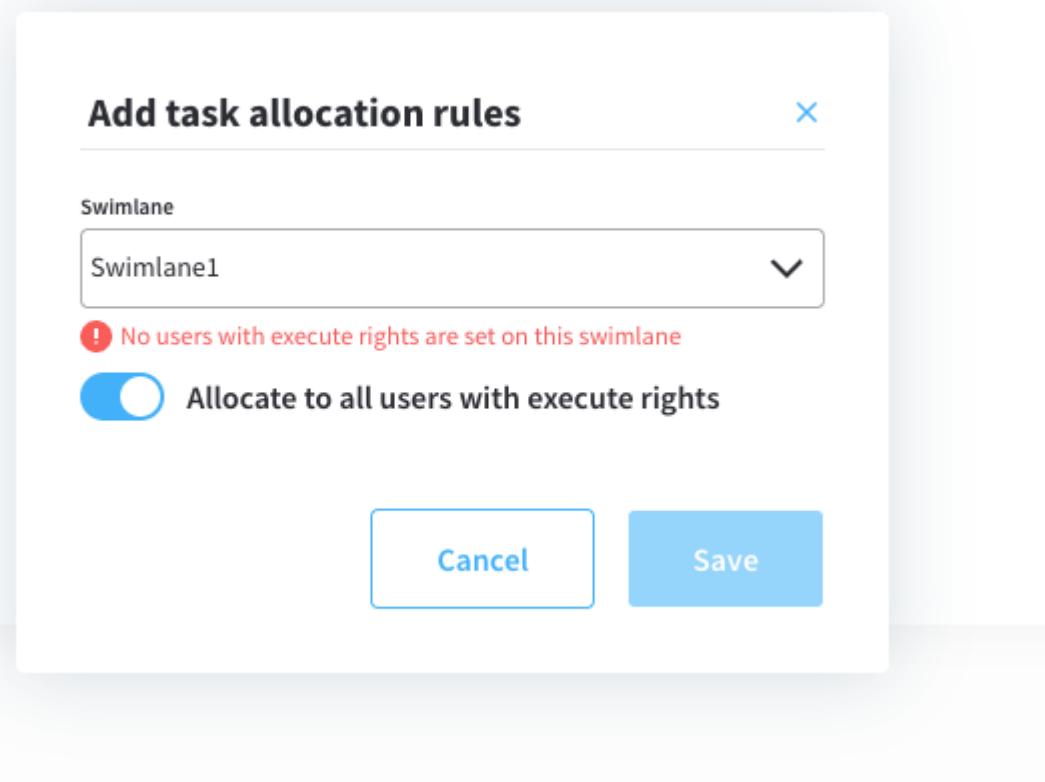
1. Click **Add process** button, in the top-right corner. More details on how to create/configure a process are [here](#).

2. Select a **process definition** from the drop-down list.
3. Click **Add swimlane allocations button (+)** to add allocations.

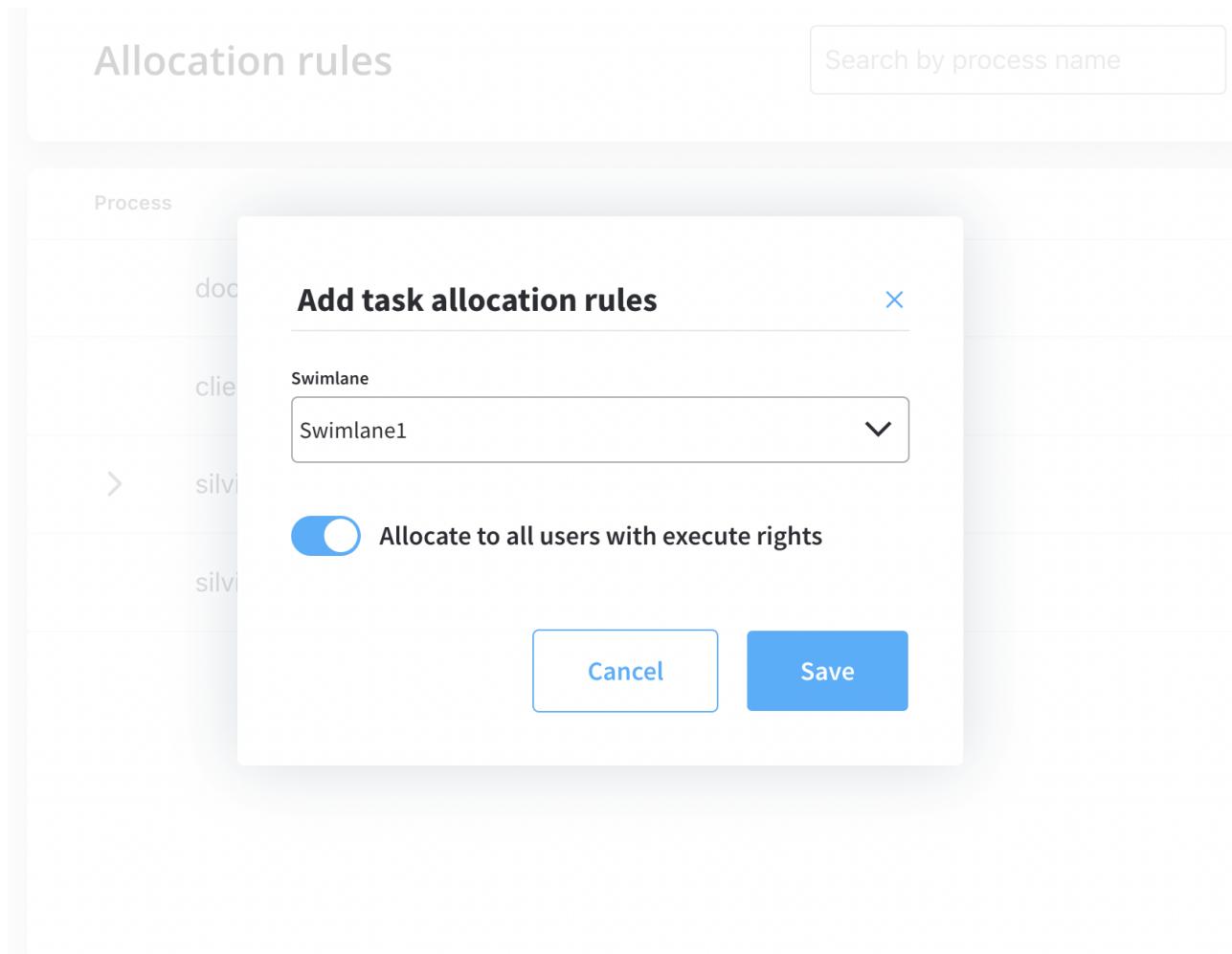
Process			
Swimlane	Allocation	Edited at	Add swimlane allocations
BACKOFFICE	09 Aug 2022, 10:30 AM	John Doe	
OFFICEADMIN	03 Aug 2022, 7:00 PM	John Doe	
SUPERVISOR	03 Aug 2022, 9:16 AM	John Doe	
FRONTOFFICE	03 Aug 2022, 9:16 AM	John Doe	

⚠ CAUTION

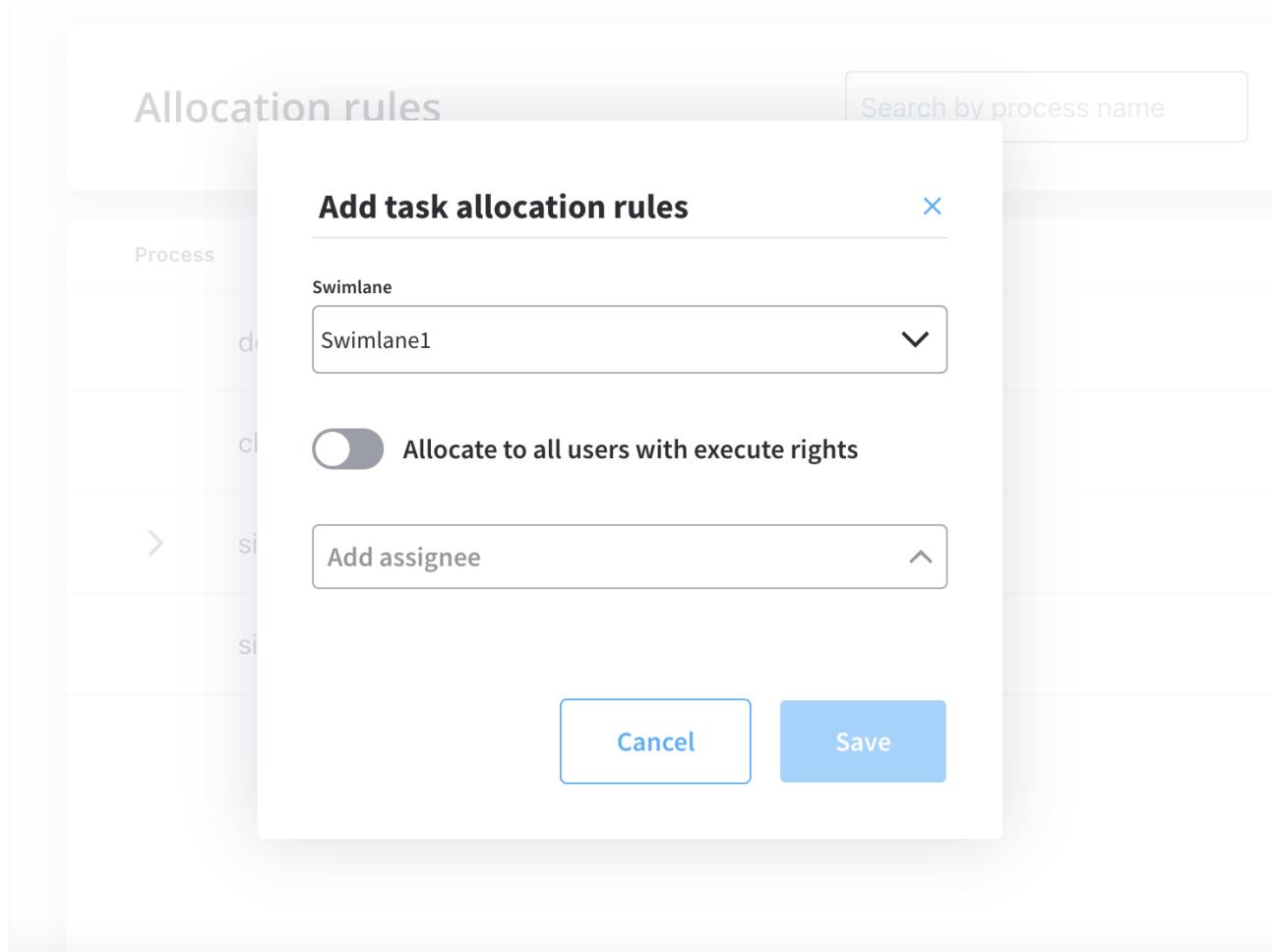
NOTE! If there are no users with execute rights in the swimlane you want to add (`hasExecute: false`), the following error message will be displayed:



4. Option 1: Allocate all users with execute rights.



5. **Option 2:** Allocate only users you choose from the drop-down list. You can use the search function to filter users by name.



6. Click **Save**.

!(INFO)

Users with out-of-office status will be skipped by automatic allocation. More information about out-of-office feature, [here](#).

Editing allocation rules

To edit allocation rules, follow the next steps:

1. Click **Edit** button.

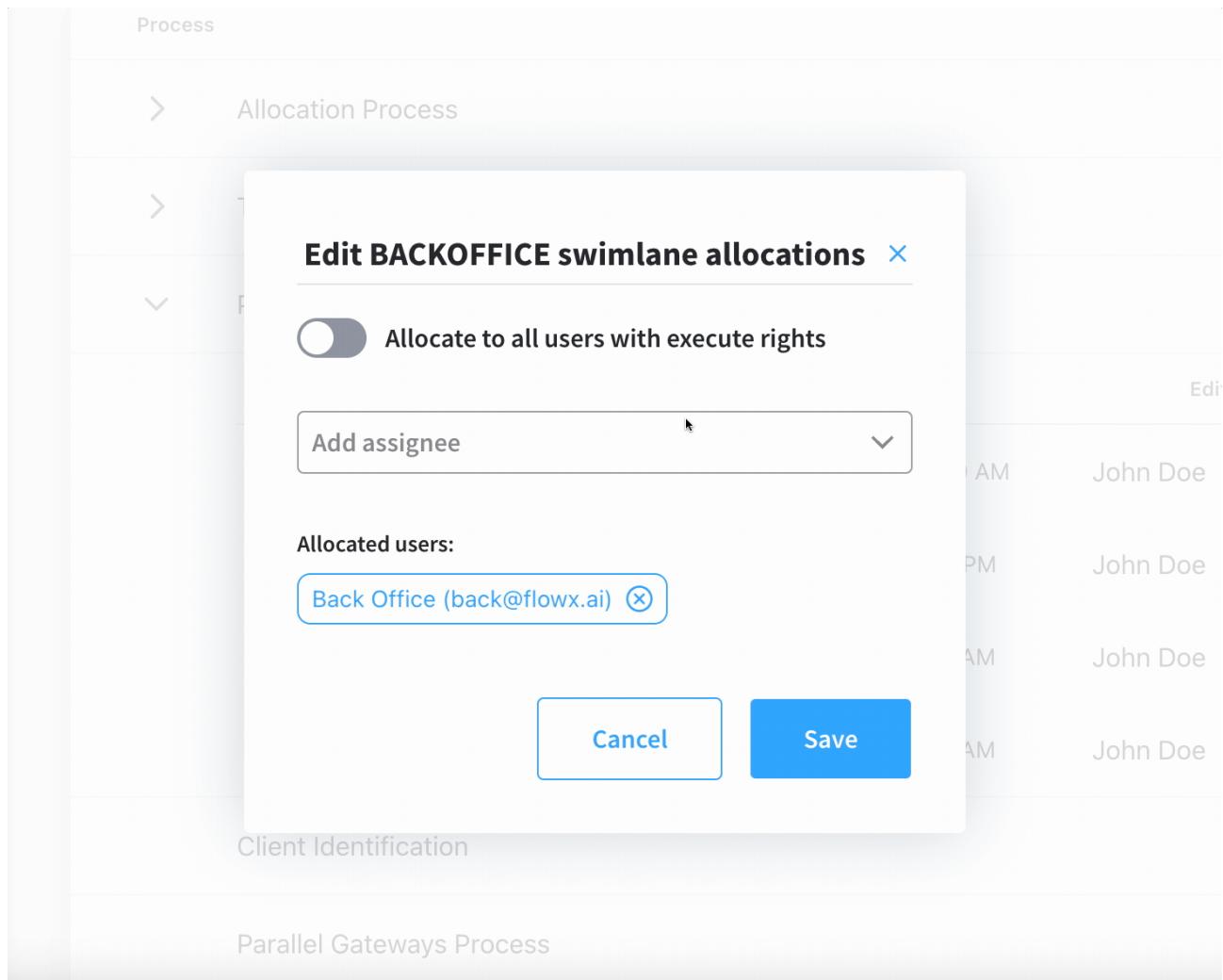
The screenshot shows the 'Allocation rules' page. At the top, there is a search bar labeled 'Search by process name', a 'Add process' button, and a more options button. Below this, a table lists processes:

Process	Allocation	Edited at	Edited by	Action
> Allocation Process				+ ::
> Test Process				+ ::
Parallel Swimlanes Process				+ ::

Under the 'Parallel Swimlanes Process' row, a detailed table shows allocations across four swimlanes:

Swimlane	Allocation	Edited at	Edited by	Action
BACKOFFICE		09 Aug 2022, 10:30 AM	John Doe	Edit
OFFICEADMIN		03 Aug 2022, 7:00 PM	John Doe	Edit
SUPERVISOR		03 Aug 2022, 9:16 AM	John Doe	Edit
FRONTOFFICE		03 Aug 2022, 9:16 AM	John Doe	Edit

2. Change the allocation method.



3. Click **Save**.

Viewing allocation rules

The allocation rules list displays all the configured swimlanes grouped by process:

1. **Process** - the process definition name where the swimlanes were configured
2. **Swimlane** - the name of the swimlane
3. **Allocation** - applied allocation rules
4. **Edited at** - the last time when an allocation was edited

5. Edited by - the user who edited/created the allocation rules

The screenshot shows a table titled "Allocation rules" with a search bar and "Add process" button. The table has columns: Process, Swimlane, Allocation, Edited at, and Edited by. The rows show allocations for BACKOFFICE, OFFICEADMIN, SUPERVISOR, and FRONTOFFICE. Each row includes edit and delete icons.

Process	Swimlane	Allocation	Edited at	Edited by	Actions
1 Swimlanes Process	2	3 Allocation	4	5	+ :
BACKOFFICE	backoffice@email.com	09 Aug 2022, 10:30 AM	John Doe		
OFFICEADMIN	admin@email.com	03 Aug 2022, 7:00 PM	John Doe		
SUPERVISOR	same as execution rights	03 Aug 2022, 9:16 AM	John Doe		
FRONTOFFICE	frontoffice@email.com	03 Aug 2022, 9:16 AM	John Doe		
Parallel Gateways Process					+ :

Exporting/importing process allocation rules

To copy process allocation rules and move them between different environments, you can use the export/import feature.

You can export process allocation rules as JSON files directly from the allocation rules list:

Swimlane	Allocation	Edited at	Edited by
BACKOFFICE	back...	09 Aug 2022, 10:30 AM	John Doe
OFFICEADMIN	admi...	03 Aug 2022, 7:00 PM	John Doe
SUPERVISOR	sam...	03 Aug 2022, 9:16 AM	John Doe
FRONTOFFICE	front...	03 Aug 2022, 9:16 AM	John Doe

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / 📦 Custom Plugins / 📦 Task management / Using hooks

Hooks allow you to extract stateful logic from a component, so it can be tested and reused independently.

Users with task management permissions can create hooks to trigger specific

The fallback content to display on prerendering
, such as sending notifications when

The fallback content to display on prerendering occur. Follow the instructions below to set up roles for hooks scope usage:

» Manage hooks roles

The screenshot shows the FLOWX.AI platform interface. On the left is a sidebar with navigation links: Processes (Definitions, Active process), Content Management (Enumerations, Substitution tags, Content models, Languages, Source systems), and Plugins (Task Manager, Hooks, Stages). The main area is titled 'Hooks' and contains a table with three rows of data:

Hook Name	Type	Active	Actions
Hook1	Process	Active	
Hook2	Swimlane	Active	
Hook3	Swimlane	Active	

Hooks can be linked to different events and define what will happen when they are triggered. Below you can find a list of all possible triggers for each hook.

Process Swimlane Stage

- unique result
- only one rule will match, or no rule

Creating a hook

To create a new hook, follow the next steps:

1. Open
The fallback content to display on prerendering
2. Go to Task Manager and select **Hooks**.
3. Click **New Hook** (you can also import or export a hook).
4. Fill in the required details.

Hooks

The screenshot shows a 'Task Manager' interface with a central modal window titled 'Add new hook'. The modal contains fields for 'Name' (with a note: 'Name shouldn't contain any special characters or white spaces.'), 'Parent process', 'Type' (dropdown menu), 'Trigger' (dropdown menu), 'Triggered Process' (input field), and an 'Active' checkbox (which is checked). A large blue 'Add' button is at the bottom. To the left of the modal, a sidebar lists existing hooks: 'Hook Name' (Hook1, Hook2, Hook3). To the right, a vertical list shows four items, each with an 'Active' status indicator.

Hook Name	Status
Hook1	Active
Hook2	Active
Hook3	Active

Types of hooks

There are three types of hooks you can create in Task Manager:

- process hooks
- swimlane hooks
- stage hooks

! INFO

Swimlane and stage hooks can be configured with an SLA (time when a triggered process is activated).

Type

Process

Swimlane

Swimlane

Process

Stage

Process

Stage

Add new hook x

Name ⓘ Name shouldn't contain any special characters or white spaces.

Parent process

Type ▼

Swimlane

Trigger ▼

Triggered Process

Add SLA
Time to activate

ⓘ Format details [here](#).

Dismiss SLA when Swimlane Exited

Active

Add

! INFO

Dismiss SLA is available only for hooks configured with SLA.

Here you can find more information about the SLA - duration formatting.

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Task management / Using out of office records

The Out-of-office feature allows you to register users availability to perform a task. It can be allocated manually or automatically.

Out of office				
User	Start Date	End Date	Edited at	Edited by
Jane Smith (jane.sm...)	03 Aug 2022	07 Aug 2022	03 Aug 2022, 3:24 PM	John Doe  
Bess Twishes (bess....)	03 Aug 2022	31 Dec 2046	03 Aug 2022, 3:16 PM	John Doe  
Gene Eva (gene.eva...)	08 Aug 2022	27 Aug 2022	03 Aug 2022, 9:25 AM	John Doe  

!(INFO)

Users with out-of-office status are excluded from the candidates for automatic task allocation list during the out-of-office period. More information about allocation rules, [here](#).

Accessing out-of-office records

To add out-of-office records, follow the next steps:

1. Open

The fallback content to display on prerendering

2. From the side menu, under **Task Management**, select the **Out office** entry.

The screenshot shows the FLOWX.AI platform's sidebar navigation on the left and a main content area on the right. The sidebar is titled 'Plugins' and contains the following items under 'Task Manager': 'All tasks', 'Hooks', 'Stages', 'Allocation rules', and 'Out of office' (which is highlighted in blue). Under 'General Settings', it lists 'Generic Parameters', 'Integration management', 'Licensing', and 'Access management'. At the bottom of the sidebar, there is a user profile for 'John Doe' and a three-dot menu icon. The main content area has a header 'Out of office' with a search bar and a 'Add out-of-office' button. Below the header is a table with columns: User, Start Date, End Date, Edited at, and Edited by. The table contains three rows of data:

User	Start Date	End Date	Edited at	Edited by
Jane Smith (jane....)	03 Aug 2022	07 Aug 2022	03 Aug 2022, 3:24 PM	John Doe
Bess Twishes (be...)	03 Aug 2022	31 Dec 2046	03 Aug 2022, 3:16 PM	John Doe
Gene Eva (gene....)	08 Aug 2022	27 Aug 2022	03 Aug 2022, 9:25 AM	John Doe

Adding out-of-office records

To add out-of-office records, follow the next steps:

1. Click **Add out-of-office** button, in the top-right corner.
2. Fill in the following mandatory details:
 - Assignee - user single select
 - Start Date (! cannot be earlier than tomorrow)
 - End Date (! cannot be earlier than tomorrow)

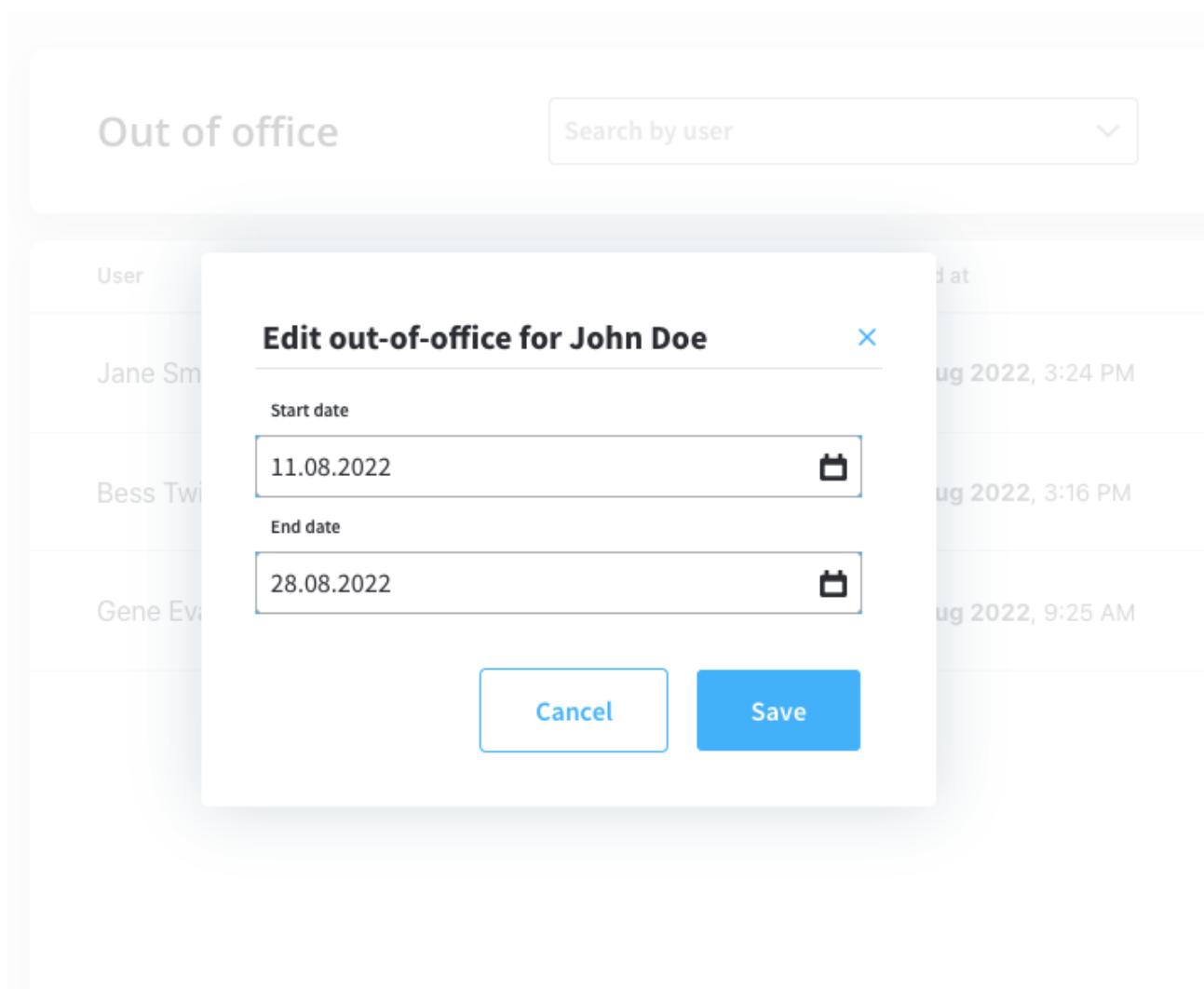
The screenshot shows a user interface for managing out-of-office records. On the left, there's a sidebar with a list of users: Jane Smith, Bess Twink, and Gene Evans. The main area displays a table of out-of-office records with columns for User, Start date, End date, and Last updated. One record for Jane Smith is visible, showing a start date of August 2022, 3:24 PM, and an end date of August 2022, 9:25 AM, last updated at 3:16 PM. A modal window titled "Add out-of-office" is overlaid on the screen. It contains fields for "Add assignee" (with a dropdown menu), "Start date" (with a calendar icon), and "End date" (with a calendar icon). At the bottom of the modal are "Cancel" and "Save" buttons. The overall design is clean and modern, typical of a business productivity application.

3. Click **Save**.

Editing out-of-office records

To edit out-of-office records, follow the next steps:

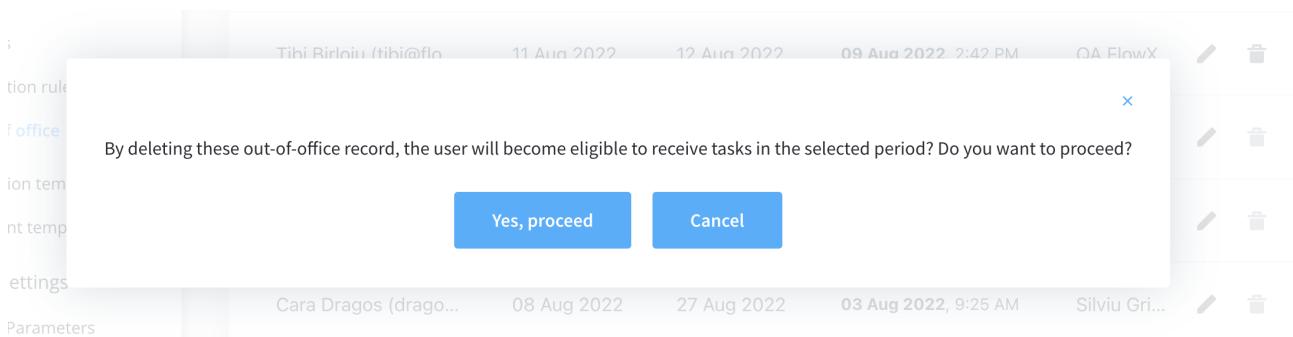
1. Click **Edit** button.
2. Modify the dates (! cannot be earlier than tomorrow).
3. Click **Save**.



Deleting out-of-office records

To delete out-of-office records, follow the next steps:

1. From the **out-of-office list**, select a **record**.
2. Click **Delete** button. A pop-up message will be displayed: *"By deleting this out-of-office record, the user will become eligible to receive tasks in the selected period. Do you want to proceed?"*



🔥 DANGER

If you choose to delete an out-of-office record, the user is eligible to receive tasks allocation during the mentioned period. More information about automatic task allocation, [here](#).

3. Click **Yes, proceed** if you want to delete the record, click **Cancel** if you want to abort the deletion.

⚠ CAUTION

If the out-of-office period contains days selected in the past, the user cannot delete the record, the following message is displayed: *"You can't delete this*

record because it already affected allocations in the past. Try to shorten the period, if it didn't end."

The screenshot shows a user interface for managing out-of-office records. At the top, there is a search bar labeled "Search by user" and a button labeled "Add out-of-office". Below this is a table with columns: User, Start Date, End Date, Edited at, and Edited by. The table contains three rows of data:

User	Start Date	End Date	Edited at	Edited by
Jane Smith (jane.s...)	03 Aug 2022	07 Aug 2022	03 Aug 2022, 3:24	
Bess Twishes (bes...	03 Aug 2022	31 Dec 2046	03 Aug 2022, 3:16 PM	John Doe
Gene Eva (gene.ev...	08 Aug 2022	27 Aug 2022	03 Aug 2022, 9:25 AM	John Doe

A tooltip is displayed over the delete icon for the first record (Jane Smith), stating: "You can't delete this record because it already affected allocations in the past." The delete icons for the other two records are visible but not highlighted.

Viewing out-of-office records

The out-of-office records list contains the following elements:

1. **User** - firstName, lastName, userName
2. **Start Date** - the date when the out-of-office period will be effective
3. **End Date** - the date when the out-of-office period will end
4. **Edited at** - the last time when an out-of-office record was edited
5. **Edited by** - the user who edited/created the out-of-office record

Out of office				
<input type="text" value="Search by user"/> ▼ Add out-of-office				
1 User	2 Start Date	3 End Date	4 Edited at	5 Edited by
Jane Smith (jane....)	03 Aug 2022	07 Aug 2022	03 Aug 2022, 3:24 PM	John Doe
Bess Twishes (be...	03 Aug 2022	31 Dec 2046	03 Aug 2022, 3:16 PM	John Doe
Gene Eva (gene.e...	08 Aug 2022	27 Aug 2022	03 Aug 2022, 9:25 AM	John Doe

INFO

The list is sorted in reverse chronological order by “edited at” `dateTime` (newest added on top).

Was this page helpful?

PLATFORM DEEP DIVE / Plugins /
Custom Plugins / Task management / Using stages

You can define specific stages during the execution of a process. Stages are configured on each node and they will be used to trigger an event when passing from one stage to another.

Creating a new stage

To create a new stage, follow the next steps:

1. Open
The fallback content to display on prerendering
2. Go to Task Manager and select **Stages**.
3. Click **New Stage**.
4. Fill in the required details.

Stages

The screenshot shows the FLOWX Designer interface with a sidebar on the left listing stages: Name, PF, Offboa, Onboa, Identifi, testirin, and Silviu. A modal dialog box titled "Add new stage" is open in the center. It contains a "Name" input field, a validation message "Name shouldn't contain any special characters or white spaces.", and a blue "Add" button.

Assigning a node to a stage

To assign a node to a stage, follow the next steps:

1. Open **FLOWX Designer** and then select your **process**.
2. Choose the node you want to assign and select the **Node Config** tab.
3. Scroll down until you find the **Stage** field and click the dropdown button.
4. Choose the stage you want to assign.

Node: Client Form (ID: 477506)

^ X

Node Config Actions

Swimlane Default ^

Stage Onboarding X v

Response Timeout Response Timeout (PT30S)

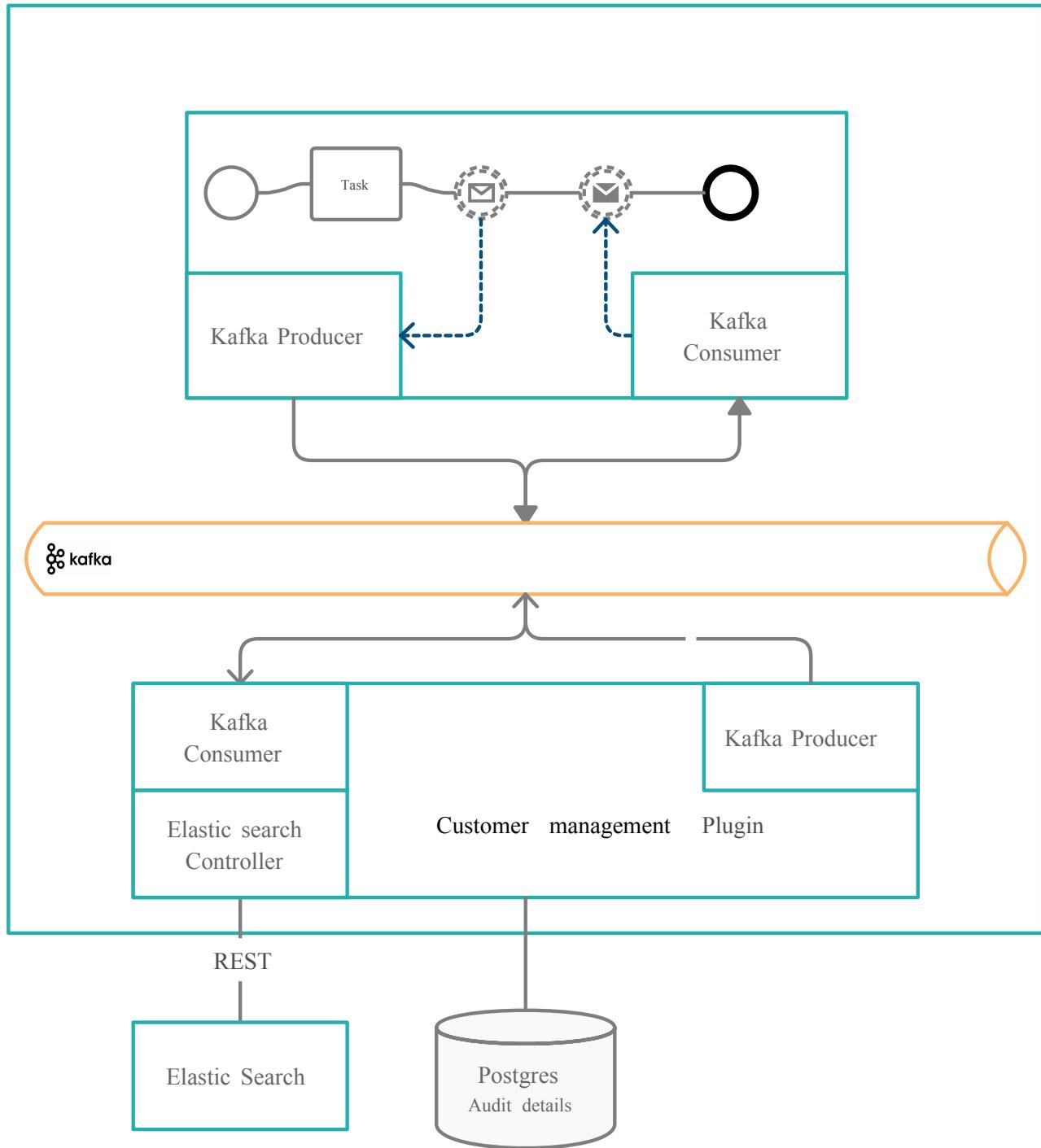
Data stream topics

Save

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / 📦 Custom Plugins / 📦 Customer management / Using the customer management plugin

The customer management plugin offers the possibility of retrieving customer details from an elasticSearch engine.



The plugin listens for incoming requests on a Kafka topic and sends the reply to the Engine on an outgoing topic.

» Kafka topics for Customer Management

Kafka topics for customer management

Customer Search

! INFO

The kafka topics used for the Customer Management plugin can be defined/overwritten using the following environment variables (that can be found in the deployment of the service):

- `KAFKA_TOPIC_CUSTOMER_SEARCH_IN` - used to search customers in the customer management plugin
- `KAFKA_TOPIC_CUSTOMER_SEARCH_OUT` - used to get the response from the customer management plugin to the Engine.

The request sent to the plugin can use any key that was previously configured in the elasticsearch index where the customers are saved.

Example of an elastic search index:

```
{  
  "settings": {  
    "analysis": {  
      "normalizer": {  
        "lowercase_normalizer": {  
          "type": "custom",  
          "filter": ["lowercase"]  
        }  
      }  
    }  
  }  
}
```

```
        }
    }
},
},
"mappings": {
  "properties": {
    "CIF": {
      "type": "keyword",
      "normalizer": "lowercase_normalizer"
    },
    "ClientUniqueIdentifier": {
      "type": "keyword",
      "normalizer": "lowercase_normalizer"
    },
    "CNPFlex": {
      "type": "text"
    },
    "ClientType": {
      "type": "text"
    },
    "ClientCategory": {
      "type": "text"
    },
    "FirstName": {
      "type": "text",
      "fields": {
        "keyword": {
          "type": "keyword",
          "normalizer": "lowercase_normalizer"
        }
      }
    },
    "LastName": {
      "type": "text",
      "fields": {
        "keyword": {
          "type": "keyword",
          "normalizer": "lowercase_normalizer"
        }
      }
    }
  }
}
```

```
"keyword":{  
    "type": "keyword",  
    "normalizer": "lowercase_normalizer"  
}  
}  
},  
"CompanyName":{  
    "type": "text",  
    "fields": {  
        "keyword":{  
            "type": "keyword",  
            "normalizer": "lowercase_normalizer"  
        }  
    }  
},  
"DateOfBirth":{  
    "type": "date",  
    "format": "dd.MM.yyyy"  
},  
"IDDocType":{  
    "type": "text"  
},  
"IDSeries":{  
    "type": "text"  
},  
"IDNumber":{  
    "type": "text"  
},  
"IDIssueDate": {  
    "type": "date",  
    "format": "dd.MM.yyyy"  
},  
"IDEpiryDate":{  
    "type": "date",  
    "format": "dd.MM.yyyy"
```

```
        },
        "LegalForm": {
            "type": "text"
        },
        "CreatedDatePJ": {
            "type": "date",
            "format": "dd.MM.yyyy"
        },
        "ClientClosedDate": {
            "type": "date",
            "format": "dd.MM.yyyy"
        },
        "LastModifiedDate": {
            "type": "date",
            "format": "dd.MM.yyyy"
        },
        "ListID": {
            "type": "text"
        },
        "MobilePhone": {
            "type": "text"
        }
    }
}
```

With this index configuration we can search for customers using any key:

Key examples

Example 1 - using only the "ClientUniqueIdentifier" key:

```
{  
  "ClientUniqueIdentifier": "1900101223344"  
}
```

Example 2 - using "FirstName" and "LastName" keys:

```
{  
  "FirstName": "TestFirstName",  
  "LastName": "Test Last Name"  
}
```

Example 3 - using "FirstName", "DateOfBirth" and "LegalForm" keys:

```
{  
  "FirstName": "TestFirstName",  
  "DateOfBirth": "01.01.1990",  
  "LegalForm": "PF"  
}
```

Keys description

- **customers** - list of customers found in the customer management, in the used elasticsearch index, maximum 10 results
- **hasMore** - boolean, true if number of results are bigger than 10, false if the number of results are equal or smaller than 10
- **error** - error description if the request returned an error

Topic name example:

```
ro.flowx.updates.sandbox.customer.management.response
```

Sent body example:

```
"searchResults" : {  
    "customers" : [ {  
        "id" : "CL12345",  
        "firstName" : "John Doe",  
        "lastName" : "Doe",  
        "birthDate" : "27.02.1982",  
        "cui" : "1820227103865_84",  
        "companyName" : "",  
        "clientCategory" : "PF",  
        "clientType" : "PF",  
        "idSeries" : "RT",  
        "idNumber" : "879948",  
        "idDocType" : "CI",  
        "idExpiryDate" : "27.02.2023",  
        "legalForm" : "",  
        "listId" : "4691602",  
        "mobilePhone" : "0711111111",  
        "attributes" : null,  
        "type" : "PF"}],  
    "hasMore" : false,  
    "error" : null  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Customer management / Customer management plugin example

Integrate a customer search in a business flow

Follow the next steps to use the user personal number to perform a search query in the customer management plugin.

1. First make sure the details about customers are indexed in the search engine (for example, elasticSearch).
2. Open
The fallback content to display on prerendering
web app and create a
The fallback content to display on prerendering

.
3. Add a **Kafka send event** node.
4. Configure the **Kafka send event** node by adding the following elements:
 - Kafka topic - defined on the `KAFKA_TOPIC_CUSTOMER_SEARCH_IN` environment variable
 - Message body (example of identifiers for an indexed customers):

Parameters

Custom From integration

Topics

```
customerSearchTopic-qa
```

Message

```
1  {
2    "id": "${clientIdentification.cif}",
3    "cui": "${clientIdentification.uniqueCode}",
4    "firstName": "${clientIdentification.firstName}",
5    "lastName": "${clientIdentification.lastName}",
6    "birthDate": "${clientIdentification.dateOfBirth}",
7    "companyName": "${clientIdentification.identificationData.name}"
8 }
```

Advanced configuration

Show Headers

```
1 {"processInstanceId": ${processInstanceId}}
```

INFO

For more examples of keys, check [Using the customer management plugin](#).

5. Add a **Kafka receive event**.

6. Configure the topic on which you want to receive the response from the CRM, on the value of `KAFKA_TOPIC_CUSTOMER_SEARCH_OUT` environment variable.

Data stream topics

Custom From integration

Topic Name	Key Name
ai.flowx.updates.qa.customer.management.response	receiveReply

trash

Response example:

```
"searchResults" : {  
    "customers" : [ {  
        "id" : "ID3456",  
        "firstName" : "Jane Doe",  
        "lastName" : "Doe",  
        "birthDate" : "27.02.1980",  
        "cui" : "1820227103840_84",  
        "companyName" : "",  
        "clientCategory" : "PF_INTL",  
        "clientType" : "PF",  
        "idSeries" : "RT",  
        "idNumber" : "879948",  
        "idDocType" : "CI",  
        "idExpiryDate" : "27.02.2023",  
        "legalForm" : "",  
        "listId" : "4691602",  
        "mobilePhone" : "0711111111",  
    } ]}
```

```
    "attributes" : null,  
    "type" : "PF"}],  
    "hasMore" : false,  
    "error" : null  
}
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / OCR plugin

The OCR (Optical Character Recognition) plugin is a powerful tool that enables you to read barcodes and extract handwritten signatures from .pdf documents with ease.

Before using the OCR service for reading barcodes and extracting signatures, please note the following requirements:

CAUTION

- All *.pdf documents that are sent to the OCR service for reading barcodes and extracting handwritten signatures should be scanned at a minimum resolution of 200DPI (approximately 1654x2339 px for A4 pages)
- Barcode is searched on the top 15% of each image (scanned page)
- Signatures are detected on boxes with a border: 4px black solid

- Only two signatures per image (scanned page) are detected.
- All *.pdf documents should be scanned at a minimum resolution of 200DPI (approximately 1654x2339 px for A4 pages).
- The barcode is searched in the top 15% of each scanned page.
- Signatures are detected within boxes with a 4px black solid border.
- The plugin detects up to two signatures per scanned page.
- Only two signatures per image (scanned page) are detected.

INFO

The plugin supports **1D Code 128** barcodes. For more information about this barcode type, please refer to the documentation [here](#).

Using the OCR plugin

You can utilize the OCR plugin to process generic document templates by either using a specific flow on FLOWX.AI (HTML template) or any other document editor.

INFO

Using a specific flow on FLOWX.AI offers several advantages:

- Centralized management of templates and flows within a single application.
- Access to template history and version control.

Use case

1. Prepare and print generic document templates.
2. End-users complete, sign, and scan the documents.
3. Upload the scanned documents to the flow.
4. FLOWX validates the template (barcode) and the signatures.

Scenario for FLOWX.AI generated documents

1. Utilize the **Documents plugin** to create a **document template**.

» Generating documents based on templates

The screenshot shows the FLOWX.AI platform interface. On the left, there is a sidebar with the following navigation items:

- Processes**
 - Definitions
 - Active process
 - Process Instances
 - Failed process start
- Content Management**
 - Enumerations
 - Substitution tags
 - Content models
 - Languages
 - Source systems
- Plugins**
 - Task Manager
 - All tasks
 - Hooks
 - Stages
 - Allocation rules
 - Out of office
- Notification templates

At the bottom of the sidebar, there is a user profile icon for "John Doe" and a three-dot menu icon.

The main content area is titled "Process Definitions". It features a search bar and a three-dot menu icon. Below the title, there are two sections: "Drafts / In progress" and "Published".

Drafts / In progress

Name	Version	Edited at	Edited by	Actions
s...	1	30 Sep 2022, 5:41 PM	Silviu Grigore	
d...	2	30 Sep 2022, 2:32 PM	andrei antal	
t...	1	30 Sep 2022, 11:15 AM	QA FlowX	
T...	4	30 Sep 2022, 10:20 AM	QA FlowX	

Published

Name	Version	Published at	Published by	Actions
A...	1	03 Oct 2022, 8:12 AM	QA FlowX	
C...	19	30 Sep 2022, 3:08 PM	Silviu Grigore	
d...	1	30 Sep 2022, 10:34 AM	Bogdan Ionescu	
T...	1	30 Sep 2022, 10:18 AM	QA FlowX	

2. Create a process and add a **Kafka Send Action** to a **Message event send** node. Here you specify the **kafka topic** (address) where the template will be generated.

The screenshot shows the 'Action Edit' interface for a Kafka Send Action. The left sidebar lists actions under 'Actions' with one item, 'send_main_applicant_consent'. The main area has tabs for 'Node Config' and 'Actions', with 'Actions' selected. The 'Action Edit' panel displays the following details:

- ID: 584701
- Name: send_main_applicant_consent
- Order: 1
- Timer Expression: (empty)
- Action Type: Kafka Send Action (selected from dropdown)
- Execution Options:
 - Automatic (checked)
 - Manual (unchecked)
 - Mandatory (checked)
 - Optional (unchecked)
 - Repeatable (unchecked)
- Autorun Children? (checkbox)
- Parameters tab: 'Custom' is selected over 'From integration'.
- Topics: ai.flowx.in.sandbox.document.html.generate.v1

(!) INFO

The Kafka topic for generating the template must match the topic defined in the `KAFKA_TOPIC_DOCUMENT_GENERATE_HTML_IN` variable. Refer to the **Kafka configuration guide** for more details. For additional information, please see the **Documents plugin setup guide**.

3. Fill in the **Message**. The request body should include the following values:

- **documentList** - a list of documents to be generated, including properties such as name and values to be replaced in the document templates

- **customId** - client ID
- **templateName** - the name of the template to be used
- **language**
- **includeBarcode** - true/false
- **data** - a map containing the values that should replace the placeholders in the document template, the keys used in the map should match those defined in the HTML template

Parameters

Custom From integration

Topics

ai.flowx.in.sandbox.document.html.generate.v1

Message

```
1  {
2    "documentList": [
3      {
4        "customId": "1234",
5        "templateName": "Agreement",
6        "language": "ro",
7        "data": {
8          "offerName": "The greatest offer - deluxe edition",
9          "companyName": "Test Company SRL",
10         "cui": "R01234567",
11         "firstName": "Bess",
12         "lastName": "Twishes",
13         "offerExpiryDate": "31.12.2099"
14       },
15       "includeBarcode": true
16     }
  ]
```

Advanced configuration

Show Headers

! INFO

The **data** parameters must be defined in the document template beforehand. For more information, check the **WYSIWYG Editor** section.

Documents Templates - Test_docs

Body Data model

Name	Type	Mandatory	+
customId	STRING	false	 
templateName	STRING	false	 
language	STRING	false	 
version	NUMBER	false	 
draft	BOOLEAN	false	 
offerName	STRING	false	 
companyName	STRING	false	 
cui	STRING	false	 
lastName	STRING	false	 
firstName	STRING	false	 

4. Add a barcode.



- to include a **default barcode**, add the following parameter to the message body: `includeBarCode: true`.
- to include a **custom barcode**, set `includeBarCode: false` and provide the desired data in the `data` field

5. Add a **message received event** node and specify the topic where you want to receive the response.

⚠ CAUTION

Ensure that the topic matches the one defined in the `KAFKA_TOPIC_DOCUMENT_GENERATE_HTML_OUT` variable.

Node: **receive_consent** (ID: 584502)

Node Config

General Config

Node name

receive_consent

Can go back?

Swimlane

Default



Stage



Response Timeout

Response Timeout (PT30S)

Data stream topics

Custom

From integration

Topic Name

ai.flowx.updates.sandbox.document.html.gener

Key Name

ocrBarcodeResponse



Add stream

6. Add a **user task node** and configure an **Upload file action** to send the file (defined by the **KAFKA_TOPIC_DOCUMENT_PERSIST_IN** variable) to the storage solution (for example, S3).

Parameters

Topics

```
ai.flowx.in.sandbox.document.persist.v1
```

 Replace Values

Document Type

```
BULK
```

 Replace Values

Folder

```
1234_${processInstanceId}
```

 Replace Values

Advanced configuration

Show Headers

Data to send

7. Next, the response will be sent back to the kafka topic defined by **KAFKA_TOPIC_DOCUMENT_PERSIST_OUT** environment variable through a callback action/subprocess.
8. Next, send the response to the OCR Kafka topic defined at **KAFKA_TOPIC_OCR_IN** variable (representing the path to the S3 file)

9. Display the result of the OCR validation on the kafka topic defined at

KAFKA_TOPIC_OCR_OUT.

Setup guide

Refer to the OCR plugin setup guide for detailed instructions on setting up the OCR plugin:

» [OCR plugin setup](#)

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / Reporting / Authorization & access roles

IAM solution

INFO

Superset is using by default flask-openid, as implemented in flask-security.

Superset can be integrated with Keycloak, an open-source identity and access management solution. This integration enables users to manage authentication and authorization for their Superset dashboards.

» Configuring an IAM solution

Prerequisites

- Keycloak server
 - Keycloak Realm
 - Keycloak Client & broker configured with OIDC protocols
 - client_secret.json
- admin username & password of postgres instance
- Superset Database created in postgresql
- optionally Cert-manager if you want to have SSL certificates on hostnames.

» Superset + Keycloak configuration

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Custom Plugins / WYSIWYG editor

FLOWX.AI Designer's WYSIWYG ("What You See Is What You Get") editor enables you to create and modify **notification** and **document** templates without the need for complicated coding from the developers. WYSIWYG editors make the creation/editing of any type of document or notification easier for the end-user.

Displaying how the document will be published or printed on the screen, the user can adjust the text, graphics, photos, or other document/notification elements before generating the final output.

WYSIWYG Components

Header

The formatting head of the editor allows users to manipulate/format the content of the document.

Body

The Body is the main part of the editor where you can edit your template.

!(INFO

After you defined some parameters in the **Data Model** tab, you can type "#" in the body to trigger a dropdown where you can choose which one you want to use.

Source

The **Source** button can be used to switch to the HTML editor. You can use the HTML view/editor as a debugging tool, or you can edit the template directly by writing code here.

The screenshot shows the FLOWX.AI platform interface. On the left, a sidebar navigation includes: Processes (Definitions, Active process), Content Management (Enumerations, Substitution tags, Content models, Languages, Source systems), Plugins (Task Manager, All tasks, Hooks, Stages, Notification templates), Document templates (selected), General Settings (Generic Parameters), and Platform status. At the bottom left is a 'Logout' button. The main area is titled 'Documents Templates - ExampleTemplate'. It has tabs for 'Body' (selected) and 'Data model'. A language dropdown shows 'Romanian (Romania) - ro-RO'. Below is a rich text editor toolbar. The body content starts with 'Template generated for the FLOWX.AI by' followed by two input fields: '#firstInput' and '#secondInput'. A large placeholder text block follows: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque sollicitudin leo in sem tempus, ut aliquet eros porttitor. Nullam condimentum dapibus massa in maximus. Vivamus nulla est, posuere eget metus quis, iaculis euismod magna. Integer non nisi non ipsum porttitor pulvinar. Fusce commodo varius felis at finibus. Vestibulum pulvinar mauris sit amet nisl vestibulum, vitae facilisis sem convallis. In hac habitasse platea dictumst. Nulla sagittis nibh mi, venenatis pretium turpis euismod at. Morbi mauris tortor, ornare a erat ac, imperdiet tristique dolor. Sed vel lorem commodo, tincidunt sapien sed, sollicitudin orci. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Duis id risus quis massa accumsan...'. At the bottom are 'Test', 'Save', and 'Publish' buttons.

Document Templates

One of the main features of the **document management plugin** is the ability to generate new documents based on custom templates and prefilled with data related to the current process instance.

The screenshot shows the FLOWX.AI platform interface. On the left, there is a sidebar with the following navigation items:

- Processes
 - Definitions
 - Active process
- Content Management
 - Enumerations
 - Substitution tags
 - Content models
 - Languages
 - Source systems
- Plugins
 - Task Manager
 - All tasks
 - Hooks
 - Stages
 - Notification templates
 - Document templates**
- General Settings
 - Generic Parameters
- Platform status

On the right, the main area is titled "Documents Templates - ExampleTemplate". It has tabs for "Body" (selected) and "Data model". The "Body" tab shows a rich text editor toolbar and a preview area containing placeholder text and two input fields labeled "#firstInput" and "#secondInput". The preview area also contains some sample text: "Lorem ipsum dolor sit amet, consectetur adipiscing elit. Quisque sollicitudin leo in sem tempus, ut aliquet eros porttitor. Nullam condimentum dapibus massa in maximus. Vivamus nulla est, posuere eget metus quis, iaculis euismod magna. Integer non nisi non ipsum porttitor pulvinar. Fusce commodo varius felis at finibus. Vestibulum pulvinar mauris sit amet nisl vestibulum, vitae facilisis sem convallis. In hac habitasse platea dictumst. Nulla sagittis nibh mi, venenatis body p". At the bottom of the preview area are buttons for "Test", "Save", and "Publish".

» Documents plugin

Notification Templates

Notification WYSIWYG body has some additional fields (other than documents template):

- **Type** - that could be either MAIL or SMS (SMS, only if there is an external adapter)
- **Forward on Kafka** - if this box is checked, the notification is not being sent directly by the plugin to the destination, but forwarded to another adapter

The screenshot shows the FLOWX.AI platform interface for creating a notification template. On the left, a sidebar navigation includes sections for Processes, Content Management (with sub-options like Enumerations, Substitution tags, Content models, Languages, and Source systems), Plugins (Task Manager, Hooks, Stages), and General Settings (Generic Parameters). The current section is "Notification templates". At the bottom of the sidebar are Logout and Test buttons.

The main workspace is titled "Notifications Template - ExampleTemplate". It has tabs for "Body" (which is selected) and "Data model". Under "Body", there are fields for "Type" (set to "MAIL"), a checkbox for "Forward on Kafka" (unchecked), and a "Language" dropdown set to "Romanian (Romania)-ro-RO". Below these are "Romanian (Romania)-ro-RO subject" and "Contract [\${firstInput}]". A "Source" button is located to the right of the contract placeholder.

The "Body" tab contains a WYSIWYG editor toolbar with various icons for text, images, and styles. The main content area displays a template structure:

```
FLOWX.AI
Salut
Salut #firstInput #secondInput, ne bucurăm sa te avem alături!
Găsești toate detailele în brosura atașata acestui email.
```

At the bottom right of the workspace are "Save" and "Publish" buttons.

» Managing notifications templates

Data Model

Data Model

Using the data model, you can define key pair values (parameters) that will be displayed and reused in the body. Multiple parameters can be added:

- STRING
- NUMBER
- BOOLEAN
- OBJECT
- ARRAY (which has an additional `item` field)

Documents Templates - ExampleTemplate

Body Data model

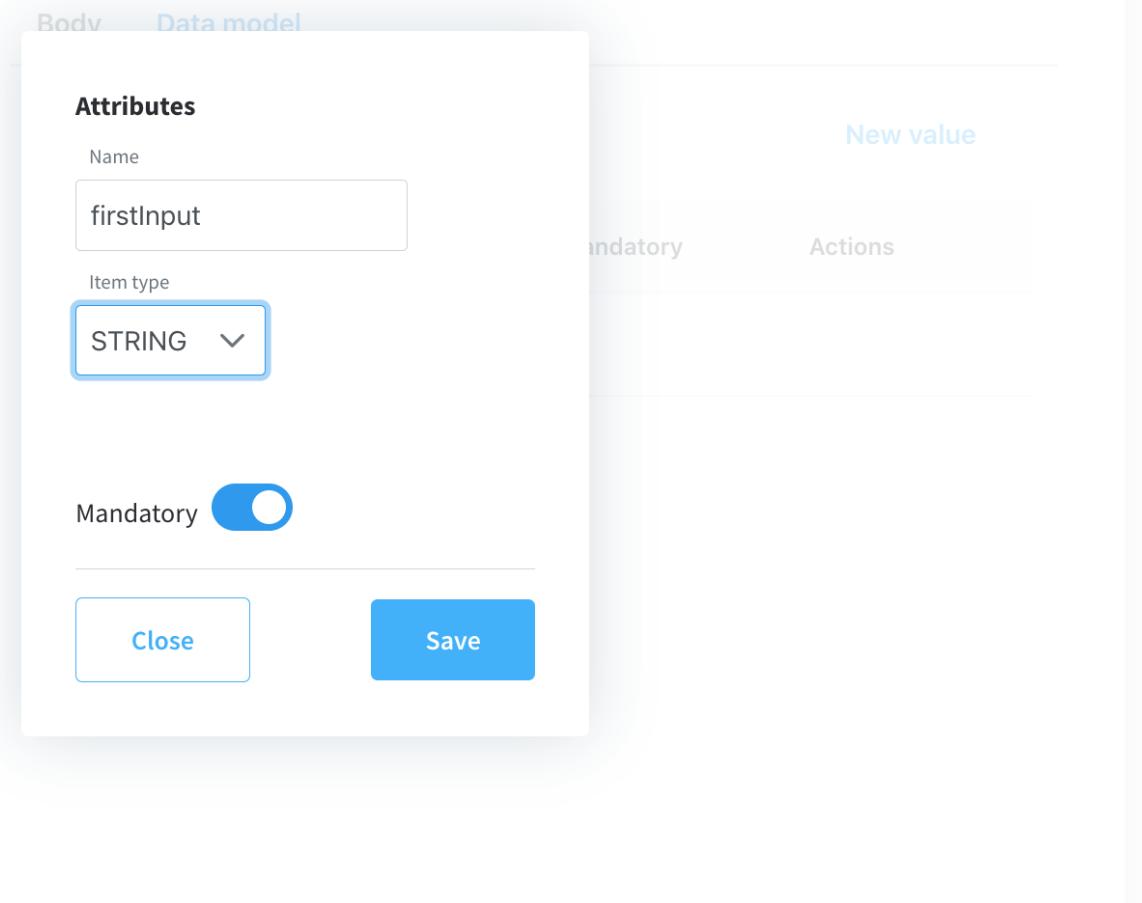
Attributes

Name	firstInput
Item type	STRING
Mandatory	<input checked="" type="checkbox"/>

New value

Actions

Close **Save**

**!** INFO

Parameters can be defined as mandatory or not. When you try to generate a template without filling in all the mandatory parameters, the following error message will be displayed: "*Provided data cannot be empty if there are any required properties defined.*"

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Plugins setup guides / Customer management plugin setup

Infrastructure Prerequisites:

The Customer management plugin is available as a docker image so we need to configure:

Elastic Search

In order to install elasticsearch instance Elastic Cloud on Kubernetes (ECK) can be used.

Use ECK quickstart to deploy CRDs and create elasticsearch instances:

Elasticsearch instance:

```
apiVersion: elasticsearch.k8s.elastic.co/v1
kind: Elasticsearch
metadata:
  name: elasticsearch-flowx
  namespace: elastic-system
spec:
  version: 7.9.3
  updateStrategy:
    changeBudget:
      maxSurge: 3
```

```
    maxUnavailable: 1
nodeSets:
# 3 dedicated master nodes
- name: master
  count: 3
  config:
    node.master: true
    node.data: false
    node.ingest: false
    node.remote_cluster_client: false
    # this allows ES to run on nodes even if their
    vm.max_map_count has not been increased, at a performance
    cost
    # node.store.allow_mmap: false
podTemplate:
  spec:
    initContainers:
      - name: sysctl
        securityContext:
          privileged: true
        command: ['sh', '-c', 'sysctl -w
vm.max_map_count=262144']
      - name: install-plugins
        command:
          - sh
          - -c
          - |
            bin/elasticsearch-plugin install --batch
repository-gcs
  containers:
    - name: elasticsearch
      resources:
        limits:
          memory: 6Gi
          cpu: 2
```

```
        requests:
          memory: 2Gi
          cpu: 1
        env:
        - name: ES_JAVA_OPTS
          value: "-Xms2g -Xmx2g"
        - name: READINESS_PROBE_TIMEOUT
          value: "10"
        readinessProbe:
          exec:
            command:
            - bash
            - -c
            - /mnt/elasticsearch/internal/scripts/readiness-
probe-script.sh
            failureThreshold: 3
            initialDelaySeconds: 10
            periodSeconds: 12
            successThreshold: 1
            timeoutSeconds: 12
        affinity:
          podAntiAffinity:

preferredDuringSchedulingIgnoredDuringExecution:
- weight: 100
  podAffinityTerm:
    labelSelector:
      matchLabels:
        elasticsearch.k8s.elastic.co/cluster-
name: elasticsearch-flowx
    topologyKey: kubernetes.io/hostname
    # request 2Gi of persistent data storage for pods in
    # this topology element
  volumeClaimTemplates:
  - metadata:
```

```
        name: elasticsearch-data
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 5Gi
  storageClassName: standard
# 3 ingest-data nodes
- name: ingest-data
  count: 3
  config:
    node.master: false
    node.data: true
    node.ingest: true
    # this allows ES to run on nodes even if their
    vm.max_map_count has not been increased, at a performance
    cost
    # node.store.allow mmap: false
podTemplate:
  spec:
    initContainers:
      - name: sysctl
        securityContext:
          privileged: true
          command: ['sh', '-c', 'sysctl -w
vm.max_map_count=262144']
    containers:
      - name: elasticsearch
        resources:
          limits:
            memory: 8Gi
            cpu: 2
          requests:
            memory: 4Gi
```

```
        cpu: 1
      env:
        - name: ES_JAVA_OPTS
          value: "-Xms2g -Xmx2g"
      affinity:
        podAntiAffinity:

preferredDuringSchedulingIgnoredDuringExecution:
  - weight: 100
    podAffinityTerm:
      labelSelector:
        matchLabels:
          elasticsearch.k8s.elastic.co/cluster-
name: elasticsearch-flowx
      topologyKey: kubernetes.io/hostname
      # nodeSelector:
      #   diskType: ssd
      #   environment: production
      # request 2Gi of persistent data storage for pods in
      # this topology element
    volumeClaimTemplates:
      - metadata:
          name: elasticsearch-data
    spec:
      accessModes:
        - ReadWriteOnce
      resources:
        requests:
          storage: 20Gi
      storageClassName: standard
```

(Optional) Kibana instance:

```
apiVersion: kibana.k8s.elastic.co/v1
kind: Kibana
metadata:
  name: kibana-flowx
  namespace: elastic-system
spec:
  version: 7.9.3
  count: 1
  elasticsearchRef:
    name: elasticsearch-flowx
    namespace: elastic-system
  config:
    elasticsearch.requestHeadersWhitelist:
      - authorization
  podTemplate:
    spec:
      containers:
        - name: kibana
          resources:
            requests:
              memory: 1Gi
              cpu: 0.5
            limits:
              memory: 3Gi
              cpu: 2
```

The index used by customer management plugin should be created.

Postgres database

This plugin can work without this database, it will not store the audit data.

Basic Postgres configuration

```
crmdb:
  existingSecret: {{secretName}}
  metrics:
    enabled: true
    service:
      annotations:
        prometheus.io/port: {{phrometeus port}}
        prometheus.io/scrape: "true"
      type: ClusterIP
    serviceMonitor:
      additionalLabels:
        release: prometheus-operator
      enabled: true
      interval: 30s
      scrapeTimeout: 10s
  persistence:
    enabled: true
    size: 4Gi
  postgresqlDatabase: {{postgres databaseName}}
  postgresqlUsername: {{postgres user}}
  resources:
    limits:
      cpu: 500m
      memory: 512Mi
    requests:
      cpu: 200m
      memory: 256Mi
  service:
    annotations:
      fabric8.io/expose: "false"
```

Configuration

Authorization configuration

The following variables need to be set in order to connect to the identity management platform:

`SECURITY_OAUTH2_BASE_SERVER_URL`

`SECURITY_OAUTH2_CLIENT_CLIENT_ID`

`SECURITY_OAUTH2_REALM`

Datasource configuration

To store audit for searches this plugins use a postgres database.

The following configuration details need to be added using environment variables:

`SPRING_DATASOURCE_URL`

`SPRING_DATASOURCE_USERNAME`

`SPRING_DATASOURCE_PASSWORD`

You will need to make sure that the user, password, connection link and db name are configured correctly, otherwise you will receive errors at start time.

If you are going to use a database to store the audit, you can use the built-in script to maintain the database schema.

Elastic search configuration

The connection to elastic search cluster is done over https using the elastic search api. To connect to the it you will need to configure the connection details and index use to store customers.

```
elasticsearch:  
  ssl: false  
  nodes:  
    -  
      hostname: ${ELASTICSEARCH_HOST}  
      port: ${ELASTICSEARCH_PORT}  
      scheme: ${ELASTICSEARCH_HTTP_SCHEME}  
      user: ${ELASTICSEARCH_USER}  
      password: ${ELASTICSEARCH_PASSWORD}  
      customer-index: ${ELASTICSEARCH_CUSTOMER_INDEX}  
      size: 10
```

Kafka configuration

The following Kafka related configurations can be set by using environment variables:

`SPRING_KAFKA_BOOTSTRAP_SERVERS` - address of the Kafka server

`SPRING_KAFKA_CONSUMER_GROUP_ID` - group of consumers

`KAFKA_CONSUMER_THREADS` - the number of Kafka consumer threads

`KAFKA_AUTH_EXCEPTION_RETRY_INTERVAL` - the interval between retries after `AuthorizationException` is thrown by `KafkaConsumer`

KAFKA_MESSAGE_MAX_BYTES - this is the largest size of the message that can be received by the broker from a producer.

Each action available in the service corresponds to a Kafka event. A separate Kafka topic must be configured for each use-case.

CAUTION

The Engine is listening for messages on topics with names of a certain pattern, make sure to use correct outgoing topic names when configuring the documents plugin.

Needed topics:

KAFKA_TOPIC_CUSTOMER_SEARCH_IN

KAFKA_TOPIC_CUSTOMER_SEARCH_OUT

CAUTION

In order to match a request made to the customer management plugin, the engine will have to send the process id on a Kafka header.

Logging

The following environment variables could be set in order to control log levels:

LOGGING_LEVEL_ROOT - root spring boot microservice logs

LOGGING_LEVEL_APP - app level logs

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Plugins setup guides / Documents plugin setup / Configuring access rights for Documents

Granular access rights can be configured for restricting access to the Documents plugin component.

The following access authorizations is provided, with the specified access scopes:

1. **Manage-document-templates** - for configuring access for managing document templates

Available scopes:

- import - users are able to import document templates
- read - users are able to view document templates
- edit - users are able to edit document templates
- admin - users are able to publish or delete document templates The Document plugin is preconfigured with the following default users roles for each of the access scopes mentioned above:

- manage-document-templates
 - import:
 - ROLE_DOCUMENT_TEMPLATES_IMPORT
 - ROLE_DOCUMENT_TEMPLATES_EDIT
 - ROLE_DOCUMENT_TEMPLATES_ADMIN
 - read:
 - ROLE_DOCUMENT_TEMPLATES_READ
 - ROLE_DOCUMENT_TEMPLATES_IMPORT
 - ROLE_DOCUMENT_TEMPLATES_EDIT
 - ROLE_DOCUMENT_TEMPLATES_ADMIN
 - edit:
 - ROLE_DOCUMENT_TEMPLATES_EDIT
 - ROLE_DOCUMENT_TEMPLATES_ADMIN
 - admin:
 - ROLE_DOCUMENT_TEMPLATES_ADMIN

ROLES

These roles need to be defined in the chosen identity provider solution.

In case other custom roles are needed, you can configure them using environment variables. More than one role can be set for each access scope.

To configure access for each of the roles above, adapt the following input:

```
SECURITY_ACCESSAUTHORIZATIONS_AUTHORIZATIONNAME_SCOPES_SCOPENAM  
E_ROLESALLOWED: NEEDED_ROLE_NAMES
```

Possible values for AUTHORIZATIONNAME: MANAGEDOCUMENTTEMPLATES.

Possible values for SCOPENAME: import, read, edit, admin.

For example, if you need to configure role access for read, insert this:

```
SECURITY_ACCESSAUTHORIZATIONS_MANAGEDOCUMENTTEMPLATES_SCOPES_RI  
ROLE_NAME_TEST
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Plugins setup guides / Notification templates plugin setup / Configuring access rights for Notifications

Granular access rights can be configured for restricting access to the Notification plugin component.

The following access authorizations are provided, with the specified access scopes:

1. **Manage-notification-templates** - for configuring access for managing notification templates

Available scopes:

- import - users are able to import notification templates
- read - users are able to view notification templates
- edit - users are able to edit notification templates
- admin - users are able to publish or delete notification templates

The Notification plugin is preconfigured with the following default users roles for each of the access scopes mentioned above:

- manage-notification-templates
 - import
 - ROLE_NOTIFICATION_TEMPLATES_IMPORT
 - ROLE_NOTIFICATION_TEMPLATES_EDIT
 - ROLE_NOTIFICATION_TEMPLATES_ADMIN
 - read:
 - ROLE_NOTIFICATION_TEMPLATES_READ
 - ROLE_NOTIFICATION_TEMPLATES_IMPORT
 - ROLE_NOTIFICATION_TEMPLATES_EDIT
 - ROLE_NOTIFICATION_TEMPLATES_ADMIN
 - edit:
 - ROLE_NOTIFICATION_TEMPLATES_EDIT"
 - ROLE_NOTIFICATION_TEMPLATES_ADMIN"
 - admin:
 - ROLE_NOTIFICATION_TEMPLATES_ADMIN

CAUTION

These roles need to be defined in the chosen identity provider solution.

In case other custom roles are needed, you can configure them using environment variables. More than one role can be set for each access scope.

To configure access for each of the roles above, adapt the following input:

```
SECURITY_ACCESSAUTHORIZATIONS_AUTHORIZATIONNAME_SCOPES_SCOPENAME_ROLESALLOWED: NEEDED_ROLE_NAMES
```

Possible values for AUTHORIZATIONNAME: MANAGENOTIFICATIONTEMPLATES.

Possible values for SCOPENAME: import, read, edit, admin.

For example, if you need to configure role access for read, insert this:

```
SECURITY_ACCESSAUTHORIZATIONS_MANAGENOTIFICATIONTEMPLATES_SCOPEROLE_NAME_TEST
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Plugins setup guides / OCR plugin setup

The OCR plugin is a docker image that can be deployed using the following infrastructure prerequisites:

Infrastructure Prerequisites:

- S3 bucket or alternative (for example, minio)
- Kafka cluster

⚠️ IMPORTANT

Starting with `ocr-plugin 1.X` it no longer requires RabbitMQ.

The following environment from previous releases must be removed in order to use OCR plugin: `CELERY_BROKER_URL`.

Deployment/Configuration

To deploy the OCR plugin, you will need to deploy `ocr-plugin` helm chart with custom values file.

Most important sections are these, but more can be extracted from helm chart.

```
image:  
  repository: <repository>/ocr-plugin  
  
applicationSecrets: {}  
  
replicaCount: 2  
  
resources: {}  
  
env: []
```

Credentials

S3 bucket:

```
applicationSecrets:  
  enable: true  
  envSecretKeyRef:  
    STORAGE_S3_ACCESS_KEY: access-key # default empty  
    STORAGE_S3_SECRET_KEY: secret-key # default empty  
  existingSecret: true  
  secretName: ocr-plugin-application-config
```

Kafka configuration

You can override the following environment variables:

Environment Variable	Definition	Default Value
ENABLE_KAFKA_SASL	Indicates whether Kafka SASL authentication is enabled	False

Environment Variable	Definition	Default Value
KAFKA_ADDRESS	<p>The address of the Kafka bootstrap server in the format <code><hostname>:<port></code></p>	-
KAFKA_CONSUME_SCHEDULE	<p>The interval (in seconds) at which Kafka messages are consumed</p>	30
KAFKA_INPUT_TOPIC	<p>The Kafka topic from which input messages are consumed</p>	-
KAFKA_OCR_CONSUMER_GROUPID	<p>The consumer group ID for the OCR Kafka consumer</p>	ocr_group

Environment Variable	Definition	Default Value
KAFKA_CONSUMER_AUTO_COMMIT	Determines whether Kafka consumer commits offsets automatically	True
KAFKA_CONSUMER_AUTO_COMMIT_INTERVAL	The interval (in milliseconds) at which Kafka consumer commits offsets automatically	1000
KAFKA_CONSUMER_TIMEOUT	The timeout (in milliseconds) for Kafka consumer operations	28000

Environment Variable	Definition	Default Value
KAFKA_CONSUMER_MAX_POLL_INTERVAL	The maximum interval (in milliseconds) between consecutive polls for Kafka consume	25000
KAFKA_CONSUMER_AUTO_OFFSET_RESET	The strategy for resetting the offset when no initial offset is available or if the current offset is invalid	earliest
KAFKA_OUTPUT_TOPIC	The Kafka topic to which output messages are sent	-

Please note that the default values and examples provided here are for illustrative purposes. Make sure to replace them with the appropriate values based on your Kafka configuration.

⚠ CAUTION

When configuring the OCR plugin, make sure to use the correct outgoing topic names that match **the pattern expected by the Engine**, which listens for messages on topics with specific names.

Authorization

You can override the following environment variables:

Environment Variable	Definition	Default Value	Example
OAUTH_CLIENT_ID	The client ID for OAuth authentication	-	your_client_id
OAUTH_CLIENT_SECRET	The client secret for OAuth authentication	-	your_client_secret

Environment Variable	Definition	Default Value	Example
OAUTH_TOKEN_ENDPOINT_URI	The URI of the token endpoint for OAuth authentication	-	<code>https://oauth...</code>

Please note that the default values and examples provided here are for illustrative purposes. Make sure to replace them with the appropriate values based on your OAuth authentication configuration.

Storage (S3 configuration)

You can override the following environment variables:

Environment Variable	Definition	Default Value	Example
STORAGE_S3_HOST	The host address of the S3 storage service	-	<code>minio:west-1</code>

Environment Variable	Definition	Default Value
STORAGE_S3_SECURE_CONNECTION	Indicates whether to use a secure connection (HTTPS) for S3 storage	False
STORAGE_S3_LOCATION	The location of the S3 storage service	- eu-wes
STORAGE_S3_OCR_SCANS_BUCKET	The name of the S3 bucket for storing OCR scans	- pdf-sc

Environment Variable	Definition	Default Value	
STORAGE_S3_OCR_SIGNATURE_BUCKET	The name of the S3 bucket for storing OCR signatures	-	extract
STORAGE_S3_OCR_SIGNATURE_FILENAME	The filename pattern for extracted OCR signatures	-	extract
STORAGE_S3_SECRET_KEY	The secret key for connecting to the S3 storage service	-	

Please note that the default values and examples provided here are for illustrative purposes. Make sure to replace them with the appropriate values based on your S3 storage configuration.

Performance

Environment Variable	Definition	Default Value
ENABLE_PERFORMANCE_PAYLOAD	When set to true, the response payload will contain performance metrics related to various stages of the process.	true

Example

```
"perf": {  
    "total_time": 998,  
    "split": {  
        "get_file": 248,  
        "extract_images": 172,  
        "extract_barcodes": 37,  
        "extract_signatures": 238,  
        "minio_signature_save": 301  
    }  
}
```

Certificates

You can override the following environment variables:

- REQUESTS_CA_BUNDLE - the path to the certificate bundle file used for secure requests

Workers behavior

You can override the following environment variables:

Environment Variable	Definition	Default Value
OCR_WORKER_COUNT	Number of workers	5
OCR_WORK_QUEUE_TIMEOUT	If no activity has occurred for a certain number of seconds, an attempt will be made to refresh the workers	10

! INFO

If no worker is released after `OCR_WORK_QUEUE_TIMEOUT` seconds, the application will verify whether any workers have become unresponsive and need to be restarted.

If none of the workers have died, it means they are likely blocked in some process. In this case, the application will terminate all the workers and shut down itself, hoping that the container will be restarted.

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Plugins setup guides / Reporting setup guide

The reporting plugin is available a docker image, and it has the following dependencies:

Dependencies

- a reporting PostgreSQL instance
- reporting-plugin helm chart - containing cronJob which performs the following actions:
 - reads from FLOWX.AI Engine db
 - writes in the FLOWX.AI Reporting plugin db
- Superset:
 - a Superset PostgreSQL db
 - a Redis instance for caching
 - exposes the UI through an ingress -> host needed

Postgres database

Basic Postgres configuration:

```
postgresql:  
  enabled: true  
  postgresqlUsername: {{userNmae}}  
  postgresqlPassword: ""
```

```
postgresqlDatabase: "reporting"
existingSecret: {{secretName}}
persistence:
  enabled: true
  storageClass: standard-rwo
  size: 5Gi
resources:
  limits:
    cpu: 1000m
    memory: 1024Mi
  requests:
    memory: 256Mi
    cpu: 100m
metrics:
  enabled: true
  serviceMonitor:
    enabled: false
  prometheusRule:
    enabled: false
primary:
  nodeSelector:
    preemptible: "false"
```

Reporting plugin helm chart (containing CRON)

reporting-plugin helm.yaml

```
sync:
  cronjob:
    image:
      repository: {{env}}/reporting-plugin
```

```
schedule: "*/5 * * * *"

extraEnvVarsMultipleSecretsCustomKeys:
  - name: process-engine-application-config
    secrets:
      ENGINE_DATABASE_PASSWORD: {{db password}}
    secrets:
      REPORTING_DATABASE_PASSWORD: {{db password}}

env:
  ENGINE_DATABASE_USER: {{engine db user}}
  ENGINE_DATABASE_URL: {{engine db URL}}
  ENGINE_DATABASE_NAME: {{engine db name}}

  REPORTING_DATABASE_USER: {{reporting db user}}
  REPORTING_DATABASE_URL: {{reporting db URL}}
  REPORTING_DATABASE_NAME: {{reporting db name}}
```

Superset

» Superset configuration

» Superset documentation

After installation

- datasource URL -> FLOWX.AI Reporting database

- Datasets
- Dashboards

Datasource configuration

To store data related to document templates and documents the service uses a Postgres database.

The following configuration details need to be added using environment variables:

`SPRING_DATASOURCE_URL`

`SPRING_DATASOURCE_USERNAME`

`SPRING_DATASOURCE_PASSWORD`

You will need to make sure that the user, password, connection link and db name are configured correctly, otherwise you will receive errors at start time.

The datasource is configured automatically via a liquibase script inside the service. All updates will include migration scripts.

 **INFO**

Database schema is managed by a liquibase script that will create, manage and migrate future versions.

Redis configuration

The following values should be set with the corresponding Redis-related values:

`SPRING_REDIS_HOST``SPRING_REDIS_PORT`

Keycloak configuration

To enable a different user authentication than the regular one (database), you need to override the `AUTH_TYPE` parameter in your `superset` .yml file.

It would look something like this:

`AUTH_TYPE: AUTH_OID`

You will also need to provide a reference to your `openid-connect` realm:

`OIDC_OPENID_REALM: 'flowx'`

With this configuration, the login page changes to a prompt where the user can select the desired OpenID provider (in our case keycloak)

Extend the Security Manager

Firstly, you will want to make sure that flask stops using `flask-openid` and starts using `flask-oidc` instead.

To do so, you will need to create your own security manager that configures `flask-oidc` as its authentication provider.

```
extraSecrets:  
  keycloak_security_manager.py: |
```

```
from flask_appbuilder.security.manager import AUTH_OID
from superset.security import SupersetSecurityManager
from flask_oidc import OpenIDConnect
```

To enable OpenID in Superset, you would previously have had to set the authentication type to `AUTH_OID`.

The security manager still executes all the behavior of the super class, but overrides the `OID` attribute with the `OpenIDConnect` object.

Further, it replaces the default OpenID authentication view with a custom one:

```
from flask_appbuilder.security.views import AuthOIDView
from flask_login import login_user
from urllib.parse import quote
from flask_appbuilder.views import expose
from flask import request, redirect

class AuthOIDCView(AuthOIDView):
    @expose('/login/', methods=['GET', 'POST'])
    def login(self, flag=True):
        sm = self.appbuilder.sm
        oidc = sm.oid
        superset_roles = ["Admin", "Alpha", "Gamma",
"Public", "granter", "sql_lab"]
        default_role = "Admin"
        @self.appbuilder.sm.oid.require_login
        def handle_login():
            user =
sm.auth_user_oid(oidc.user_getfield('email'))
            if user is None:
                info =
oidc.user_getinfo(['preferred_username', 'given_name',
```

```
'family_name', 'email', 'roles'])
            roles = [role for role in superset_roles
if role in info.get('roles', [])]
            roles += [default_role, ] if not roles
else []
        user =
sm.add_user(info.get('preferred_username'),
info.get('given_name', ''), info.get('family_name', ''),
info.get('email'),
[sm.find_role(role) for role in roles])
        login_user(user, remember=False)
    return
redirect(self.appbuilder.get_url_for_index)
    return handle_login()
@expose('/logout/', methods=['GET', 'POST'])
def logout(self):
    oidc = self.appbuilder.sm.oid
    oidc.logout()
    super(AuthOIDCView, self).logout()
    redirect_url = request.url_root.strip('/')
    # redirect_url = request.url_root.strip('/') +
self.appbuilder.get_url_for_login
    return redirect(
        oidc.client_secrets.get('issuer') +
'/protocol/openid-connect/logout?redirect_uri=' +
quote(redirect_url))
```

On authentication, the user is redirected back to Superset.

Configure Superset

Finally, we need to add some parameters to the superset .yml file:

```
...
-----KEYCLOACK-----
...
curr  =  os.path.abspath(os.getcwd())
AUTH_TYPE = AUTH_OID
OIDC_CLIENT_SECRETS = curr +
'/pythonpath/client_secret.json'
OIDC_ID_TOKEN_COOKIE_SECURE = True
OIDC_REQUIRE_VERIFIED_EMAIL = True
OIDC_OPENID_REALM: 'flowx'
OIDC_INTROSPECTION_AUTH_METHOD: 'client_secret_post'
CUSTOM_SECURITY_MANAGER = OIDCSecurityManager
AUTH_USER_REGISTRATION = False
AUTH_USER_REGISTRATION_ROLE = 'Admin'
OVERWRITE_REDIRECT_URI = 'https://{{.
Values.flowx.ingress.reporting }}/oidc_callback'
...
-----
```

```
...
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / Plugins setup guides / Task Manager plugin setup / Configuring access rights for Task management

Granular access rights can be configured for restricting access to the Task management plugin component.

Two different access authorizations are provided, each with specified access scopes:

1. **manage-tasks** - for configuring access for viewing the tasks lists

Available scopes:

- read - users are able to view tasks

2. **manage-hooks** - for configuring access for managing hooks

Available scopes:

- import - users are able to import hooks
- read - users are able to view hooks
- edit - users are able to edit hooks
- admin - users are able to delete hooks

3. **manage-process-allocation-settings** - for configuring access for managing process allocation settings

Available scopes:

- import - users are able to import allocation rules
- read - users are able to read/export allocation rules
- edit - users are able to edit access - create/edit allocation rules
- admin - users are able to delete allocation rules

4. **manage-out-of-office-users** - for configuring access for managing out-of-office users

Available scopes:

- read - users are able to view out-of-office records
- edit - users are able to create and edit out-of-office records
- admin - users are able to delete out-of-office records

The Task management plugin is preconfigured with the following default user roles for each of the access scopes mentioned above:

- manage-tasks
 - read:
 - ROLE_TASK_MANAGER_TASKS_READ
- manage-hooks
 - import:
 - ROLE_TASK_MANAGER_HOOKS_IMPORT
 - ROLE_TASK_MANAGER_HOOKS_EDIT
 - ROLE_TASK_MANAGER_HOOKS_ADMIN
 - read:
 - ROLE_TASK_MANAGER_HOOKS_READ
 - ROLE_TASK_MANAGER_HOOKS_IMPORT
 - ROLE_TASK_MANAGER_HOOKS_EDIT
 - ROLE_TASK_MANAGER_HOOKS_ADMIN
 - edit:
 - ROLE_TASK_MANAGER_HOOKS_EDIT
 - ROLE_TASK_MANAGER_HOOKS_ADMIN

- admin:
 - ROLE_TASK_MANAGER_HOOKS_ADMIN
- manage-process-allocation-settings
 - import:
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_IMPORT
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_EDIT
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_ADMIN
 - read:
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_READ
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_IMPORT
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_EDIT
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_ADMIN
 - edit:
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_EDIT
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_ADMIN
 - admin:
 - ROLE_TASK_MANAGER_PROCESS_ALLOCATION_SETTINGS_ADMIN

- manage-out-of-office-users
 - read:
 - ROLE_TASK_MANAGER_OOO_READ
 - ROLE_TASK_MANAGER_OOO_EDIT
 - ROLE_TASK_MANAGER_OOO_ADMIN
 - edit:
 - ROLE_TASK_MANAGER_OOO_EDIT
 - ROLE_TASK_MANAGER_OOO_ADMIN
 - admin:
 - ROLE_TASK_MANAGER_OOO_ADMIN

⚠ CAUTION

These roles need to be defined in the chosen identity provider solution.

In case other custom roles are needed, you can configure them using environment variables. More than one role can be set for each access scope.

To configure access for each of the roles above, adapt the following input:

```
SECURITY_ACCESSAUTHORIZATIONS_AUTHORIZATIONNAME_SCOPES_SCOPENAME_ROLESALLOWED: NEEDED_ROLE_NAMES
```

Possible values for AUTHORIZATIONNAME: MANAGETASKS, MANAGEHOOKS.

Possible values for SCOPENAME: import, read, edit, admin.

For example, if you need to configure role access for read, insert this:

```
SECURITY_ACCESSAUTHORIZATIONS_MANAGEHOOKS_SCOPES_READ_ROLESALL  
ROLE_NAME_TEST
```

Was this page helpful?

PLATFORM DEEP DIVE / Plugins / WYSIWYG editor

FLOWX.AI Designer's WYSIWYG ("What You See Is What You Get") editor enables you to create and modify [notification](#) and [document](#) templates without the need for complicated coding from the developers. WYSIWYG editors make the creation/editing of any type of document or notification easier for the end-user.

Displaying how the document will be published or printed on the screen, the user can adjust the text, graphics, photos, or other document/notification elements before generating the final output.

WYSIWYG Components

Header

The formatting head of the editor allows users to manipulate/format the content of the document.

Body

The Body is the main part of the editor where you can edit your template.

!(INFO)

After you defined some parameters in the **Data Model** tab, you can type "#" in the body to trigger a dropdown where you can choose which one you want to use.

Source

The **Source** button can be used to switch to the HTML editor. You can use the HTML view/editor as a debugging tool, or you can edit the template directly by writing code here.

Documents Templates - ExampleTemplate

Body Data model

Language: Romanian (Romania) - ro-RO

Source

#firstInput

#secondInput

Template generated for the FLOWX.AI by

```
body p
```

Test Save Publish

Document Templates

One of the main features of the **document management plugin** is the ability to generate new documents based on custom templates and prefilled with data related to the current process instance.

The screenshot shows the FLOWX.AI platform interface with the following details:

- Left Sidebar:** A navigation menu with sections: Processes (Definitions, Active process), Content Management (Enumerations, Substitution tags, Content models, Languages, Source systems), Plugins (Task Manager, Hooks, Stages, Notification templates), Document templates (highlighted in blue), General Settings (Generic Parameters), and Platform status.
- Top Bar:** Shows the FLOWX.AI logo and the title "Documents Templates - ExampleTemplate".
- Content Area:**
 - Body Tab:** Contains a toolbar with various icons (bold, italic, underline, etc.) and a language dropdown set to "Romanian (Romania) - ro-RO".
 - Data model:** A section below the toolbar.
 - Text Editor:** A rich text editor area containing placeholder text: "Template generated for the FLOWX.AI Academy by". Below this, there are two yellow-highlighted placeholder fields: "#firstInput" and "#secondInput".
 - Code View:** A code editor at the bottom showing the corresponding HTML and CSS for the above placeholders.
 - Buttons:** At the bottom right are "Test", "Save", and "Publish" buttons.
- Bottom Left:** A "Logout" link.

» Documents plugin

Notification Templates

Notification WYSIWYG body has some additional fields (other than documents template):

- **Type** - that could be either MAIL or SMS (SMS, only if there is an external adapter)
- **Forward on Kafka** - if this box is checked, the notification is not being sent directly by the plugin to the destination, but forwarded to another adapter

The screenshot shows the FLOWX.AI platform's notification template editor. On the left, a sidebar navigation includes sections for Processes, Content Management (with sub-options like Enumerations, Substitution tags, Content models, Languages, and Source systems), Plugins (Task Manager, All tasks, Hooks, Stages), Notification templates (selected), Document templates, General Settings (Generic Parameters), and Platform status. At the bottom of the sidebar are Logout and Test buttons. The main workspace is titled "Notifications Template - ExampleTemplate". It has tabs for "Body" (selected) and "Data model". Under "Body", settings include "Type: MAIL", "Forward on Kafka" (unchecked), "Language: Romanian (Romania)-ro-RO", and "Subject: Contract [\${firstInput}]". A "Source" button is located in the top right of the body area. Below these settings is a rich text editor toolbar with various icons. The main content area displays an email template with a header containing the FLOWX.AI logo, a greeting "Salut", a message "Salut #firstInput! #secondInput, ne bucurăm sa te avem alături!", and a note "Găsești toate detailele în brosura atașată acestui email.". Three orange placeholder boxes are at the bottom. In the bottom right corner of the workspace are "Save" and "Publish" buttons.

» Managing notifications templates

Data Model

Data Model

Using the data model, you can define key pair values (parameters) that will be displayed and reused in the body. Multiple parameters can be added:

- STRING
- NUMBER
- BOOLEAN
- OBJECT
- ARRAY (which has an additional `item` field)

Documents Templates - ExampleTemplate

Body Data model

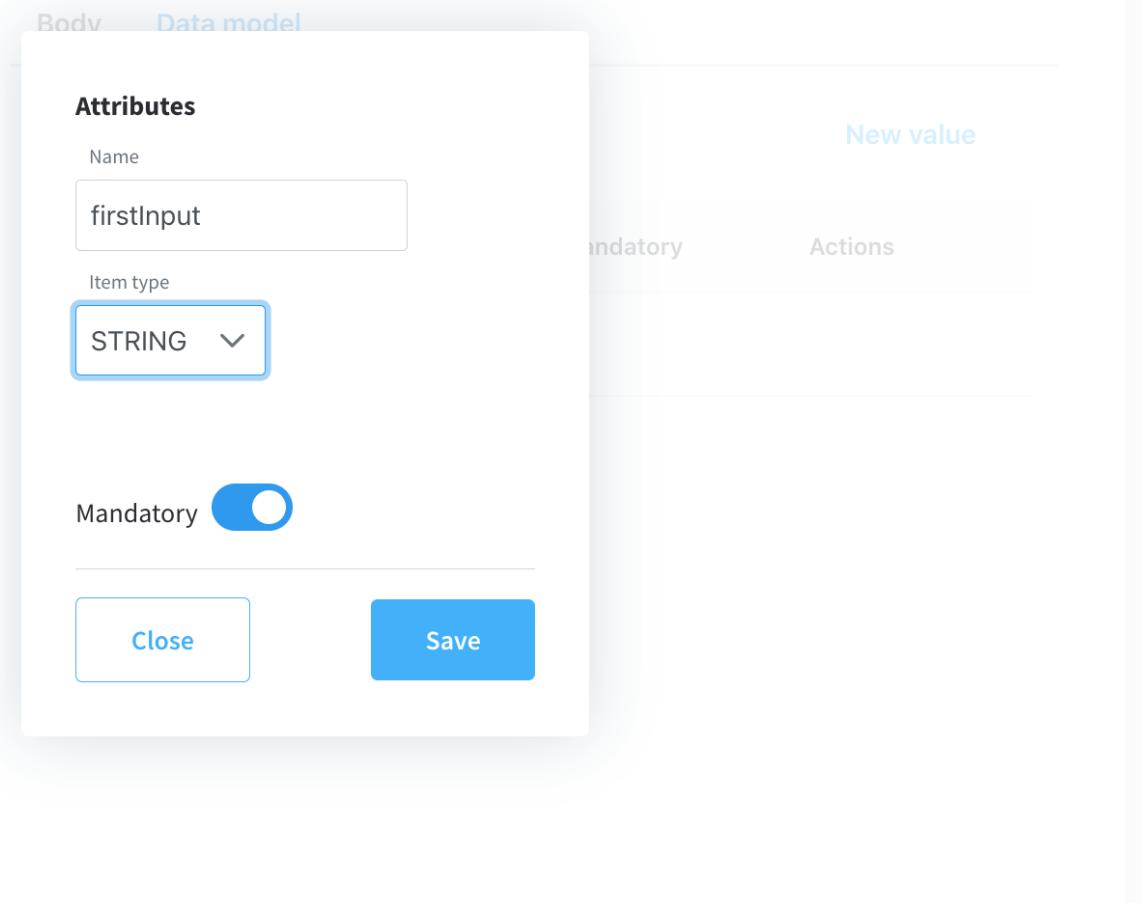
Attributes

Name	firstInput
Item type	STRING
Mandatory	<input checked="" type="checkbox"/>

New value

Actions

Close **Save**

**!** INFO

Parameters can be defined as mandatory or not. When you try to generate a template without filling in all the mandatory parameters, the following error message will be displayed: "*Provided data cannot be empty if there are any required properties defined.*"

Was this page helpful?