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

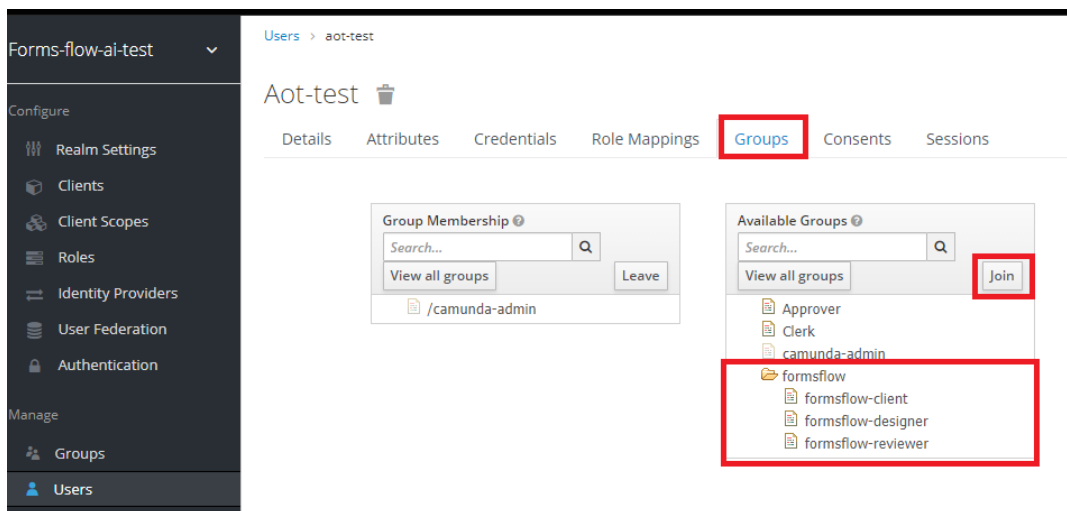| User	Groups
Peter Watts	formsflow-designer
Nancy Smith	formsflow-reviewer
David Langer	formsflow-client

Users are created in Keycloak by choosing the appropriate realm and navigating to the User menu
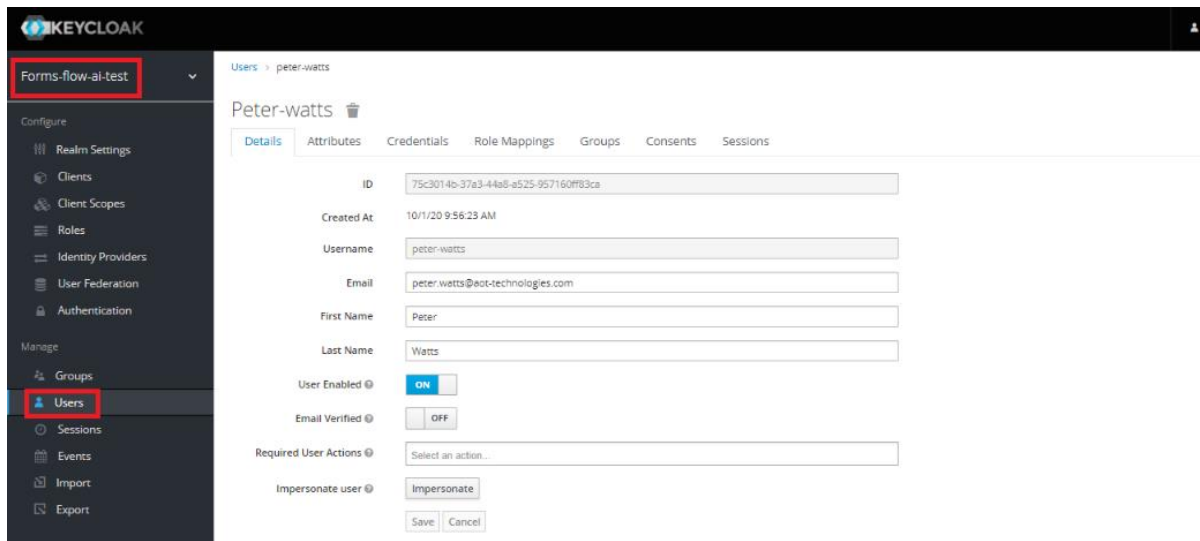
Once the user is created, the login credentials are set in the credentials tab
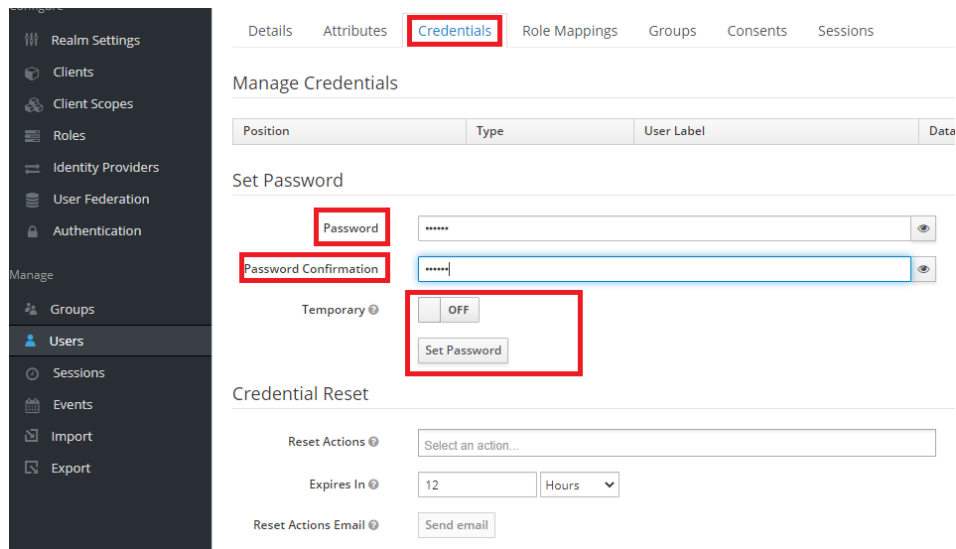
The user is then mapped to the appropriate group in the Groups tab

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
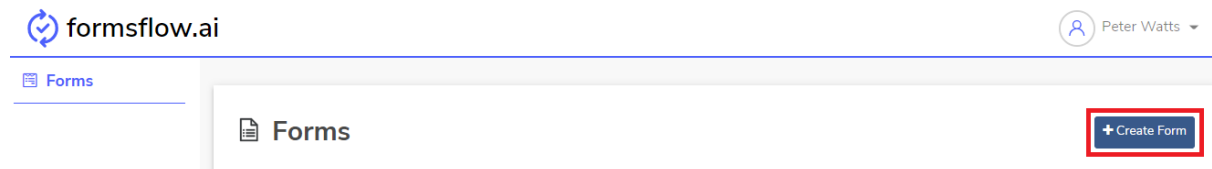
  - Provide a suitable title to start creating the form.
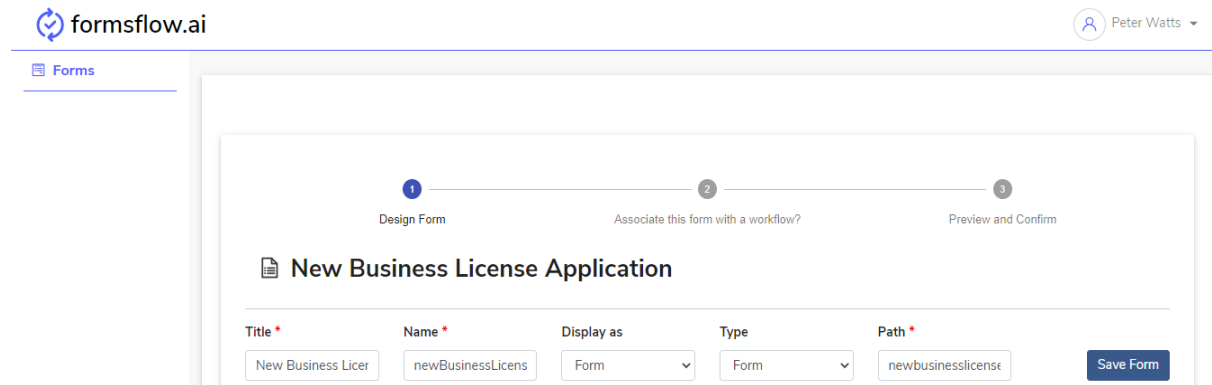
  - The components of the form can be designed using the elements available under the Basic, Advanced, Layout, Data and Premium options. All the elements can be dragged and dropped to the desired space. Make use of the Layout menu element to segregate and compartment logical fields.
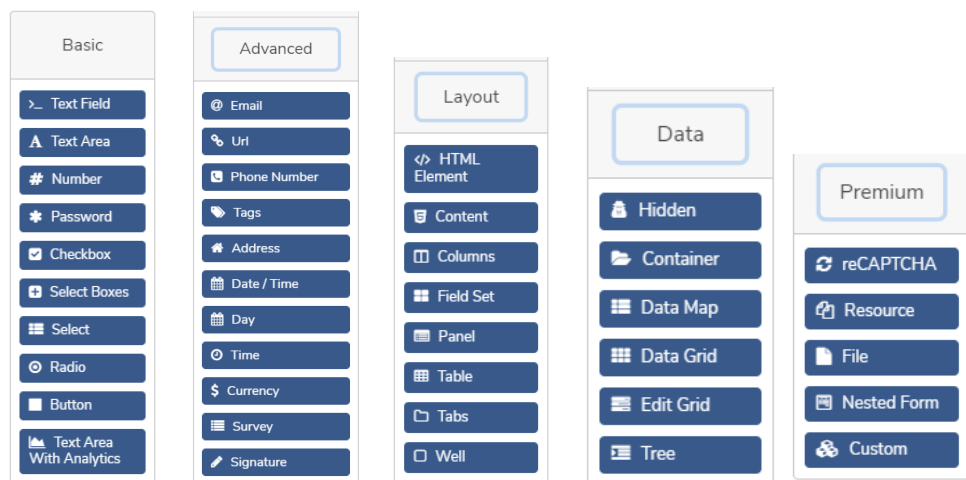
Below is an example on how different elements from the menu can be used to design a form

Panel Element

Column Element

☐ Business Information

Required Field

Business Operating Name *

Proposed Business Start Date *   Nature of Business *

Date/Time Field   MM/dd/yyyy 🗓

Business Website   Number of Employees ❓ *

Business E-Mail *   Business Phone

Email Field   Phone number field   (___) ___-____

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

o   Click on the Settings gear icon

Business Operating Name *

⚙ ✛ 🔧 ⬇ ❏ ✖

o   Provide a suitable label for the text field

Display	Data	Validation	API	Conditional	Logic	Layout

Label ❓ *

Business Operating Name

Label Position ❓

o   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 ❓

o 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 ❓

o 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                                          ⌄
```


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.

o Click Next after associating to a workflow

o 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.

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

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

- 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

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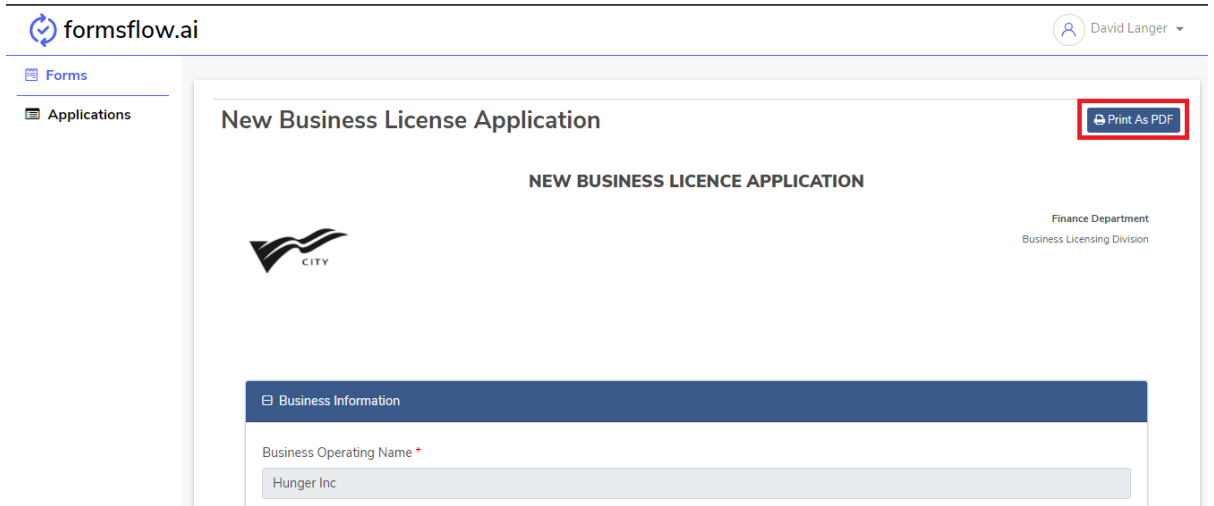
o Click on the Applications menu to see the newly submitted application

o Click on the View button to see the non editable submitted application in a new tab
o 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.
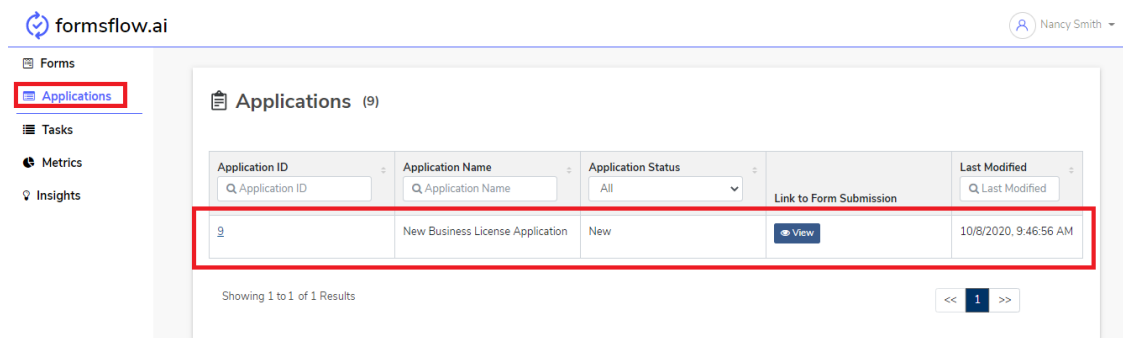
- The Process Diagram shows the approval workflow diagram
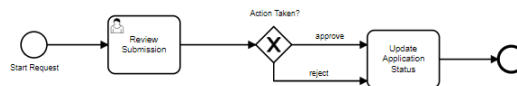
Reviewing/Approving an application form

- 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

- 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

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

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

  o 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

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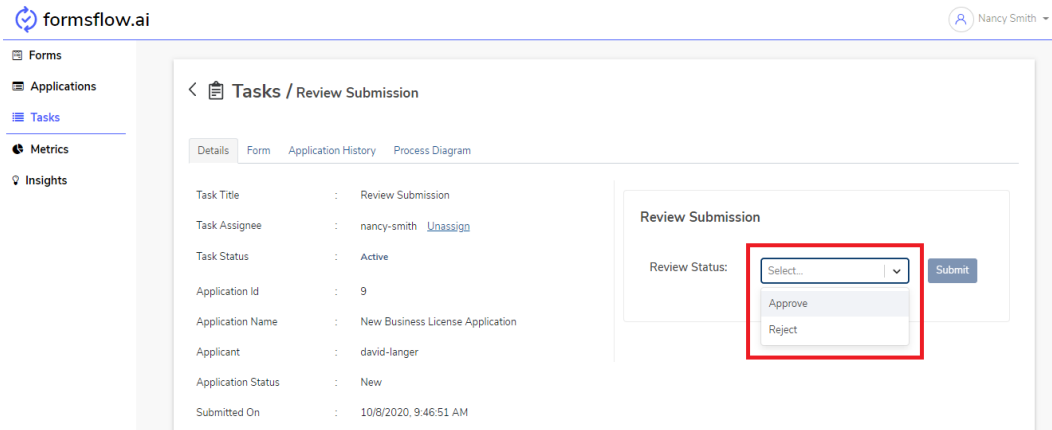
Once the application is approved or rejected, the new status change shows up in the History tab. The client can also see the Rejected status once he logs in.
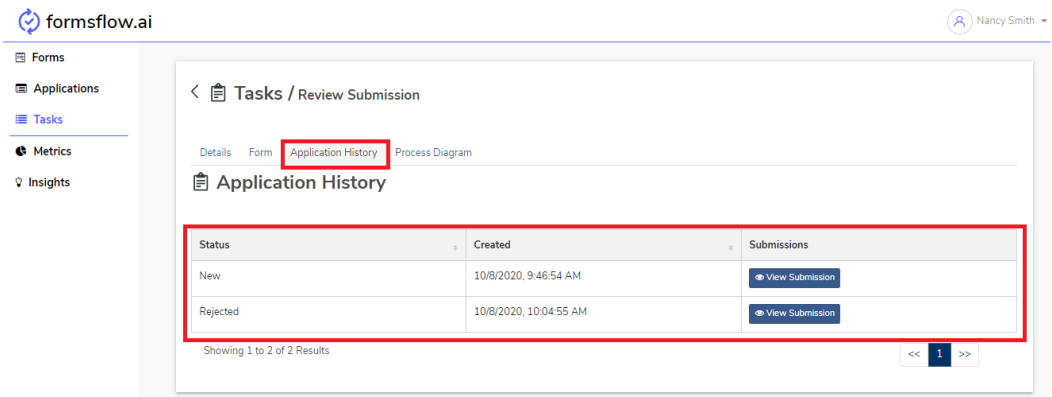

o   The Forms tab shows the submitted application (non editable)
o   Clicking on the History tab shows the various stages through which the application is processed. Clicking on the View Submission from here gives you the version of the application at that state. It especially useful if there is a two-step 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
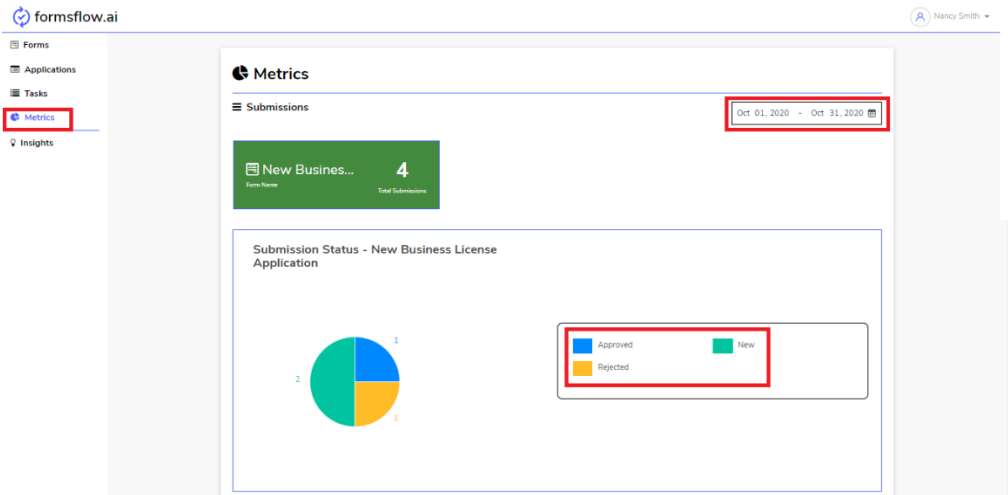

- Insights - Insights provides meaningful data interpretation based on the user input while submitting an application. This can be configured in Redash and made available in **formsflow.ai.** (refer Redash and Redash Knowledge Base). Below is an example of a dashboard setup for New Business License Applications.
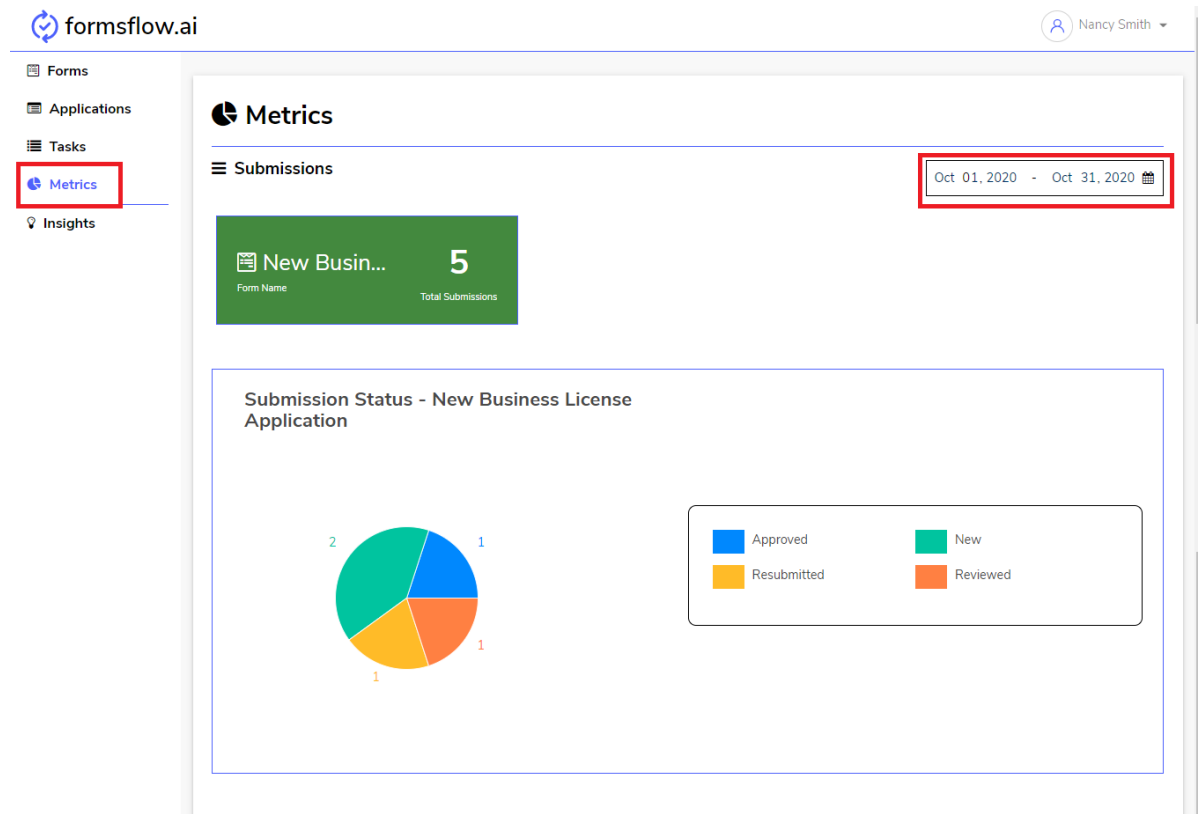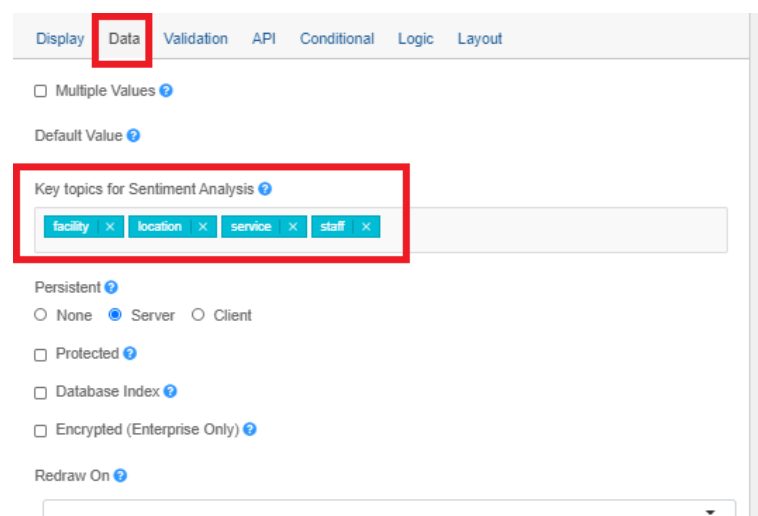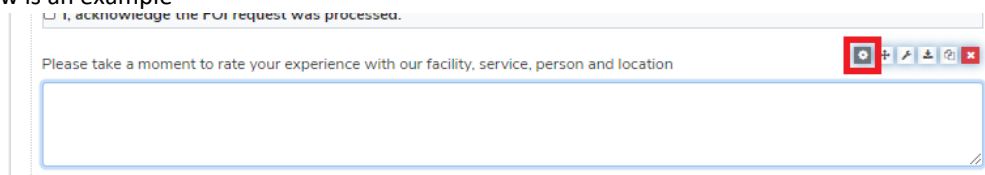
Enabling Sentiment Analysis

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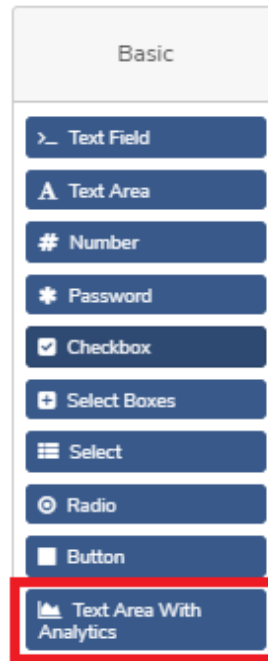
- Choose the settings icon of Text Area with Analytics component and go to section Data -> Add the Key topics for Sentiment Analysis like facility, service etc.

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