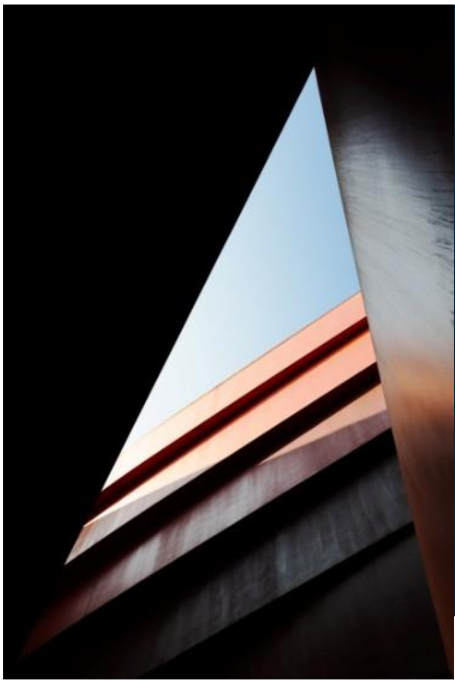


BPM Toolkit 2022 Setup

@sergeluca

Install the BPM Toolkit

1. Download the BPMToolkit_setup_xxxx_2022.zip file from Github.
2. Unzip this setup file, you will get 3 .zip files:

    a. **BPMToolkit2022_xxx.zip**
    b. **BPMToolkitDemo2022_xxx.zip**
    c. **BPMToolkitALM2022_xxx.zip**

3. From a private/incognito tab in your browser, create an Office 365 E3 trial from the following URL:

https://www.microsoft.com/en-us/microsoft-365/enterprise/office-365-e3?activetab=pivot:overviewtab

4. Create a SharePoint team site (we've tested the BPM Toolkit with the US settings).
5. Select a Power Apps premium license:

Even though end users don't need a premium Power Platform license, the setup account needs a premium license.

Select a Per user Power Apps plan from here:

https://powerapps.microsoft.com/en-us/pricing/

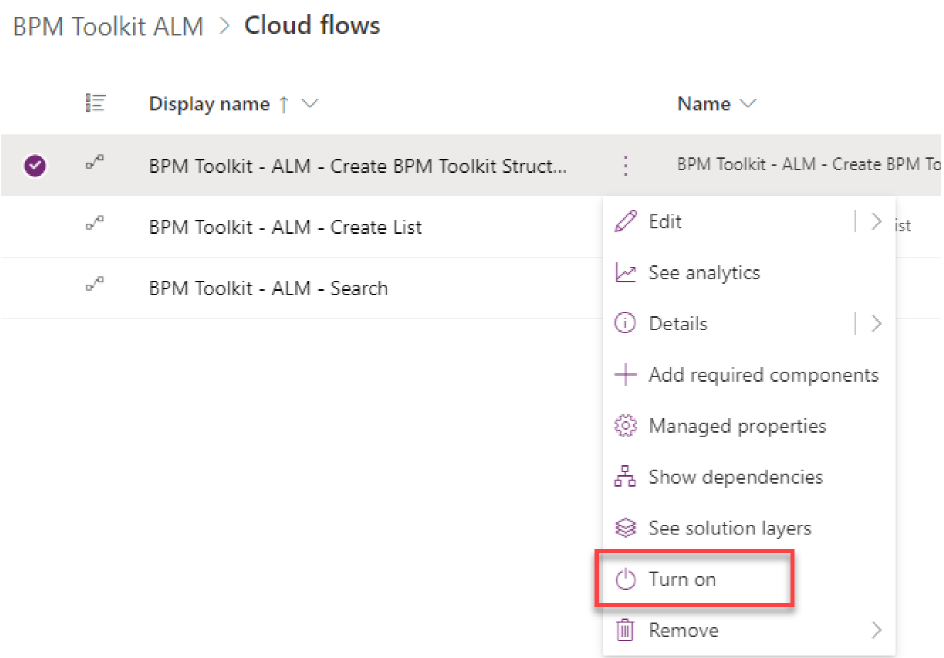
The Power Apps developer plan is also fine:

https://powerapps.microsoft.com/en-us/developerplan/

6. Create an environment with a database.

You must have an environment with a database. You can create a dedicated environment (you need your premium trial license for that) or you can create a database in your developer environment.

7. Import the solution file **BPMToolkitALM2022.zip** and activate every flow.

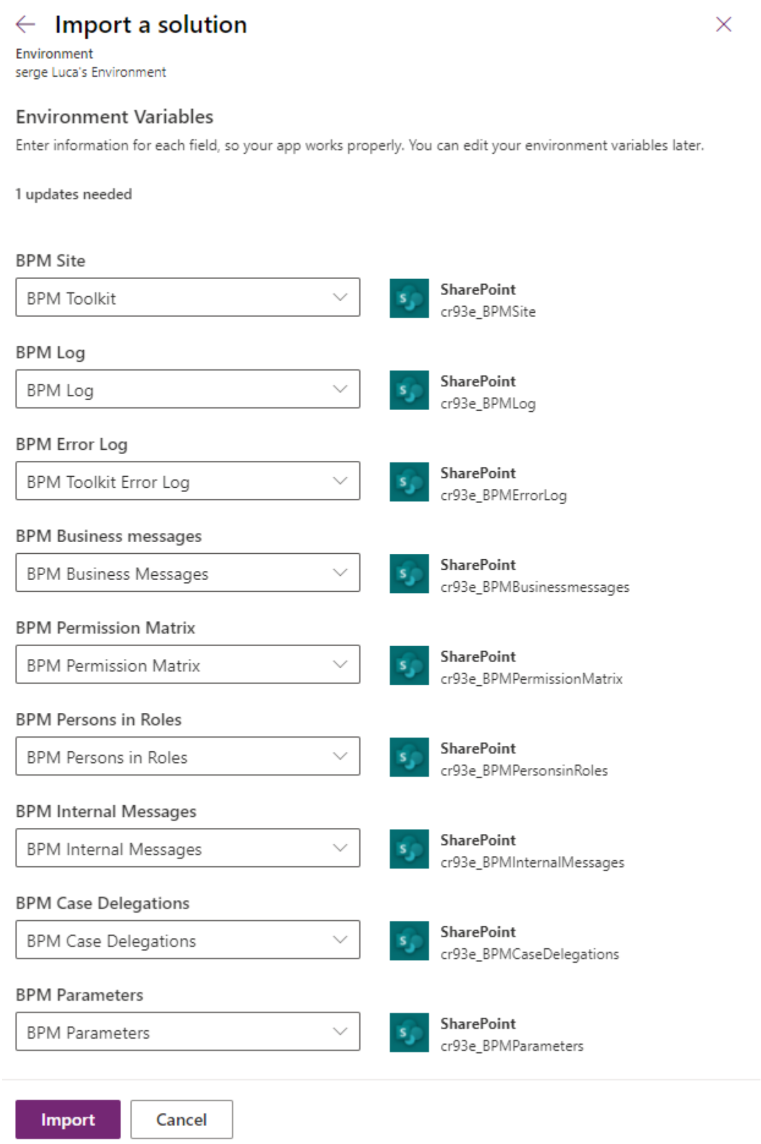


8. When the zip has been imported, run the flow **BPM Toolkit - ALM - Create BPM Toolkit Structure** and provide your SharePoint site URL.

Creating the associated lists will take about 5 minutes.

9. Import the **BPMToolkit2022.zip** file and create the required connections.
10. Click **Next** and you will have to manage the environment variables:

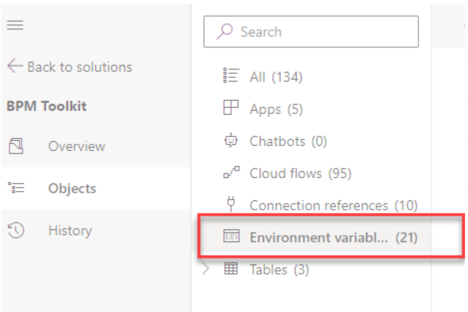
Fill them in with the values provided in the table below:



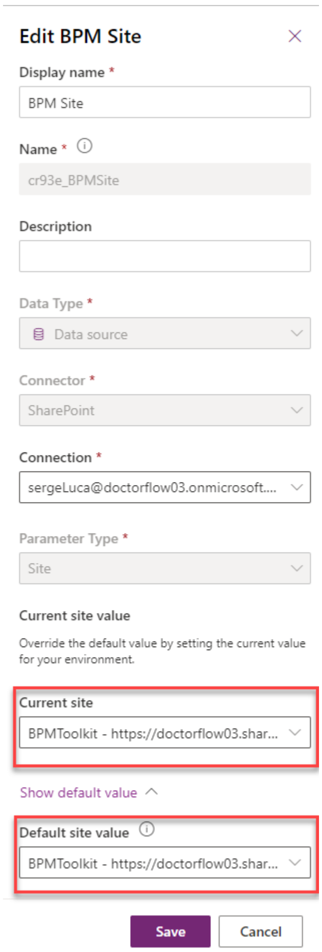
Environment variable name	value
BPM Site	<Select your site url>
BPM Log	BPM Log
BPM Error Log	BPM Toolkit Error Log
BPM Business messages	BPM Business Messages
BPM Permission Matrix	BPM Permission Matrix
BPM Persons in Roles	BPM Persons in Roles
BPM Internal Messages	BPM Internal Messages
BPM Case Delegations	BPM Case Delegations
BPM Parameters	BPM Parameters
BPM Case Categories	BPM Case Categories
BPM Case Lifecycle	BPM Case Lifecycle
BPM Case Workflows	BPM Case Workflows
BPM Forms	BPM Forms
BPM Roles	BPM Roles
BPM Late Cases	BPM Late cases
BPM Metaworkflows	BPM Meta Workflows

BPM Statistics	BPM Statistics
BPM Security groups for Case	BPM Case Configuration
PPA_ORDERS	PPA_ORDERS

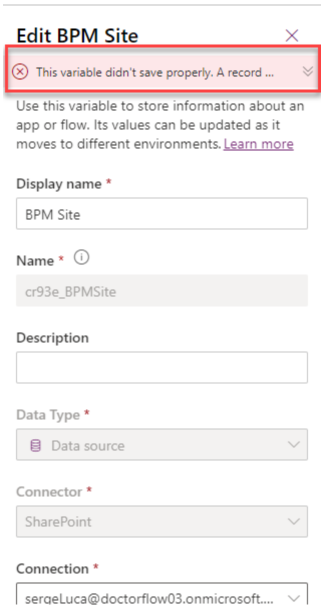
Double check to make sure you selected the correct values by opening each environment variable in the Environment variables pane, and by starting from the BPM Site environment variable:



For each environment variable, make sure that both the Default value and the Current value are set; if they are not, add them:



Click Save. When you click Save, you will probably see an error message:



Click Save again.

Do this for every environment variable. The BPM System account is the email address of the account used for the setup.

11. Double check again that all variables have been filled in with the correct values; as such, the usual mistake is to associate the variable BPM Error log to the list "BPM Toolkit Error Log" and not to the list "BPM Log" and vice-versa.

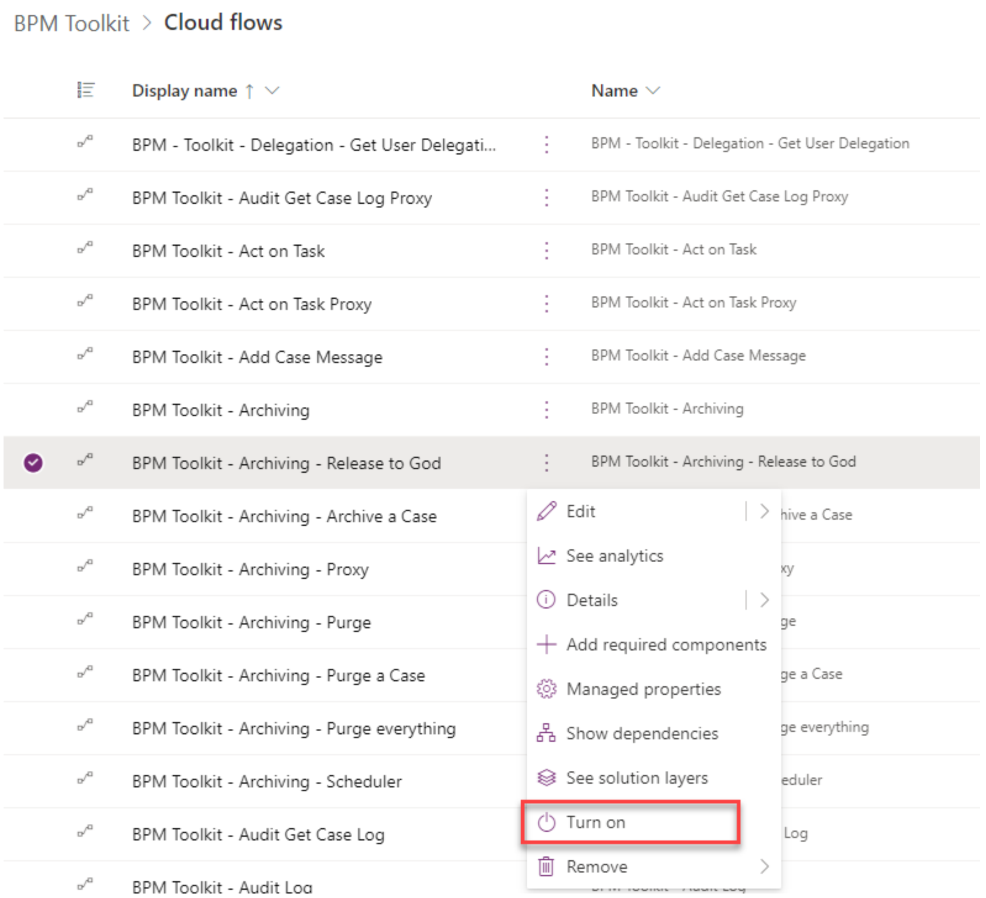
12. Activate every imported flow in the sequence provided in the table below, a few of them are probably already activated when you import the solution.

BPM Toolkit flows
BPM Toolkit - Delegation - Get User Delegation
BPM Toolkit - Audit Get Case Log
BPM Toolkit - Configuration
BPM Toolkit - Delegation - Create New Delegation
BPM Toolkit - Delegation - GetDelegation v2
BPM Toolkit - Generate New CaseID
BPM Toolkit - Get Case Category Info
BPM Toolkit - Get Case Type Parameters
BPM Toolkit - Internal - Get Param Value
BPM Toolkit - Load ALM Info
BPM Toolkit - Log Flow error
BPM Toolkit - Log Flow Error Message

BPM Toolkit - Make Request Edit or Read Only
BPM Toolkit - Permission Matrix
BPM Toolkit - Remove Delegation
BPM Toolkit - Secure - Show Previous Steps to current Actor
BPM Toolkit - Send Message To Actor
BPM Toolkit - Set Case Transaction
BPM Toolkit - Statistics - Get Main KPIS
BPM Toolkit - Statistics - Get Main KPIs Proxy
BPM Toolkit - Submit Attachments
BPM Toolkit - Tasks Reminder
BPM Toolkit - Update Case Status
BPM Toolkit - Update Case Status and Actors
BPM Toolkit - Audit Get Case Log Proxy
BPM Toolkit - Delegation - Create New Delegation Proxy
BPM Toolkit - Delegation - Remove Delegation Proxy
BPM Toolkit - Submit Attachments Proxy
BPM Toolkit - Get Main Security Group
BPM Toolkit - Get Request List Guid and Id
BPM Toolkit - Secure Case Step
BPM Toolkit - Get Case Type Parameters
BPM Toolkit - Get Group Id from Case Type
BPM Toolkit - Secure Request - Pass 1
BPM Toolkit - Secure Case
BPM Toolkit - Create Case
BPM Toolkit - Create Case Proxy
BPM Toolkit - Switch Case From Draft To Final
BPM Toolkit - Switch Case from Draft To Final Proxy
BPM Toolkit - Workflow Runtime - Compute final Workflow Status
BPM Toolkit - Set Final Workflow Status
BPM Toolkit - Notify Case
BPM Toolkit - Notify Case to Teams Channel
BPM Toolkit - Workflow Runtime - Redirect to Step
BPM Toolkit - Redirect To Step Proxy
BPM Toolkit - Get Step Number from Actor
BPM Toolkit - Redirect to Actor
BPM Toolkit - Redirect to Actor Proxy
BPM Toolkit - Messages - Add Message To Case
BPM Toolkit - Messages - Add Message To Case Proxy
BPM Toolkit - MetaWorkflow Generator - Gen1
BPM Toolkit - Insert Case Step

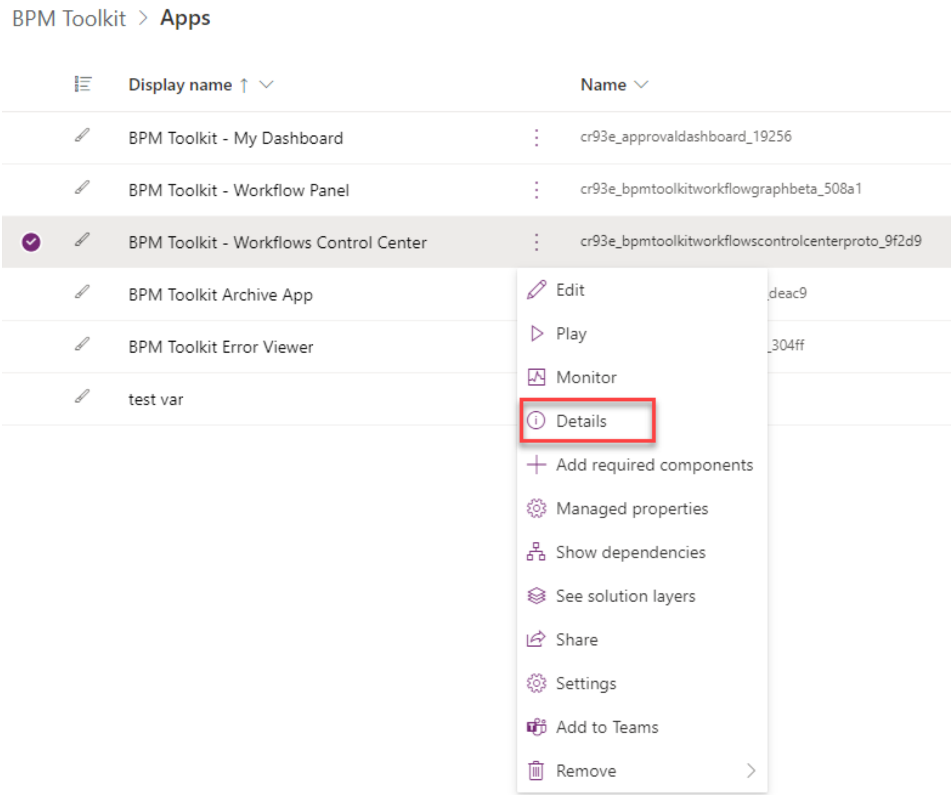
BPM Toolkit - Insert New Step Proxy
BPM Toolkit - Remove Delegation
BPM Toolkit - Delegation - Remove Delegation Proxy
BPM Toolkit - Delegation - Pending Task to Delegate
BPM Toolkit - Delegation Job
BPM Toolkit - Take Case Step Ownership
BPM Toolkit - Take Case Step Ownership Proxy
BPM Toolkit - Stop Workflow
BPM Toolkit - Stop Workflow Proxy
BPM Toolkit - Submit Form Data
BPM Toolkit - Submit Form Data - Proxy
BPM Toolkit - Submit Attachments
BPM Toolkit - Submit Attachments Proxy
BPM Toolkit - Remove Case
BPM Toolkit - Remove Case Proxy
BPM Toolkit - Restart a Process
BPM Toolkit - Restart a Process Proxy
BPM Toolkit - Workflow Runtime
BPM Toolkit - Workflow Runtime Service Facade
BPM Toolkit - Skip Or Reassign Step
BPM Toolkit - Skip Or Reassign Step Proxy
BPM Toolkit - Act on Task
BPM Toolkit - Act on Task Proxy
BPM Toolkit - Messages - Add Message To Case
BPM Toolkit - Messages - Add Message To Case Proxy
BPM Toolkit - Case Launcher V2
BPM Toolkit - Batch Act on Task
BPM Toolkit - Batch Act on Task Proxy
BPM Toolkit - Archiving - Archive a Case
BPM Toolkit - Archiving
BPM Toolkit - Archiving - Purge a Case
BPM Toolkit - Archiving - Purge
BPM Toolkit - Archiving - Purge everything
BPM Toolkit - Archiving - Proxy
BPM Toolkit - Archiving - Scheduler
BPM Toolkit - Archiving - Release to God
BPM Toolkit - PingUser
BPM Toolkit - Ping User Proxy

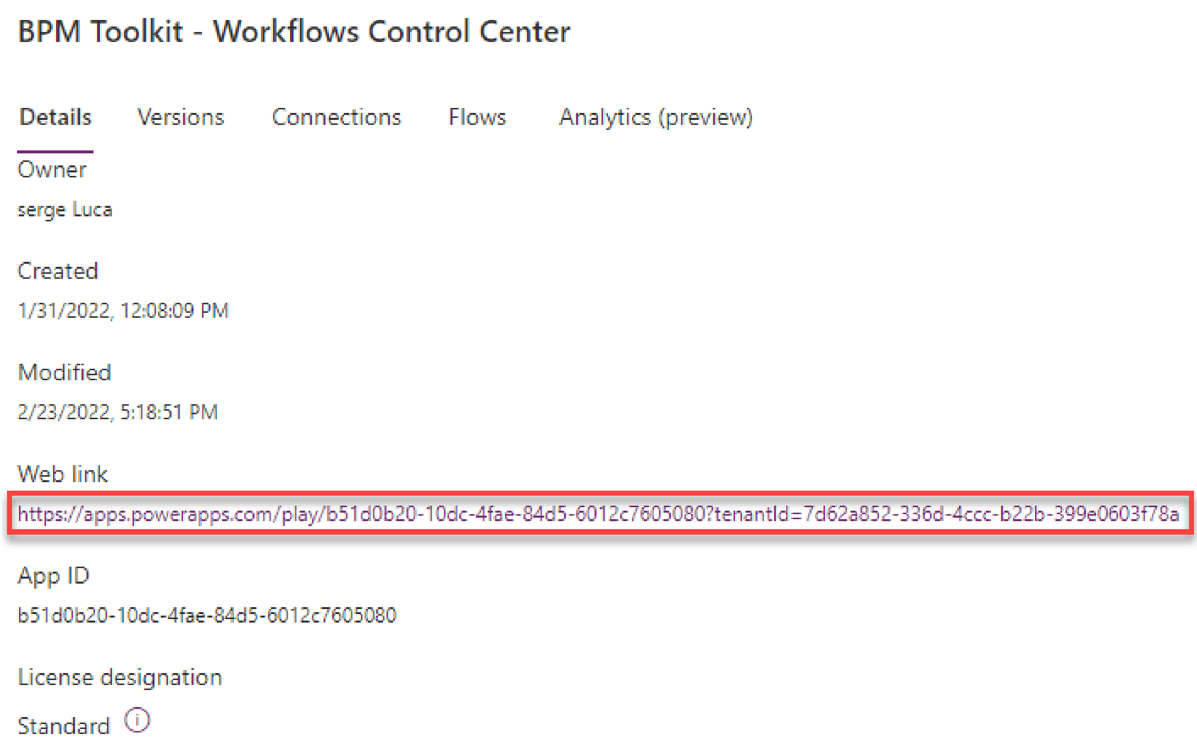
BPM Toolkit - Pulse - Monitoring - Check Stopped flows
BPM Toolkit - Pulse - Monitoring - Double Waiting
BPM Toolkit - Add Case Message
BPM Toolkit - Audit Log
BPM Toolkit - Audit Log Proxy
BPM Toolkit - ReleaseStep Ownership
BPM Toolkit - Set Case Status
BPM Toolkit - Audit Get Case Log Proxy
BPM Toolkit - Set Case Transaction



13. Double check again to make sure they are all activated.
14. Import the solution **BPMToolkitDemo2022_xxx.zip** .

15. In the BPM Toolkit solution, check the Details property of the application defined in the table below and copy their weblink somewhere (Notepad).

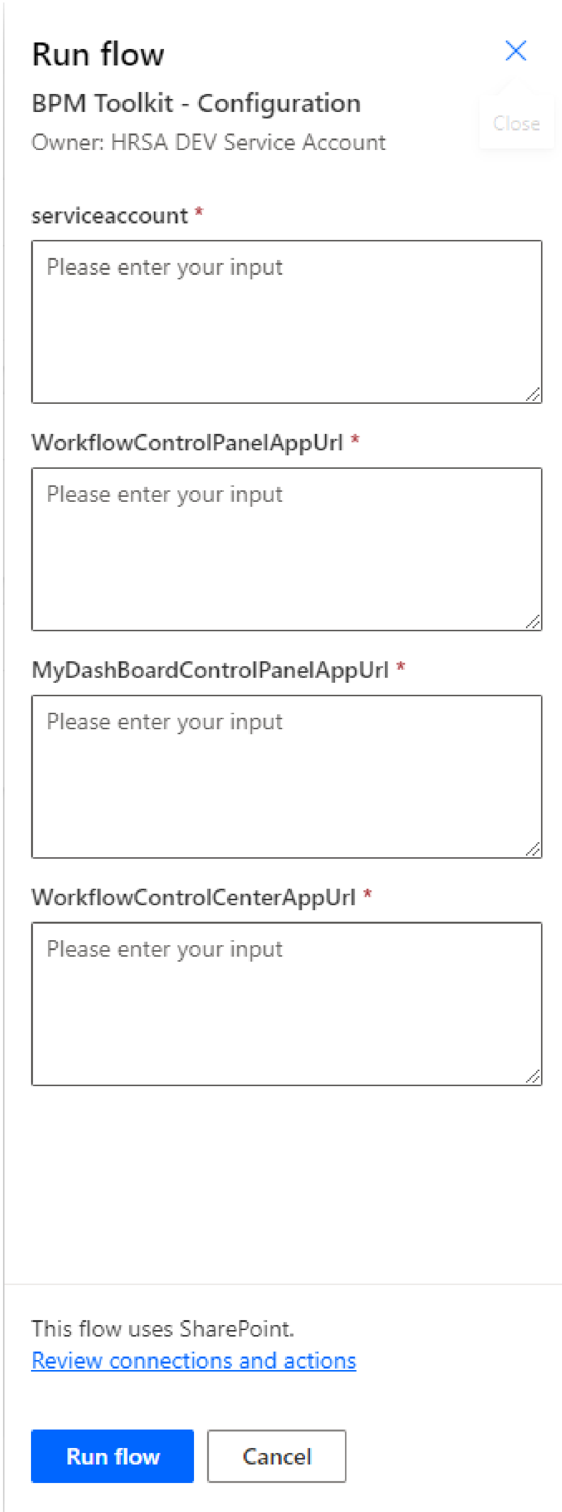




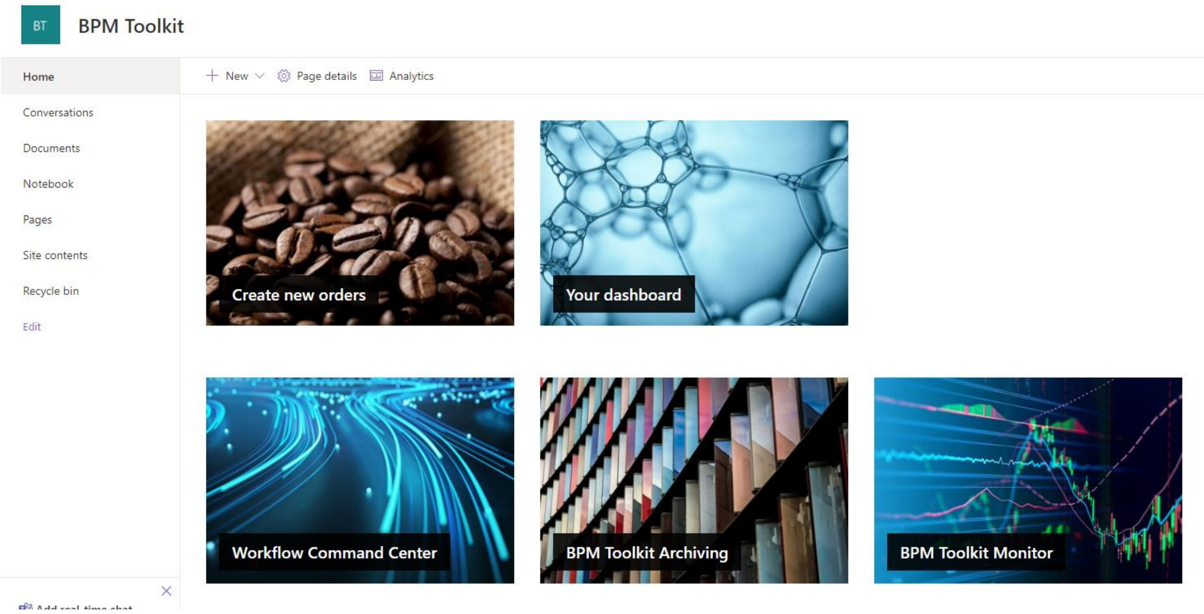
Applications	url
BPM Toolkit – Workflows Control Center	https://apps.powerapps.com/play/95f3920f-12c2-40d8-8aca-a7030d4fa356?tenantId=59efb539-c6fe-45de-ac19-8ec158d53af3
BPM Toolkit – My Dashboard	https://apps.powerapps.com/play/c50daf91-d39b-42e5-8f91-844829f4dc65?tenantId=59efb539-c6fe-45de-ac19-8ec158d53af3

BPM Toolkit – Workflow Panel	https://apps.powerapps.com/play/66d36597-590a-4ca9-bfc2-9670fa6e970b?tenantId=59efb539-c6fe-45de-ac19-8ec158d53af3

16. Run the flow **BPM Toolkit – Configuration** and fill-in the following parameters:

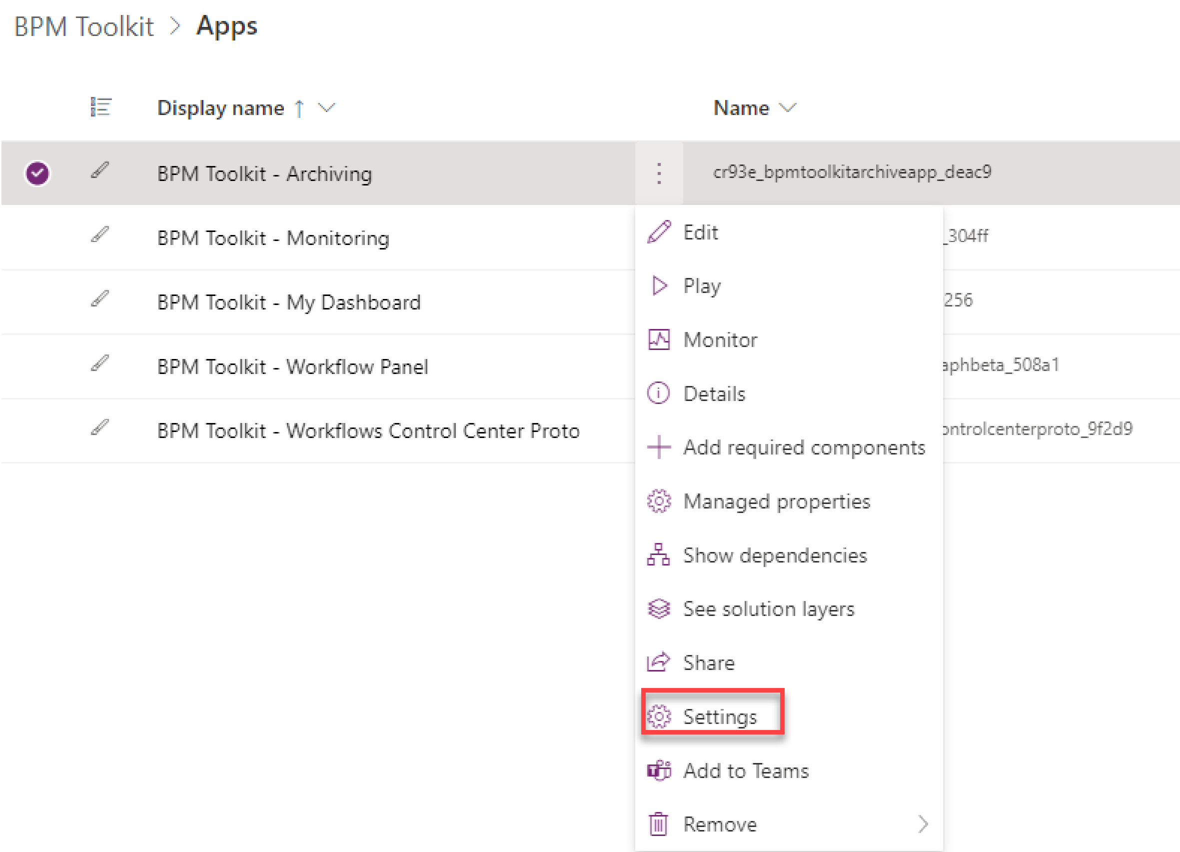


17. Edit your SharePoint site homepage, add the following pictures and the associated text.



18. Associate these pictures with the corresponding Power Apps application url:

Except for **Create new orders**, which is an application that you will create in the developer guide, you can find the application URL in each app settings:



Typically, the applications "**Your dashboard"** and "**Create new orders"** will be shared with the whole company. The other applications will only be shared with the people managing the business processes (like the HR team for instance).

19. Replace the data sources in the Power Apps applications

Even though we are using environment variables across the BPM Toolkit, we still have some issues with the existing Power Apps applications; as a temporary workaround, we recommend removing the SharePoint data sources and to add then again.

Applications	Data sources (use environment variables)
BPM Toolkit - MyDashboard	BPM Cases
BPM Toolkit - MyDashboard	BPM Parameters
BPM Toolkit - MyDashboard	BPM Case Delegations
BPM Toolkit - MyDashboard	BPM Forms
BPM Toolkit - MyDashboard	BPM Case Lifecycle
BPM Toolkit -Workflow Control Center	BPM Statistics
BPM Toolkit -Workflow Control Center	BPM Persons in Roles
BPM Toolkit -Workflow Control Center	BPM Roles
BPM Toolkit -Workflow Control Center	BPM Case Workflows
BPM Toolkit -Workflow Control Center	BPM Case Lifecycle
BPM Toolkit -Workflow Control Center	BPM Late cases*

BPM Toolkit -Workflow Control Center	BPM Parameters
BPM Toolkit -Workflow Control Center	BPM Error Log
BPM Toolkit – Workflow Panel	BPM Parameters
BPM Toolkit – Workflow Panel	BPM Log
BPM Toolkit – Workflow Panel	BPM Toolkit Error Log*
BPM Toolkit – Workflow Panel	BPM Case Lifecycle
BPM Toolkit – Workflow Panel	BPM Case Workflows
BPM Toolkit – Workflow Panel	BPM Roles
BPM Toolkit – Workflow Panel	BPM Person in Roles
BPM Toolkit – Workflow Panel	BPM Internal Messages
BPM Toolkit – Workflow Panel	BPM Cases
PPA_ORDER	PPA_ORDERS

20. Re-associate the following flows in these applications

In each application, add a screen and associate the flows with this screen; when it is done, remove the screen:

Solution	Applications	**Flows**
BPM Toolkit	BPM Toolkit - MyDashboard	BPMToolkit-RemoveCaseProxy
BPM Toolkit	BPM Toolkit - MyDashboard	BPMToolkit-StopWorkflowProxy
BPM Toolkit	BPM Toolkit - MyDashboard	BPMToolkit-ActonTaskProxy
BPM Toolkit	BPM Toolkit - MyDashboard	BPMToolkit-Delegation-CreateNewDelegationProxy
BPM Toolkit	BPM Toolkit - MyDashboard	BPMToolkit-RemoveDelegationProxy
BPM Toolkit	BPM Toolkit -Workflow Control Center	BPM Toolkit -Statistics-GetMainKpisProxy
BPM Toolkit	BPM Toolkit -Workflow Control Center	BPM Toolkit -BatchActonTaskProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – PingUserProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – RestartaProcessProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – RemoveCaseproxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – Messages-AddMessageToCaseproxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – RedirecttoActorProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – RedirectToStepProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – ActonTaskProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – InsertNewStepProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – StopWorkflowProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – TakeCaseStepOwnershipProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – SkipOrReassignStepProxy
BPM Toolkit	BPM Toolkit – Workflow Panel	BPM Toolkit – ReleaseStepOwnership
BPM Toolkit Demo	PPA_ORDER	BPMToolkit-SubmitFormData - Proxy

21. Save and publish these applications. Share them with everyone.

Part 2. Using the Power Platform BPM Toolkit

The goal of this demo application is to validate the setup by making sure everything works well. After this you will be invited to download and to try the developer's guide to create your own custom applications. This demo application is very basic, but again you will be able to understand the full power of the BPM Toolkit in the developer's guide and in the videos that I will publish.

The demo application is a Power Apps canvas application that allows a user to submit an order. The order will trigger a workflow that you will define. The order can be submitted in DRAFT mode, then no workflow is triggered, and the user can still edit the order from his Dashboard; if the order is submitted in FINAL mode, no edition is possible, a workflow is trigger, but the user can still watch the follow up.

<u>Some BPM Toolkit concepts</u>

An application submits a **Request** based on a **Request Type** (in the demo we named the request type **PPA_ORDER**)

The **Request Type** is associated to a workflow that you must defined. Workflow definitions are called **Meta Workflows**. In the demo, the workflow is named PPA_ORDER_WORKFLOW.

When a request is submitted, only the person who submits the workflow + the people who can manage this Request Type can see and interact with the data.

Let's say you work in a company, and you want to work part-time. You must submit an HR request based on the Part-time request type.

A specific team within HR can manage your part-time request. Some requests are very confidential.

This means that somewhere you must define a meta-workflow that will handle this Part time request, but you will also have to define a security group containing the people in HR who are specialized in this specific Part-time request.

You also need to specify who will do what in each step of the workflow. This is what we call a Role: you must define roles and who is part of which role. In each step of the workflow.

Ok, let's do that together.

1. Import the solution BPMToolkitDemo2022_xxx.zip.

Associate the picture "Create new order" with the PPA_ORDER canvas application in the BPM Toolkit Demo solution.

2. You will now configure the BPM Toolkit for the following scenario:
   A user submits an order.

   The order must be reviewed by 3 teams of people:

ORDER_SUPPORT_PARIS,
ORDER_SUPPORT_NYC,
ORDER_SUPERVISOR

3. If you edit the PPA_ORDER application, you will notice than when the user submits his order request, the type of request must be provided to the BPM Toolkit: in this case, the type of request is “PPA_ORDER”:

```
Set (
    gblOrder,
    {
        /* Mandatory for BPM Toolkit */
        CaseID: gblCaseID,
        /* Mandatory for BPM Toolkit */
        Submitter: gblSubmitter,
        /* Mandatory for BPM Toolkit */
        OnBehalfOf: gblOnBehalfOf,
        /* Mandatory for BPM Toolkit, Must be FINAL o
        CaseSubmissionStatus: "DRAFT",
        /* Mandatory for BPM Toolkit */
        RequestType: "PPA_ORDER",
        /* Mandatory for BPM Toolkit */
        CaseDescr: gblCaseDescr,  /* Optional for BPM
        Actors: "",
        Product: gblProduct,
        Amount: gblAmount,
        Account: gblAccount,
        Contact: gblContact,
        ContactEmail: gblContactEmail
    }
```

   Nothing else has been configured yet regarding this type of request—Let ‘see what happens when we submit an order.

4. The BPM Toolkit is designed to deal with highly confidential information, like HR, medical data, or defense sensitive data. Therefore, the information related to the request must be end to end secured:

   only the user who submits the information (or the person who submits the request on behalf of the user) can see the information.

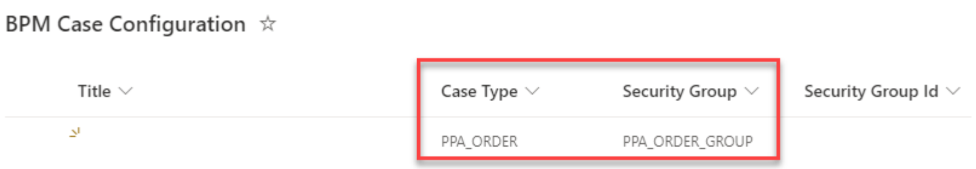
If the request is submitted for review/approval, only people in the review/approval pipeline can see the information. This is typically the case in HR or DOD (Department of Defense) systems.

5. Let's define a SharePoint security group for the type PPA_ORDER _GROUP

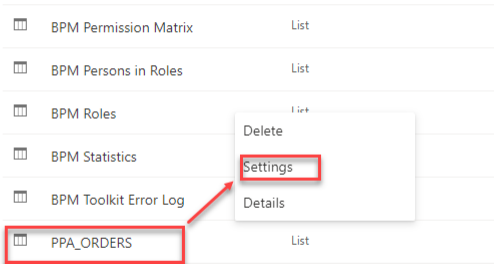
- Go to the SharePoint list **BPM Case Configuration**. Add a new entry: type PPA_ORDER in the Case Type column. Save the information.

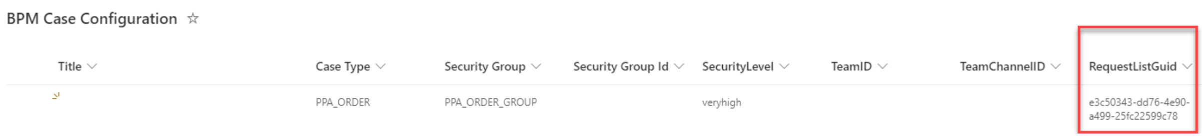
- We will specify the Security group associated with PPA_ORDER in the security group column, but let's define the SharePoint security group.
    a. Go to the **site settings**- **site permissions**- advanced **permissions settings**
    b. Create a Group named PPA_ORDER_GROUP with **read** permissions.

- Go to the SharePoint list **BPM Case Configuration** and select PPA_ORDER_GROUP in the security group column:

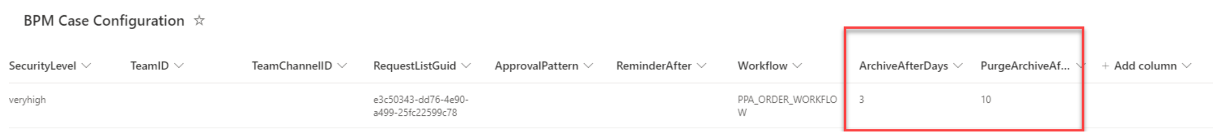


6. in the same list (BPM Case Configuration), specify the PPA_ORDER list guid in the RequestListGuid column: (you will find the guid of the list by going to the Site Contents-<select the list>-Settings), and the list guid will show-up on the page url:





7. In the same list, define when you want the request and its lifecycle to be archived and purged (removed from archive from compliance reason); specify 3 and 10 (days).



8. On your SharePoint home page, click on the new Order picture.
9. Fill in the form:

10. Click on Save (Draft). No workflow has been defined yet for the PPA_ORDER request, so we will just try to save, view, and edit the form. The form calls a flow that will store the right in a dedicated list. Each request type must have its dedicated list (or Entity in the Dataverse version of the BPM Toolkit).

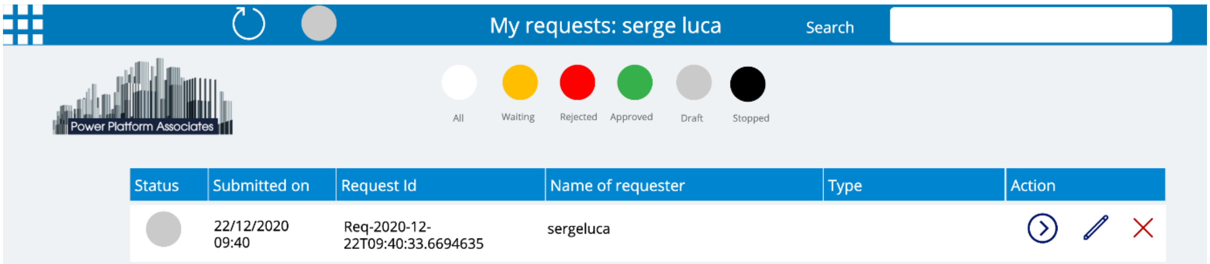
    The PPA_ORDER requests are saved in the PPA_ORDERS list and are secured by the BPM Toolkit.

    Saving a request (even in draft mode) already creates a Case. If you check the Case list, you will see your request.

11. Go to your SharePoint site homepage and click on the picture **Your Dashboard.**

    The Dashboard is where users can manage all their requests, approve/review tasks, and delegate their activities to other users for a specific timeframe.

Your request is a draft; filter the draft requests by clicking on the grey circle:

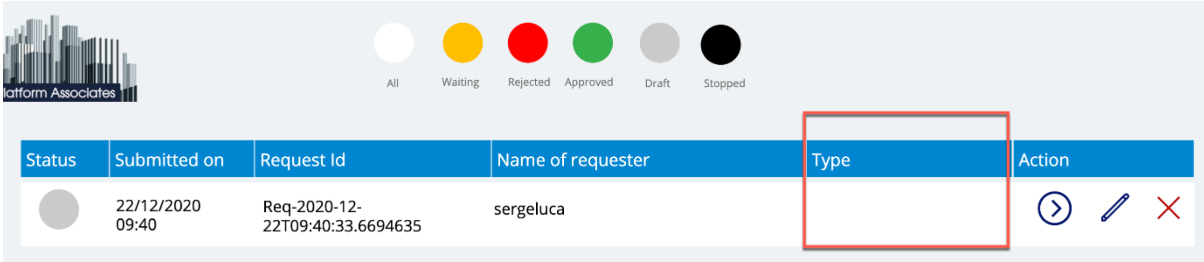


If you want to edit, view the request, click the icon in the Action column (don't click the delete icon yet): nothing happens. The reason is that when a request is created, the associated View and Edit forms must be specified. You will do it in the next step.

12. To associate these forms with the request PPA_ORDER:

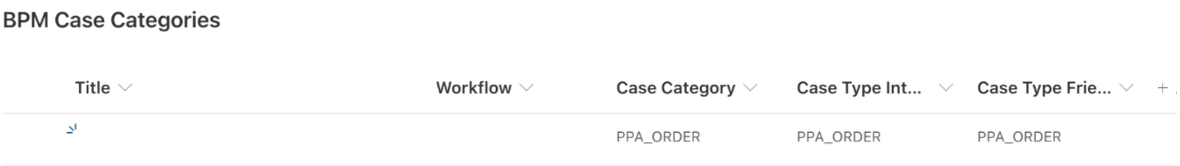
- Copy the PPA_ORDER application URL
- go to the SharePoint list **BPM Forms**
- Create a new entry with CaseType = PPA_ORDER, paste the app URL in ViewForm and EditForm.
- For **ViewForm** append the url with**&action=view&CaseID=**
- For **EditForm** append the url with**&action=edit&CaseID=**

13. Go back to MyDashboard app, refresh the app in the browser (F5) and view and edit your request and save it. Check if the modifications have been saved.
    Don't submit the request for approval yet; we still must define the workflow logic for the reviewal/approval.
14. Define request Categories
    If you take a look at the MyDashboard, the Type column of your draft request is empty:



Status	Submitted on	Request Id	Name of requester	Type	Action
	22/12/2020 09:40	Req-2020-12-22T09:40:33.6694635	sergeluca		

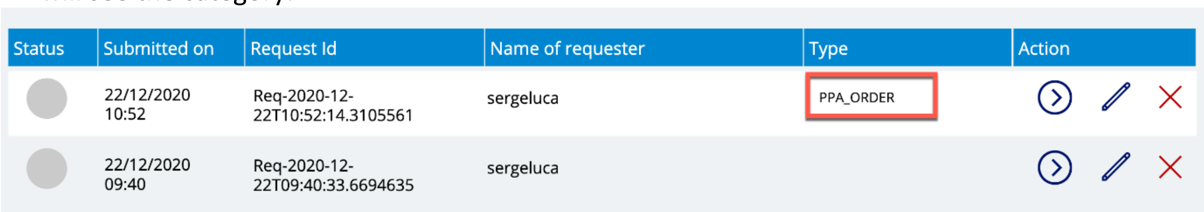
15. This is the request category. Let's define the request category in the BPM Case Categories: add the following entries:



BPM Case Categories

Title	Workflow	Case Category	Case Type Int...	Case Type Frie...
		PPA_ORDER	PPA_ORDER	PPA_ORDER

16. The existing request won't get the category name, but if you create a new draft request you will see the category:



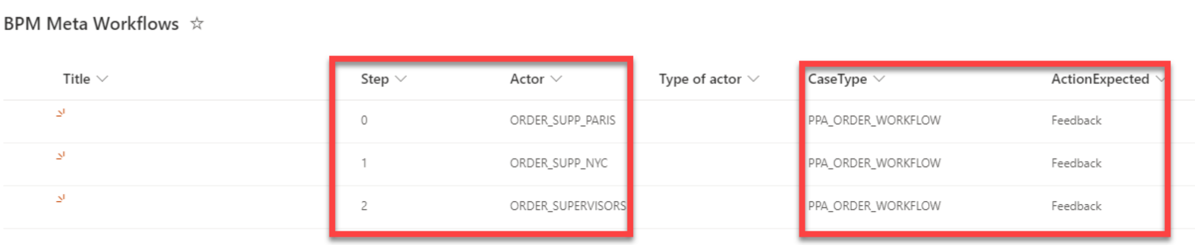
Status	Submitted on	Request Id	Name of requester	Type	Action
	22/12/2020 10:52	Req-2020-12-22T10:52:14.3105561	sergeluca	PPA_ORDER	
	22/12/2020 09:40	Req-2020-12-22T09:40:33.6694635	sergeluca		

17. Let's define the workflow.

The logic is our PPA_ORDERS must be reviewed by 3 teams that we will define and name:

ORDER_SUPP_PARIS
ORDER_SUPP_NYC
ORDER_SUPERVISORS

Go to the **Meta workflows** list and define 3 entries (1 for each step of the workflow):



BPM Meta Workflows ☆

Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

18. As you noticed, we named the workflow “PPA_ORDER_WORKLOW”, so we have to specify that in the Request definition; go back to the list **BPM Case Configuration** : type PPA_ORDER_WORKFLOW in the workflow column:

BPM Case Configuration ☆

Case Type	Security Group	Security Group Id	SecurityL...	TeamID	TeamCha...	RequestListGuid	ApprovalPattern	Reminde...	Workflow
PPA_ORDER	PPA_ORDER_GROUP		veryhigh			e3c50343-dd76-4e90-a499-25fc22599c78			PPA_ORDER_WORKFLOW

We need to define what exactly the actors are.

19. Define the actors in the BPM Roles list.

BPM Roles

Title	Role
	ORDER_SUPP_PARIS
	ORDER_SUPP_NYC
	ORDER_SUPERVISORS

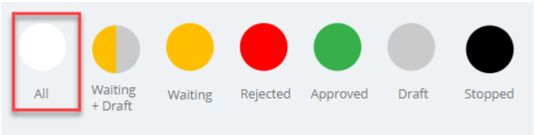
20. Define who is part of which role in the BPM Persons in roles list:
Add your e-mail for each role.

BPM Persons in Roles

Title	PersonEmail	Active	Role
	sergeluca@doctorflow12.onmicrosoft.com		ORDER_SUPERVISORS
	sergeluca@doctorflow12.onmicrosoft.com		ORDER_SUPP_NYC
	sergeluca@doctorflow12.onmicrosoft.com		ORDER_SUPP_PARIS

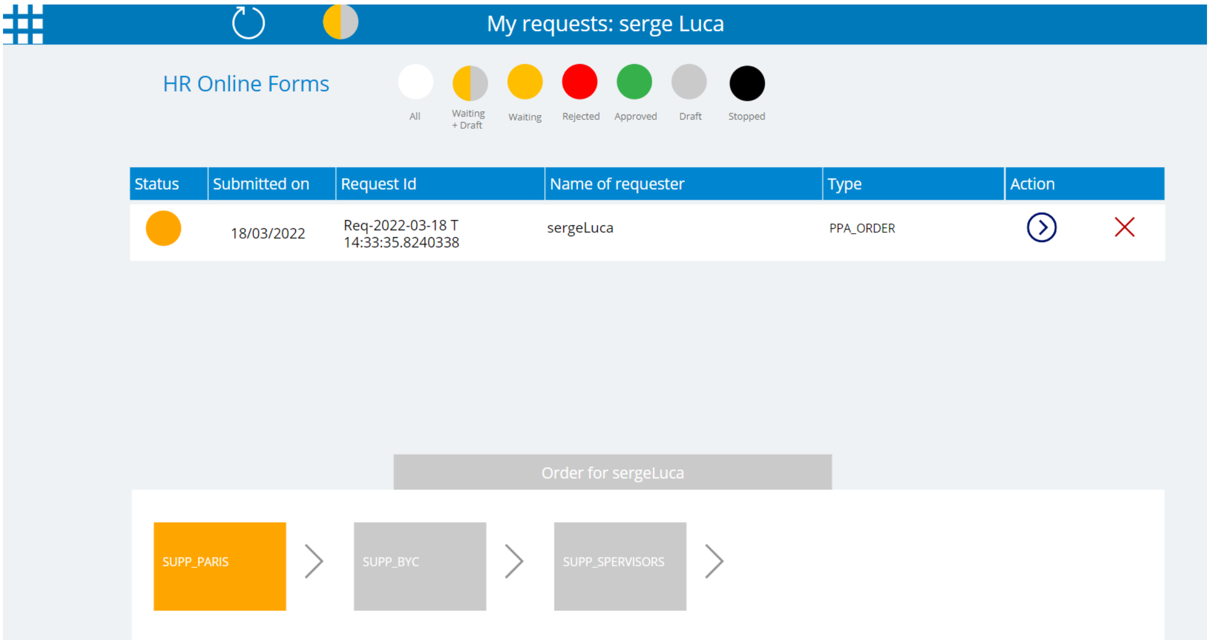
21. Go to the MyDashoard app, edit your request, and submit it for approval. Don’t provide any extra approvers.

22. If you go back to MyDashboard, you will see that the request is not in the draft mode anymore; it is in the “All” category.



It can take a minute to generate and to secure the workflow steps. Click the refresh button until you see that the request becomes orange. At some point (in the waiting category), you will see that the system generates the steps very slowly. If you use a production environment (instead of a trial) with real premium licenses (not premium trial licenses), then everything is faster.

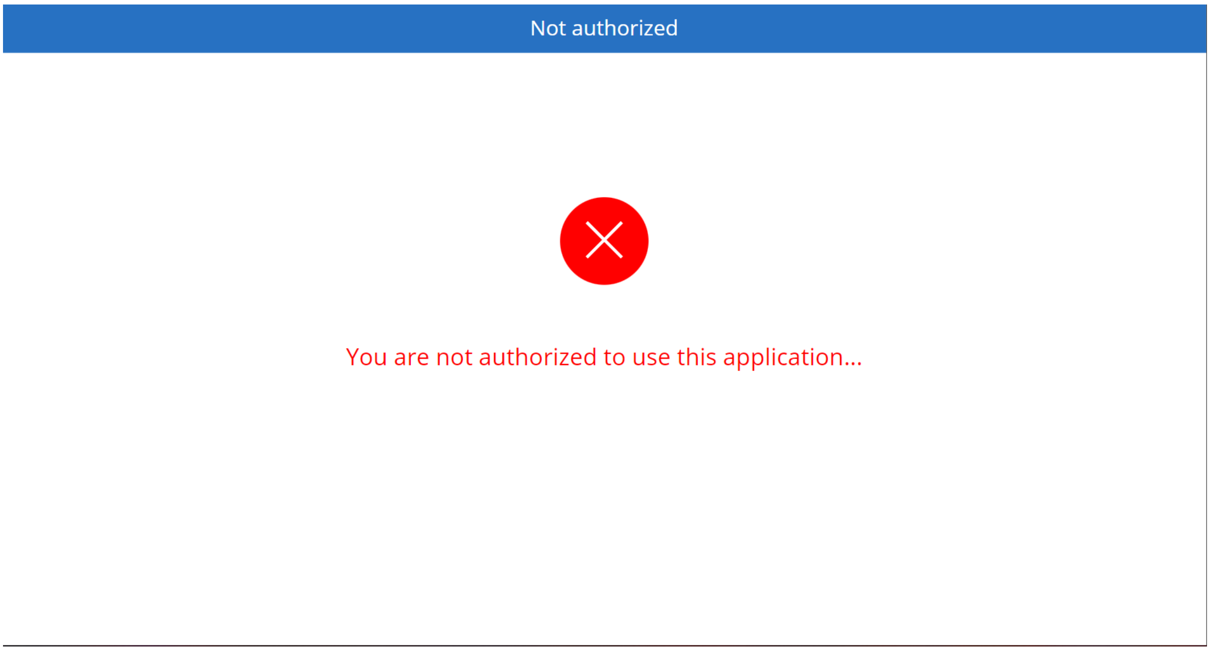
After 1 minute or more, you should see this:



23. The rectangle will initially be grey, but after some time the first one will become orange to indicate that the system expects a human reaction at this level. It can take several minutes before it becomes orange.

This is what you see as a user who submits a request.

Now you will see what people managing the business process (like an HR team) can see and can do. The business process managers use the Workflow Command Center. This application must be shared with them. And they can use the application if they are in one of the roles. Indeed, if you click the Workflow Command Center icon, you will get the following error message because your email is not associated with one of the roles:

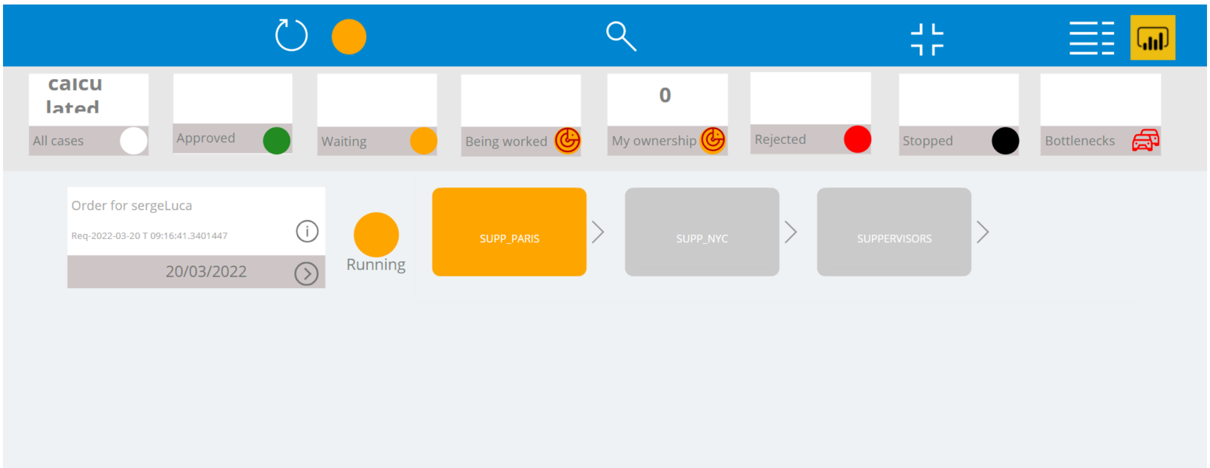


24. To fix this, go the list BPM Persons in Roles, and add yourself in the 3 roles:

BPM Persons in Roles ☆

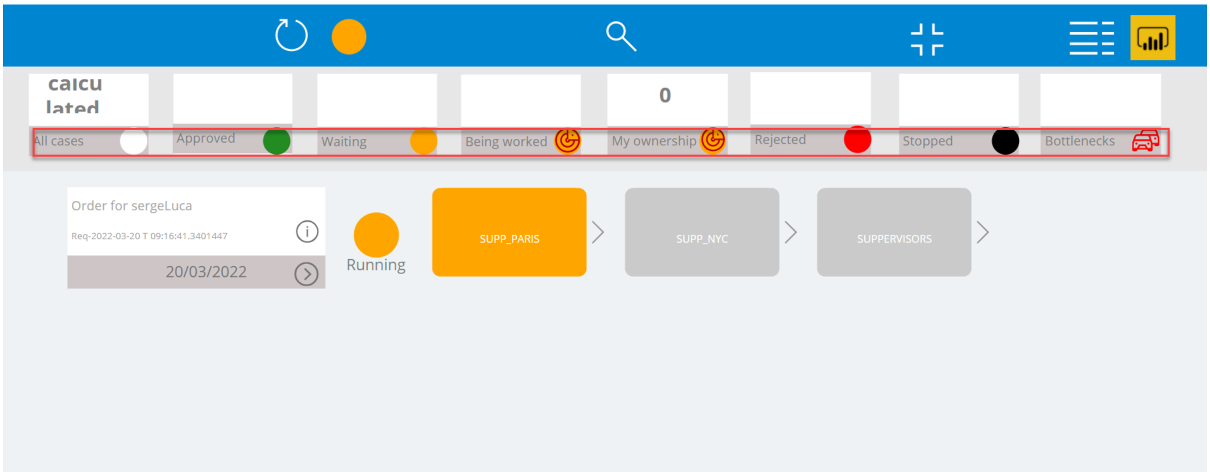
Title	PersonEmail	Active	Role
	sergeluca@doctorflow03.onmicrosoft.com		ORDER_SUPERVISORS
	sergeluca@doctorflow03.onmicrosoft.com		ORDER_SUPP_NYC
	sergeluca@doctorflow03.onmicrosoft.com		ORDER_SUPP_PARIS

25. If you run the Workflow Center again, you should see something like this:



You see the workflow, because your account has been added into the security group associated with this order and you can use the Workflow Command Center console because you are in one of the roles. Later, we will add individual approvers/reviewers.

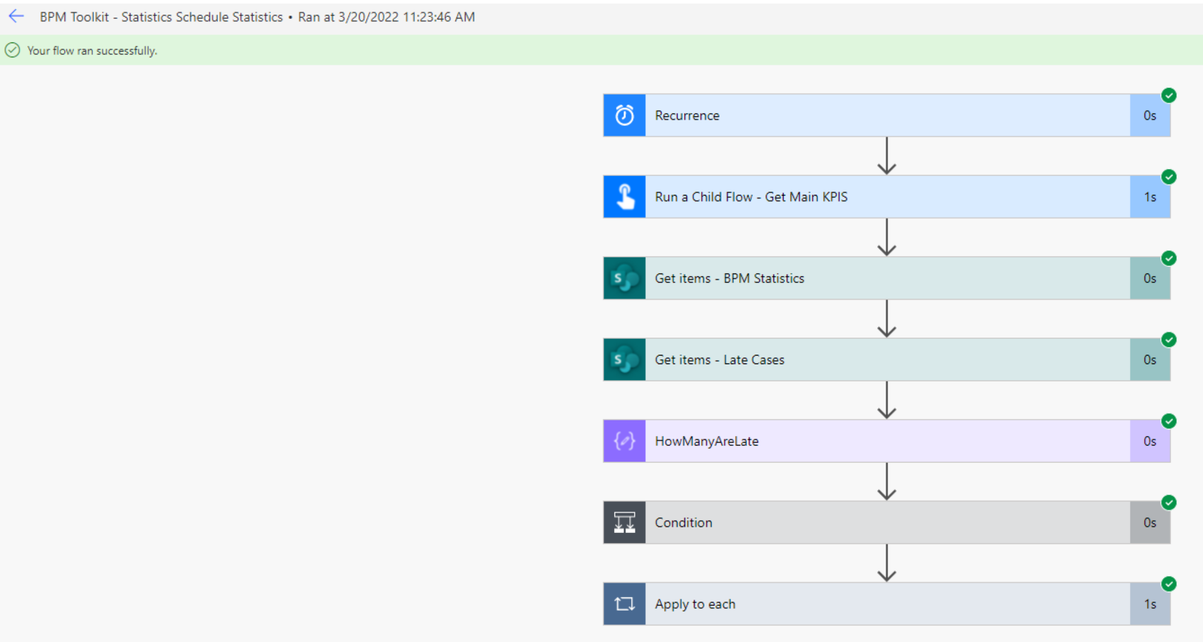
The filters are in the header panel of the workflow center:



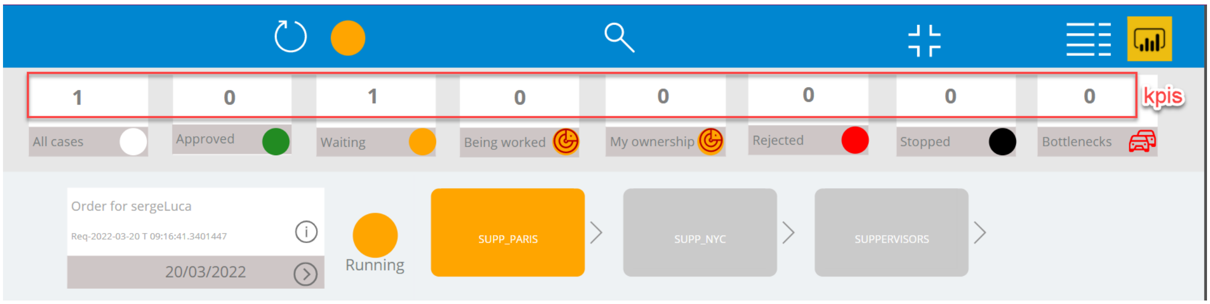
By default, the system filters the workflows in waiting state; but you can filter on the workflow that did complete (approved), or rejected, or stopped, and so on.

Also, the very first time you install the BPM Toolkit, you will see the word “calculated”; this is an issue in the display that we will fix; it is actually “not calculated yet”. The scheduled flow” BPM Toolkit – Statistics Schedule Statistics” calculates the kpis every 3 hours.

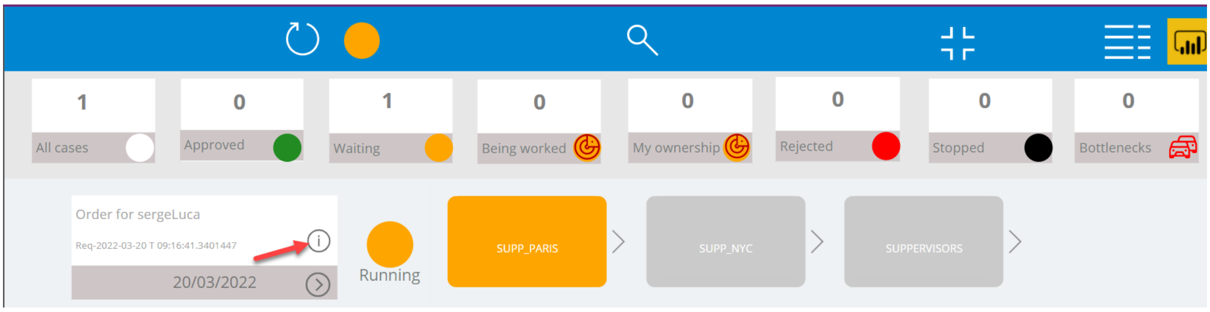
26. Run the flow BPM Toolkit – Statistics Schedule Statistics:



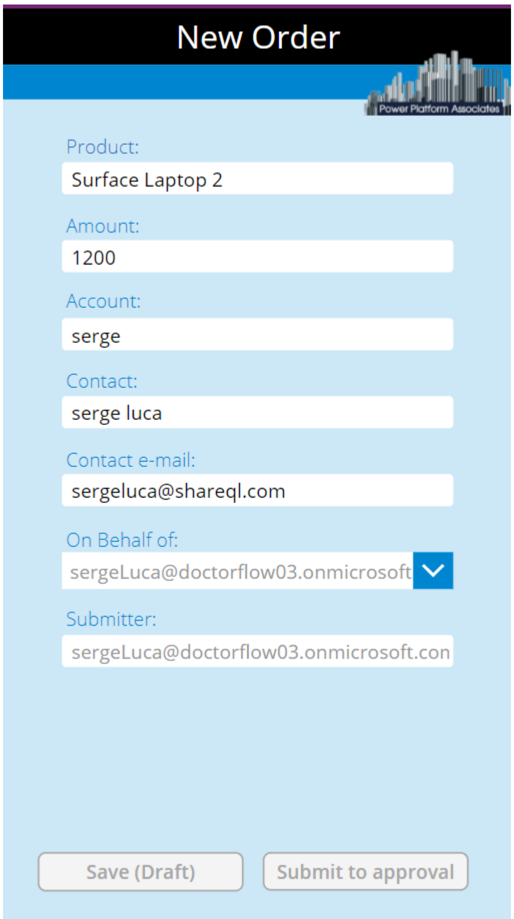
27. You will see the kpis:



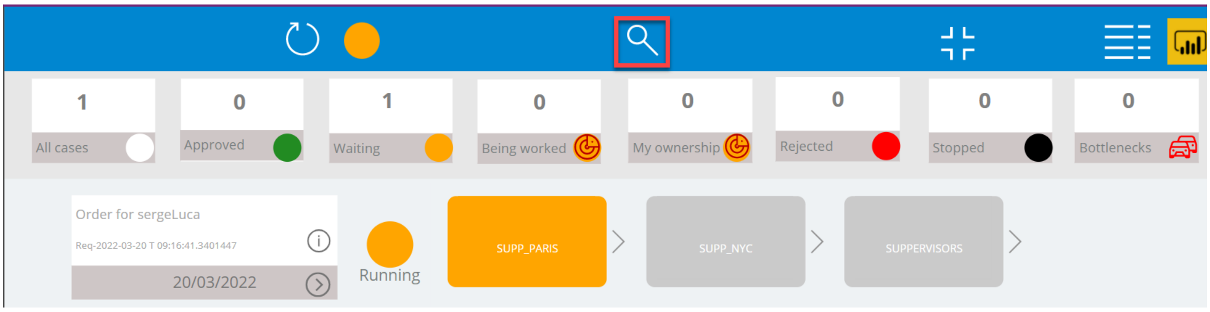
28. Clicking the I circle:

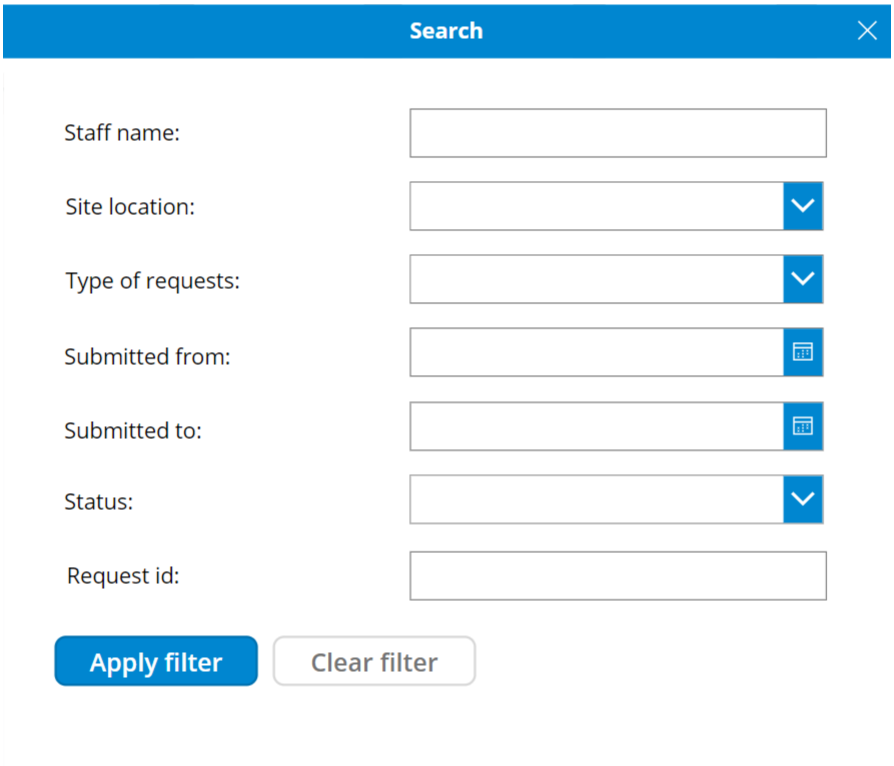


Display the request details:

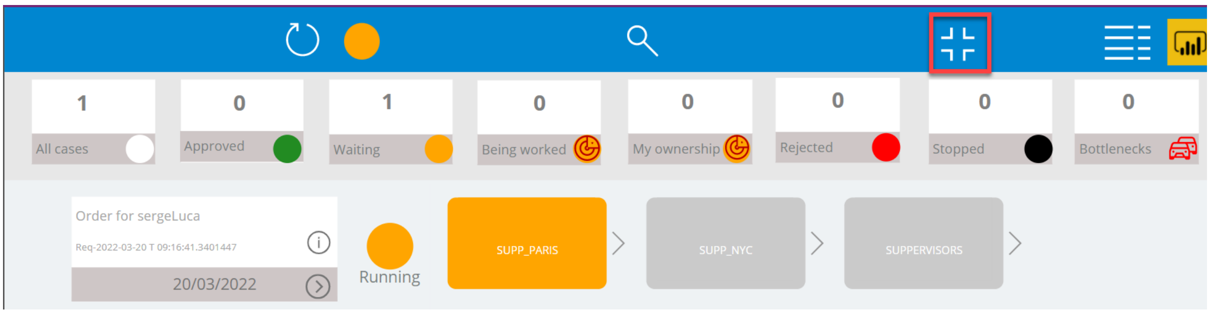


29. A search is also available if you click the search button:

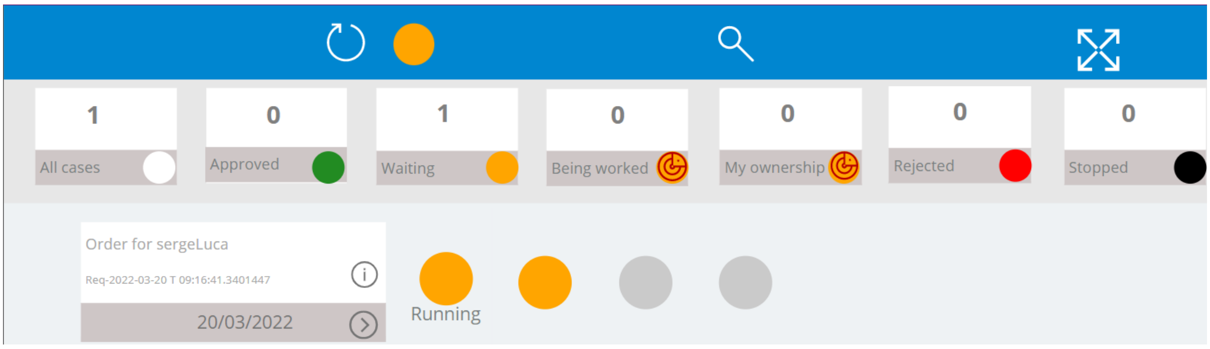




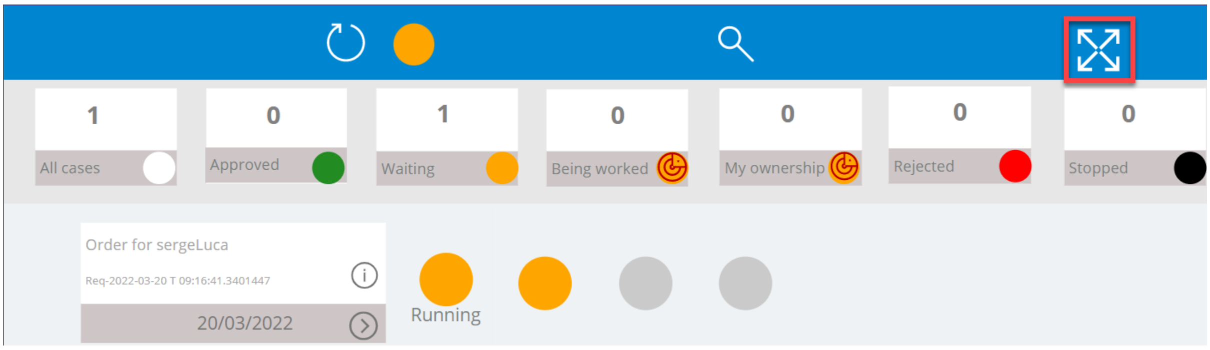
30. If the workflows are very big (many steps), it might be interesting to have a different view; click here:



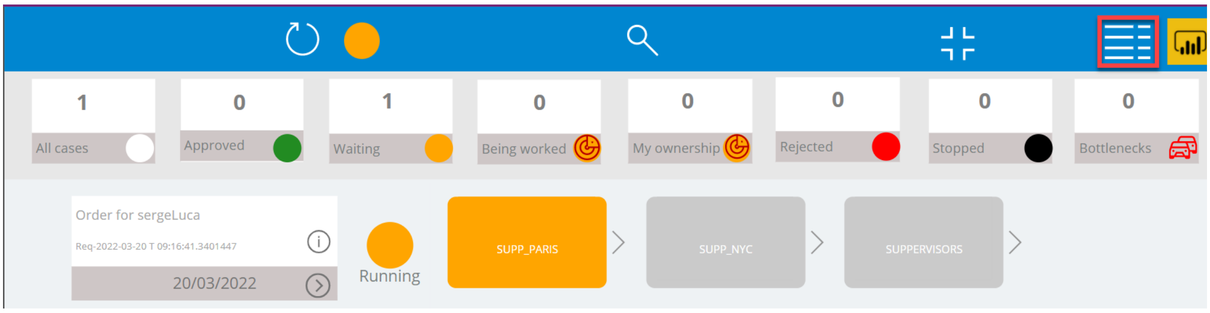
…and you will get this:



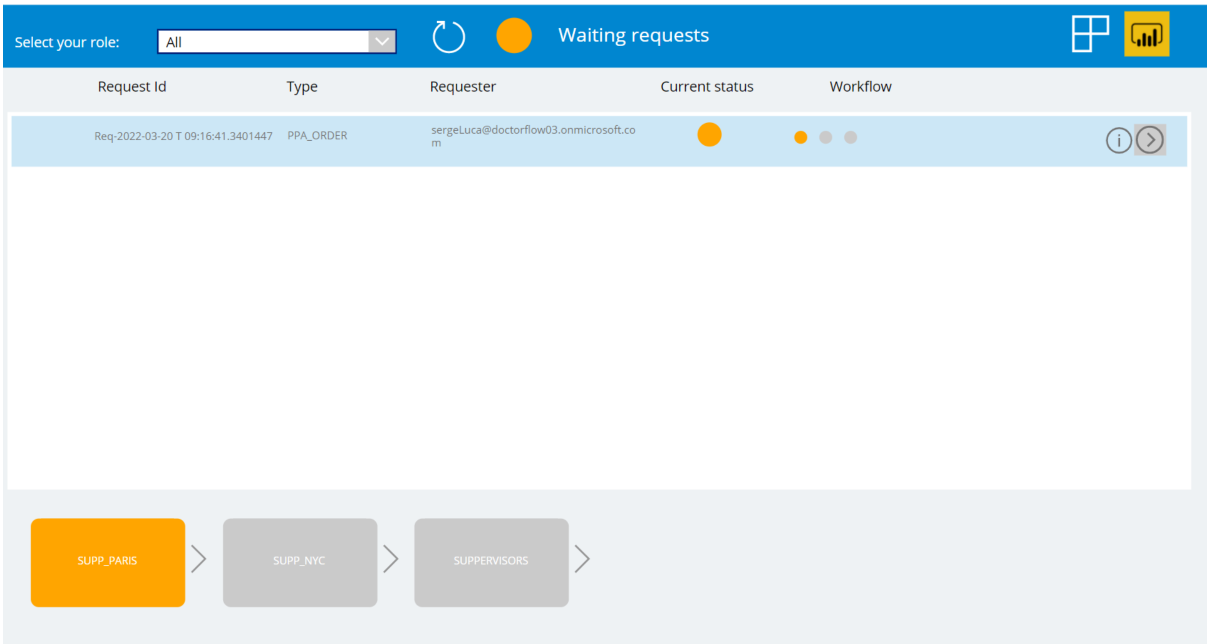
31. To switch back to the previous view, click here:



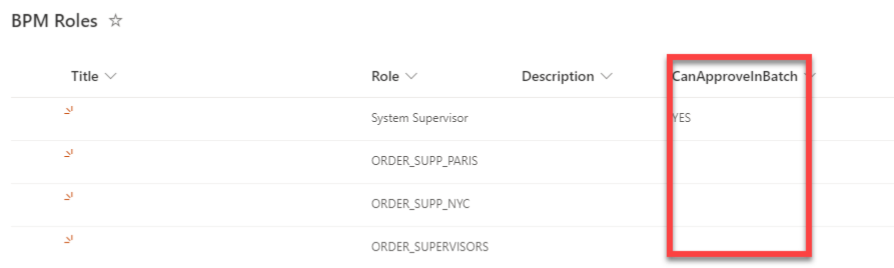
32. There is another view that allows some privileged people to Approve several requests in batch mode, when you click here:



You get this:



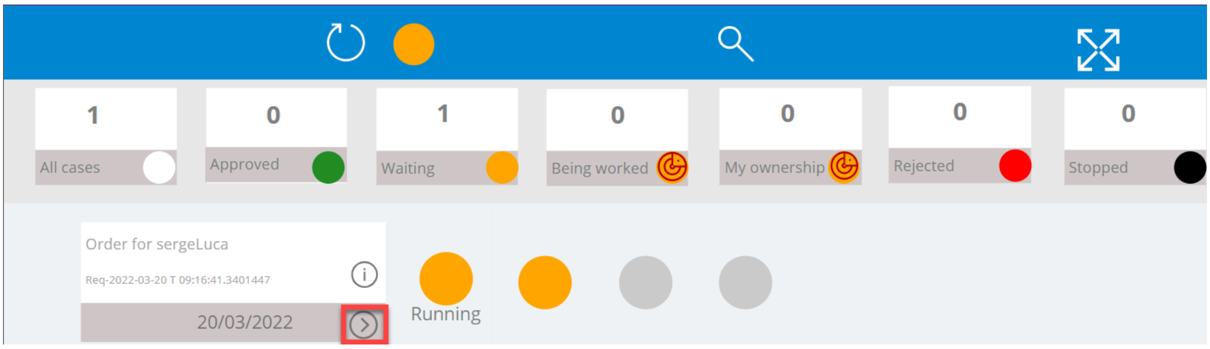
If your account is in a role where **CanApproveInBatchRequest** = YES in the list **BPM Roles**:


BPM Roles

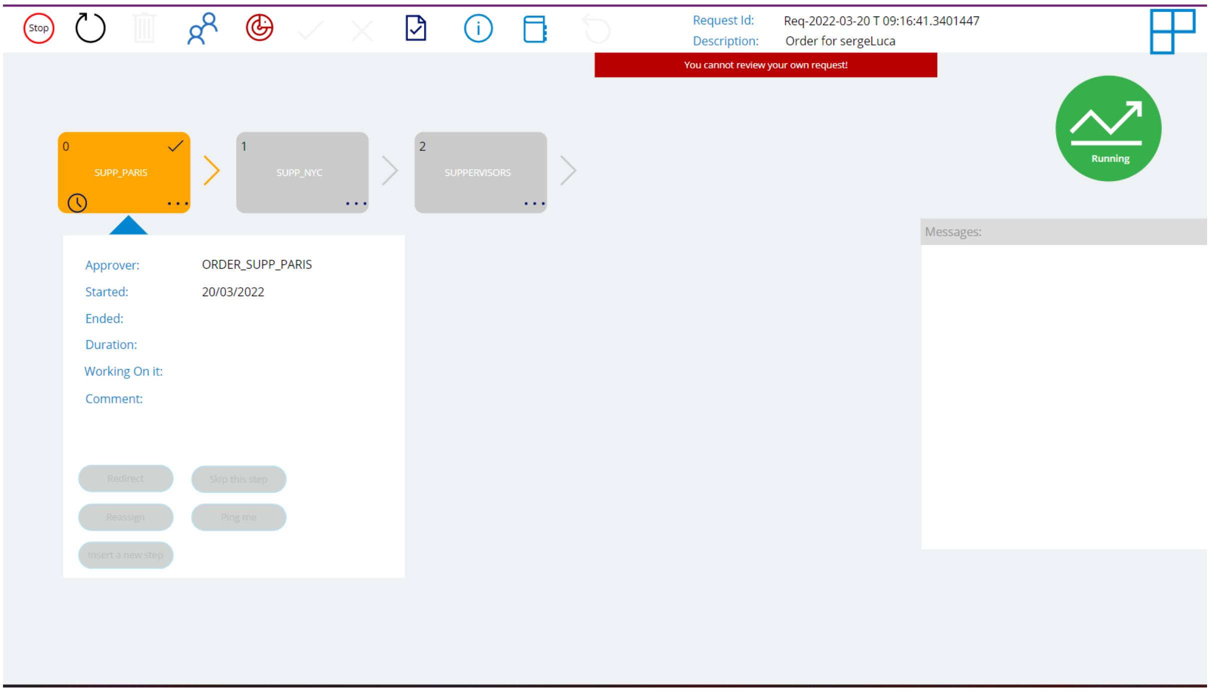
Title	Role	Description	CanApproveInBatch
	System Supervisor		YES
	ORDER_SUPP_PARIS		
	ORDER_SUPP_NYC		
	ORDER_SUPERVISORS		

Then you will be able to do so. More details on this later.

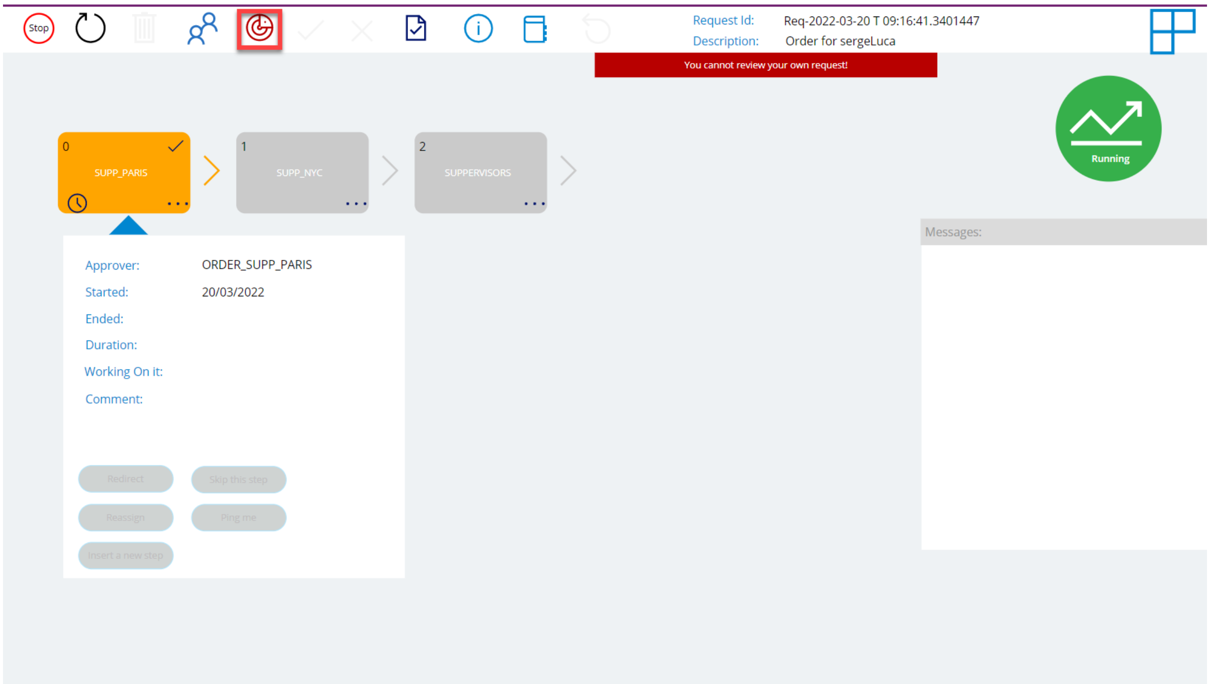
33. Let's get back to the "large view" and click the following arrow:



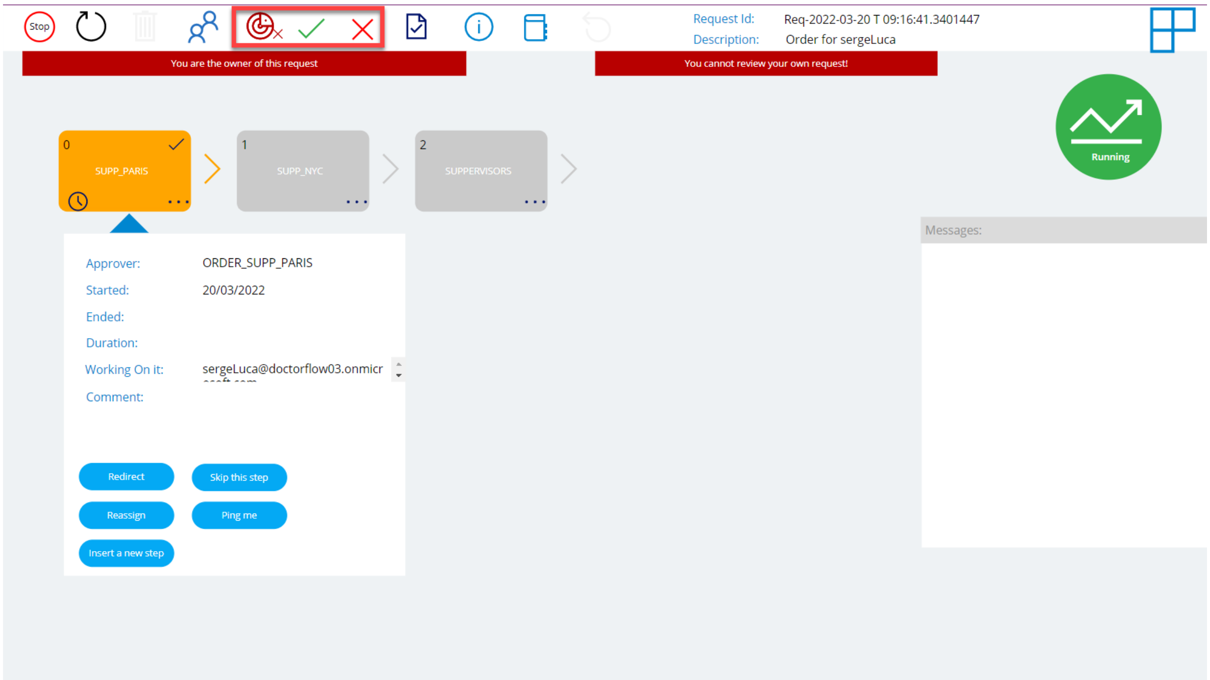
This is a way to treat the request (approve/review,…).



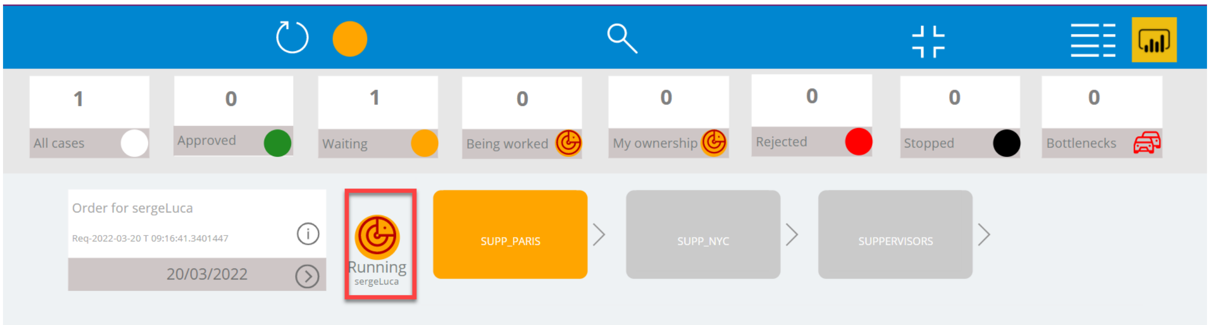
As you can see the workflow is waiting for a member of the role "ORDER_SUPP_PARIS" to react. If you are a member of this role, you should be able to work on it. Click the "radar" icon to take ownership of the case.



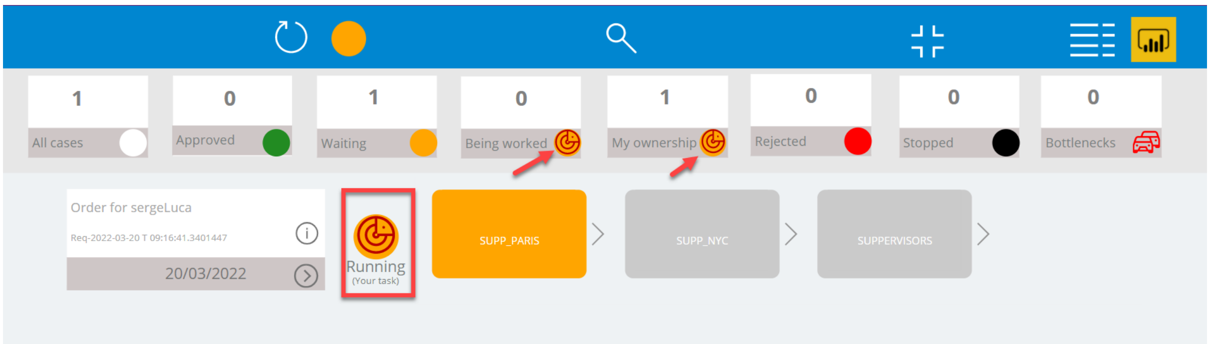
The new tools will show-up in this panel:



The icon highlighted in the picture above mean that you can release the ownership of the case, or you can approve (with comment) or reject with comment. You are currently the owner of the case, so your colleagues will see your name associated with the orange and radar icon:

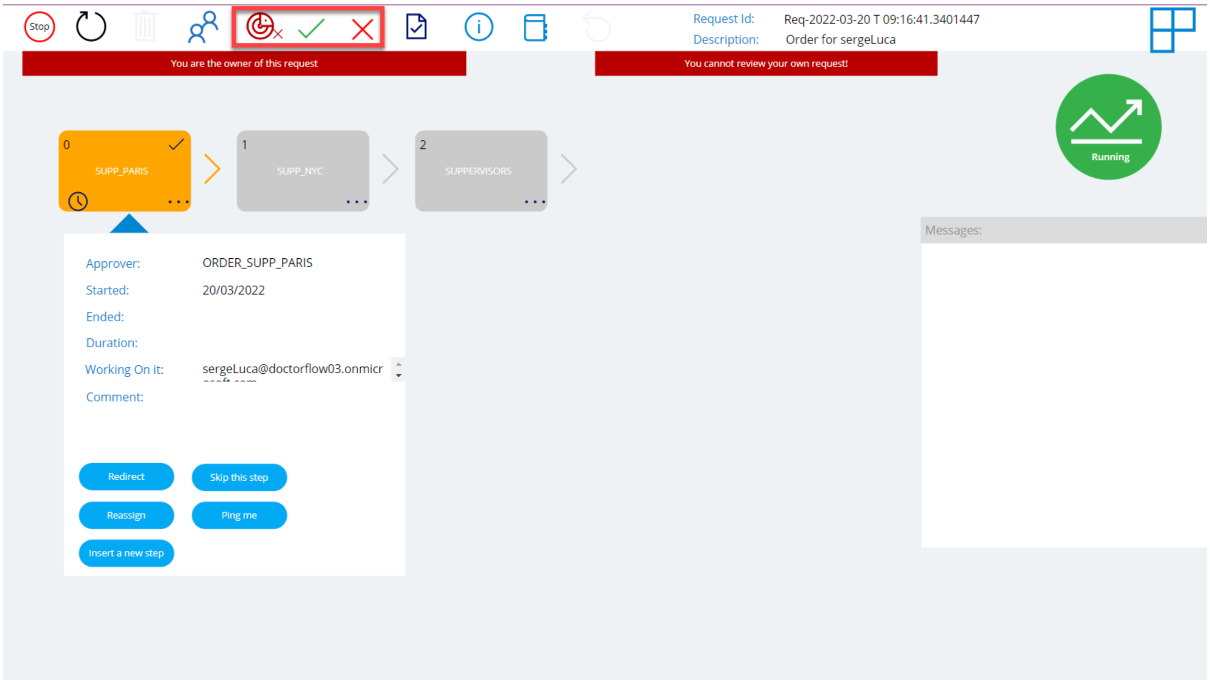


You will see "your task":

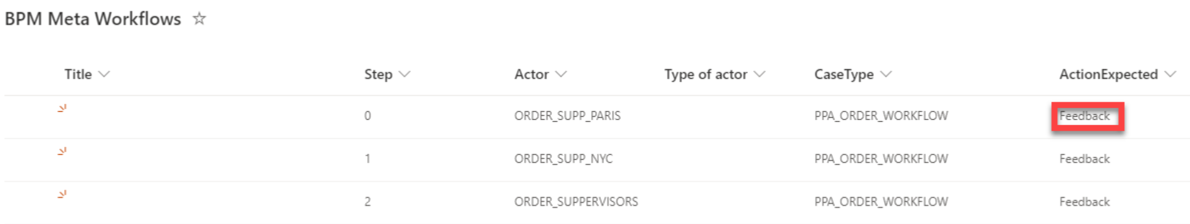


And you can filter the dashboard to see only the cases you are working on ("my ownership") or all the cases that are currently being worked on ("Being worked").

34. Let's get back to the workflow panel:



The system knows that it must display the Accept and Reject buttons because in the metaworkflow this step is associated with “Feedback”:

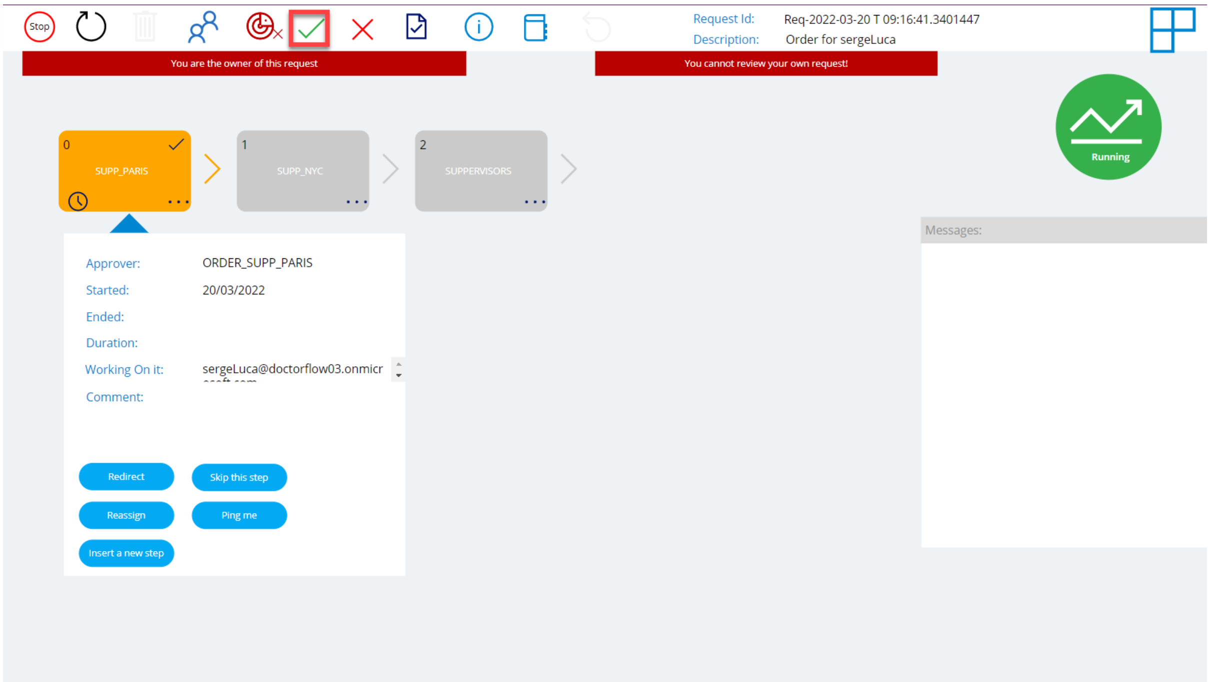


BPM Meta Workflows ☆

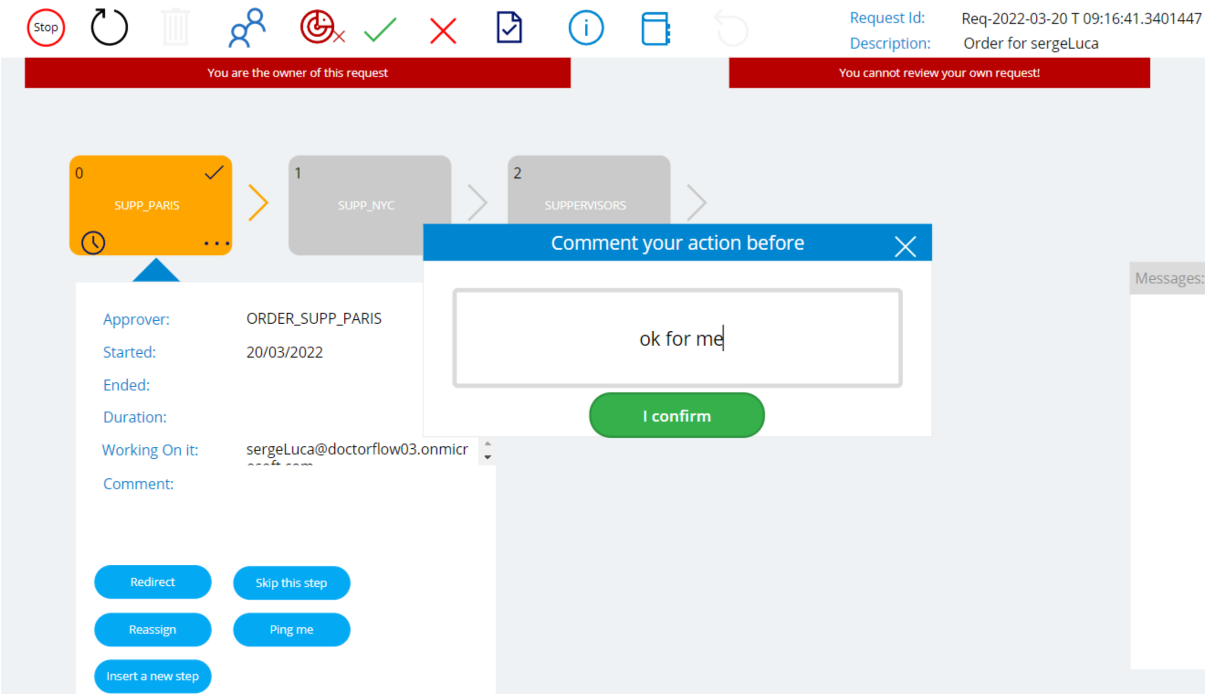
Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPPERVISORS		PPA_ORDER_WORKFLOW	Feedback

But there are many other verbs that we will explore; like **Stop** (the workflow will stop), **Approval** (the workflow is Approved, but the workflow does not completes and still go through the next steps), **ApproveStop** (if someone approves the workflow stops and the final status of the workflow is Approved, the next steps are skipped.

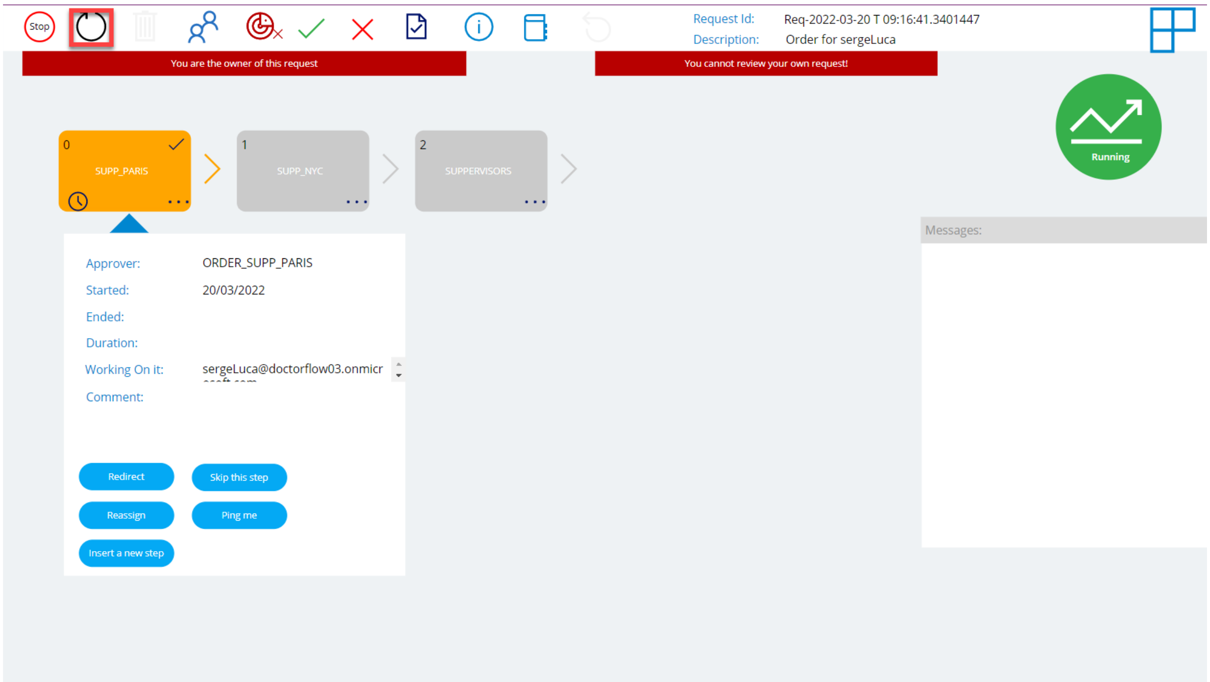
35. Let’s click the Accept button



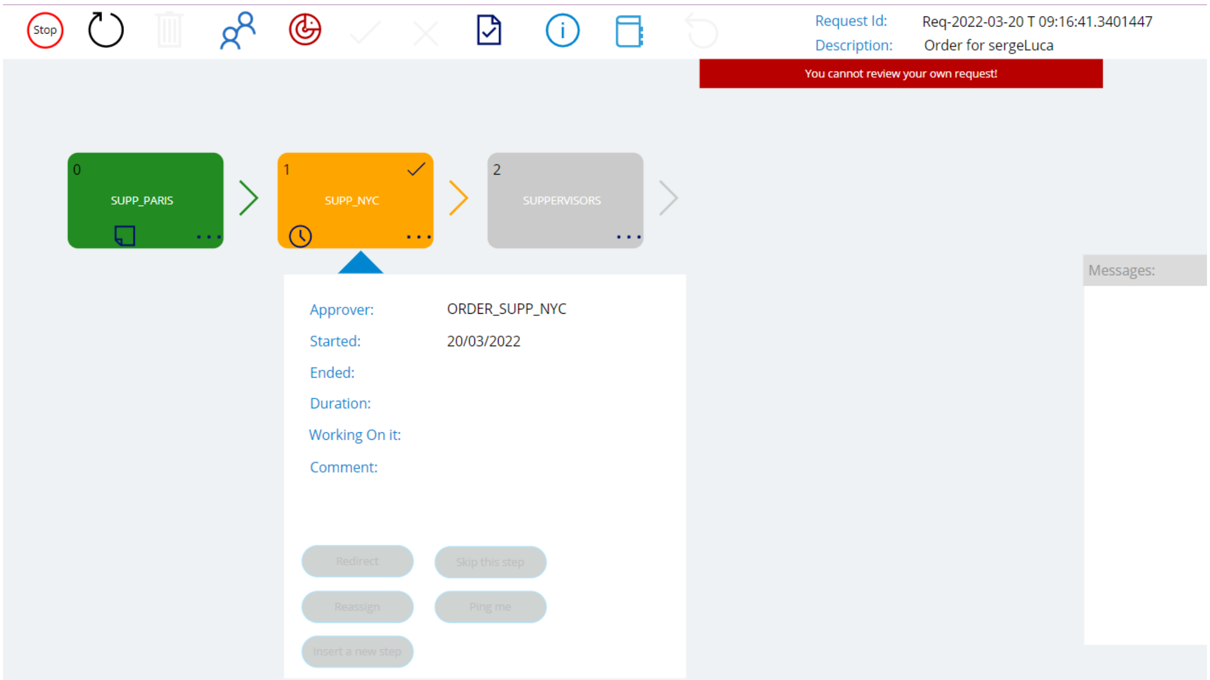
36. Then a window will allow you to add a message and you can click **I Confirm**:



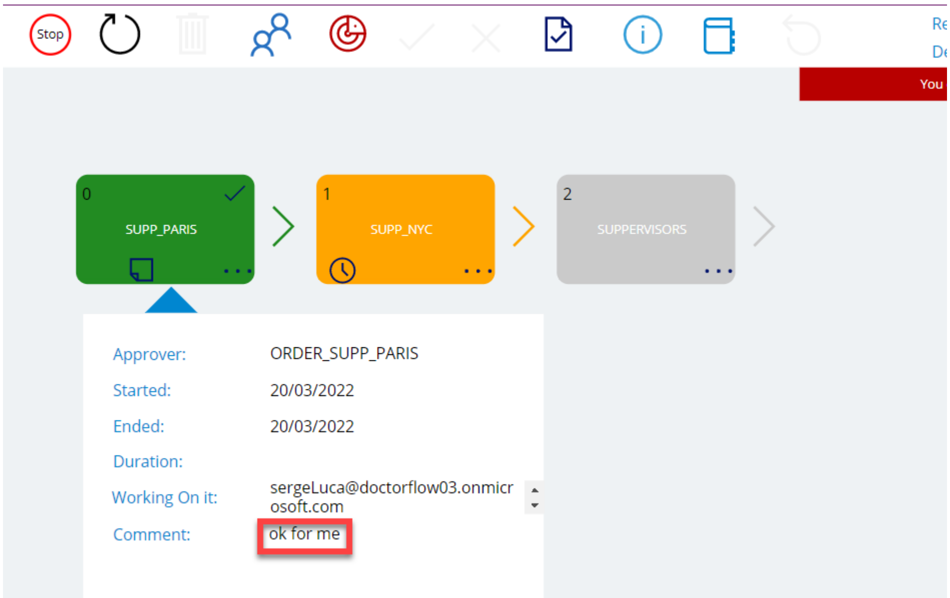
The system will go to the next step, the BPM Toolkit workflow engine is running in the background. You must click the **refresh** icon several time to see the new status:



Then the second step is becoming orange, and the first one if green (meaning Accepted; Rejected would be red):

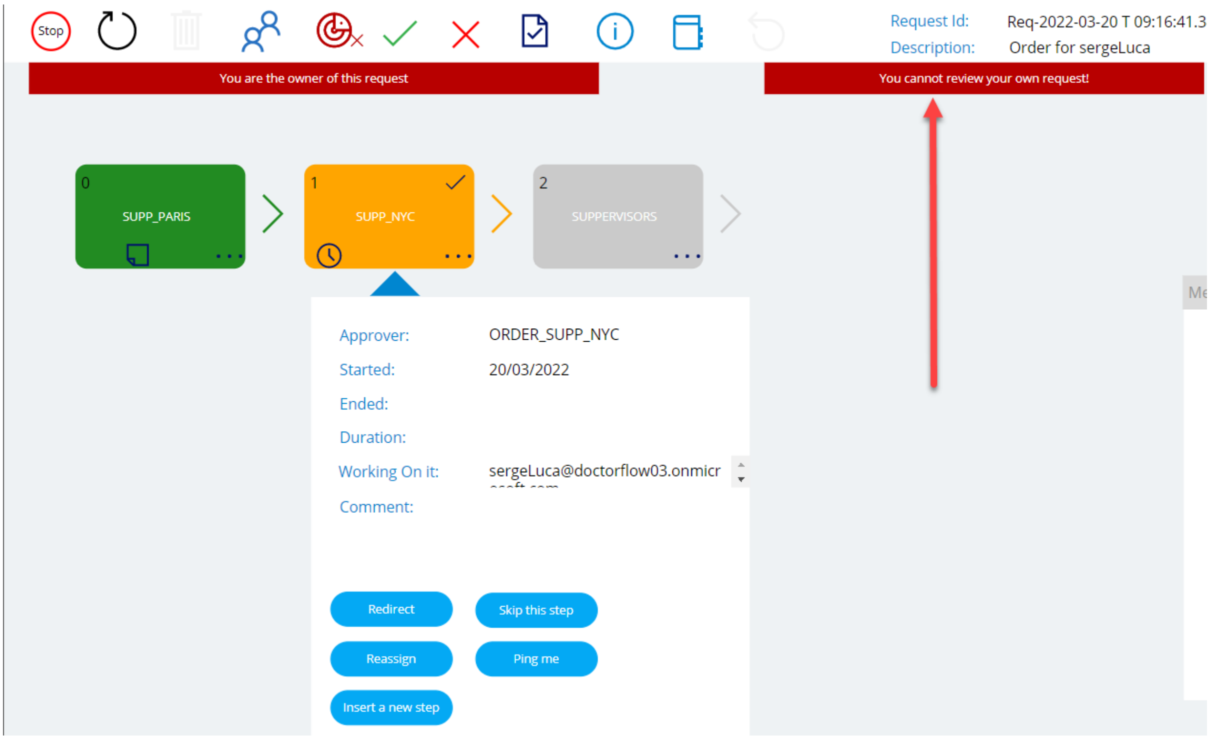


37. If you click the first step, you can still see the message from the previous role:



38. Let’s get back to step 1 and take ownership again. There is another concept that we didn’t mention:

The message “You cannot review your own request”:



Indeed, if someone submits a request (like an HR request), normally he should not be allowed to approve/review his own request. For the demo, it is authorized, but with a warning message. Indeed this is due to the value of “AllowSelfValidation” in the list **BPM Parameters**.

BPM Parameters ☆

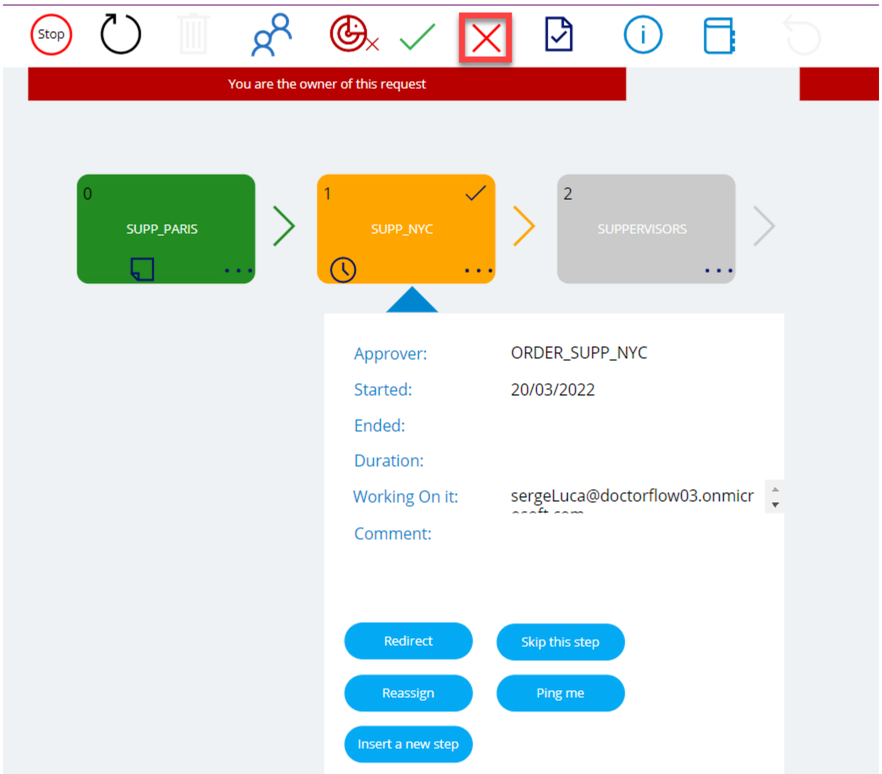
Title	Description	ParamName	ParamValue
	If "No" : users cannot see the workflow approval panel if they want to approve their own request (or a request submitted on their own behalf). No should be the default value in production. "Yes" can be used in Test	AllowSelfValidation	Yes

39. If you switch the value to No, you will get this error message if you display the workflow panel of your request:

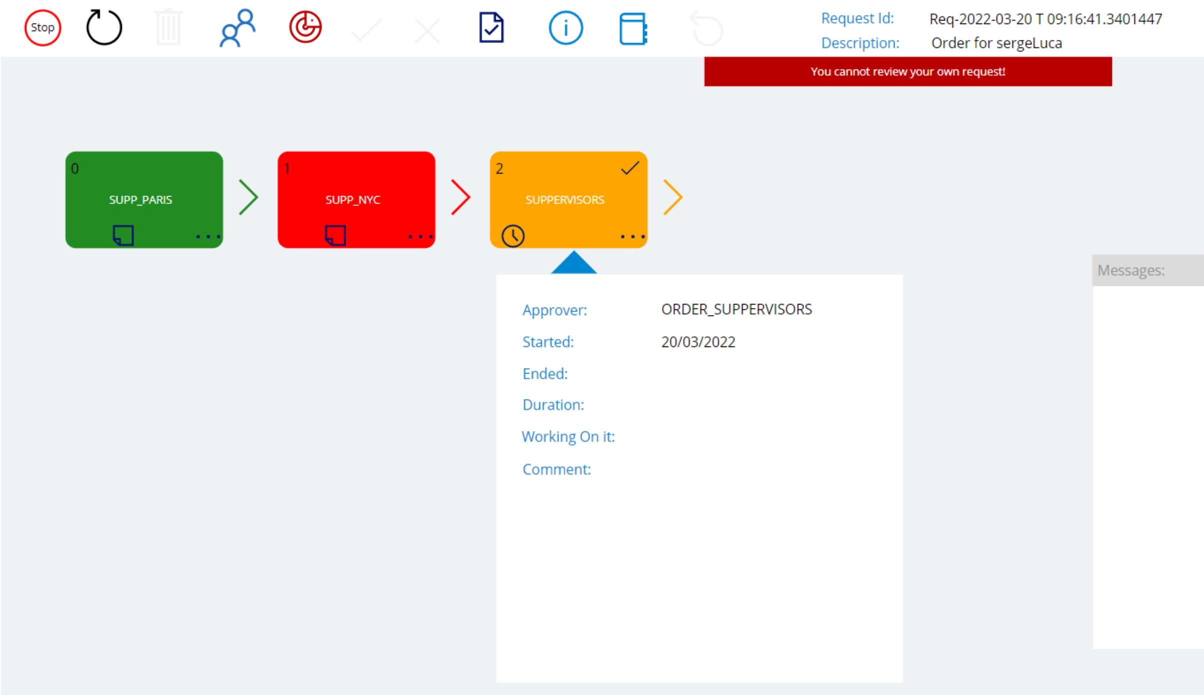
Not Authorized, you cannot approve your own requests...

40. Let’s switch the value to Yes, and refresh the Workflow panel:

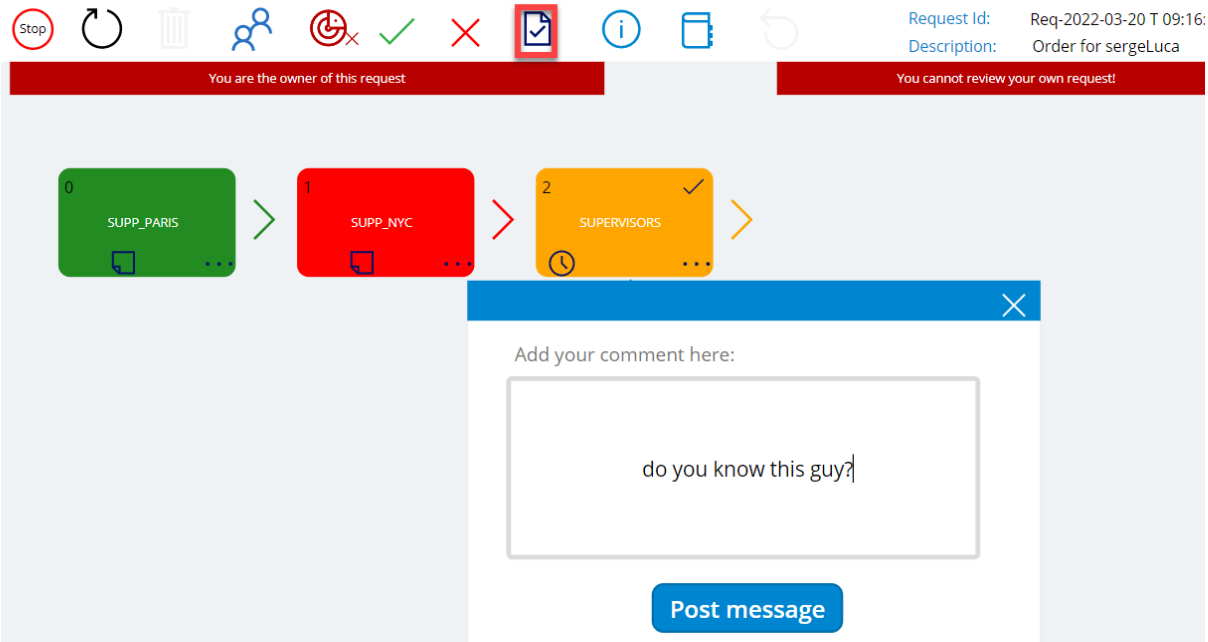
Since you are member of the roleSUPP_NYC,you can take owner ship of the case and reject it:



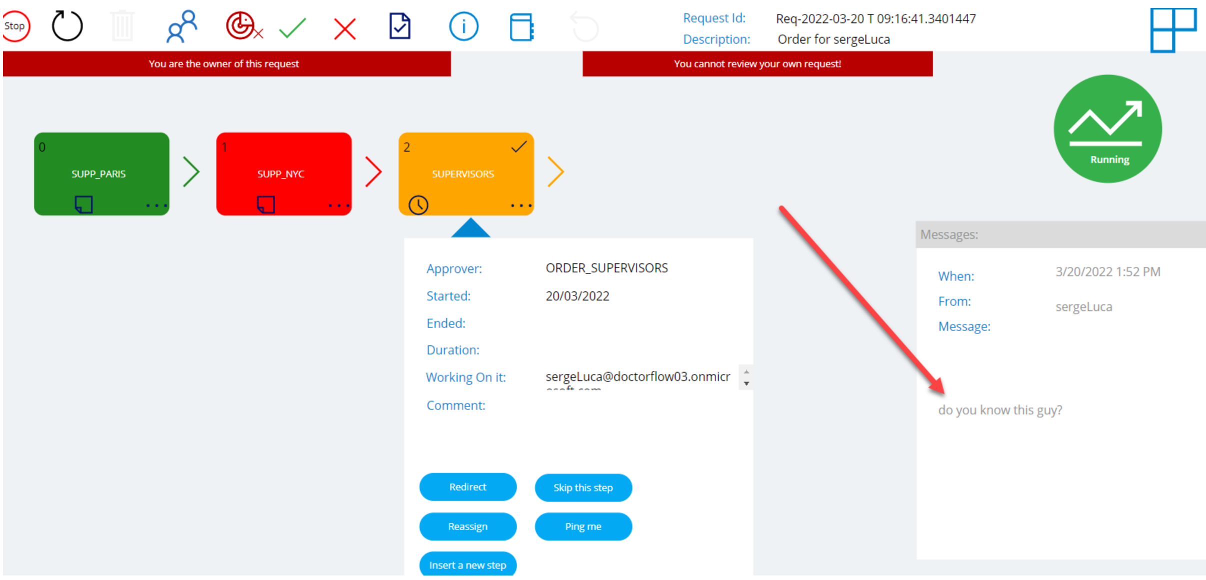
41. Refresh several times:



42. People working on the same request can collaborate and add an internal message. If you click here, a comment panel will show-up:



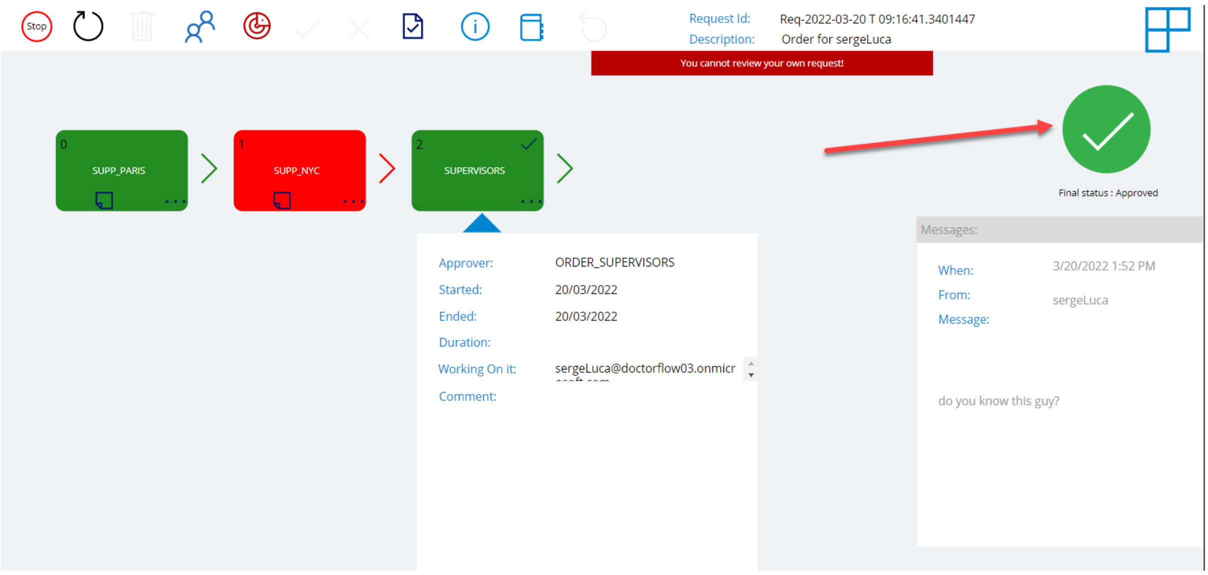
And the message will be displayed here:



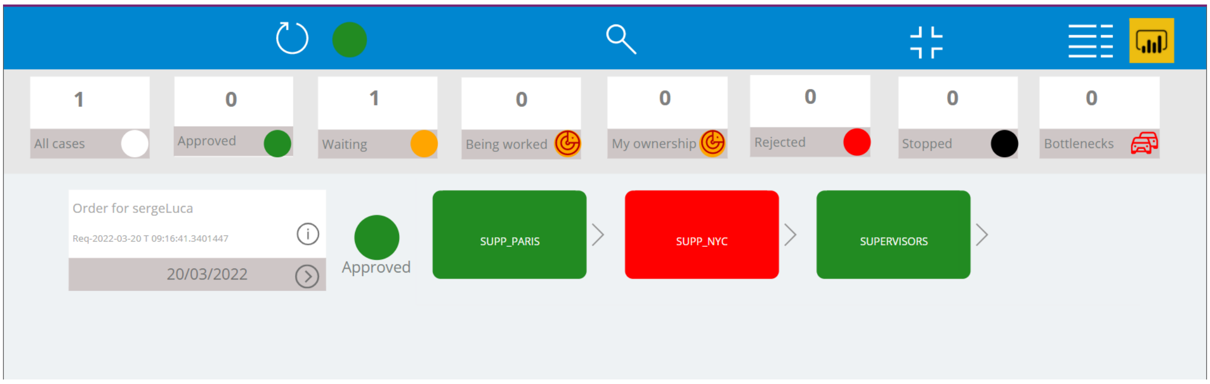
Colleagues can answer/comment.

Some companies want to associate a Microsoft eams private channel instead of using the internal messaging system. We will demonstrate that later.

43. Let’s approve the last step, and refresh; the case will complete:

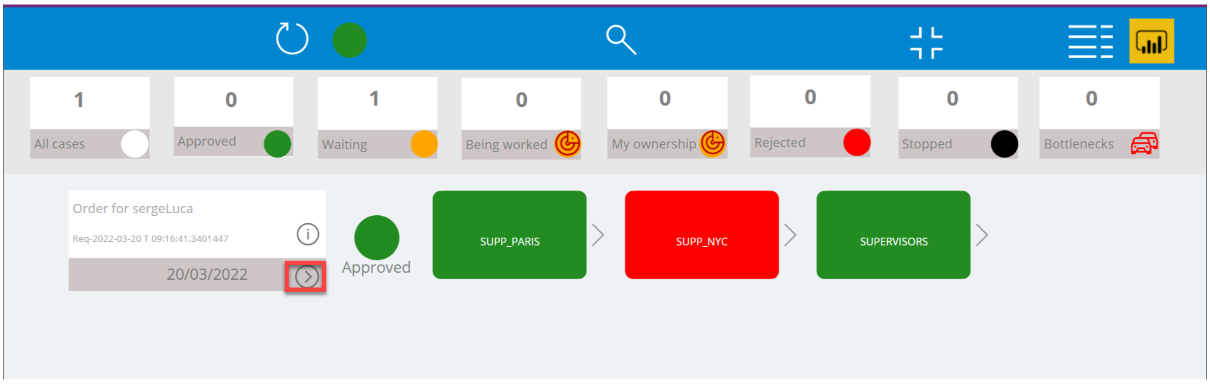


In the Workflow Command Center, you will see the case by clicking on the (green) Approved filter, or on the (white) All cases filter:

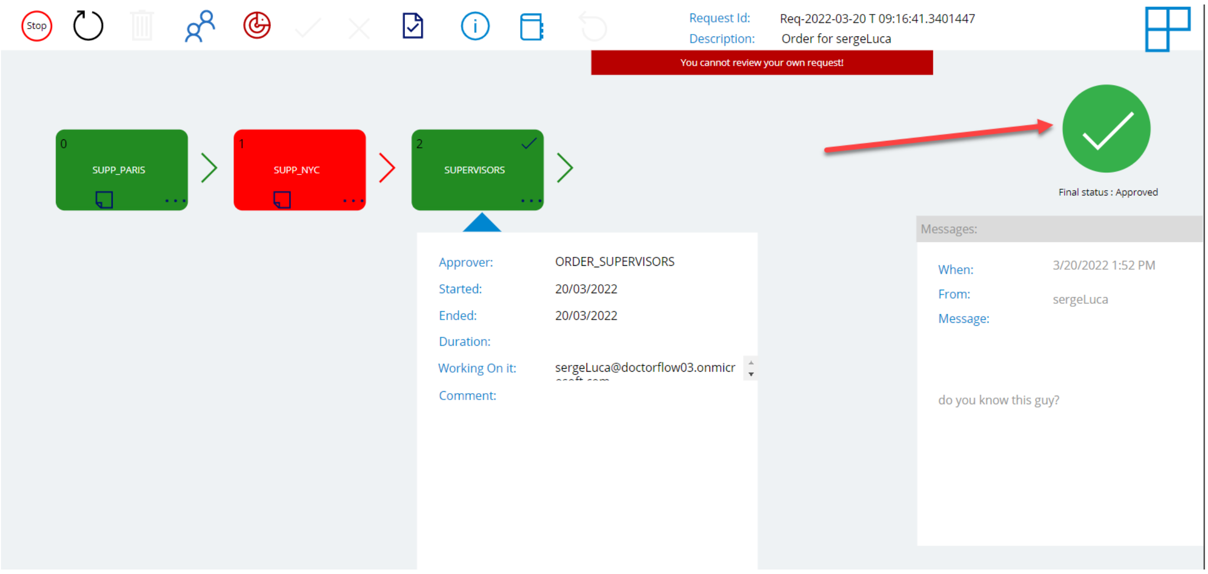


If for any reason you want to reinitialize the case, you can. But this is unusual, and it requires the user to be System.

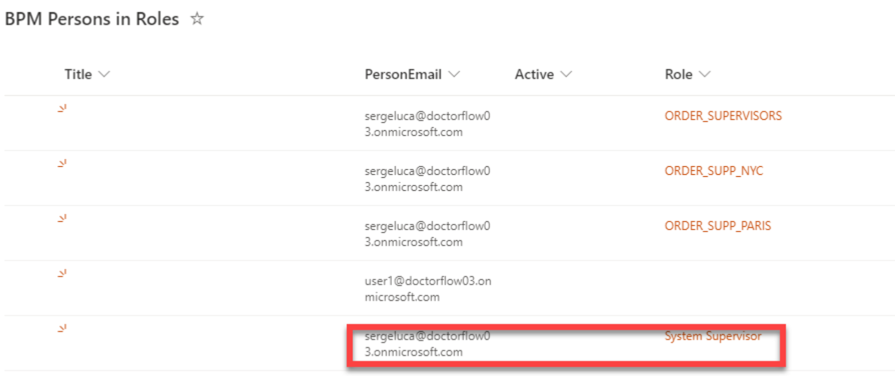
44. Select the case in the Workflow command center:



And in the Workflow Panel, you will see a (disabled) tool called “Manivelle” to reste the process

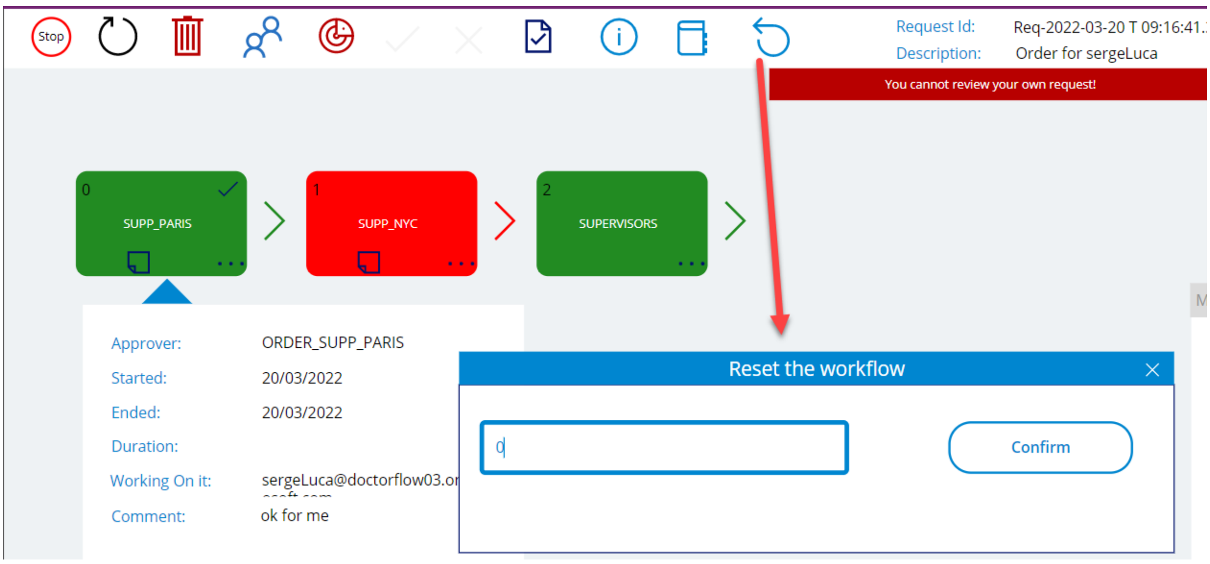


45. To enable it, you have to be System Supervisor, so add yourself in the BPM Persons in Roles list:

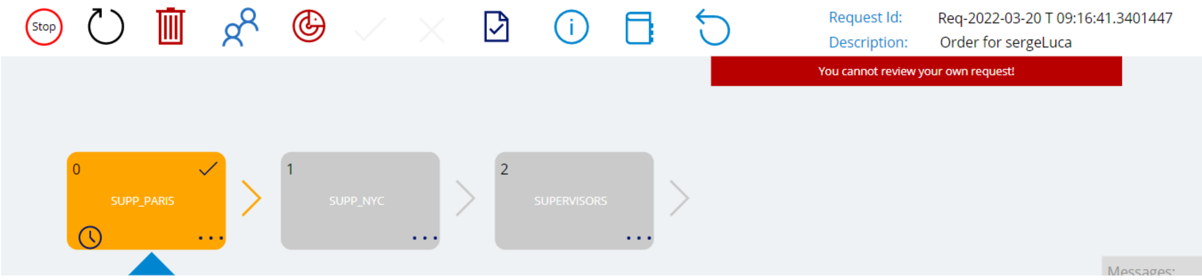

BPM Persons in Roles

Title	PersonEmail	Active	Role
	sergeluca@doctorflow03.onmicrosoft.com		ORDER_SUPERVISORS
	sergeluca@doctorflow03.onmicrosoft.com		ORDER_SUPP_NYC
	sergeluca@doctorflow03.onmicrosoft.com		ORDER_SUPP_PARIS
	user1@doctorflow03.onmicrosoft.com		
	sergeluca@doctorflow03.onmicrosoft.com		System Supervisor

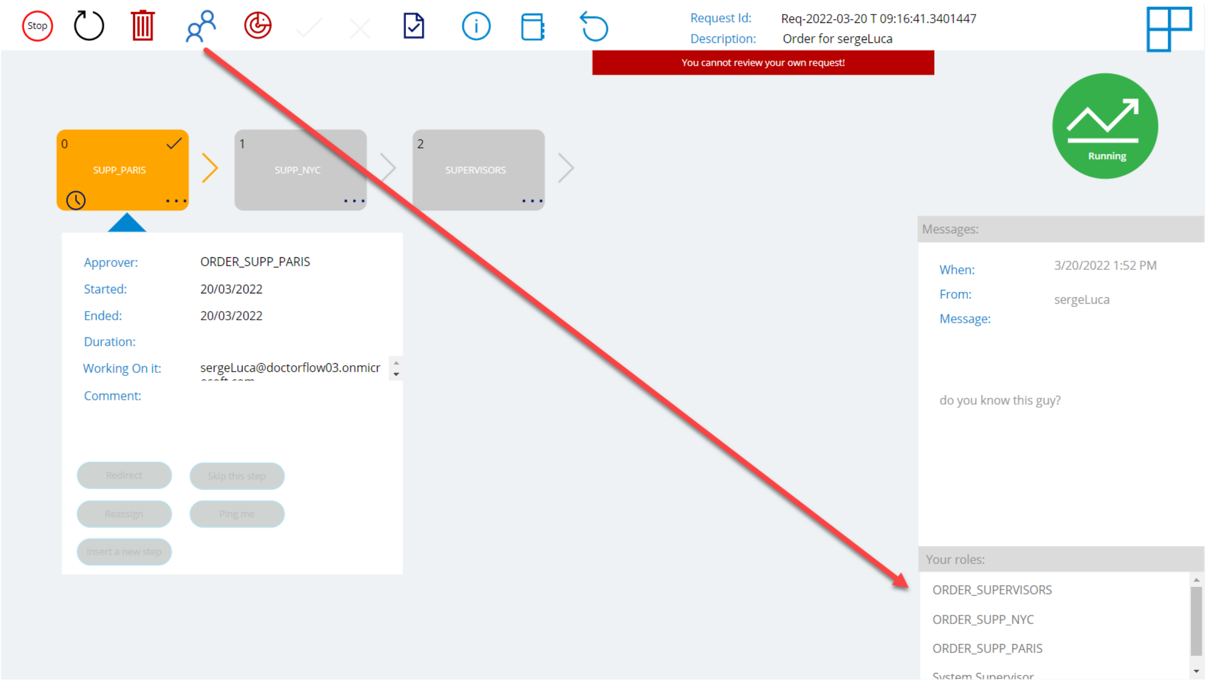
46. Refresh the Workflow Panel and the Manivelle will be available. Click, keep Step 0 and confirm:



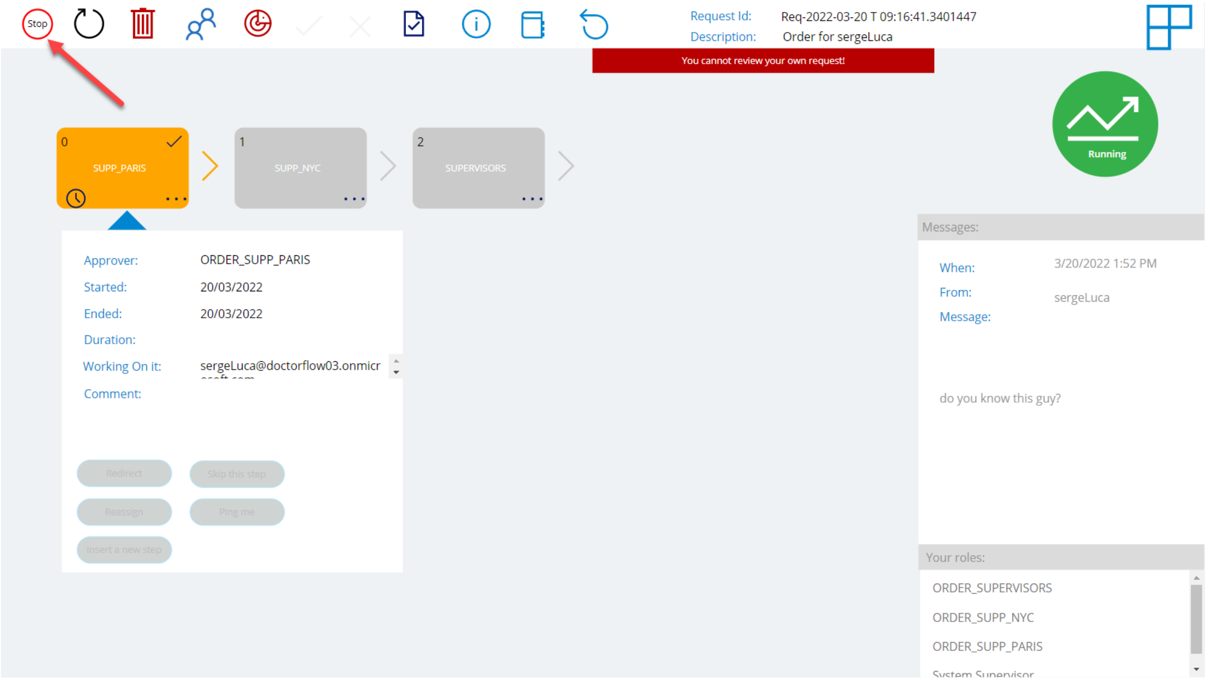
47. Refresh, and you will see that workflow has been reinitialized and is waiting in step 0:



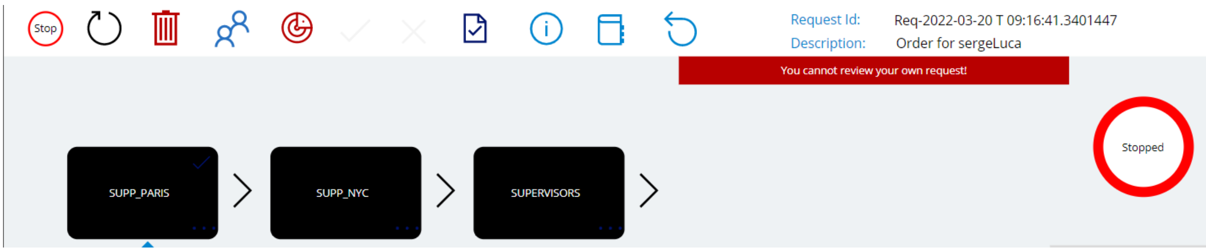
48. Clicking the people icon in the Workflow Panel display the roles you are part of:



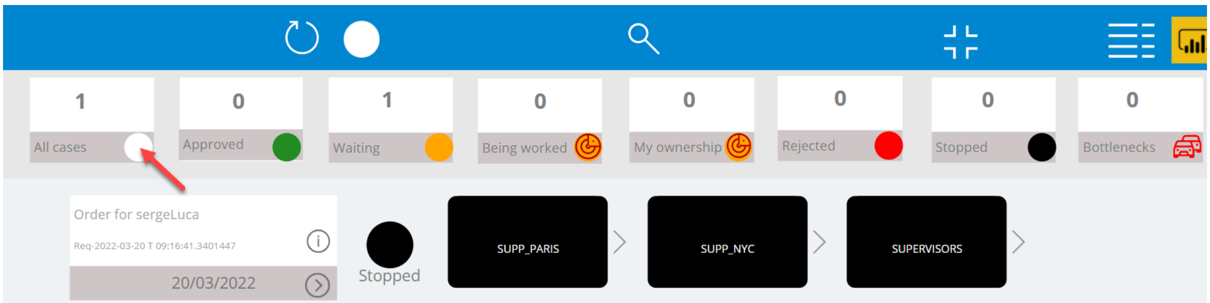
Since you are System supervisor, another super power is to be able to Stop a workflow.



49. Click the Stop button and the steps will become black, the final status will be Stopped:

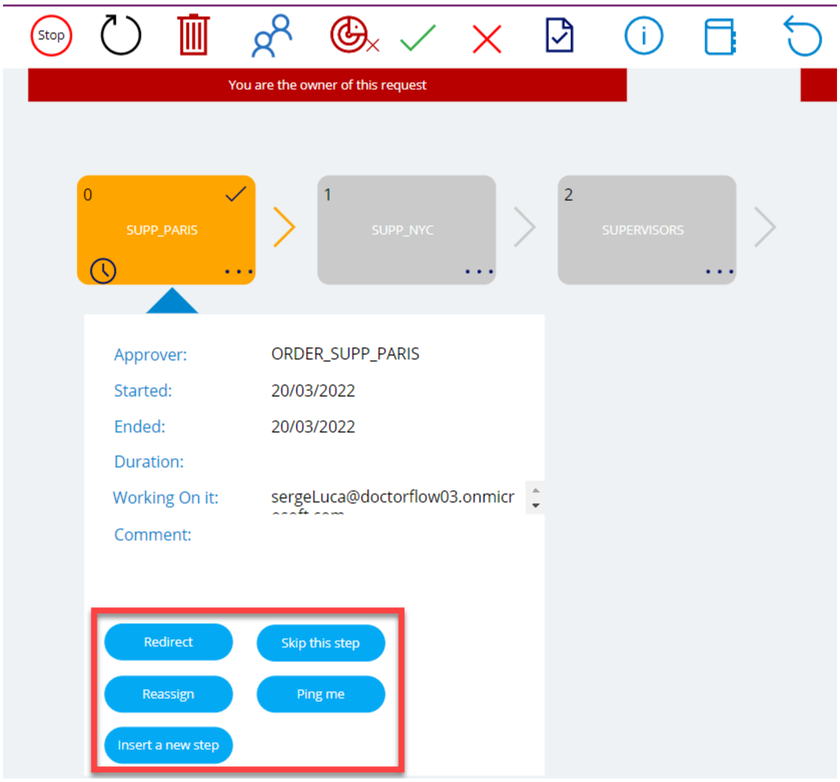


The same in the Workflow Control Center:

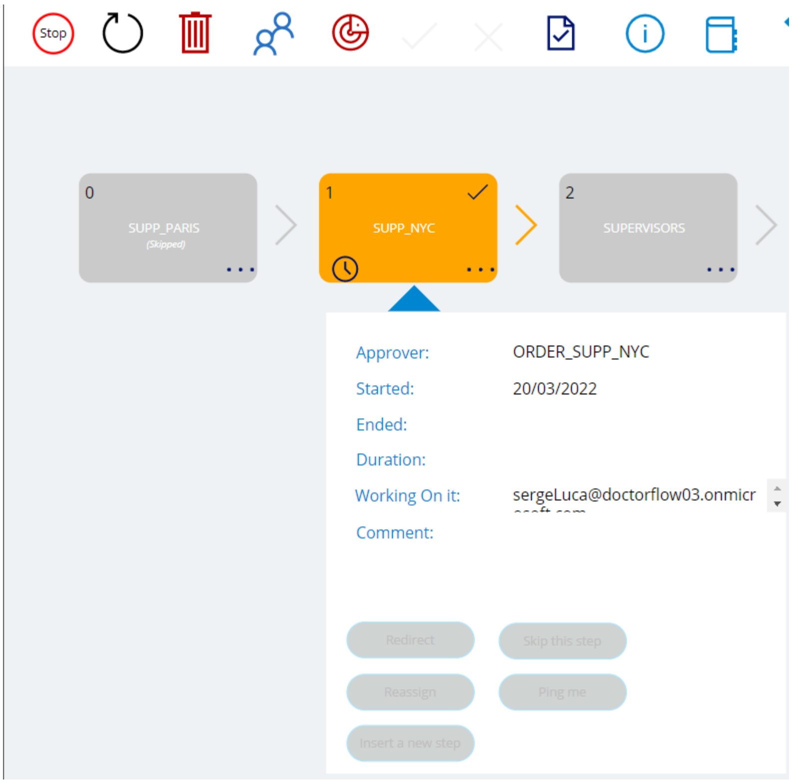


50. Select the Workflow and reinitialize the case again.

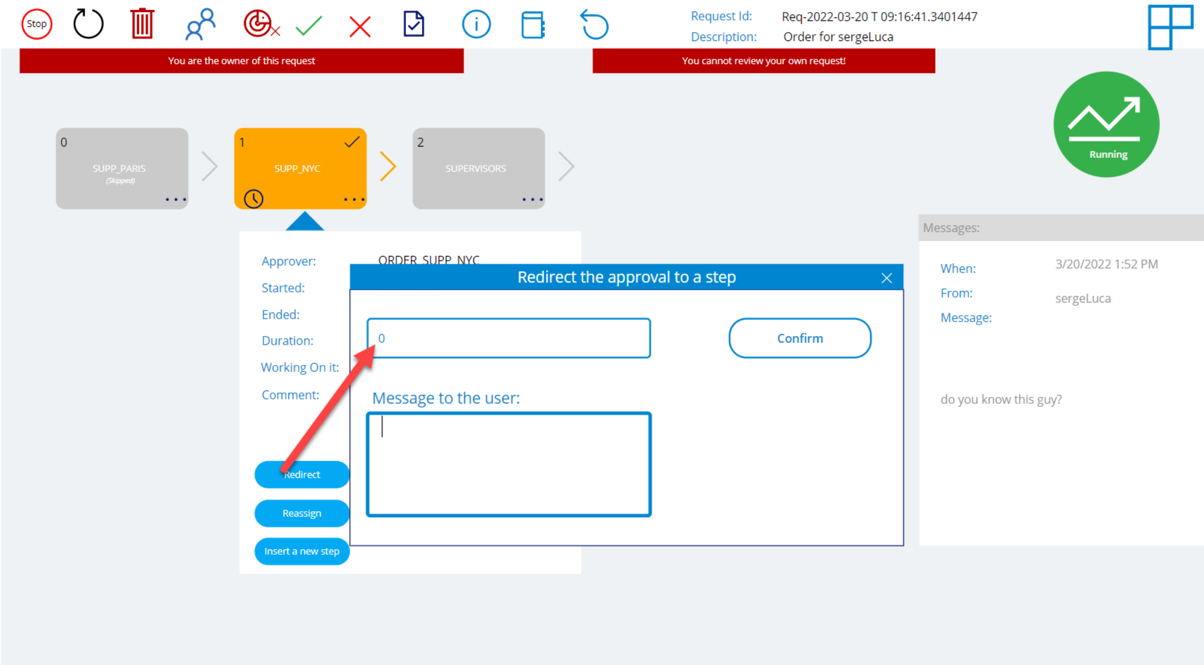
We will describe the following tools:



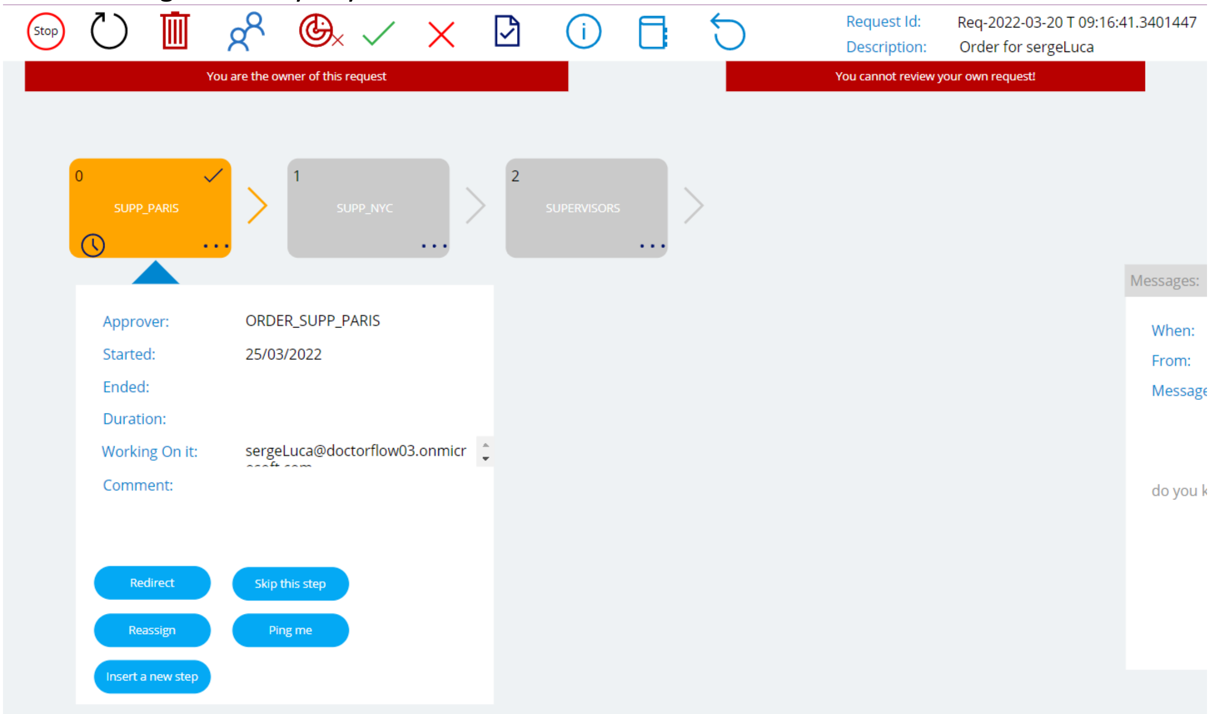
51. Let’s say member of the role SUPP_PARIS don’t react, you want to sip this step; just click Skip this Step and refresh. The system moved to the next step:



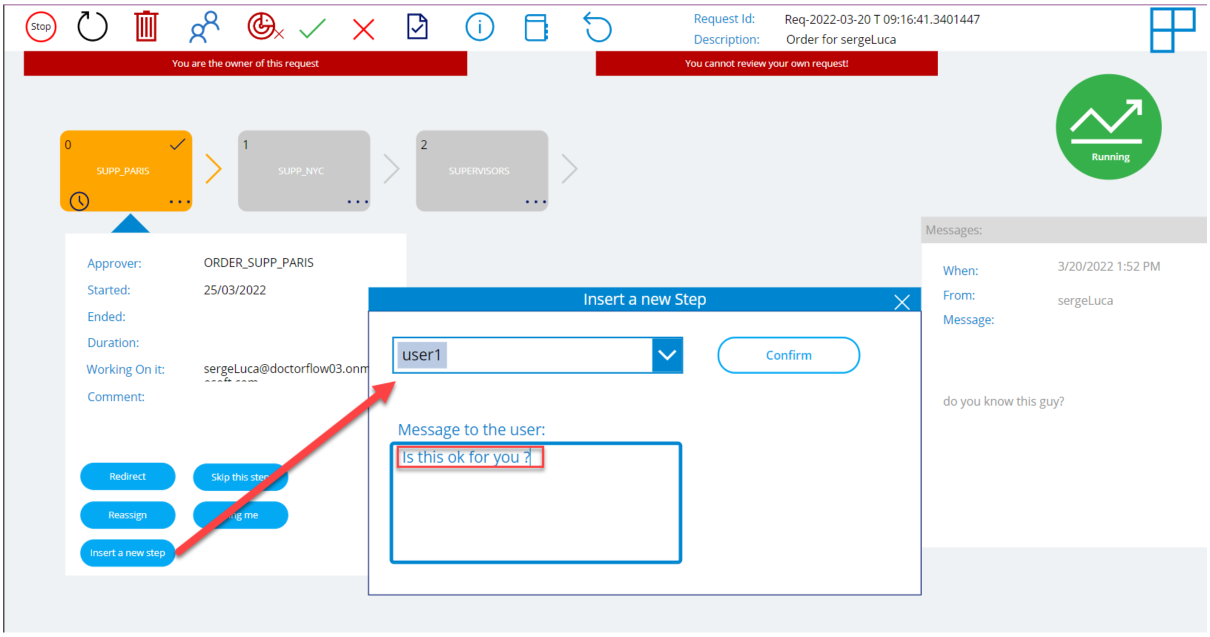
52. If for any reason you want to go back, just take owner ship again and click Redirect, and type 0 to specify the step you want to go to:



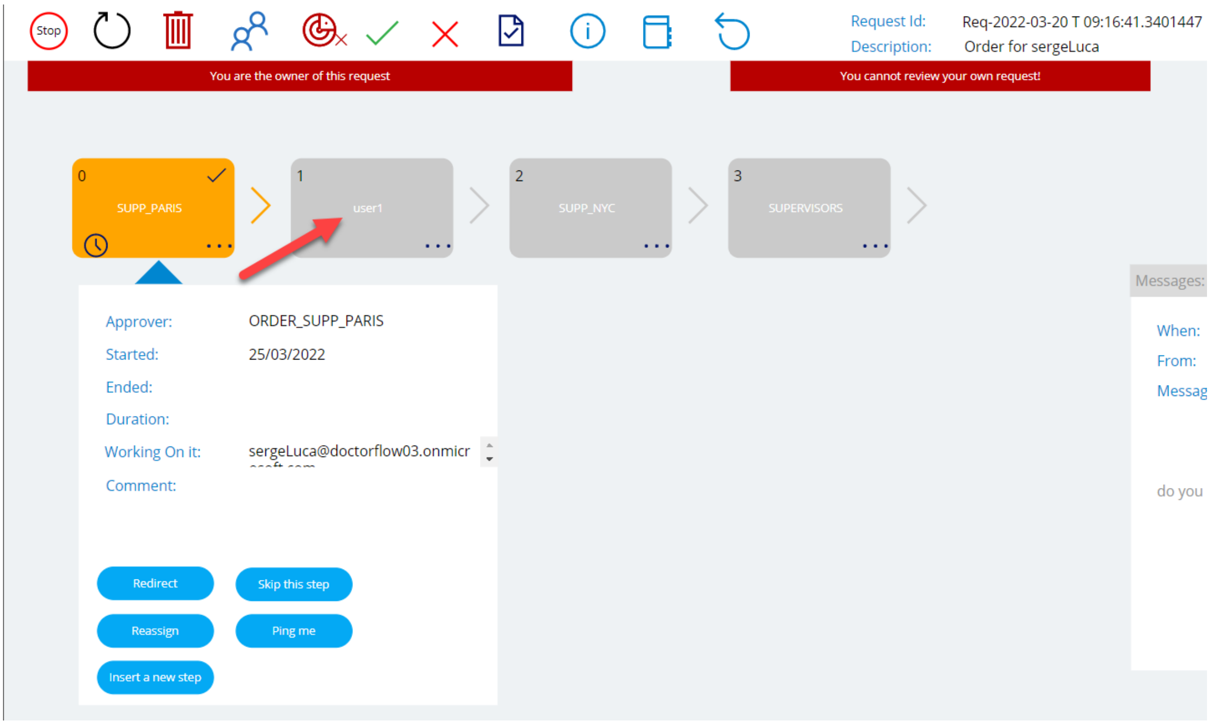
53. Click refresh to refresh the screen; the BPM Toolkit workflow engine will run in the background anyway:



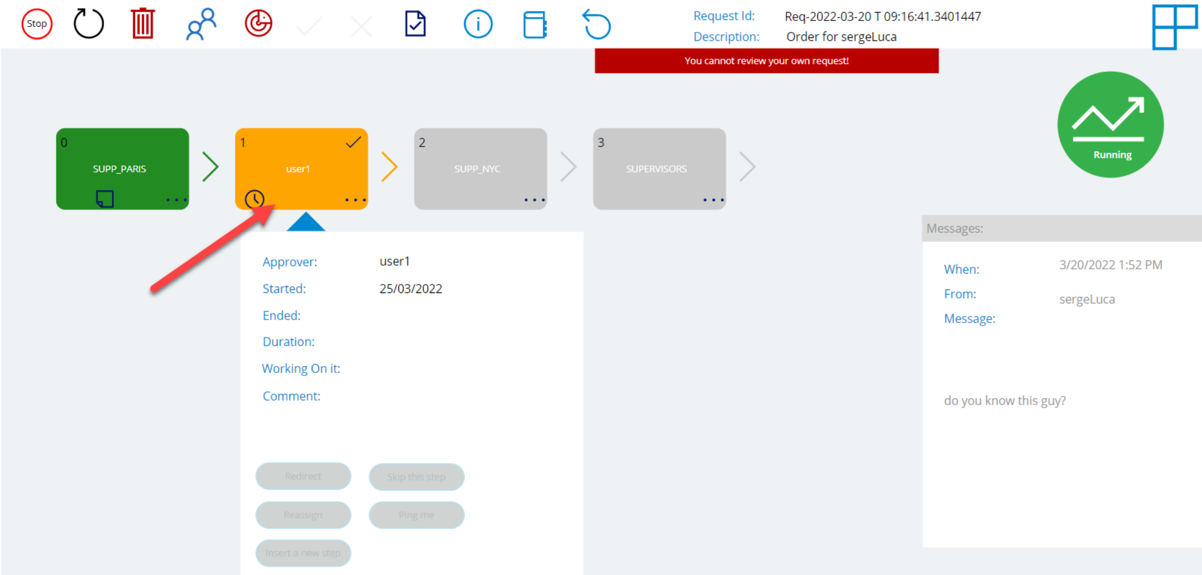
54. Now, let say you want to add someone (a user) in the approval/review pipeline. Just click “Insert a new Step” and select a user (here user 1) and click Confirm:



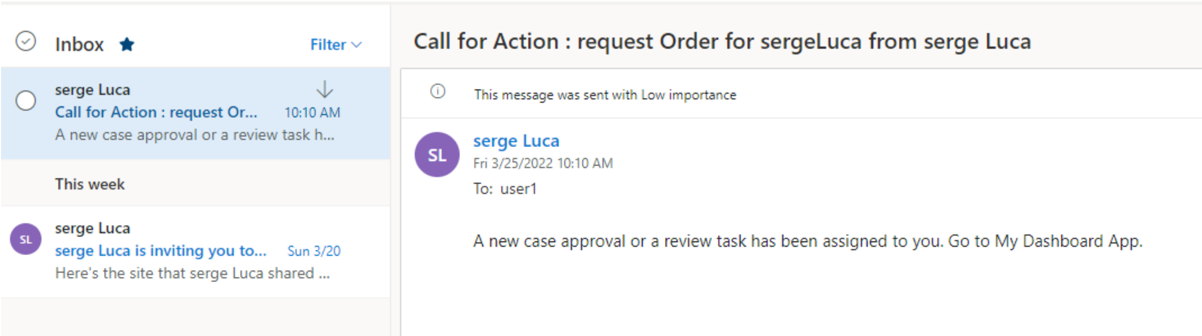
A new step will be added for user1:



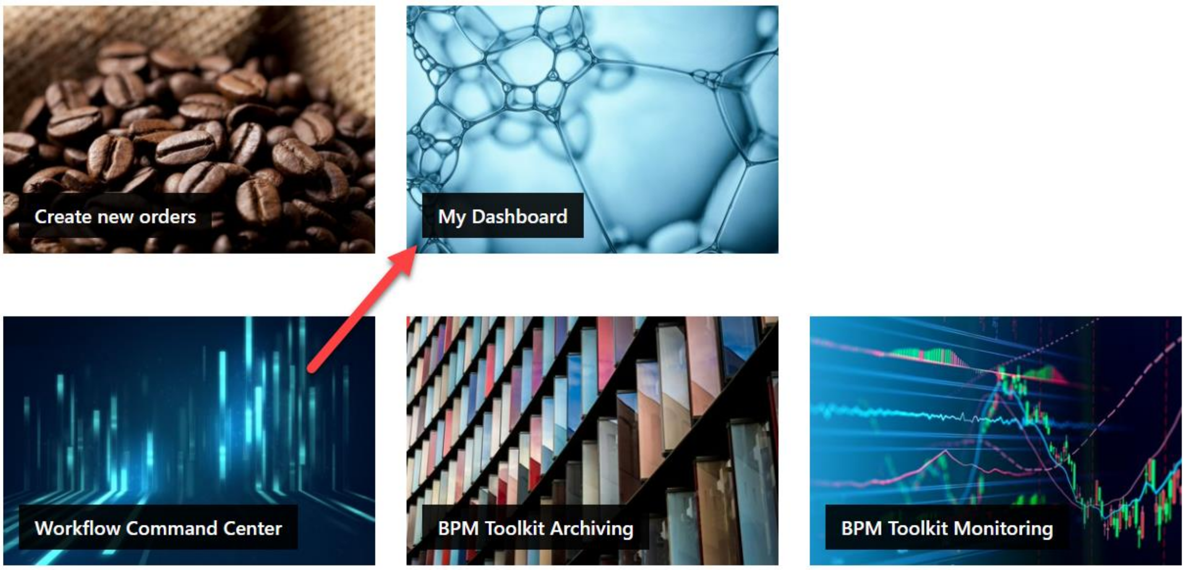
55. Click the Accept button, and Refresh; the workflow moved to User1:



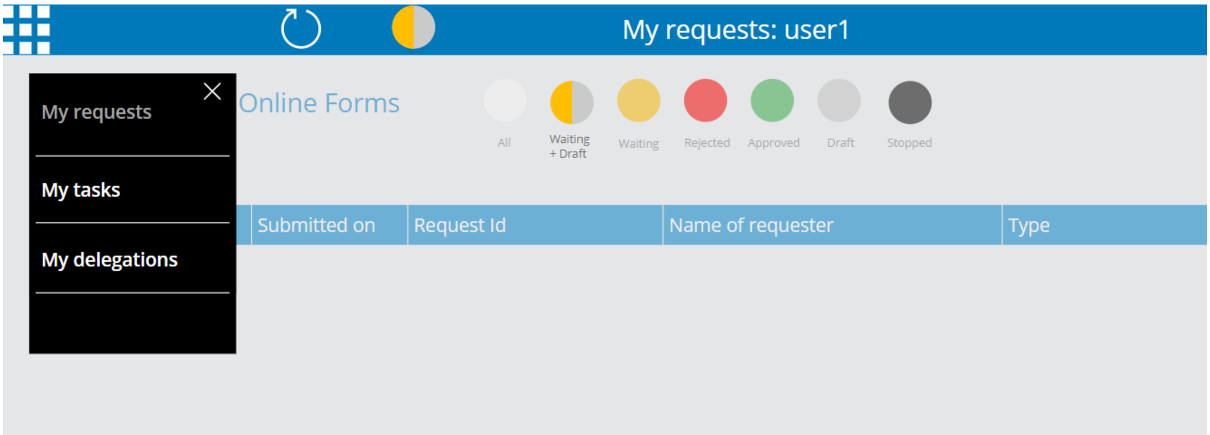
56. User1 is not member of the Roles who can supervise the workflow; He/she will get an e-mail notification and he/she will have to open the My Dashboard application to Approve/Review. Log-in as User1 and check your e-mails:



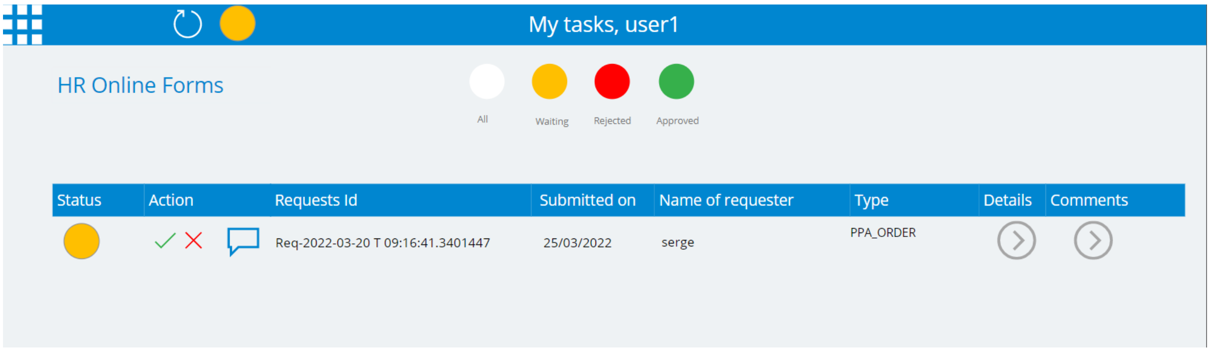
57. Go to My Dashboard in the SharePoint site:



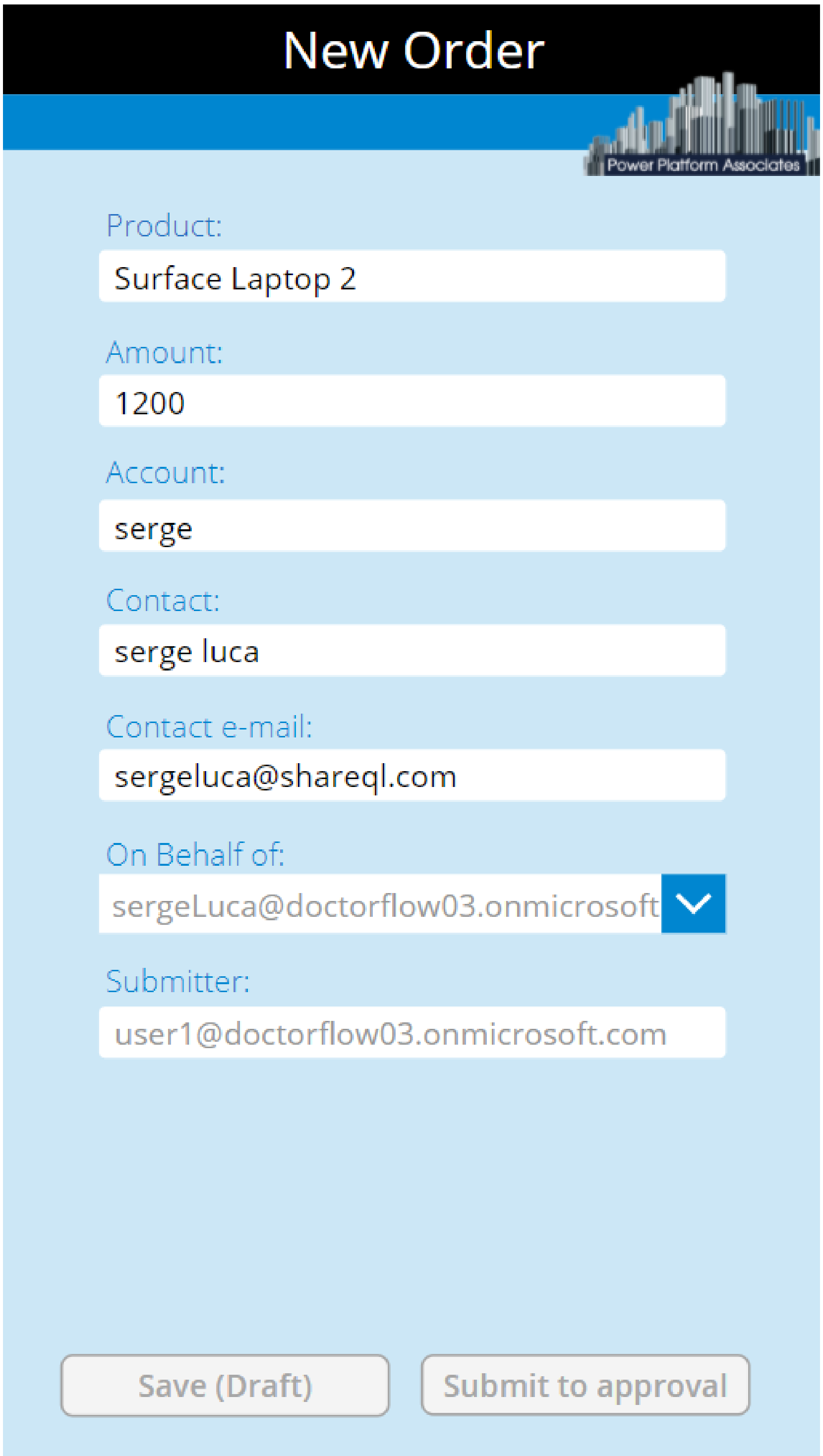
58. In the My Dashboard application, click My Tasks:



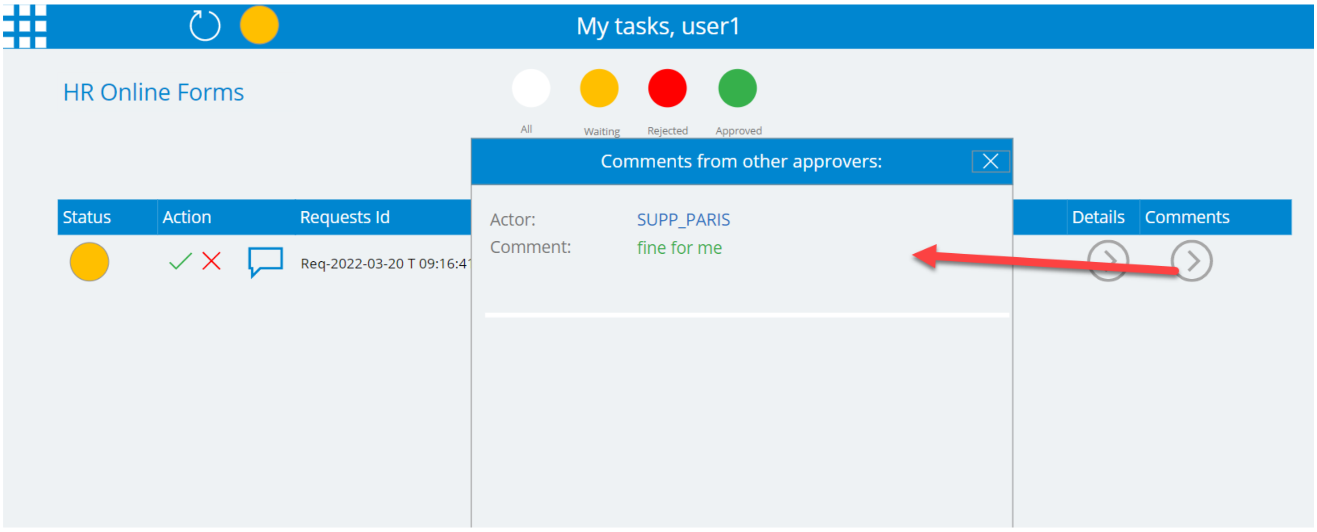
Normally, a task is waiting for you:



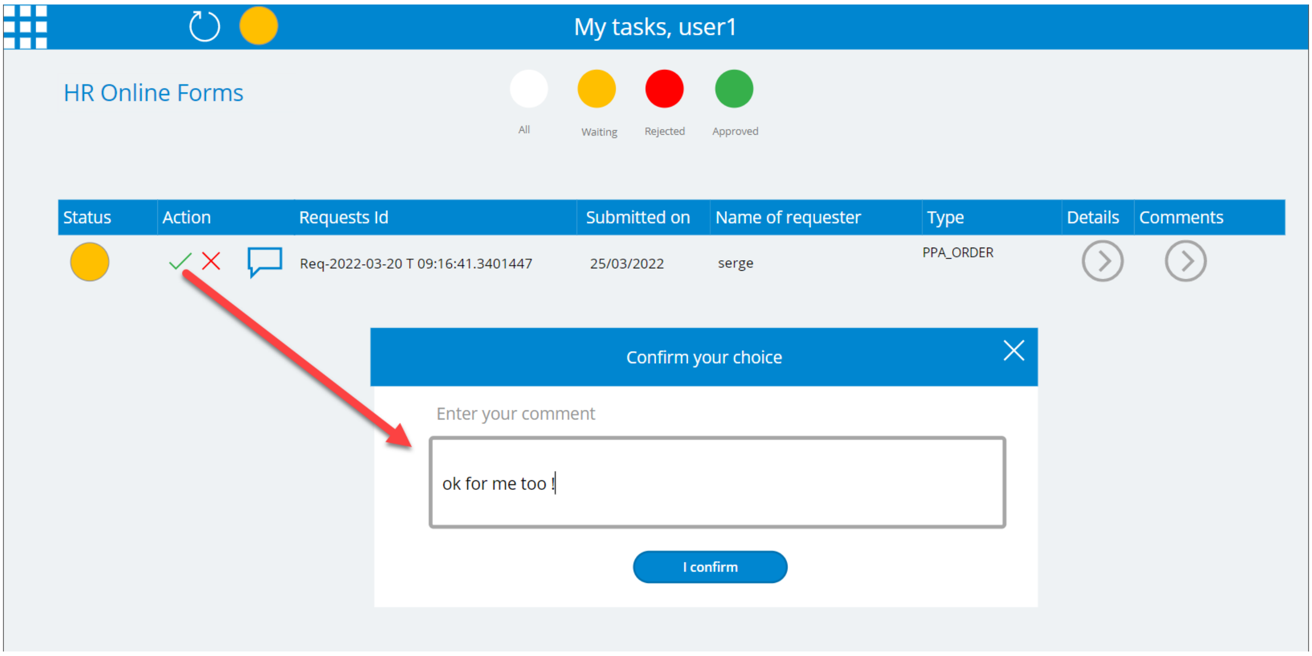
59. If you click the Details links, you will see the submitted data in the hosted form (in read mode):



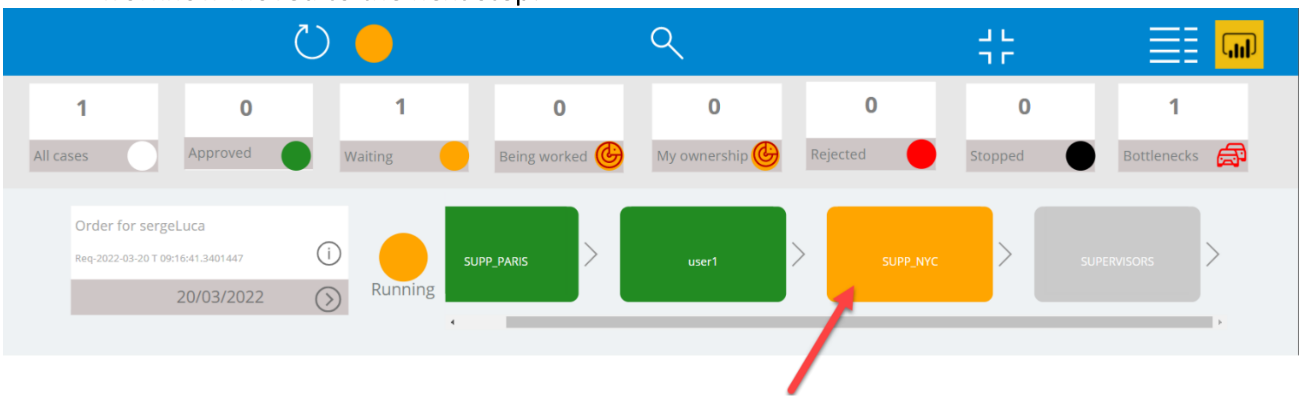
60. If you click Comments, you will see the comments from previous approvers:



61. Close this window and click the Accept button, add a comment:



62. If you back to the workflow center with your previous account, you will see that the workflow moved to the next step:



Extend the Meta workflow

Add individual users instead of roles

You can mix-up roles and users in a metaworkflow.

63. In the Actor column of the BPM Metaworkflow you just need to add an e-mail address;

Normally the workflow you did create so far looks like this:

BPM Meta Workflows ☆

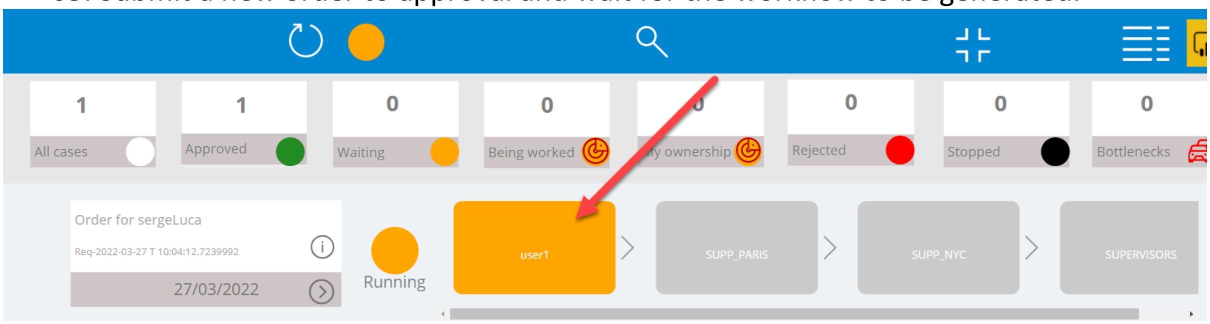
Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

64. Let’s say you want user1 to be always involved in the first step of the workflow :

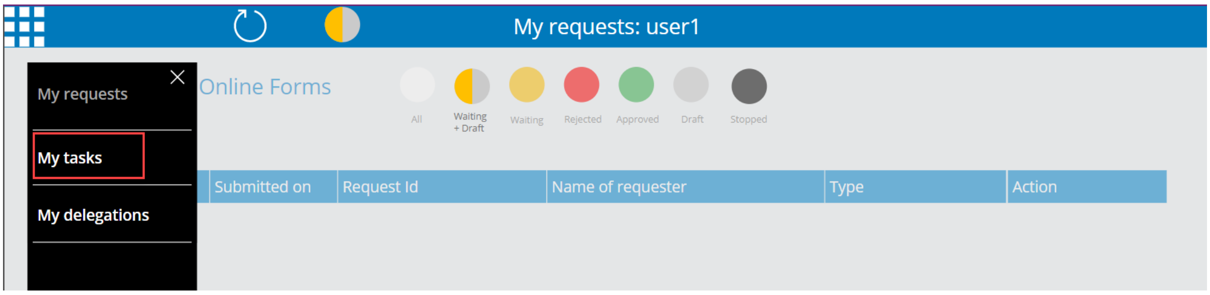
BPM Meta Workflows ☆

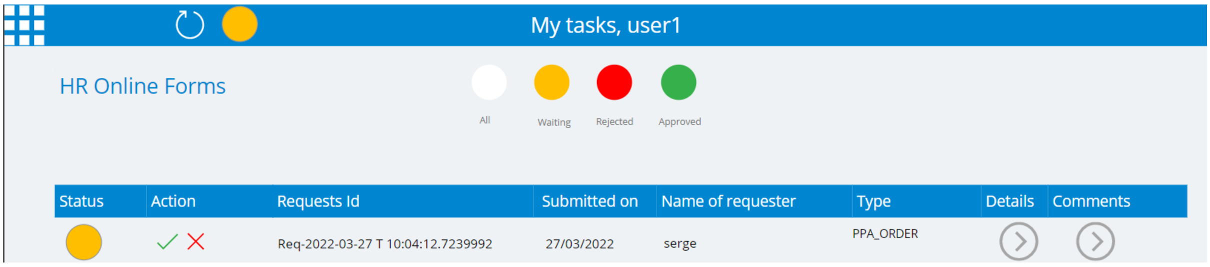
Title	Step ↑	Actor	Type of actor	CaseType	ActionExpected
	0	user1@doctorflow03.onmicrosoft.com		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

65. Submit a new order to approval and wait for the workflow to be generated.



66. And since the “actor” is an individual user, he won’t be able to interact with the Workflow Panel, but he will a task and a notification instead. Log-in as user1 and go to M Dashboard; check your tasks:





67. You might want to dynamically add n users in the workflow when you submit a request; this is possible with the BPM Toolkit. Instead of hardcoding the user email address, just specify "Actors":

BPM Meta Workflows ☆

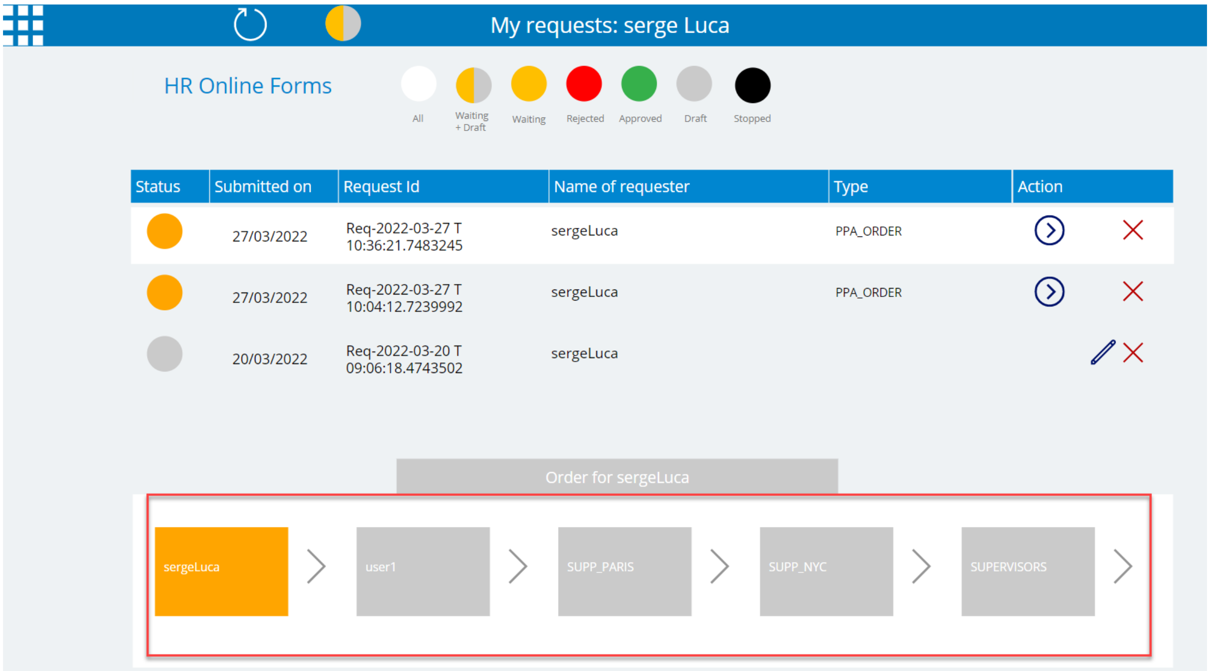
Title	Step ↑	Actor	Type of actor	CaseType	ActionExpected
	0	Actors		PPA_ORDER_WORKFLOW	Feedback
	1	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
	2	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
	3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

68. When you submit your order, you can add some extra approvers:

Your order will look like this:

69. Follow your submitted request in the My Dashboard:

You can always follow your submitted requests in the My Dashboard:



In the current version, you don't see which actor approved or not. This is on purpose: indeed, if a user submits a request to HR, submitters are not supposed to see which actor approved or rejected, this is supposed to be confidential. A new release of the BPM Toolkit will provide an option to see it or not in the Meta workflow configuration or in the Case configuration.

Also, if someone in the pipeline add another approver on the fly, it won't be visible to end-users for the same reason.

Automatic Goto

What we want to implement is the following scenario:

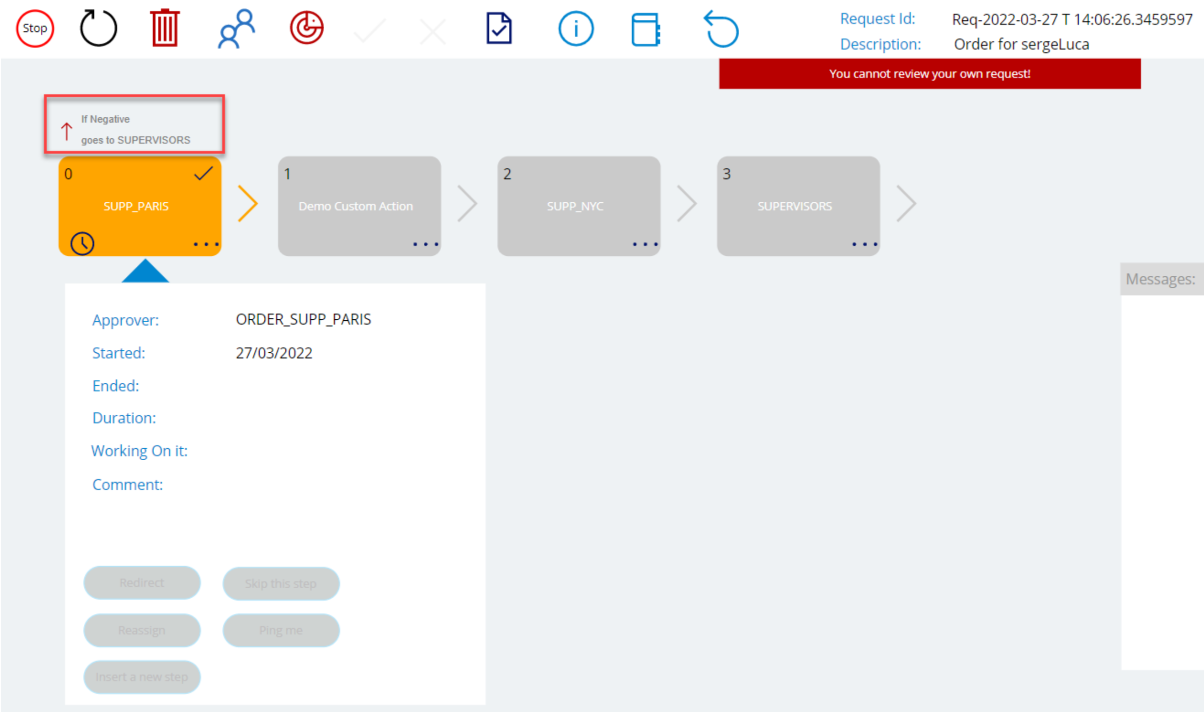
70. If the role SUPP_PARIS returns a negative feedback (Reject), we want to skip the remaining steps and go directly to SUPERVISORS:

BPM Meta Workflows ☆

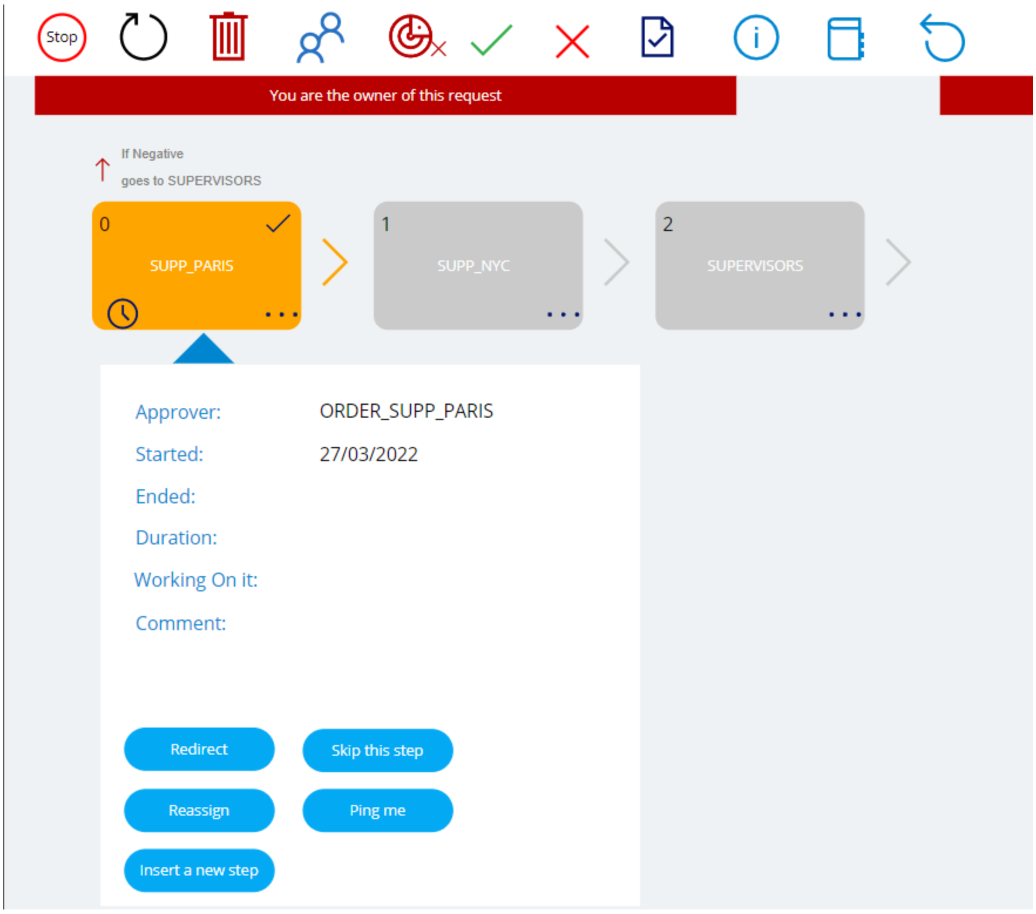
Step	Actor	Type of a...	CaseType	ActionExpected	Goto Step	If property	if operation	if value	if Goto
0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback		Status	=	Negative	ORDER_SUPERVISORS
1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback					
3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback					

71. Submit a new order.

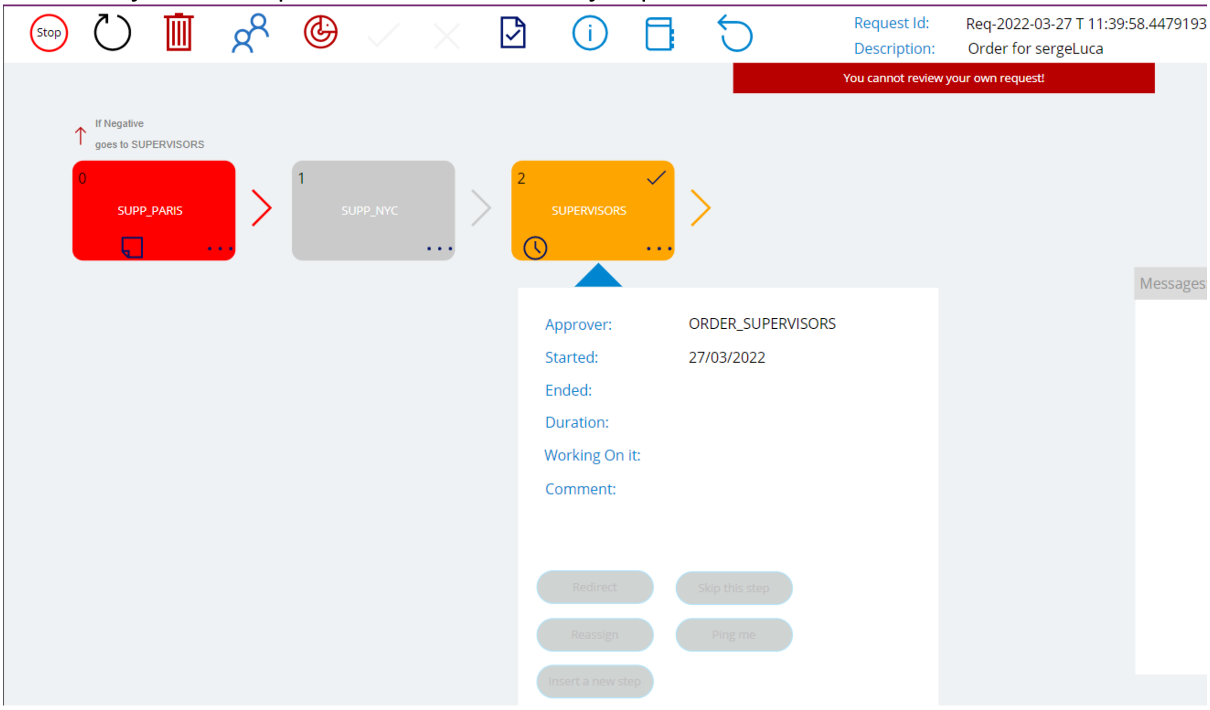
You will see that you can see the GOTO in the workflow design:



72. Now, take owner ship of the workflow:



73. Reject the step and the workflow will jump to SUPERVISORS:



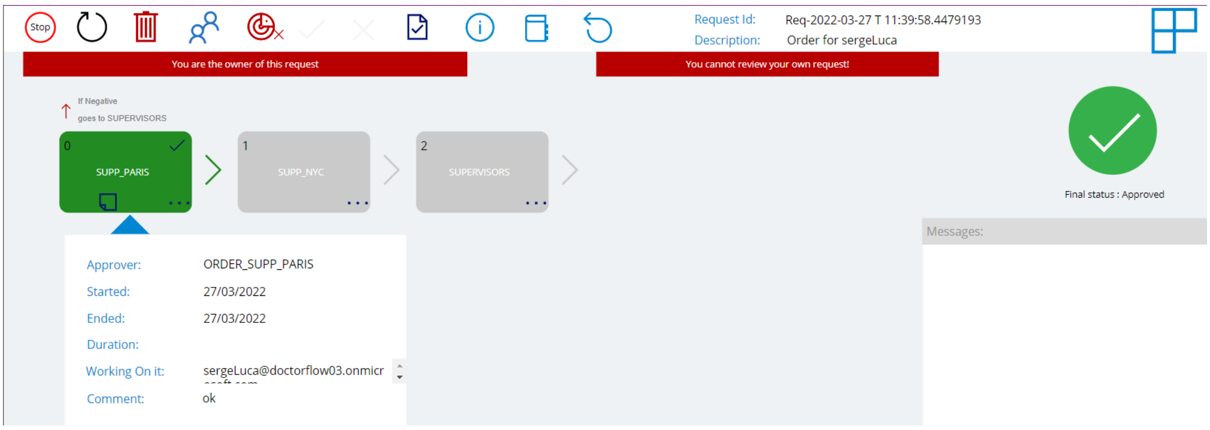
74. And of course, you can also have a backward GOTO.

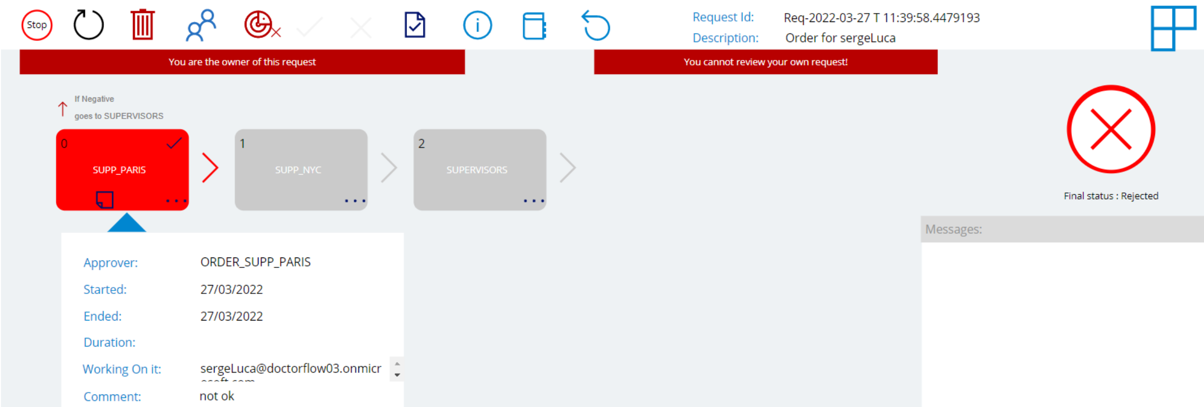
Other verbs for the ActionExpected column are ApprovalStop, Stop, ApproveStop. RejectStop

ApprovalStop will stop the workflow and set its final status to Approved if someone Approves the request:

BPM Meta Workflows ☆

Step	Actor	Type of a...	CaseType	ActionExpected	Goto Step
0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	ApprovalStop	
1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback	
3	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback	





ApproveStop will stop the workflow is someone approves the step and will set the final status of the workflow to Approved, but it will go to the next step if someone Reject.

RejectStop will stops the workflow is someone approves the step and will set the final status of the workflow to Approved, but it will go to the next step if someone Reject.

CallWorkflow is a way to add a custom action. The custom action should be a flow starting with a trigger When a HTTP request is received.

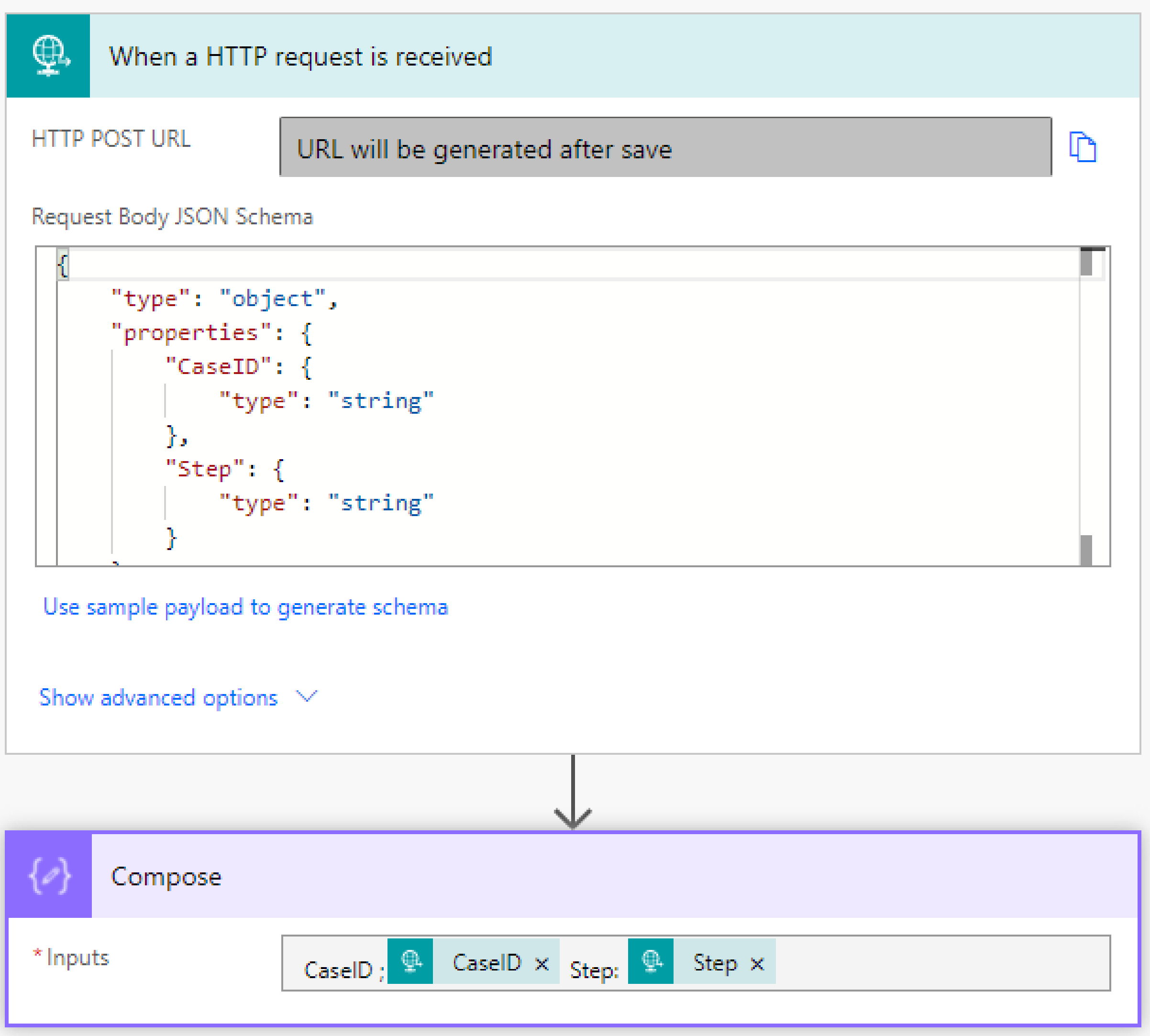
Creating a custom action

75. Create a flow called PPA_OrderCustomAction
76. Start the flow with the trigger When a HTTP request is received.

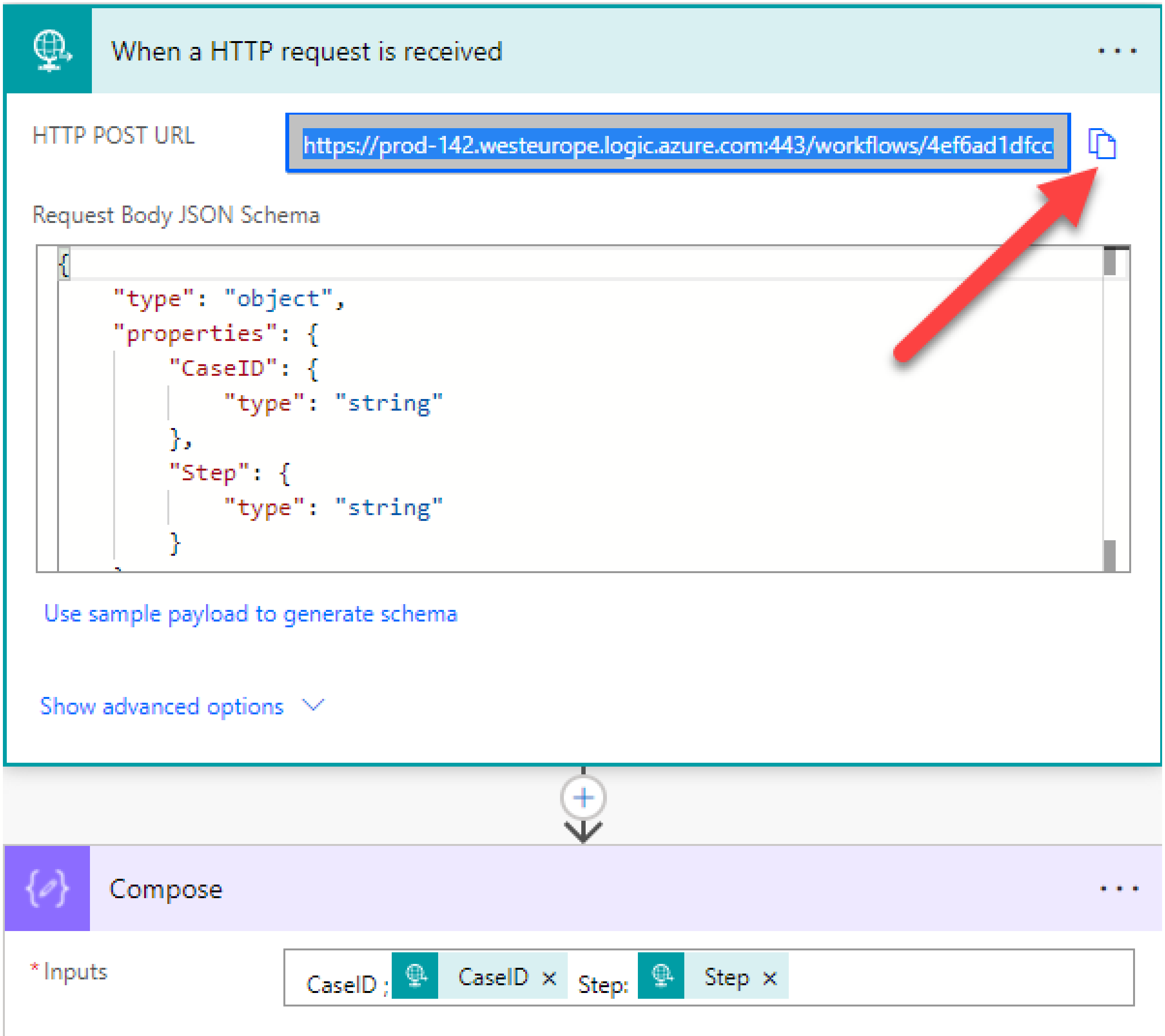
The JSON schema of the trigger should be:

```
{
    "type": "object",
    "properties": {
        "CaseID": {
            "type": "string"
        },
        "Step": {
            "type": "string"
        }
    }
}
```

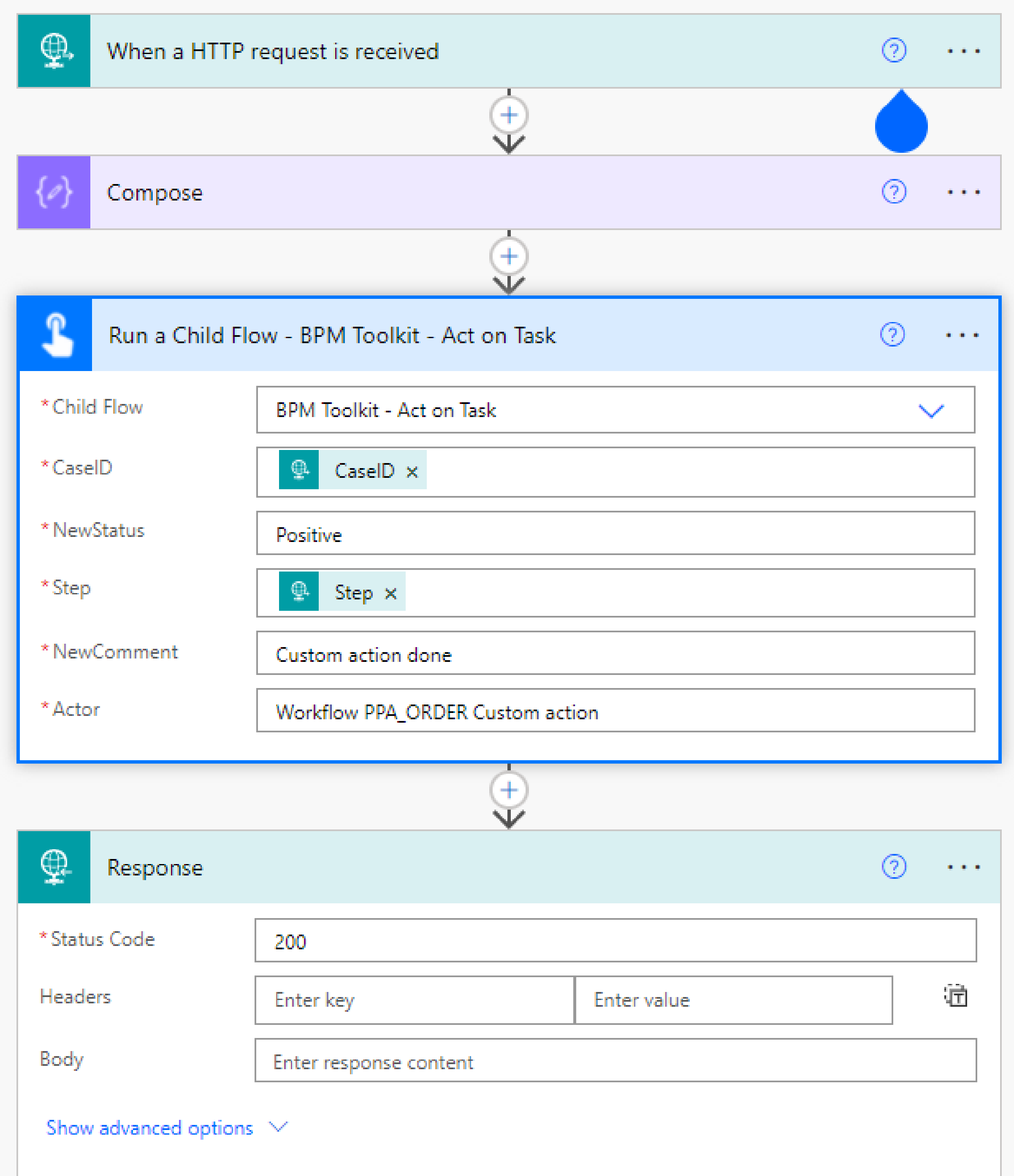
77. Add a Compose to capture the CaseID and the Step number:



78. Save the flow and click here to grab its url:



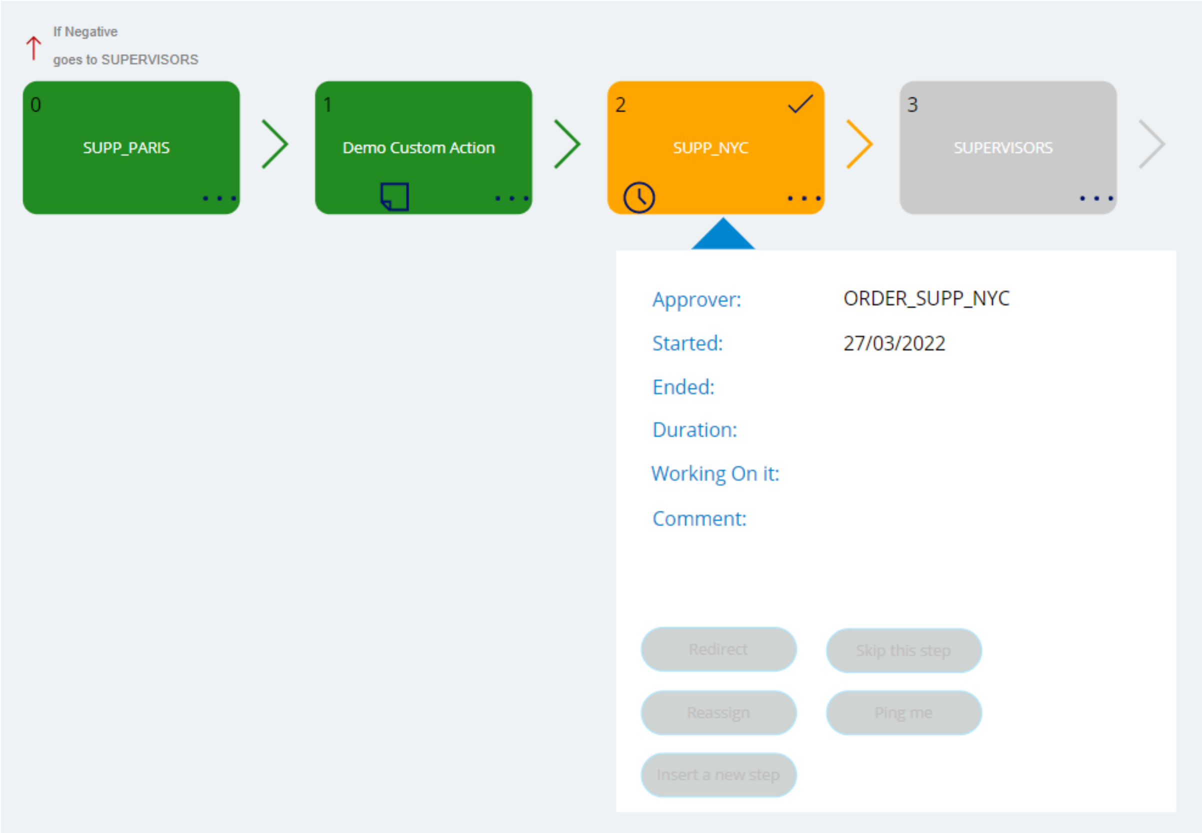
79. After the Compose, call a child flow from BPM Toolkit : **BPM Toolkit – Act on Task**, and pass the following values:



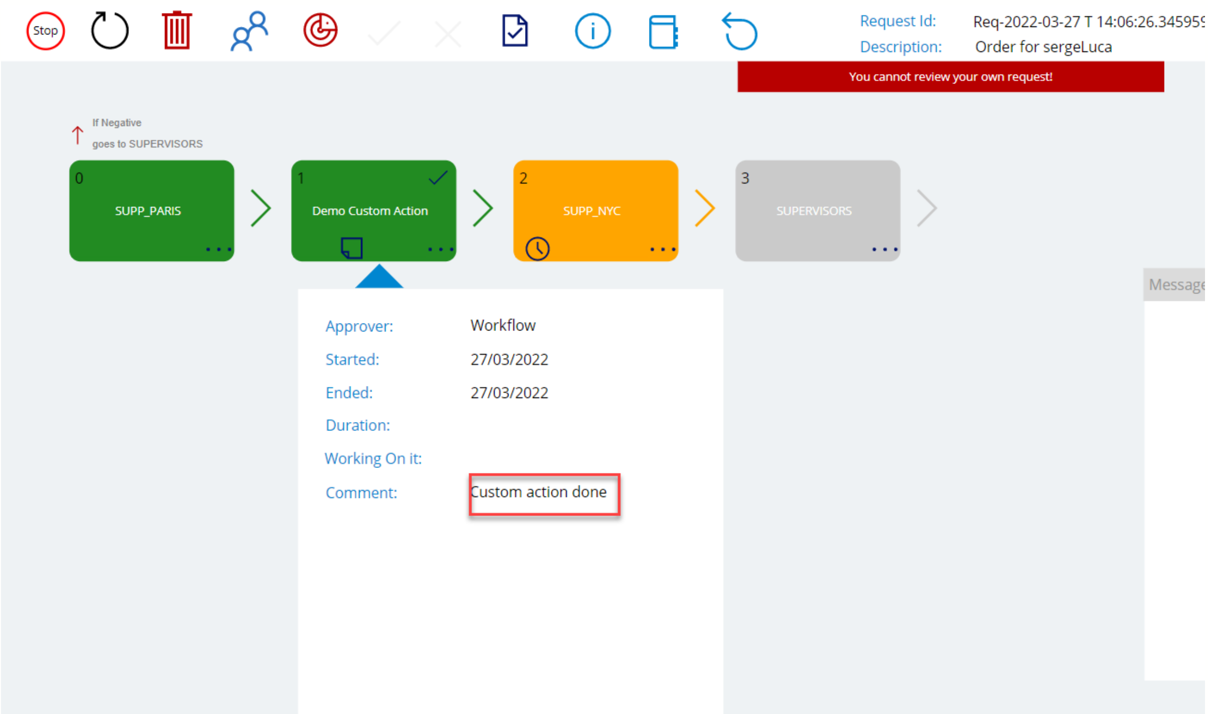
80. And the final action should be the Response Action, returning a 200 status code. The **BPM Toolkit – Act on Task** child flow is an action that will trigger the workflow engine for moving to the next step.

If NewStatus is Positive, the rectangle will be green, if it is Negative it will be red, indicating that something went wrong.
The NewComment value will be visible in the action step on the workflow.

81. If you submit a new Order based on this workflow, you will see:



82. If you click the workflow action, you will see the comment:

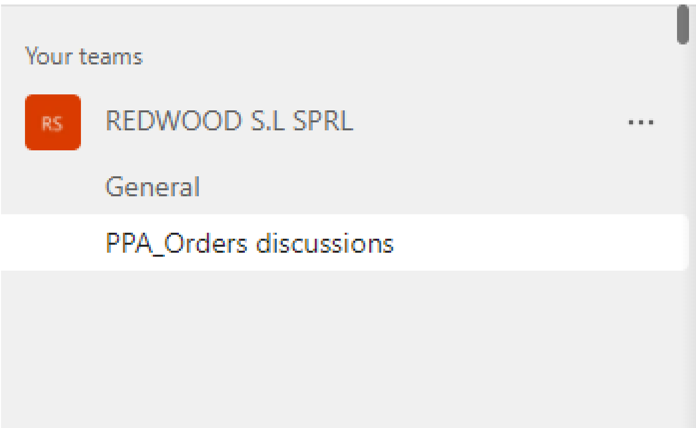


Integration with Microsoft Teams

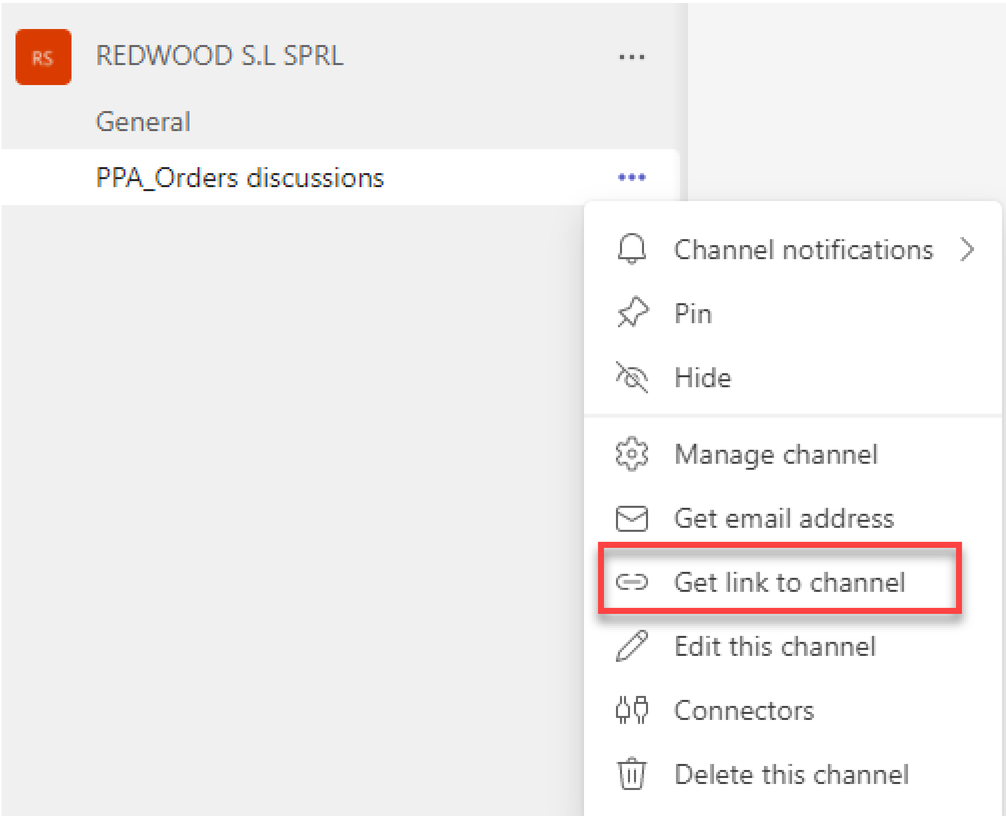
If you remember well, the workflow panel provides an internal messaging system to make sure all roles involved in the case can communicate. For compliance compatibility, the Internal messages are archived when the case is archived.

Some companies prefer using Teams. The BPM Toolkit provides a Teams integration; each request can be associated with a channel (public or private).

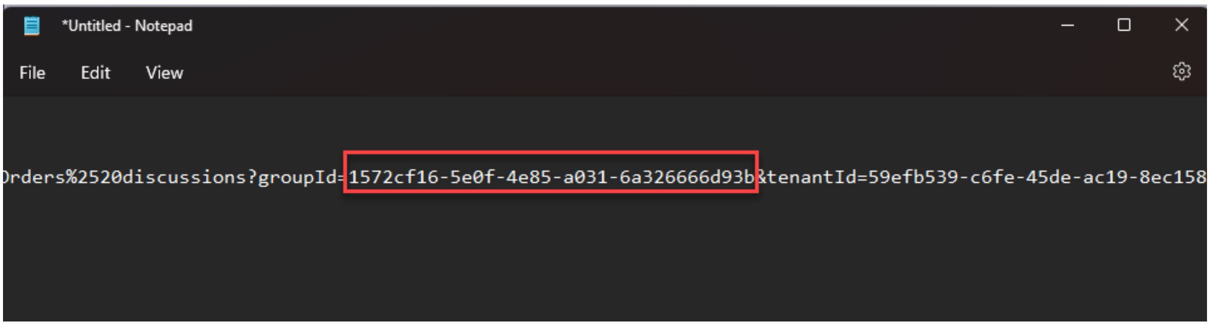
83. Create a Microsoft Teams with 1 channel called PPA_Orders discussions:



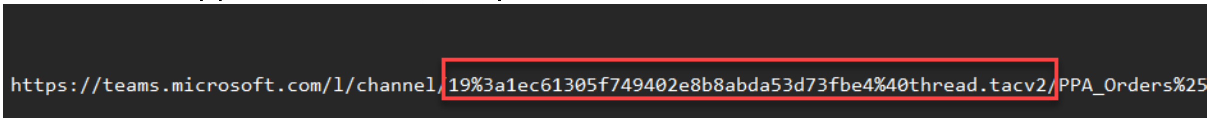
84. Get the value from Get link to channel:



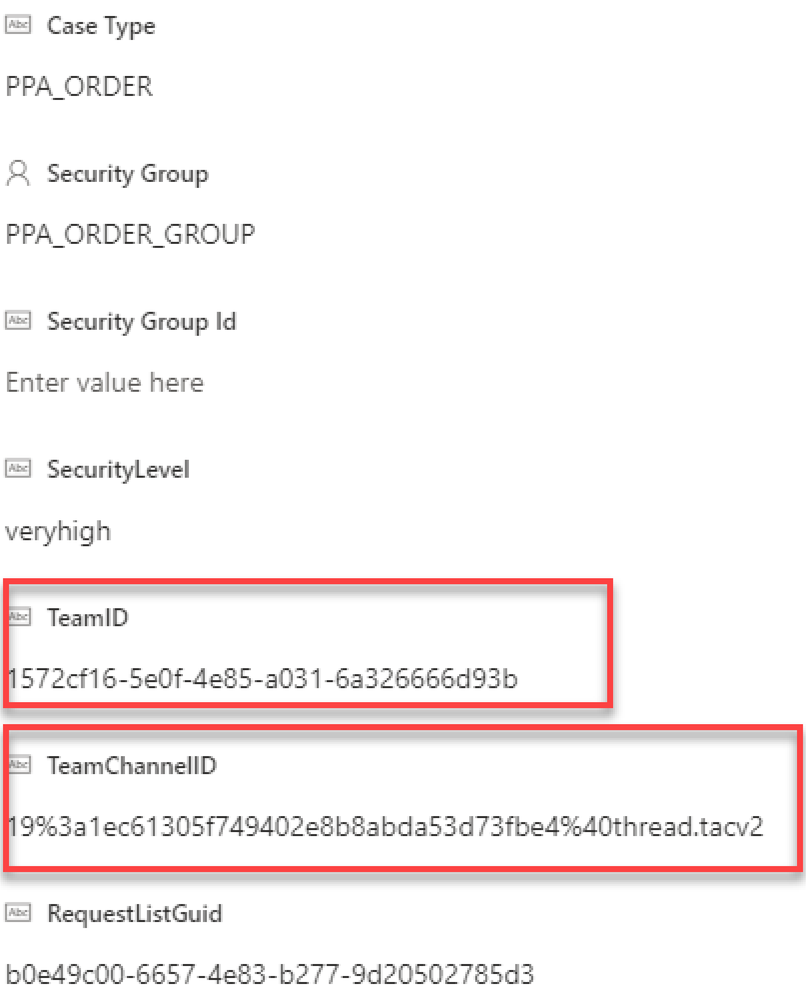
85. In the value that you copied, select the groupid value:



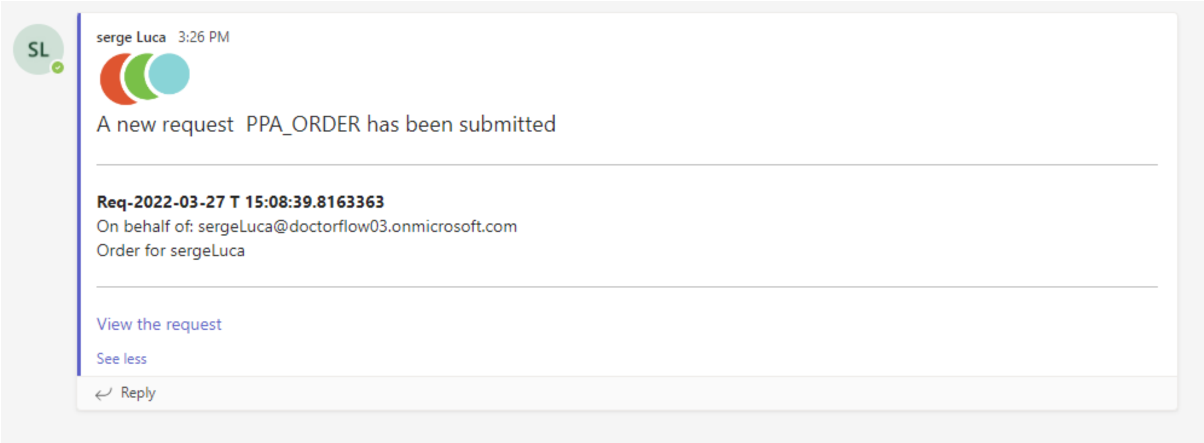
86. Next copy the channel id; in my case it is:



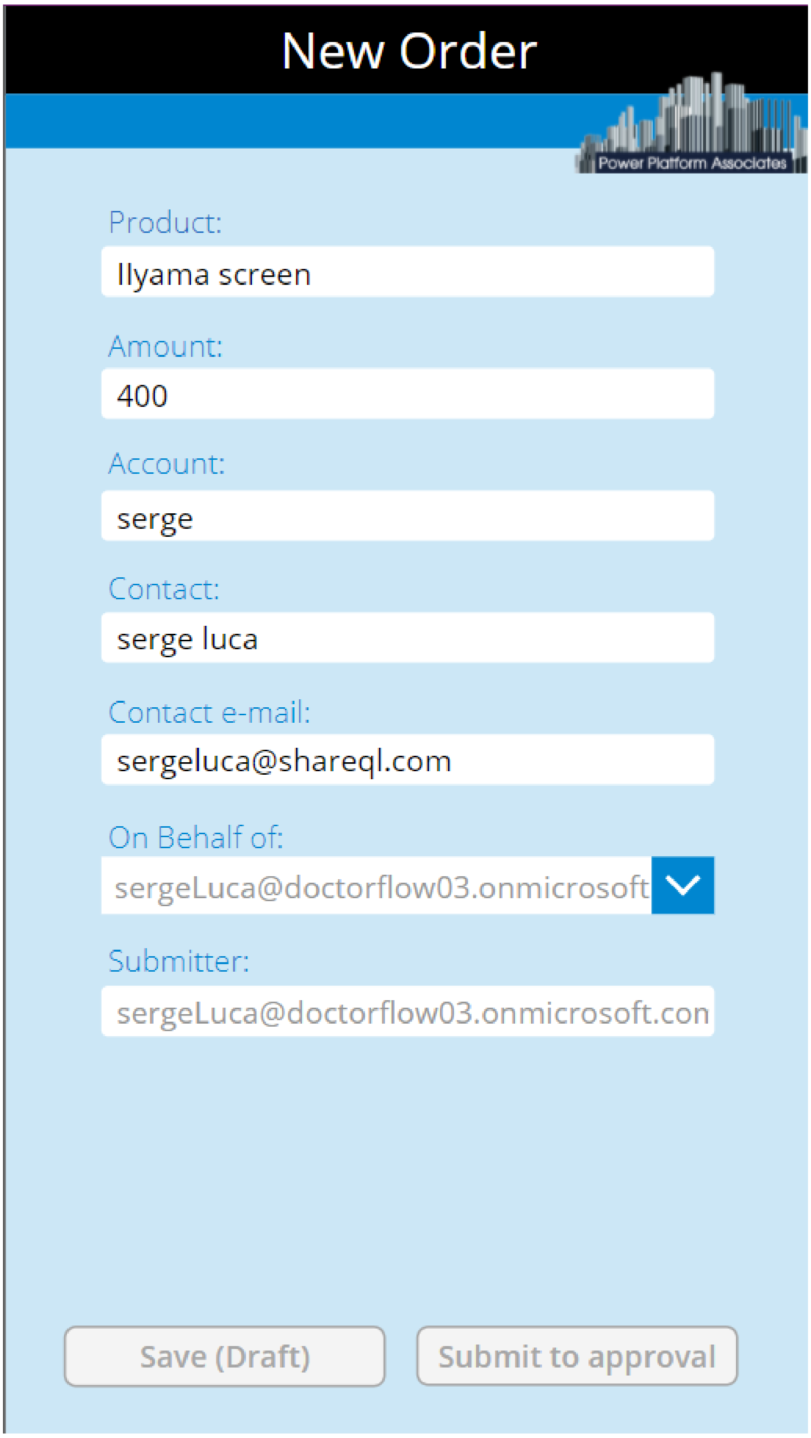
87. You now need to asscociate the groupid and the channelid with the Case Definition. Go to the list BPM Case Configuration, select the PPA_ORDER Case Type and paste the corresponding values:



88. If you submit a new order, you will see a new conversation in the channel:



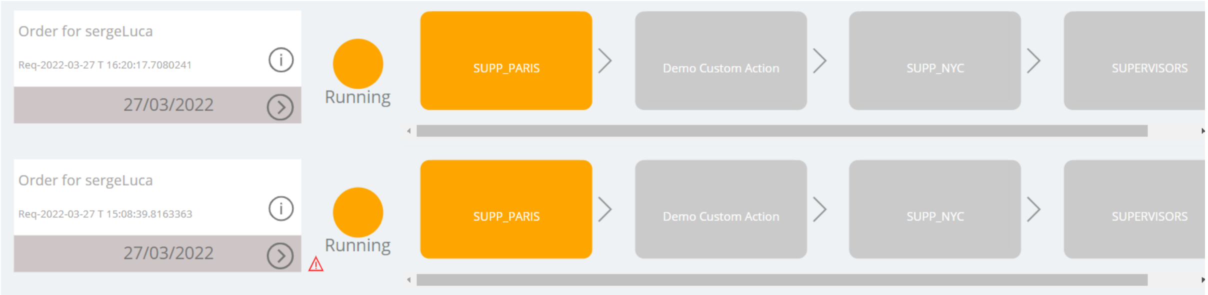
89. If you click the link View the request, you will see the request details:



Batch approval

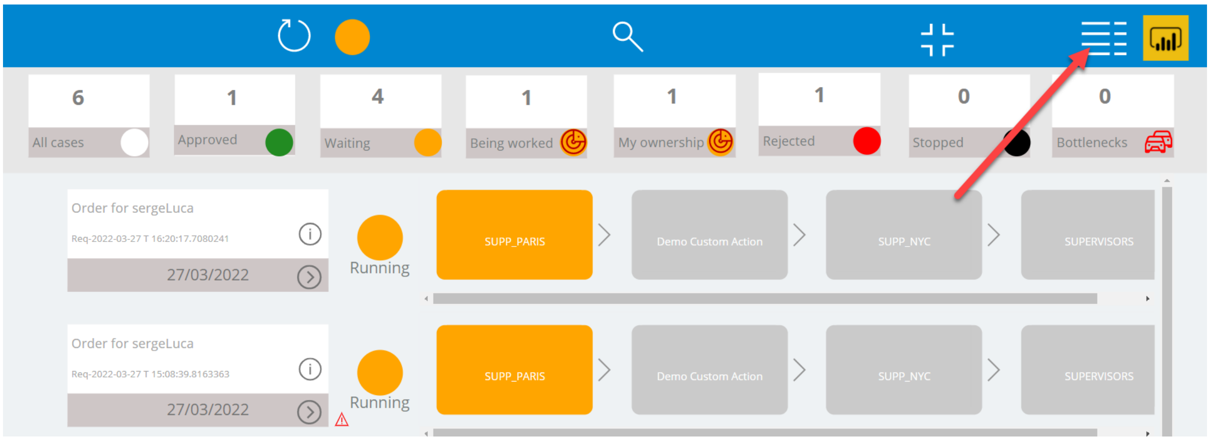
If you are member of a role, and if several Cases are waiting for you role to approve, you can approve in batch.

To illustrate this feature, look at the following waiting workflows:

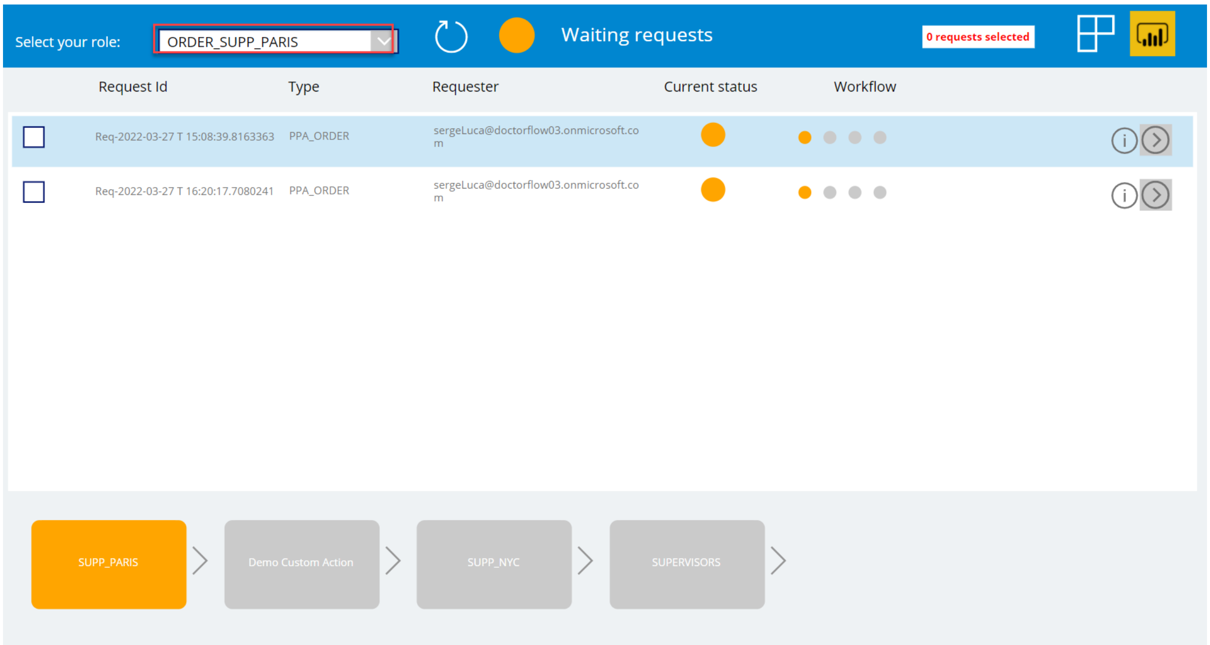


They are all waiting for the role SUPP_PARIS to react.

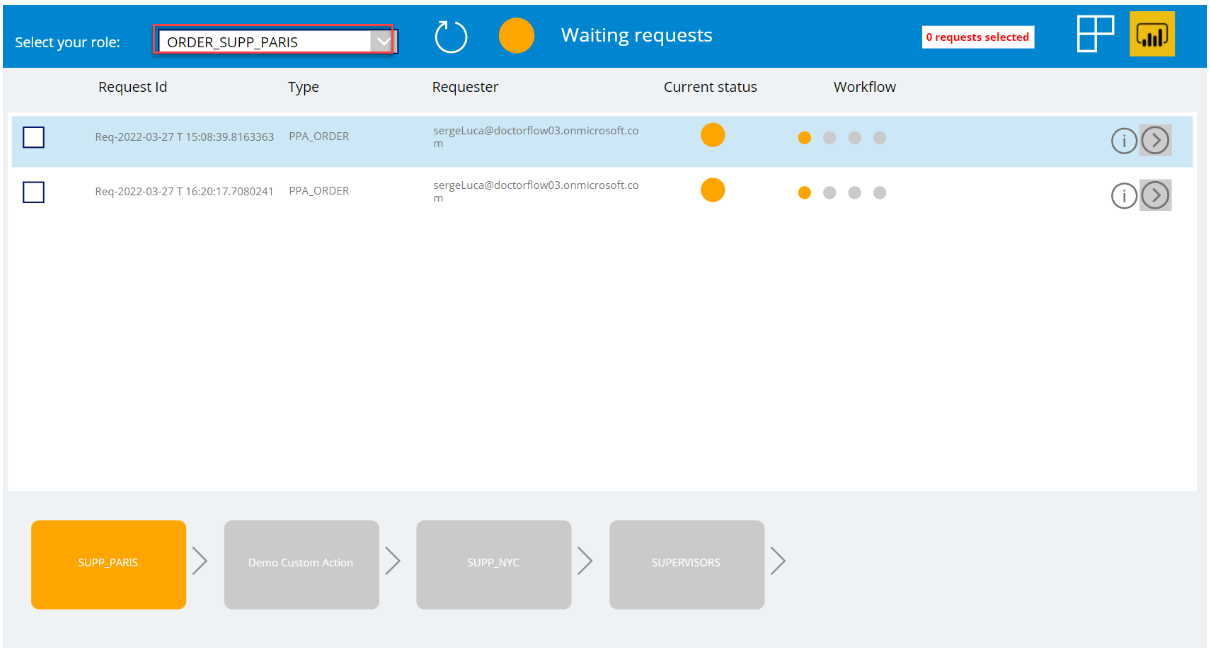
90. Click this view to switch to the Batch react mode:



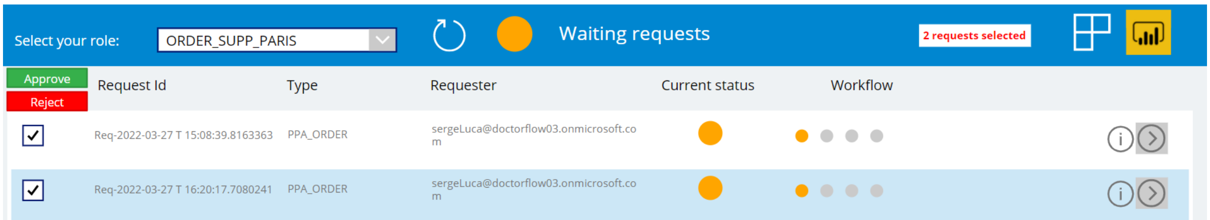
91. Select the SUPP_PARIS role, to filter only the workflows that are waiting for this role to react:



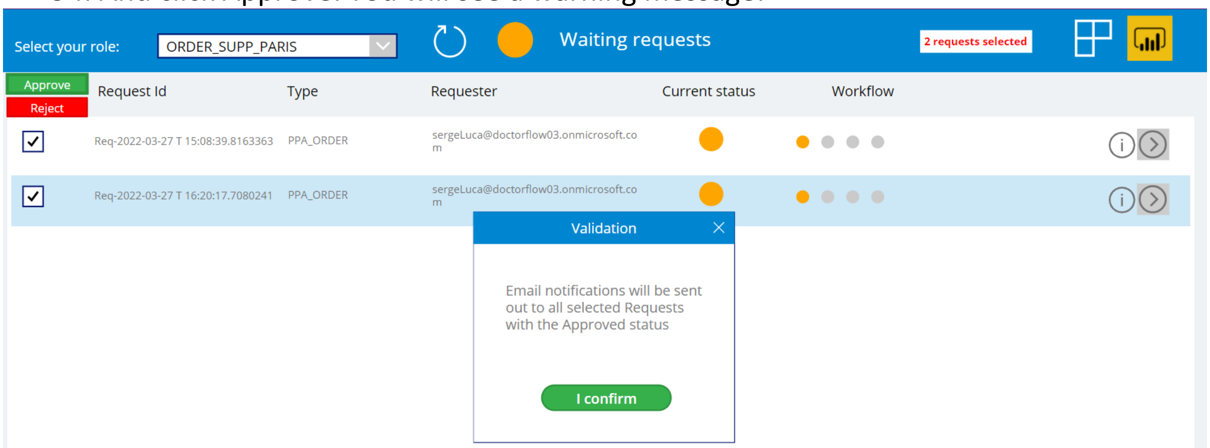
92. Since you are in this role, you will see the checkbox for selecting the workflows you want to act on:



93. Select them all:



94. And click Approve. You will see a warning message:

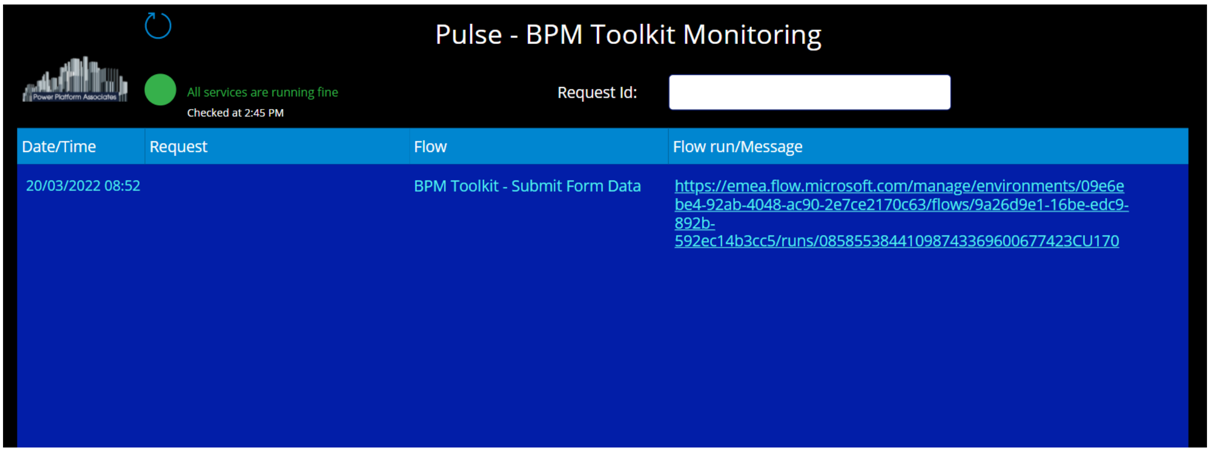


95. Click I confirm, and a long running transaction will start. It can take several minutes to complete.
96. If you go back to the “normal” view of the workflow center, you will see that theses workflows have moved to another step.

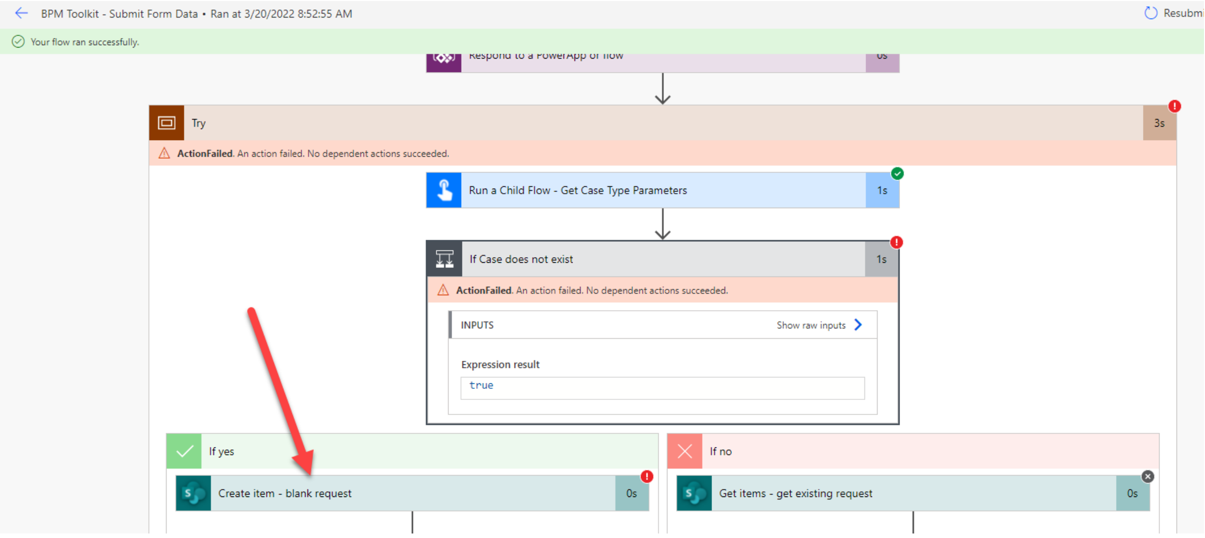
PART 3. The Pulse BPM Toolkit Monitoring application

It is an application that require Power Platform admin privilege. This application checks every hour that every flow in the environment is activated and display the list of flows that went wrong by Request Id.

Example here, when the user submitted an order, something went wrong with the flow BPM Toolkit – Submit Form Data.



If you are owner or co-owner of the flow, you can directly debug it:

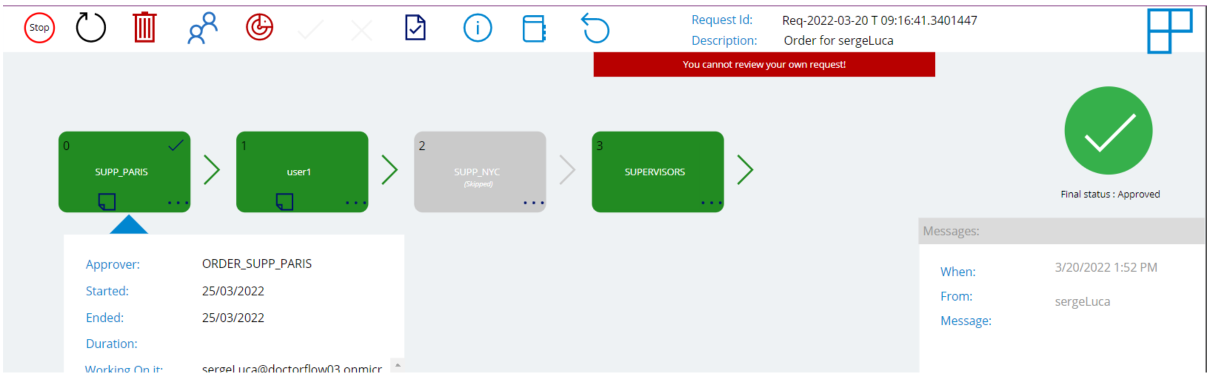


Most BPM Toolkit flows have an error handling mechanism that store details errors in the BPM Toolkit Error Log list.

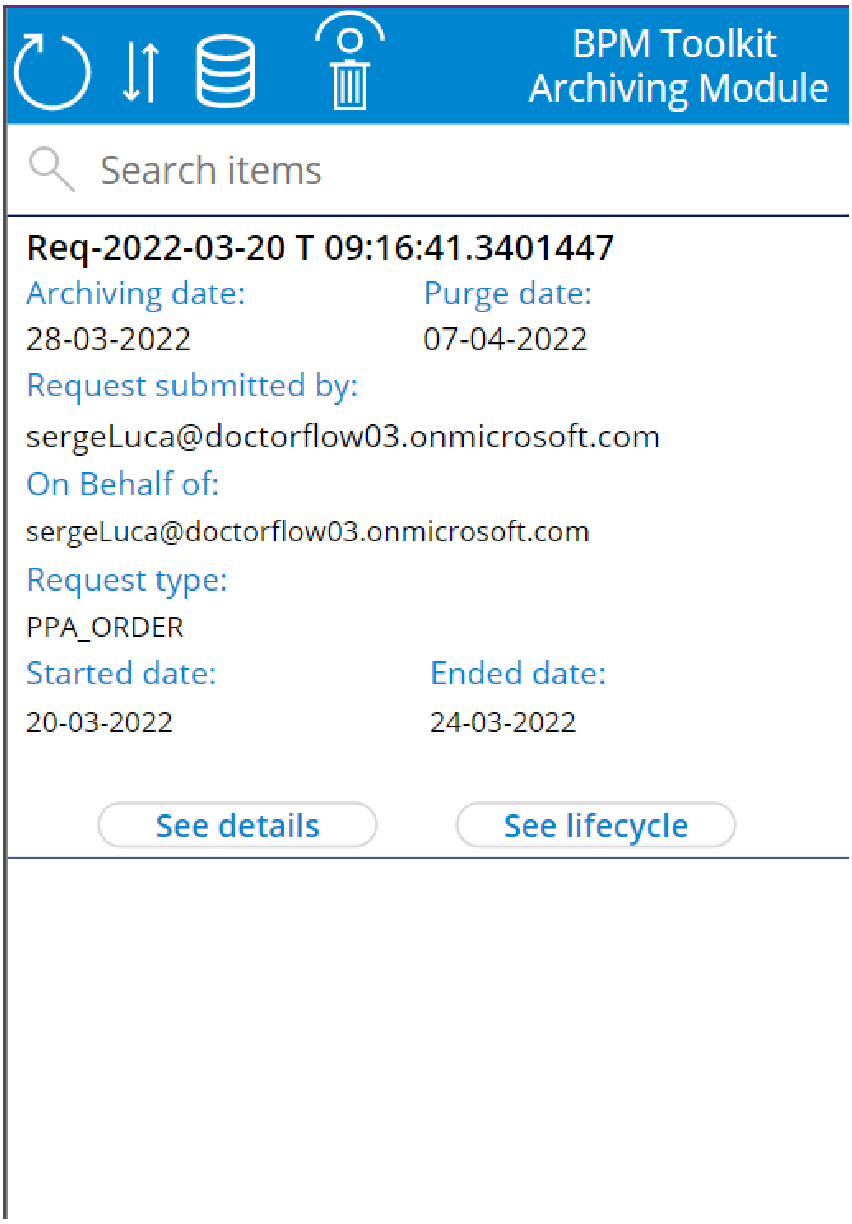
PART 4. The BPM Toolkit Archiving Module

This application manages the archiving and removal of the cases. Indeed, when you defined a case in the list BPM Case Configuration, you also specified 3 for the column **ArchiveAfterDays** and 10 in **PurgeArchiveAfterDays**. This means that if the case is completed, the system will automatically archive it and 10 days after it will remove it from the archive. If you don't provide any value, nothing will happen.

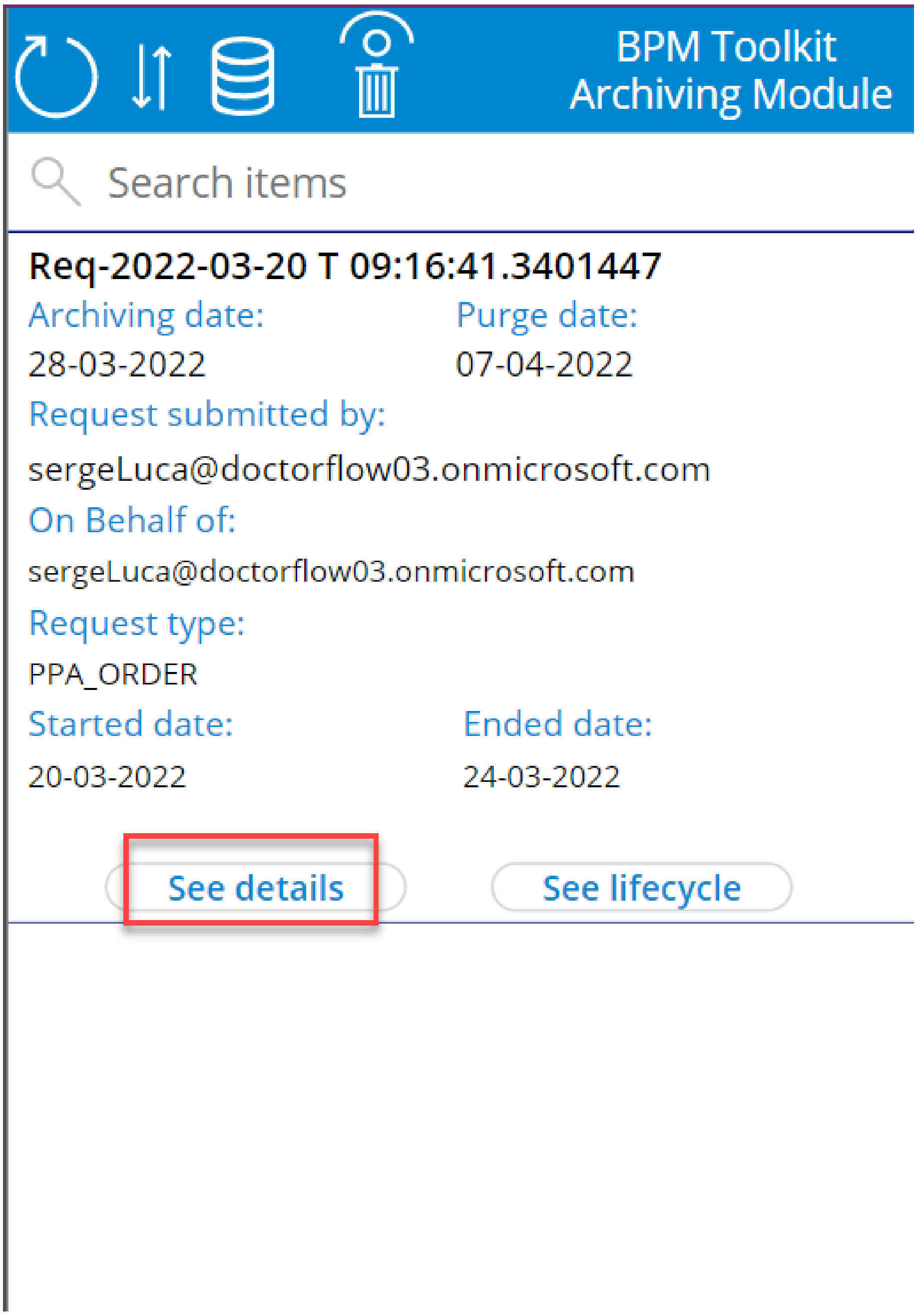
Let's go to the Workflow Center, select the case you created in the Workflow Panel, skip the step NYC and accept when SUPERVISORS is orange; this will complete your workflow:

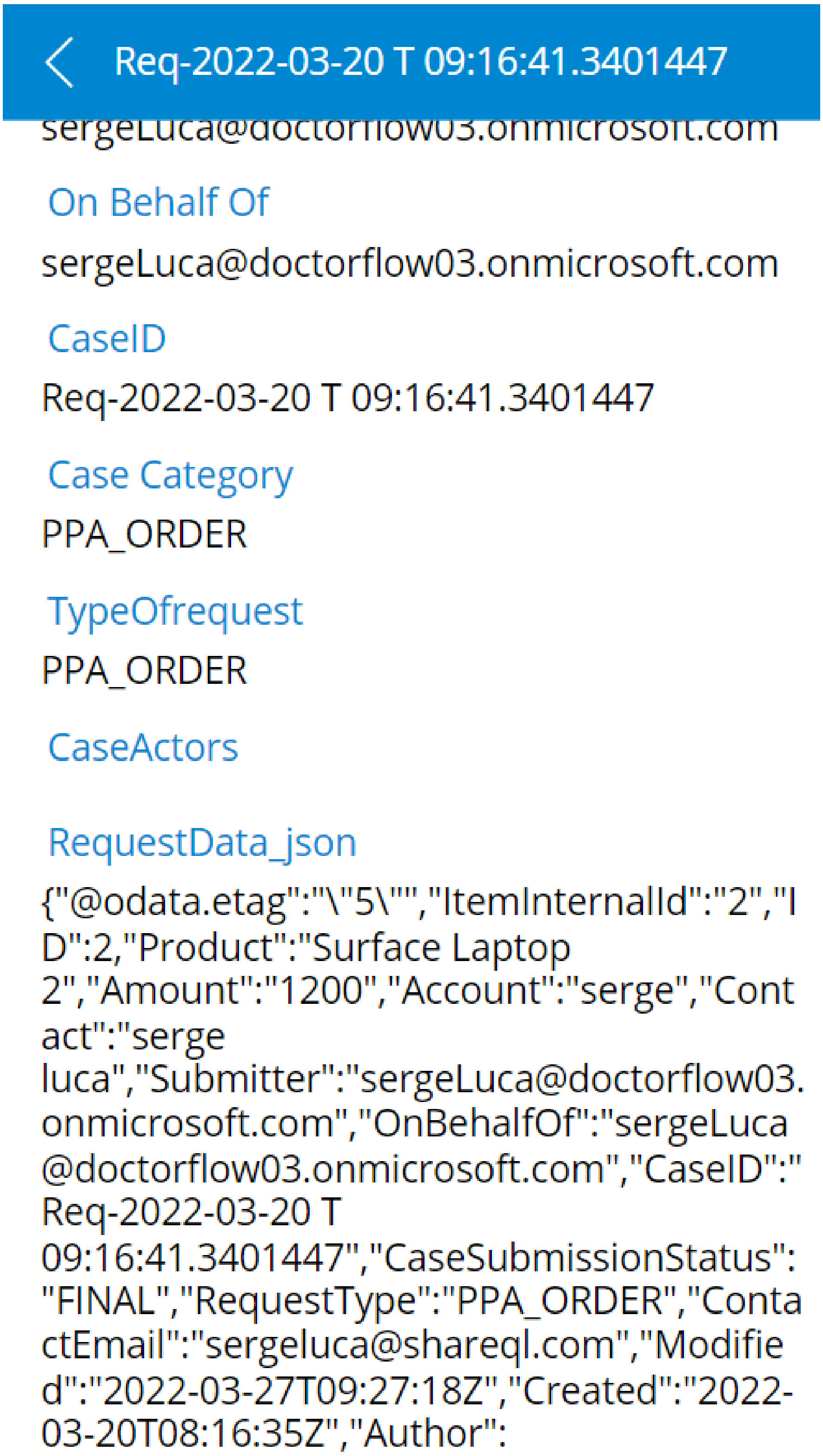


When a request is archived, it will be visible in the BPM Toolkit Archiving Module:

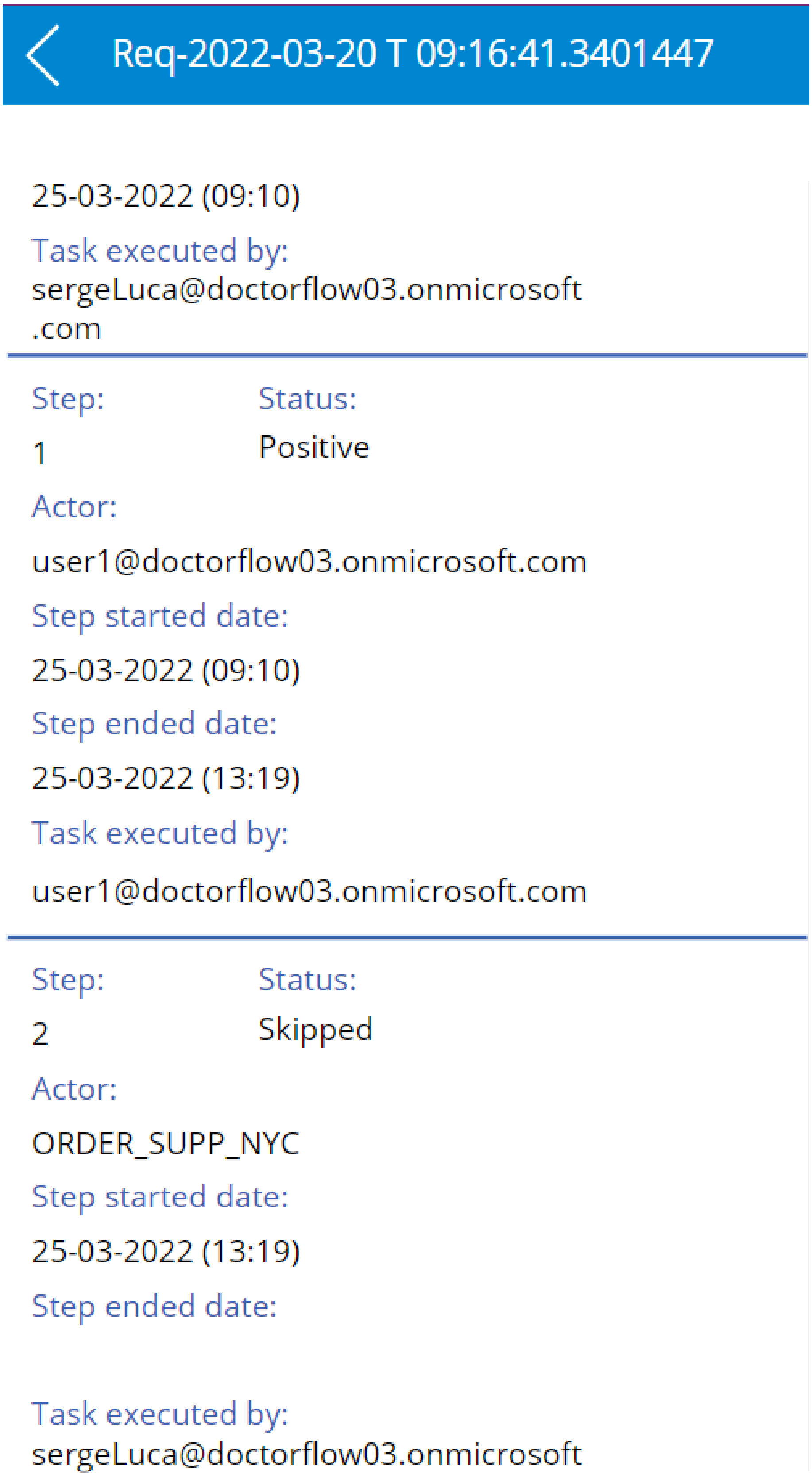


Click on see details and you will see the business data in JSON format:

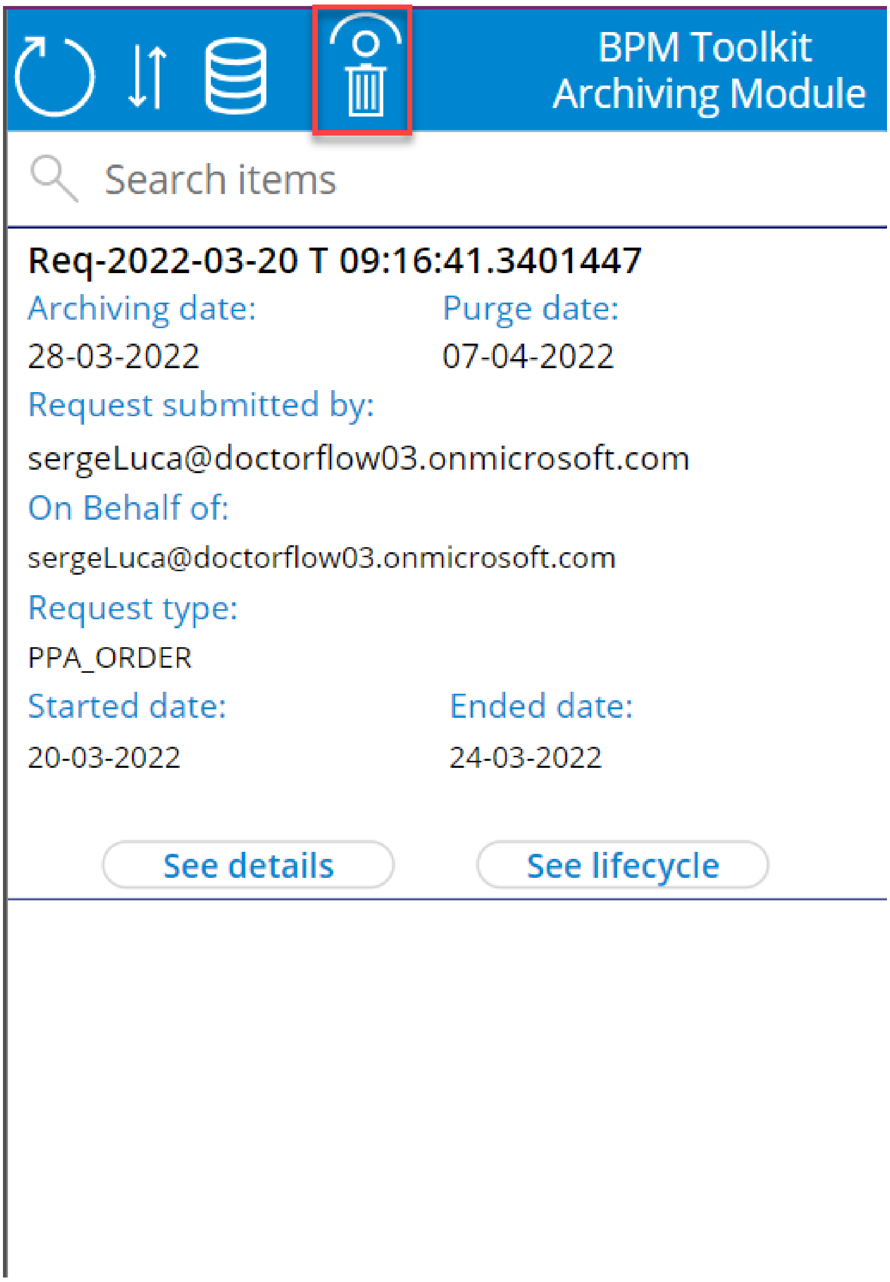

BPM Toolkit
Archiving Module
Search items
Req-2022-03-20 T 09:16:41.3401447
Archiving date:
28-03-2022
Purge date:
07-04-2022
Request submitted by:
sergeLuca@doctorflow03.onmicrosoft.com
On Behalf of:
sergeLuca@doctorflow03.onmicrosoft.com
Request type:
PPA_ORDER
Started date:
20-03-2022
Ended date:
24-03-2022
See details
See lifecycle



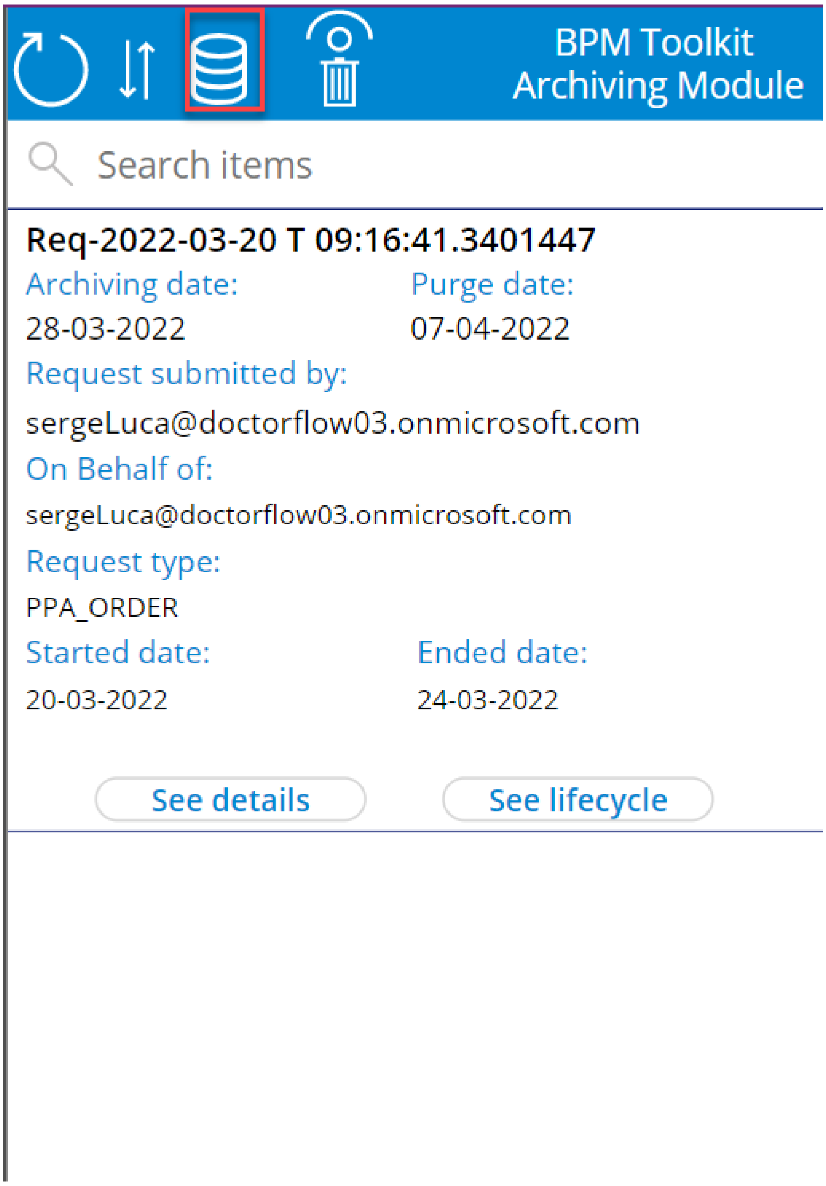
If you click See lifecycle, you will see the whole request lifecycle:



You can also see the purge requests :



You can manually trigger the archiving system (even though it is scheduled to trigger every day):


BPM Toolkit
Archiving Module
Search items
Req-2022-03-20 T 09:16:41.3401447
Archiving date:
28-03-2022
Purge date:
07-04-2022
Request submitted by:
sergeLuca@doctorflow03.onmicrosoft.com
On Behalf of:
sergeLuca@doctorflow03.onmicrosoft.com
Request type:
PPA_ORDER
Started date:
20-03-2022
Ended date:
24-03-2022
See details
See lifecycle