

Use Case - Business Licence Application

The use case describes how a City that requires business licence for every operating business can make use of **formsflow.ai** capabilities. The City can publish an online form for business licence application submission and configure an approval workflow to process these submitted applications.

The below steps describe how an application for a business licence can be created and executed with a one step approval process using **formsflow.ai**

Setting up Users, Roles and Groups

An online business licence application can be submitted by citizens or businesses that have an account with the City services. When an application is submitted, an email is triggered to the City staff to review the application, ask for any additional information needed from the business, ensure that the application is complete before it can be approved.

We can broadly divide the actors or users involved in this use case as –

- Citizen or business – the client who would submit the application
- Staff user – who reviews and takes a decision on the application
- Staff user – who is in charge of designing the business licence application form

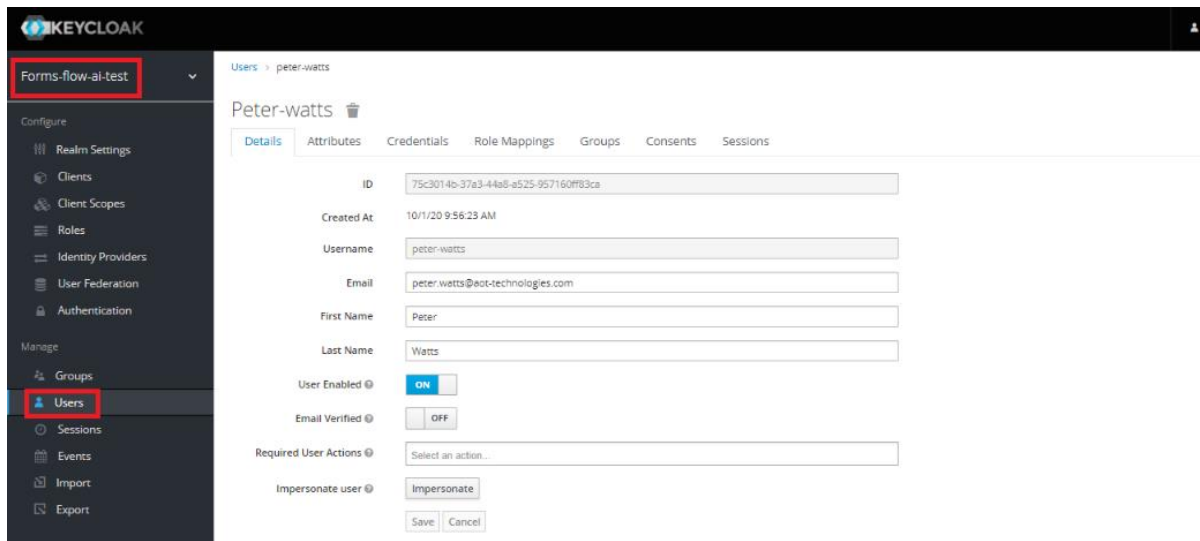
Based on the actors involved, the user, group and role creation and management is performed in Keycloak by the Keycloak administrator. (Refer [Keycloak Setup](#) for further details)

Groups	Roles	Privileges
formsflow-designer	formsflow-designer	Able to only design forms in the formsflow.ai
formsflow-reviewer	formsflow-reviewer	Able to access task list, forms access, metrics and insights of the formsflow.ai
formsflow-client	formsflow-client	Able to make only application submissions in the formsflow.ai

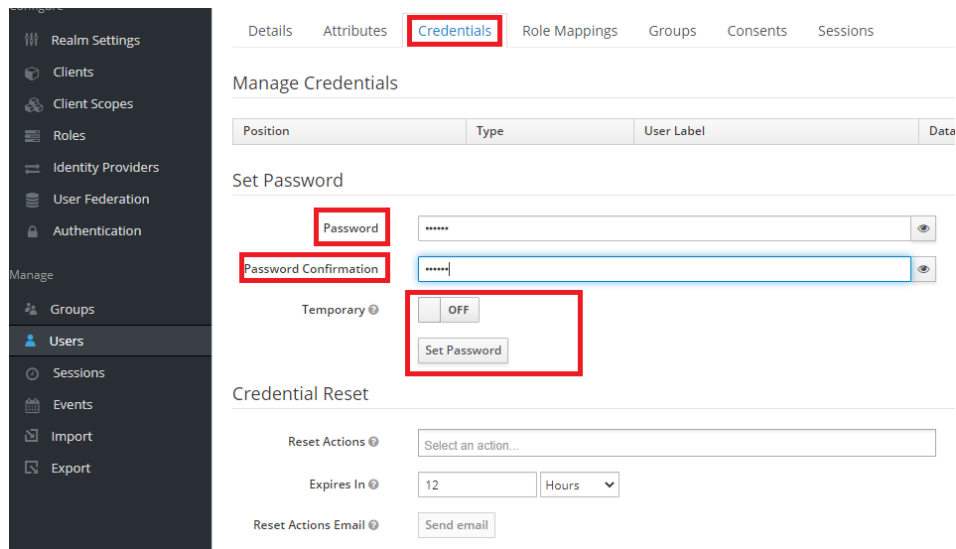
For our example, lets have 3 users each belonging to a client, reviewer and designer role

User	Groups
Peter Watts	formsflow-designer
Nancy Smith	formsflow-reviewer
David Langer	formsflow-client

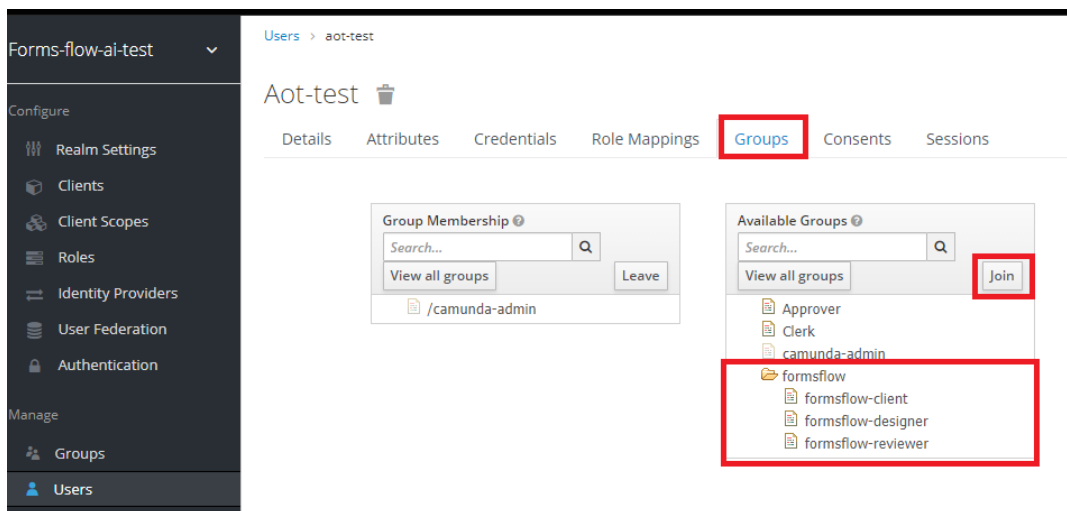
Users are created in Keycloak by choosing the appropriate realm and navigating to the User menu



Once the user is created, the login credentials are set in the credentials tab

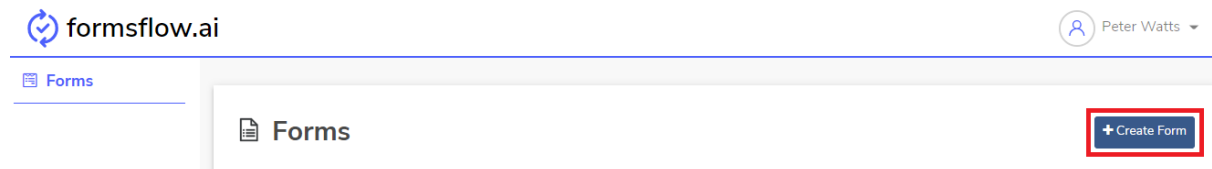


The user is then mapped to the appropriate group in the Groups tab

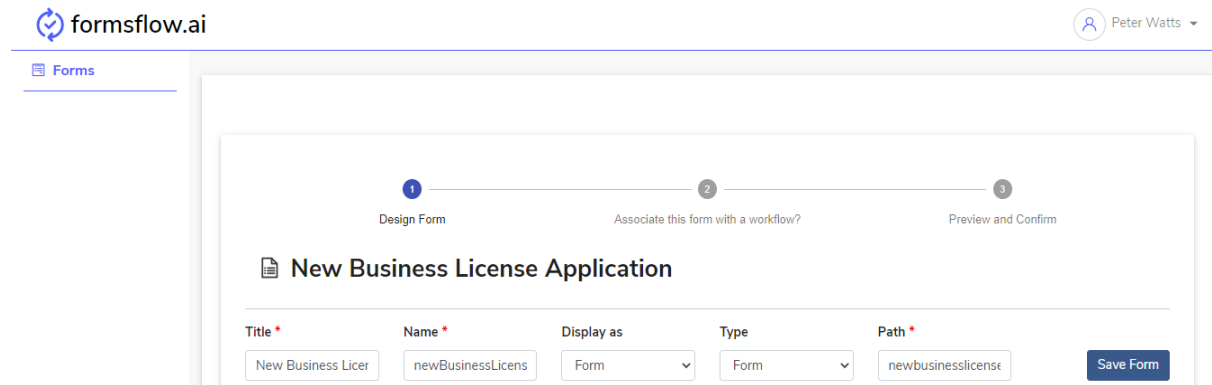


Designing an application form

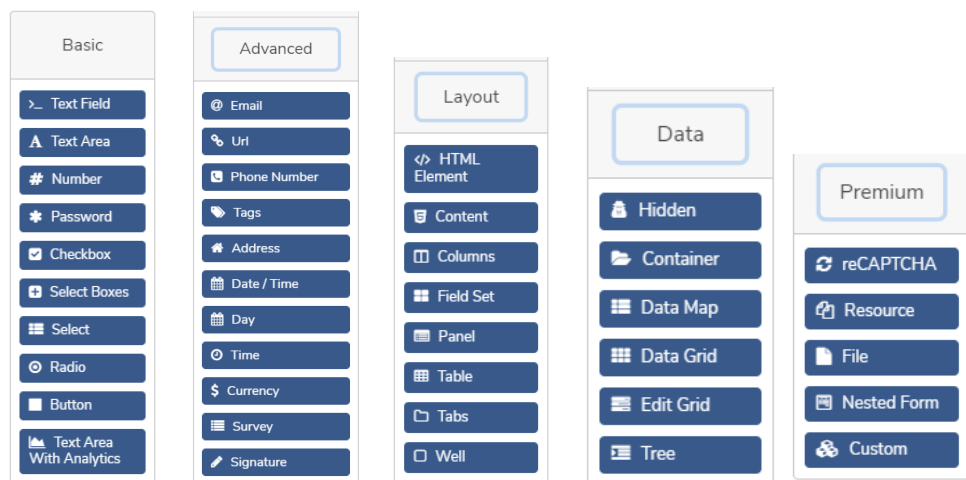
- The City staff (Peter Watts) oversees designing the business licence application form
- He is mapped to the designer group in Keycloak
- Peter Watts will only have Forms menu option in **formsflow.ai**
- He follows the below steps to design a business application license form
 - Click 'Create Form' to create a new Form



- Provide a suitable title to start creating the form.



- The components of the form can be designed using the elements available under the Basic, Advanced, Layout, Data and Premium options. All the elements can be dragged and dropped to the desired space. Make use of the Layout menu element to segregate and compartment logical fields.



Below is an example on how different elements from the menu can be used to design a form

Business Information

Business Operating Name *

Proposed Business Start Date *
MM/dd/yyyy

Business Website

Business E-Mail *

Nature of Business *

Number of Employees ? *

Business Phone
() - -

Required Field

Date/Time Field

Email Field

Panel Element

Column Element

Phone number field

Example on how a Text Field from the Basic Menu can be designed to contain a required field

- Click on the Settings gear icon

Business Operating Name *

- Provide a suitable label for the text field

Display Data Validation API Conditional Logic Layout

Label ? *

Business Operating Name

Label Position ?

- Check on the required validation and any other validations that need to be performed

Display Data Validation API Conditional Logic Layout

Validate On ?

Change

Required ?

Unique ?

- Provide a suitable property name for the field to be passed to the backend

Display
Data
Validation
API
Conditional
Logic
Layout

Property Name ?

businessOperatingName

Field Tags ?

- Once the form is designed, click on Save Form. The click Next to associate with any approval process. There are few predefined workflows provided in the system. Any new workflow can be defined in Camunda

Do you want to associate form with a workflow ?

Yes No

Please select from one of the following workflows.

One Step Approval ▼

```

graph LR
    Start((Start Request)) --> Review[Review Submission]
    Review --> Action{Action Taken?}
    Action -- approve --> Update[Update Application Status]
    Action -- reject --> Review
  
```

A process flow diagram will also be displayed to outline the approval process. In this example, we have used the one step approval process where in a client submits an application, the reviewer reviews the application and can either approve/reject the application.

Currently the following workflows are available in the system

- ✓ Email Notification – sends an email notification on application submission
- ✓ One Step Approval – sends the application to a reviewer for approve/reject
- ✓ One Step Review – sends the application to a reviewer. The reviewer can return the application for review and process the application
- ✓ One Step Request Processing with Send Back– sends the application to a reviewer. The reviewer can return the application for review or process the

application. The client can provide an acknowledgment (feedback) on the processing

- ✓ Two Step Approval - sends the application to a clerk. The clerk can return the application for review or forward it to a reviewer. The reviewer can either approve or reject.
- Click Next after associating to a workflow
- In the Preview and Confirm tab, select 'Publish this form for Client Users' before saving the changes. This makes the form available for clients for application submission.

The screenshot shows the 'Preview and Confirm' step of a form configuration process. At the top, a progress bar indicates three steps: 1. Design Form, 2. Associate this form with a workflow?, and 3. Preview and Confirm. Below the progress bar, there are 'BACK' and 'SAVE' buttons. The 'SAVE' button is highlighted with a red box. The main content area contains the following information:

- Form Name : New Business License Application
- Workflow Name : Two Step Approval
- Publish this form for Client Users. (This checkbox is highlighted with a red box)
- Comments: Two step approval with option to send back to client for corrections.

- Once done, the form will be available for View/Edit/Delete in the Forms menu

The screenshot shows the 'Forms' menu in the formsflow.ai interface. At the top right, there is a '+ Create Form' button. Below it is a table with the following structure:

Form	Operations
New Business License Application (highlighted with a red box)	View/Edit Form Delete Form

At the bottom of the page, there is a pagination control showing 'Previous 1 Next' and '10 items per page'. The total number of items is '1 - 1 / 1 total'.

Submitting an application form

- A citizen or business (e.g. David Langer) requiring a business licence will have to be registered with a City Services account
- A web service can be used to map these accounts in Keycloak to the Client Group
- David Langer will only have two menu options when he logs in to **formsflow.ai**
 - Forms – to submit a new application
 - Applications – to view all submitted applications, status and history
- He can follow the below steps to submit an application
 - Click 'Submit New' in the Forms menu to start filling in a new application

formsflow.ai David Langer

Forms

Applications

Form	Operations
New Business License Application	Submit New

Previous **1** Next 10 items per page 1 - 1 / 1 total

- Fill in the relevant details and click on Submit at the bottom of the page. Validation messages for each field will be displayed as and when the user makes an invalid entry

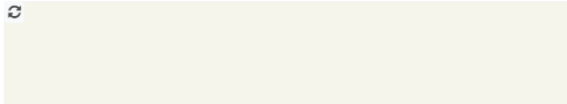
Completion of this application **does not guarantee approval of application**. Approved licences will be issued only upon receipt of payment of Business Licence fee. Conducting business without a valid licence is an **offence** for which penalties are prescribed. Be advised that the minimum penalty in this case is a fine of \$250 per day, for each day that the offence continues ([Bylaw No. 89-71 Sec. 4\(a\)](#)).

Checklist for applicant:

- ✓ Application signed and completed in full
- ✓ Documents attached (Incorporation/Certification/Share Purchase Agreement) (if applicable)
- ✓ Detailed Site Plan/Layout of Business provided (if applicable)
- ✓ Occupant Load/Floor Plans of Building (if applicable)

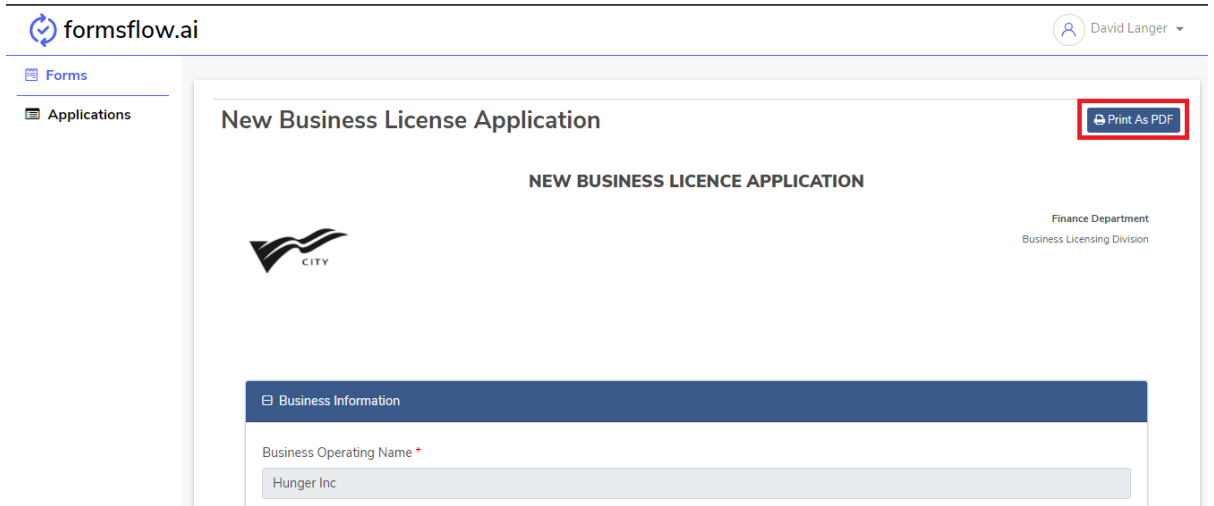
Applicant's Name
David Langer

Date signed
10-08-2020

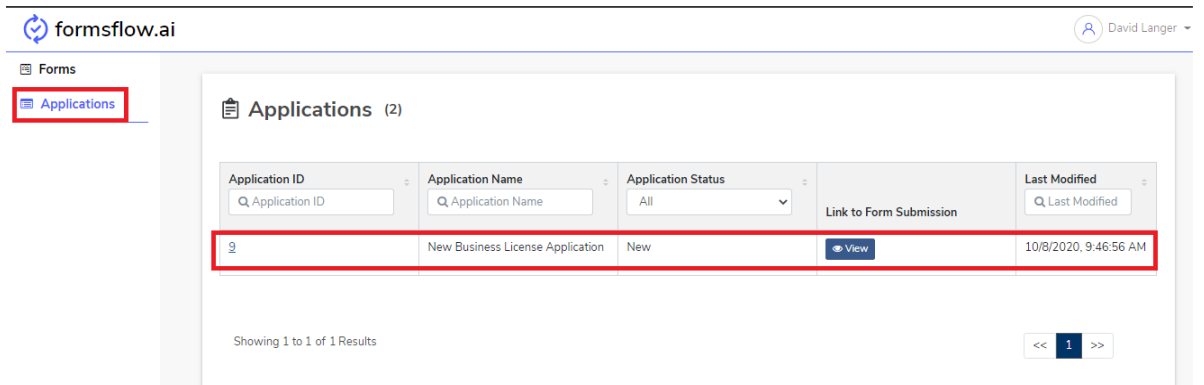
Applicant's Signature

Sign above

[Submit](#)

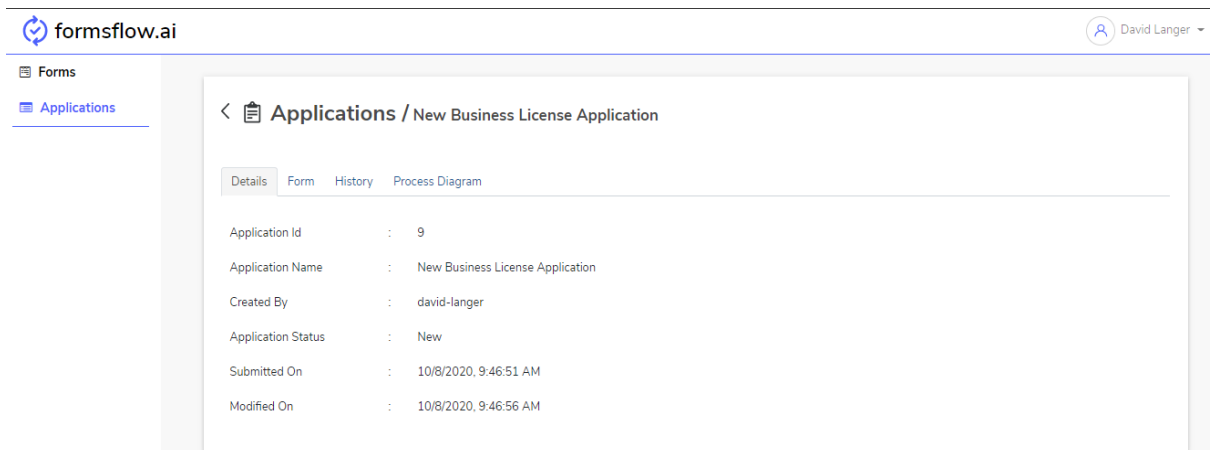
- Once the application is submitted, the user is displayed a non editable version of the application with an option to download the application. The application status will now appear as 'New'



- Click on the Applications menu to see the newly submitted application



- Click on the View button to see the non editable submitted application in a new tab
- Click on the Application ID to see the below details of an application



- The Forms tab shows the submitted application (non editable)
- Clicking on the History tab shows the various stages through which the application is processed. Clicking on the View Submission from here gives you the version of the application at that state.

Applications / New Business License Application

Details Form **History** Process Diagram

Application History

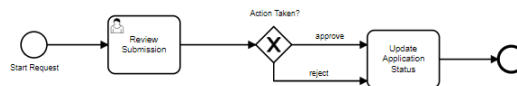
Status	Created	Submissions
New	10/8/2020, 9:46:54 AM	View Submission

Showing 1 to 1 of 1 Results

<< 1 >>

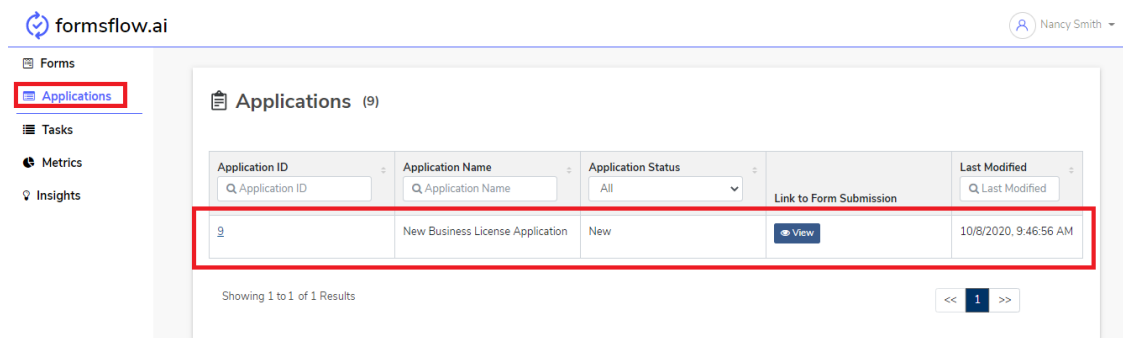
- The Process Diagram shows the approval workflow diagram

Applications / New Business License Application

Details Form History **Process Diagram**

Reviewing/Approving an application form

- The City staff (Nancy Smith) is responsible for reviewing and taking a decision on the business licence application submitted
- She is mapped to the reviewer group in Keycloak
- Nancy Smith has the below menu options
 - Forms – to view all the available form templates
 - Applications – to view all submitted applications, status and history
 - Tasks – to take an action on the submitted applications (approve/reject)
 - Metrics – a graphical interface to view all different types of applications submitted and their status over a period of time
 - Insights - this section provides meaningful insights based on the data that the user input while submitting an application
- The newly submitted application in the Applications menu

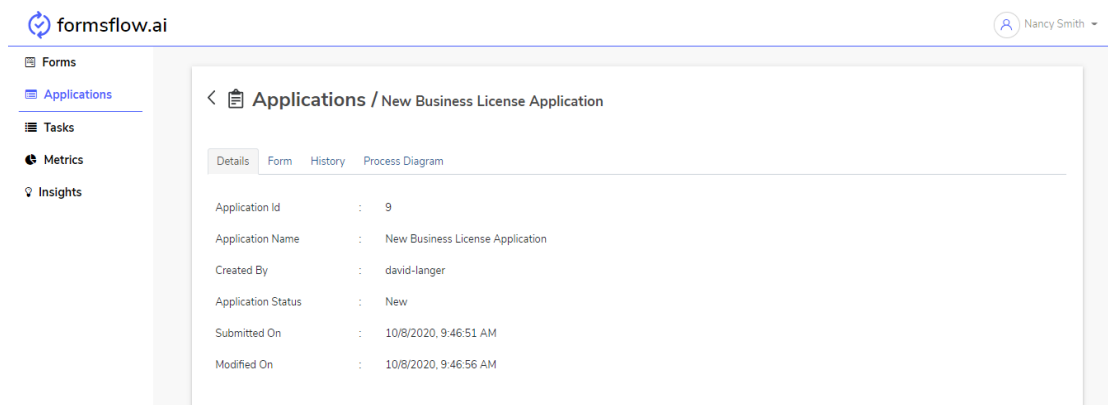


The screenshot shows the 'Applications' menu in the formsflow.ai interface. The 'Applications' menu item is highlighted with a red box. Below it, a table displays application details. The table has columns for Application ID, Application Name, Application Status, and Last Modified. A red box highlights the first row of the table, which contains the following data:

Application ID	Application Name	Application Status	Last Modified
9	New Business License Application	New	10/8/2020, 9:46:56 AM

Below the table, it says 'Showing 1 to 1 of 1 Results' and there is a pagination control showing '1'.

- Click on the View button to see the non editable submitted application in a new tab
- Click on the Application ID to see the below details of an application



The screenshot shows the details page for the application with ID 9. The page title is 'Applications / New Business License Application'. There are tabs for 'Details', 'Form', 'History', and 'Process Diagram'. The 'Details' tab is selected, showing the following information:

Application Id	: 9
Application Name	: New Business License Application
Created By	: david-langer
Application Status	: New
Submitted On	: 10/8/2020, 9:46:51 AM
Modified On	: 10/8/2020, 9:46:56 AM

- Go to the Tasks menu to take an action on the application

formsflow.ai Nancy Smith

- Forms
- Applications
- Tasks**
- Metrics
- Insights

Tasks (10) Active tasks

Task Title	Task Assignee	Task Status	Application Id	Application Name	Applicant	Submitted On
Review Submission	Assign to me	Active	9	New Business Licen...	david-langer	10/8/2020, 9:46:51 AM

Showing 1 to 1 of 1 Results

<< 1 >>

- Click on Review Submission to see the overall details of the application

formsflow.ai Nancy Smith

- Forms
- Applications
- Tasks**
- Metrics
- Insights

Tasks / Review Submission

Details Form Application History Process Diagram

Task Title : Review Submission

Task Assignee : [Assign to me](#)

Task Status : Active

Application Id : 9

Application Name : New Business License Application

Applicant : david-langer

Application Status : New

Submitted On : 10/8/2020, 9:46:51 AM

Review Submission

Review Status: Select...

- Click on Assign to me, to assign the application to the logged in reviewer to take an action. Notice that clicking on Assign to me, displays the logged in username with also an action to Unassign

formsflow.ai Nancy Smith

- Forms
- Applications
- Tasks**
- Metrics
- Insights

Tasks / Review Submission

Details Form Application History Process Diagram

Task Title : Review Submission

Task Assignee : nancy-smith Unassign

Task Status : Active

Application Id : 9

Application Name : New Business License Application

Applicant : david-langer

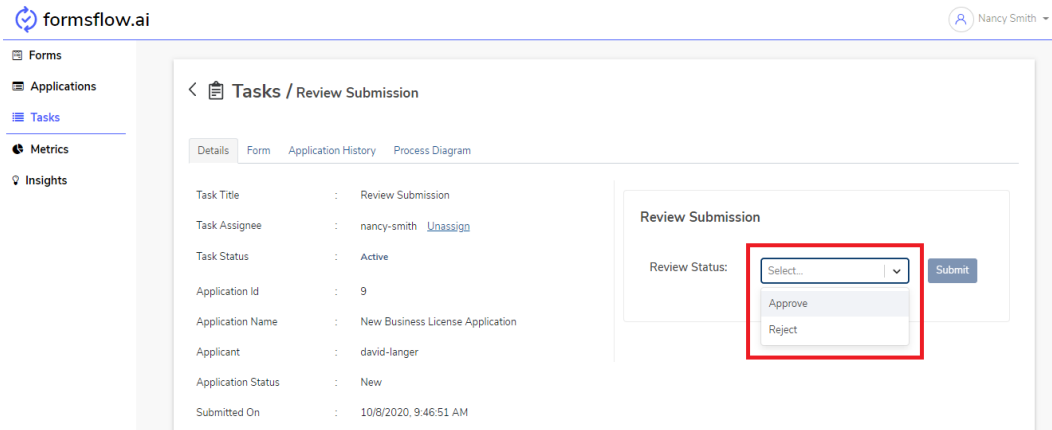
Application Status : New

Submitted On : 10/8/2020, 9:46:51 AM

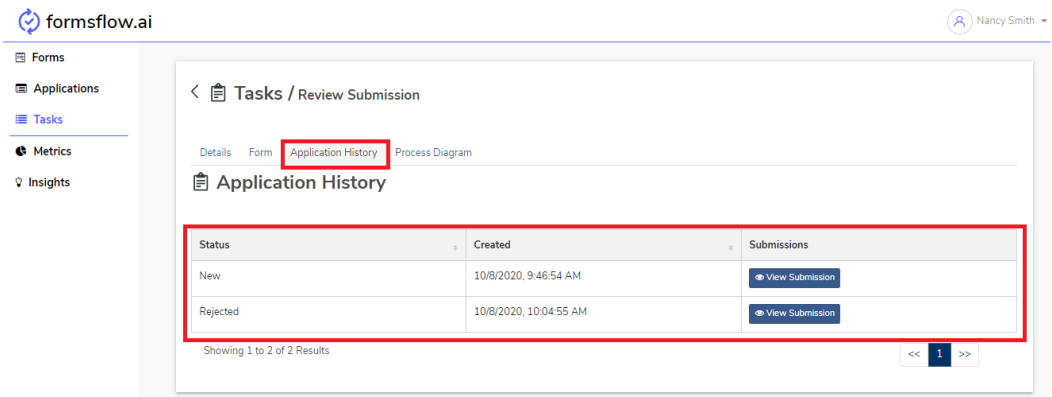
Review Submission

Review Status: Select... Submit

The reviewer is provided with option to Approve or Reject the application. Choose the relevant option and click submit. The review status options can be configured in Camunda.



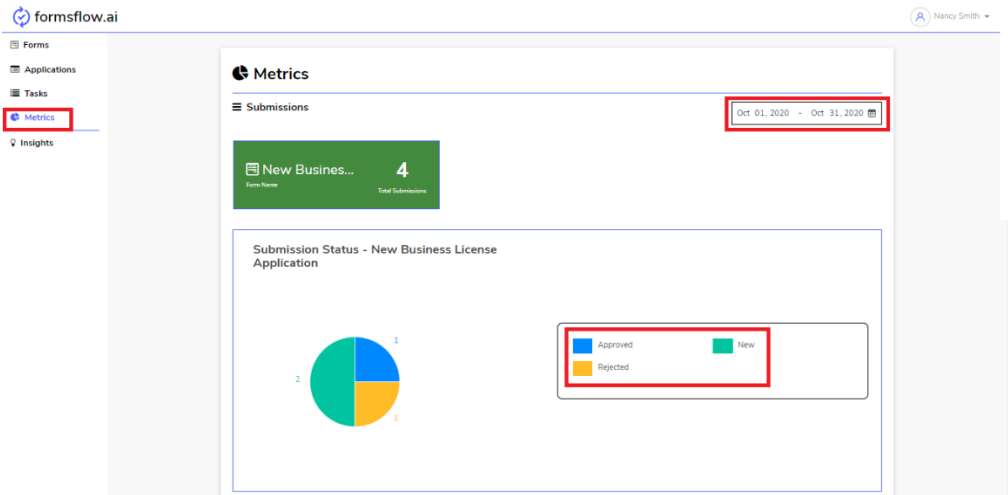
Once the application is approved or rejected, the new status change shows up in the History tab. The client can also see the Rejected status once he logs in.



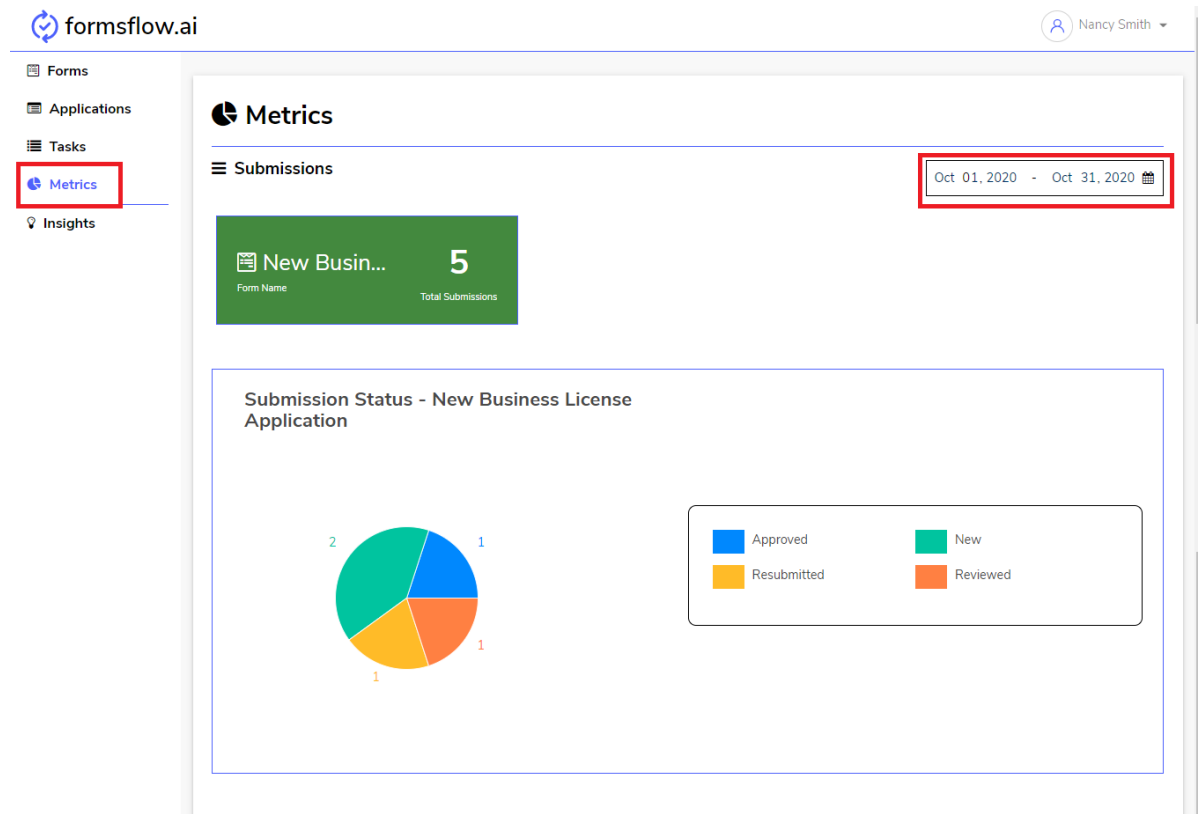
- The Forms tab shows the submitted application (non editable)
- Clicking on the History tab shows the various stages through which the application is processed. Clicking on the View Submission from here gives you the version of the application at that state. It especially useful if there is a two-step approval workflow with the approver reverting the application to the client for possible edits.

Viewing Metrics and Insights

- The City staff (Nancy Smith) who is mapped to the reviewer group in Keycloak can view the Metrics and Insights Menu
- Metrics
The metrics displays a pie chart that depicts the different types of applications made in the system based on their status over a period



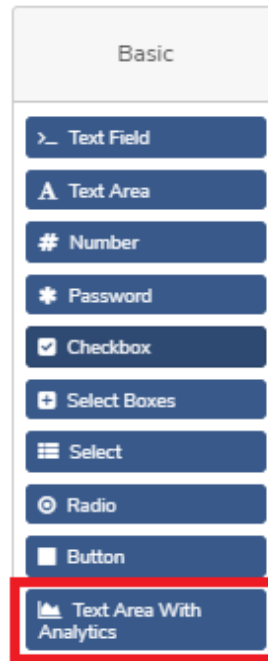
- Insights - Insights provides meaningful data interpretation based on the user input while submitting an application. This can be configured in Redash and made available in **formsflow.ai**. (refer [Redash](#) and [Redash Knowledge Base](#)). Below is an example of a dashboard setup for New Business License Applications.



Enabling Sentiment Analysis

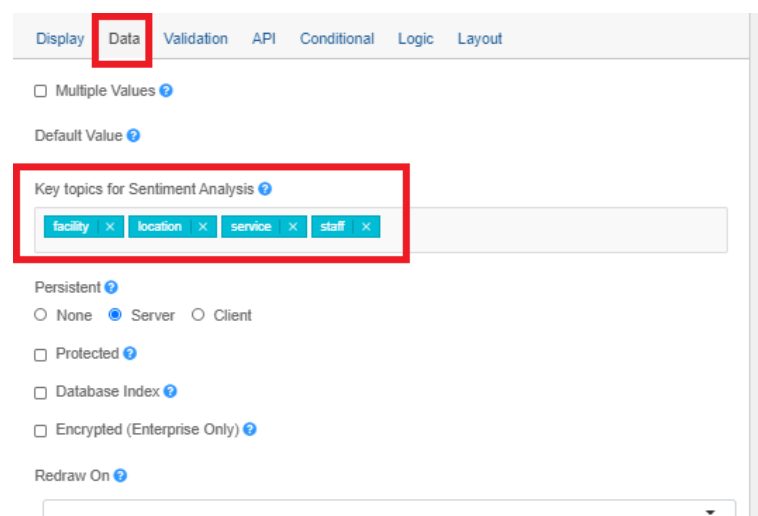
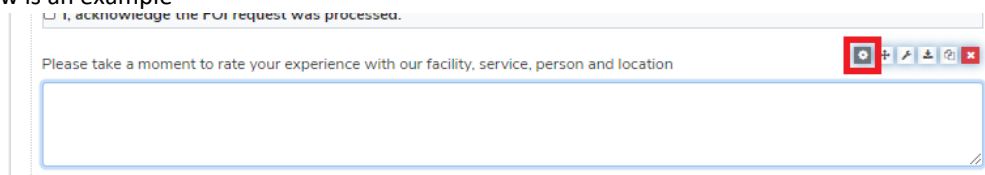
Currently, formsflow.ai supports a custom component for designer to enable fields for sentiment analysis. To use the custom component in formsflow.ai follow the below steps:

- Login with the designer role
- Choose a new/existing form and click edit forms button
- Drag and drop Text Area with Analytics component from the Basic section in left panel



- Choose the settings icon of Text Area with Analytics component and go to section Data -> Add the Key topics for Sentiment Analysis like facility, service etc.

Below is an example



- Click the save button.
- Login as a reviewer , navigate to Insights menu to view the Sentiment Analysis Dashboard which displays a graphical representation of positive, negative and neutral feedback

