



# BPM Toolkit 2022 Setup

## 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.

#### BPM Toolkit ALM > Cloud flows

The screenshot shows a list of flows in the Microsoft Power Automate 'Cloud flows' interface. The first flow, 'BPM Toolkit - ALM - Create BPM Toolkit Structure...', has a context menu open. The menu items are: Edit, See analytics, Details, Add required components, Managed properties, Show dependencies, See solution layers, and Turn on. The 'Turn on' button is highlighted with a red box.

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:

## ← Import a solution

×

Environment  
serge Luca's Environment

### Environment Variables

Enter information for each field, so your app works properly. You can edit your environment variables later.

1 updates needed

#### BPM Site

 BPM Toolkit

#### 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

**Import**

**Cancel**

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

<b>BPM Statistics</b>	BPM Statistics
<b>BPM Security groups for Case</b>	BPM Case Configuration
<b>PPA_ORDERS</b>	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:

The screenshot shows the 'Objects' section of the Microsoft Power Platform Admin Center. The 'Environment variables...' item is highlighted with a red box.

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

**Edit BPM Site**

Display name \*

Name \* ⓘ

Description

Data Type \*

Connector \*

Connection \*

Parameter Type \*

Current site value

Override the default value by setting the current value for your environment.

Current site

Show default value ^

Default site value ⓘ

**Save** **Cancel**

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

**Edit BPM Site** X

☒ This variable didn't save properly. A record ... ▼

Use this variable to store information about an app or flow. Its values can be updated as it moves to different environments. [Learn more](#)

Display name \*

Name \* (1)

Description

Data Type \*

Connector \*

Connection \*

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 CaselD
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

### BPM Toolkit > Cloud flows

Display name ↑ ↓	Name ↓	
„ BPM - Toolkit - Delegation - Get User Delegati...	⋮ BPM - Toolkit - Delegation - Get User Delegation	
„ BPM Toolkit - Audit Get Case Log Proxy	⋮ BPM Toolkit - Audit Get Case Log Proxy	
„ BPM Toolkit - Act on Task	⋮ BPM Toolkit - Act on Task	
„ BPM Toolkit - Act on Task Proxy	⋮ BPM Toolkit - Act on Task Proxy	
„ BPM Toolkit - Add Case Message	⋮ BPM Toolkit - Add Case Message	
„ BPM Toolkit - Archiving	⋮ BPM Toolkit - Archiving	
✓ „ BPM Toolkit - Archiving - Release to God	⋮ BPM Toolkit - Archiving - Release to God	
„ BPM Toolkit - Archiving - Archive a Case	<span>Edit</span>   > Archive a Case <span>See analytics</span> <span>Details</span>   > Details <span>Add required components</span> <span>Managed properties</span> <span>Show dependencies</span> <span>See solution layers</span> <span style="border: 2px solid red; padding: 2px;">Turn on</span> <span>Remove</span>   >	
„ BPM Toolkit - Archiving - Proxy		
„ BPM Toolkit - Archiving - Purge		
„ BPM Toolkit - Archiving - Purge a Case		
„ BPM Toolkit - Archiving - Purge everything		
„ BPM Toolkit - Archiving - Scheduler		
„ BPM Toolkit - Audit Get Case Log		
„ BPM Toolkit - Audit Lo		

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).

BPM Toolkit > Apps

Display name ↑	Name ↓
BPM Toolkit - My Dashboard	cr93e_approvaldashboard_19256
BPM Toolkit - Workflow Panel	cr93e_bpmtktoolkitworkflowgraphbeta_508a1
<b>BPM Toolkit - Workflows Control Center</b>	cr93e_bpmtktoolkitworkflowscontrolcenterproto_9f2d9
BPM Toolkit Archive App	Edit deac9
BPM Toolkit Error Viewer	Play _304ff
test var	Monitor Details (highlighted with red box) Add required components Managed properties Show dependencies See solution layers Share Settings Add to Teams Remove >

## BPM Toolkit - Workflows Control Center

Details   Versions   Connections   Flows   Analytics (preview)

### Owner

serge Luca

### Created

1/31/2022, 12:08:09 PM

### Modified

2/23/2022, 5:18:51 PM

### Web link

<https://apps.powerapps.com/play/b51d0b20-10dc-4fae-84d5-6012c7605080?tenantId=7d62a852-336d-4ccc-b22b-399e0603f78a>

### App ID

b51d0b20-10dc-4fae-84d5-6012c7605080

### License designation

Standard

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

**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:

**Run flow** X

BPM Toolkit - Configuration

Owner: HRSA DEV Service Account Close

**serviceaccount \***

Please enter your input

**WorkflowControlPanelAppUrl \***

Please enter your input

**MyDashBoardControlPanelAppUrl \***

Please enter your input

**WorkflowControlCenterAppUrl \***

Please enter your input

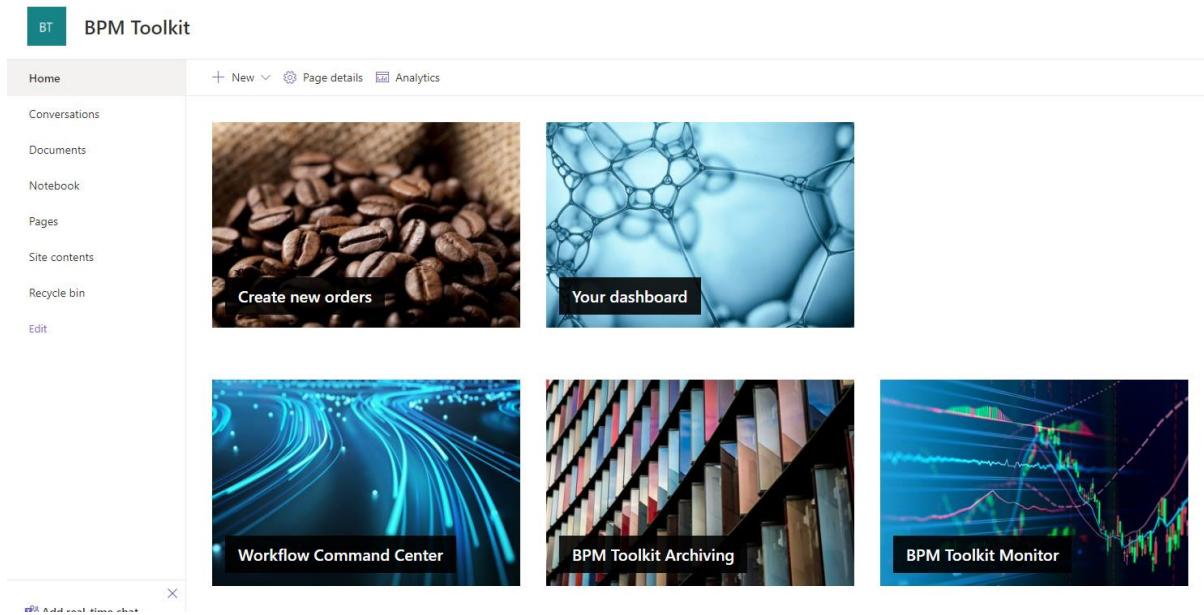
---

This flow uses SharePoint.

[Review connections and actions](#)

Run flow Cancel

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:

## BPM Toolkit > Apps

Display name ↑ ↓	Name ↓
BPM Toolkit - Archiving	cr93e_bpmtktoolkitarchiveapp_deac9
BPM Toolkit - Monitoring	_304ff
BPM Toolkit - My Dashboard	256
BPM Toolkit - Workflow Panel	aphbeta_508a1
BPM Toolkit - Workflows Control Center Proto	ontrolcenterproto_9f2d9

The context menu for 'BPM Toolkit - Archiving' includes:

- Edit
- Play
- Monitor
- Details
- Add required components
- Managed properties
- Show dependencies
- See solution layers
- Share
- Settings** (highlighted with a red box)
- Add to Teams
- Remove

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 them 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*

<b>BPM Toolkit -Workflow Control Center</b>	BPM Parameters
<b>BPM Toolkit -Workflow Control Center</b>	BPM Error Log
<b>BPM Toolkit – Workflow Panel</b>	BPM Parameters
<b>BPM Toolkit – Workflow Panel</b>	BPM Log
<b>BPM Toolkit – Workflow Panel</b>	BPM Toolkit Error Log*
<b>BPM Toolkit – Workflow Panel</b>	BPM Case Lifecycle
<b>BPM Toolkit – Workflow Panel</b>	BPM Case Workflows
<b>BPM Toolkit – Workflow Panel</b>	BPM Roles
<b>BPM Toolkit – Workflow Panel</b>	BPM Person in Roles
<b>BPM Toolkit – Workflow Panel</b>	BPM Internal Messages
<b>BPM Toolkit – Workflow Panel</b>	BPM Cases
<b>PPA_ORDER</b>	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
<b>BPM Toolkit</b>	BPM Toolkit - MyDashboard	BPMToolkit-RemoveCaseProxy
<b>BPM Toolkit</b>	BPM Toolkit - MyDashboard	BPMToolkit-StopWorkflowProxy
<b>BPM Toolkit</b>	BPM Toolkit - MyDashboard	BPMToolkit-ActonTaskProxy
<b>BPM Toolkit</b>	BPM Toolkit - MyDashboard	BPMToolkit-Delegation-CreateNewDelegationProxy
<b>BPM Toolkit</b>	BPM Toolkit - MyDashboard	BPMToolkit-RemoveDelegationProxy
<b>BPM Toolkit</b>	BPM Toolkit -Workflow Control Center	BPM Toolkit -Statistics-GetMainKpisProxy
<b>BPM Toolkit</b>	BPM Toolkit -Workflow Control Center	BPM Toolkit -BatchActonTaskProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – PingUserProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – RestartaProcessProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – RemoveCaseproxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – Messages-AddMessageToCaseproxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – RedirecttoActorProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – RedirectToStepProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – ActonTaskProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – InsertNewStepProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – StopWorkflowProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – TakeCaseStepOwnershipProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – SkipOrReassignStepProxy
<b>BPM Toolkit</b>	BPM Toolkit – Workflow Panel	BPM Toolkit – ReleaseStepOwnership
<b>BPM Toolkit Demo</b>	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 triggered, but the user can still watch the follow up.

## Some BPM Toolkit concepts

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 define. 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 or */
    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's 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.

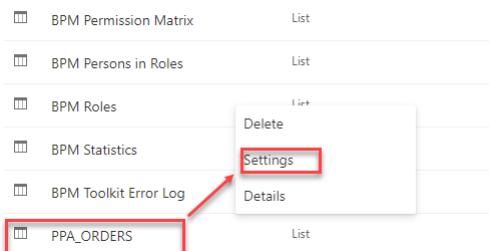
5. Let's define a SharePoint security group for the type PPA\_ORDER\_GROUP

- 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:

BPM Case Configuration ☆

Title	Case Type	Security Group	Security Group Id
	PPA_ORDER	PPA_ORDER_GROUP	

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:



BPM Case Configuration ☆

Title	Case Type	Security Group	Security Group Id	SecurityLevel	TeamID	TeamChannelID	RequestListGuid
	PPA_ORDER	PPA_ORDER_GROUP		veryhigh			e3c50343-dd76-4e90-a499-25fc22599c78

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).

BPM Case Configuration ☆

SecurityLevel	TeamID	TeamChannelID	RequestListGuid	ApprovalPattern	ReminderAfter	Workflow	ArchiveAfterDays	PurgeArchiveAf...	+ Add column
veryhigh			e3c50343-dd76-4e90-a499-25fc22599c78			PPA_ORDER_WORKFLOW	3	10	

8. On your SharePoint home page, click on the new Order picture.

9. Fill in the form:

The screenshot shows a SharePoint form titled "New Order". The form has the following fields:

- Product:** Tesla 2021
- Amount:** 50.000
- Account:** Paul
- Contact:** John
- Contact e-mail:** serge@ppa.com
- On Behalf of:** sergeluca@doctoflow12.onmicrosoft.com
- Submitter:** sergeluca@doctoflow12.onmicrosoft.com

At the bottom of the form are two buttons: "Save (Draft)" (green) and "Submit to approval" (red).

- 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.

- 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:

The screenshot shows a SharePoint list titled "My requests: serge luca". At the top, there are status filters: All (grey), Waiting (yellow), Rejected (red), Approved (green), Draft (grey), and Stopped (black). A search bar is present. Below the filters, the list has columns: Status, Submitted on, Request Id, Name of requester, Type, and Action. One item is listed: Status is Draft, Submitted on 22/12/2020 09:40, Request Id is Req-2020-12-22T09:40:33.6694635, Name of requester is sergeluca, Type is empty, and Action includes icons for more details, edit, and delete.

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=**

## BPM Forms

The screenshot shows a SharePoint list titled "BPM Forms". There are two items listed, both with CaseType set to "PPA\_ORDER". The first item's ViewForm URL is highlighted with a red box and contains the full URL: https://app-s.powerapps.-com/play/c65242d5-cec2-48ee-aaf0-850fde-f79d77?tenantId=2798645b-6f00-414c-8a15-e35c7009f7fd?action=view&CaseID=. The second item's EditForm URL is also highlighted with a red box and contains the full URL: https://app-s.powerapps.-com/play/c65242d5-cec2-48ee-aaf0-850fde-f79d77?tenantId=2798645b-6f00-414c-8a15-e35c7009f7fd?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 review/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\_WORKFLOW”, 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 ☆									Workflow
Case Type	Security Group	Security Group Id	SecurityL...	TeamID	TeamCha...	RequestListGuid	ApprovalPattern	Reminde...	
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

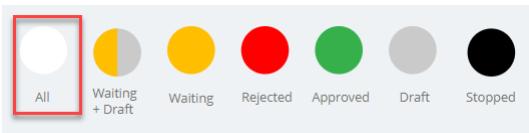
20. Define who is part of which role in the BPM Persons in roles list:  
Add your e-mail for each role.

## 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 MyDashboard 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:

Not authorized



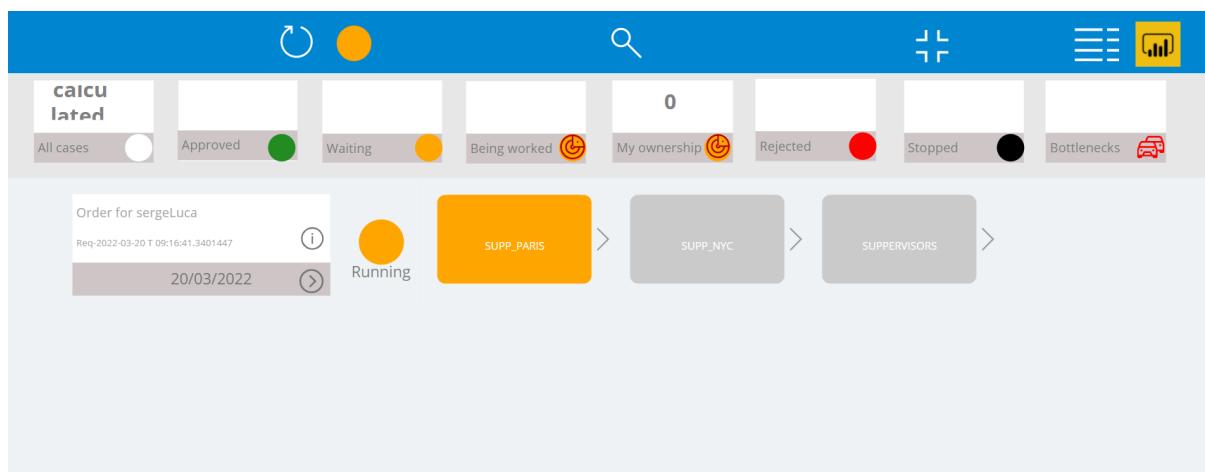
You are not authorized to use this application...

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

BPM Persons in Roles ☆

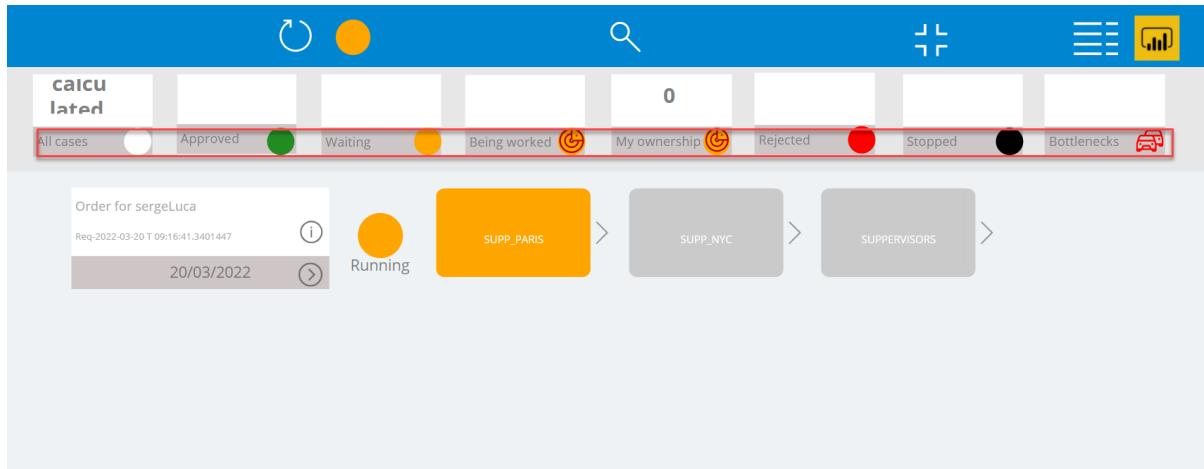
Title	PersonEmail	Active	Role
sergeluca	sergeluca@doctorflow0 3.onmicrosoft.com		ORDER_SUPERVISORS
sergeluca	sergeluca@doctorflow0 3.onmicrosoft.com		ORDER_SUPP_NYC
sergeluca	sergeluca@doctorflow0 3.onmicrosoft.com		ORDER_SUPP_PARIS

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.

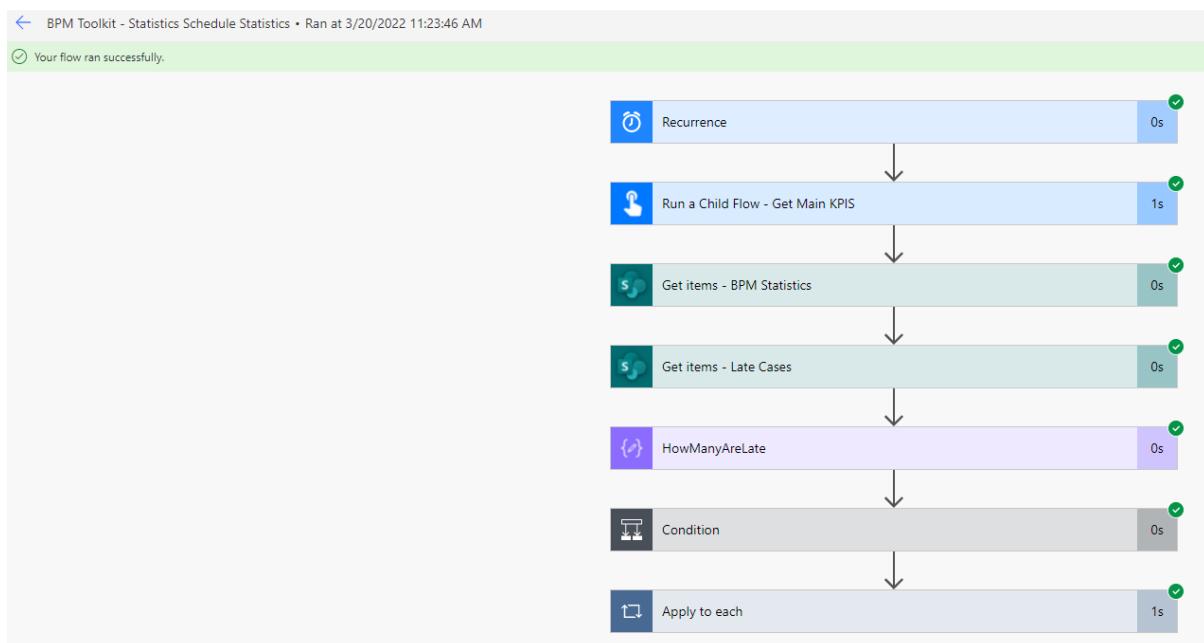
The filters are in the header panel of the workflow center:



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.

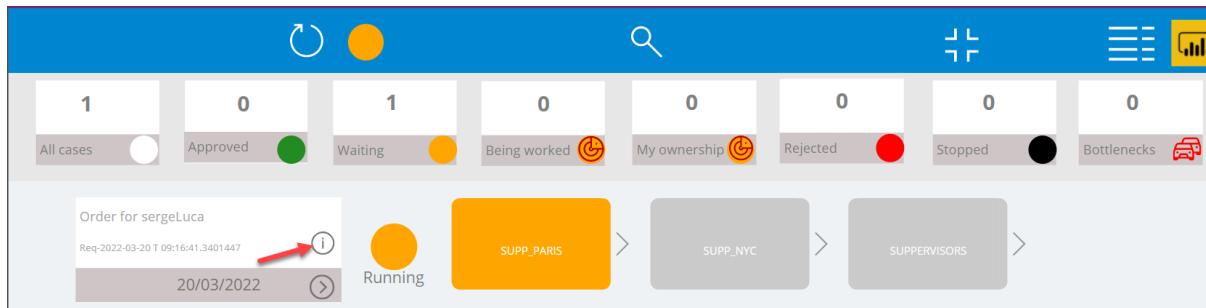
## 26. Run the flow BPM Toolkit – Statistics Schedule Statistics:



## 27. You will see the kpis:



## 28. Clicking the i circle:



Display the request details:

### New Order

Power Platform Associates

Product: Surface Laptop 2

Amount: 1200

Account: serge

Contact: serge luca

Contact e-mail: sergeluca@shareql.com

On Behalf of: sergeLuca@doctorflow03.onmicrosoft

Submitter: sergeLuca@doctorflow03.onmicrosoft.com

Save (Draft) Submit to approval

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

The screenshot shows a software interface with a blue header bar. In the top right corner of the header, there is a magnifying glass icon with a red border, which is highlighted with a red box. Below the header is a row of eight status boxes, each containing a number (1, 0, 1, 0, 0, 0, 0, 0) and a small circular icon. The second icon from the left is green. Below these are several status indicators: 'All cases' (1), 'Approved' (0), 'Waiting' (1), 'Being worked' (0), 'My ownership' (0), 'Rejected' (0), 'Stopped' (0), and 'Bottlenecks' (0). To the right of these are icons for a refresh, a grid view, and a chart.

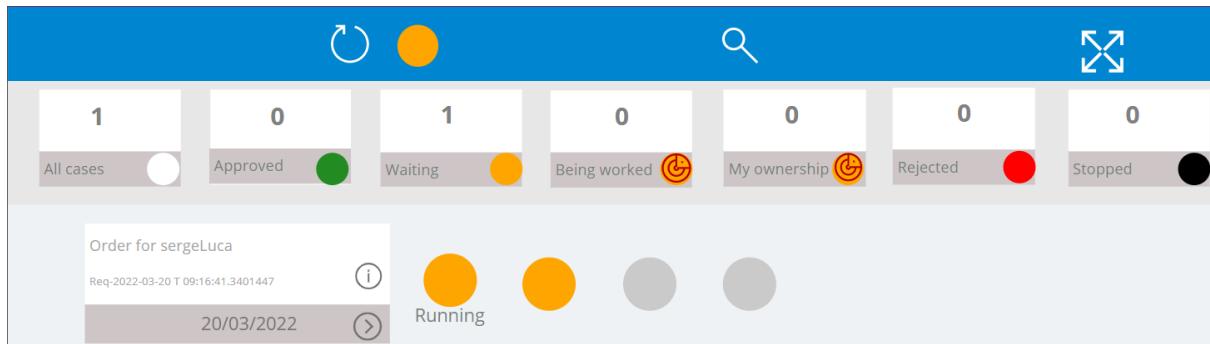
Below the header, a workflow diagram is displayed. It starts with a box labeled 'Order for sergeLuca' with a timestamp 'Req-2022-03-20 T 09:16:41.3401447'. This is followed by a sequence of boxes: 'Running' (orange), 'SUPP\_PARIS' (orange), 'SUPP\_NYC' (grey), and 'SUPERVISORS' (grey). Arrows connect the boxes, and the 'SUPP\_PARIS' box is highlighted with a red box.

A large search dialog box is overlaid on the interface. It has a blue header with the word 'Search' and a close 'X' button. Inside the dialog, there are seven input fields with dropdown arrows: 'Staff name:', 'Site location:', 'Type of requests:', 'Submitted from:', 'Submitted to:', 'Status:', and 'Request id:'. At the bottom of the dialog are two buttons: a blue 'Apply filter' button and a white 'Clear filter' button.

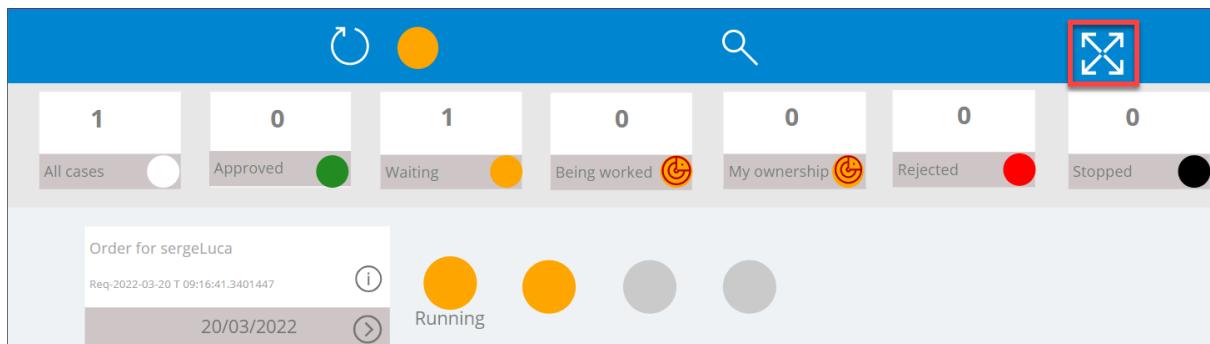
30. If the workflows are very big (many steps), it might be interesting to have a different view; click here:

This screenshot is identical to the one above, but the 'grid view' icon in the top right corner of the header is highlighted with a red box. The rest of the interface, including the status boxes, workflow diagram, and search dialog, remains the same.

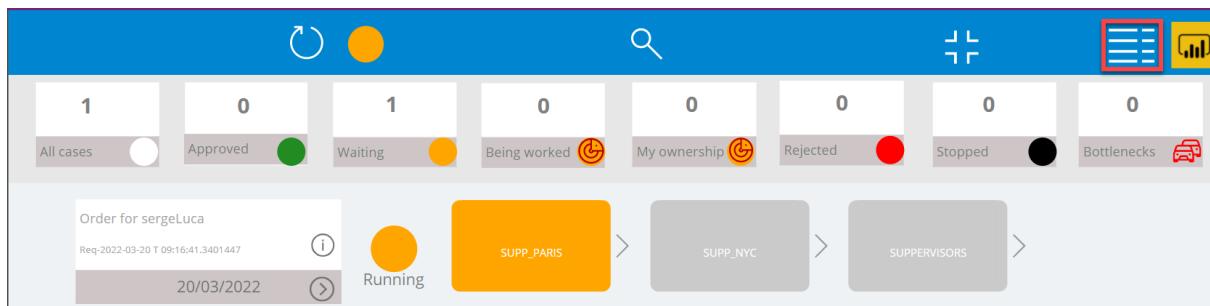
...and you will get this:



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:

Select your role: All

Waiting requests

Request Id	Type	Requester	Current status	Workflow
Req-2022-03-20 T 09:16:41.3401447	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	Running	SUPP_PARIS > SUPP_NYC > SUPERVISORS

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

#### BPM Roles

Title	Role	Description	CanApproveInBatch
System Supervisor	System Supervisor		YES
ORDER_SUPP_PARIS	ORDER_SUPP_PARIS		
ORDER_SUPP_NYC	ORDER_SUPP_NYC		
ORDER_SUPERVISORS	ORDER_SUPERVISORS		

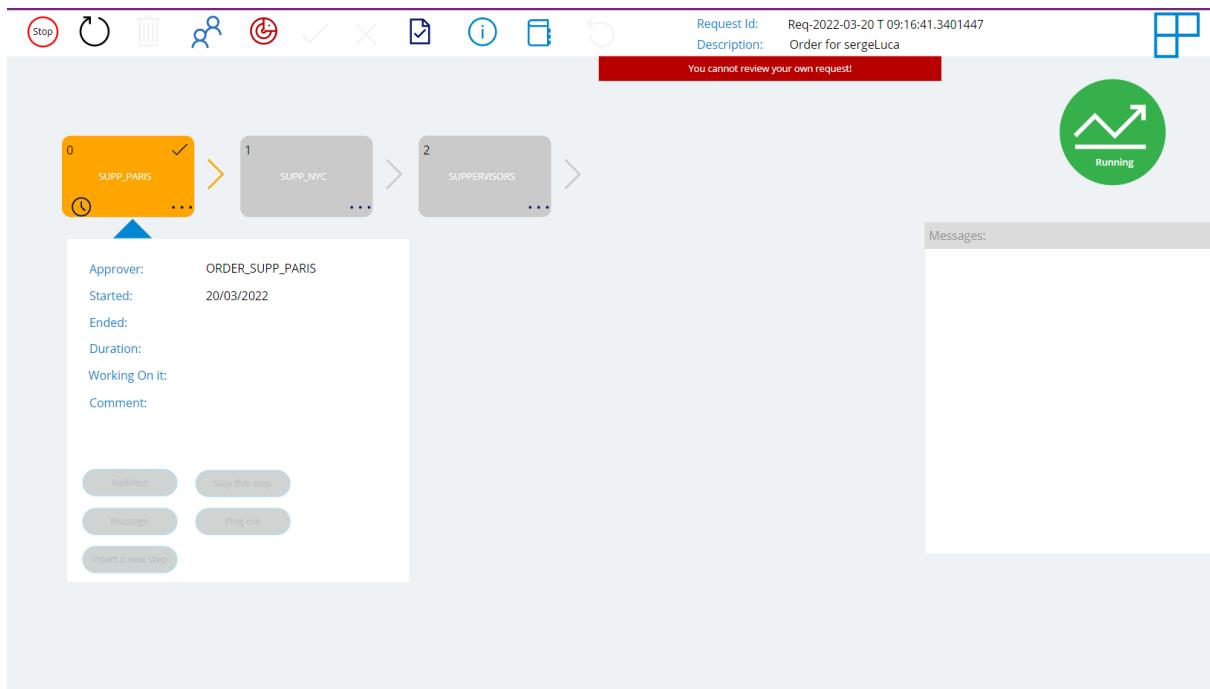
Then you will be able to do so. More details on this later.

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

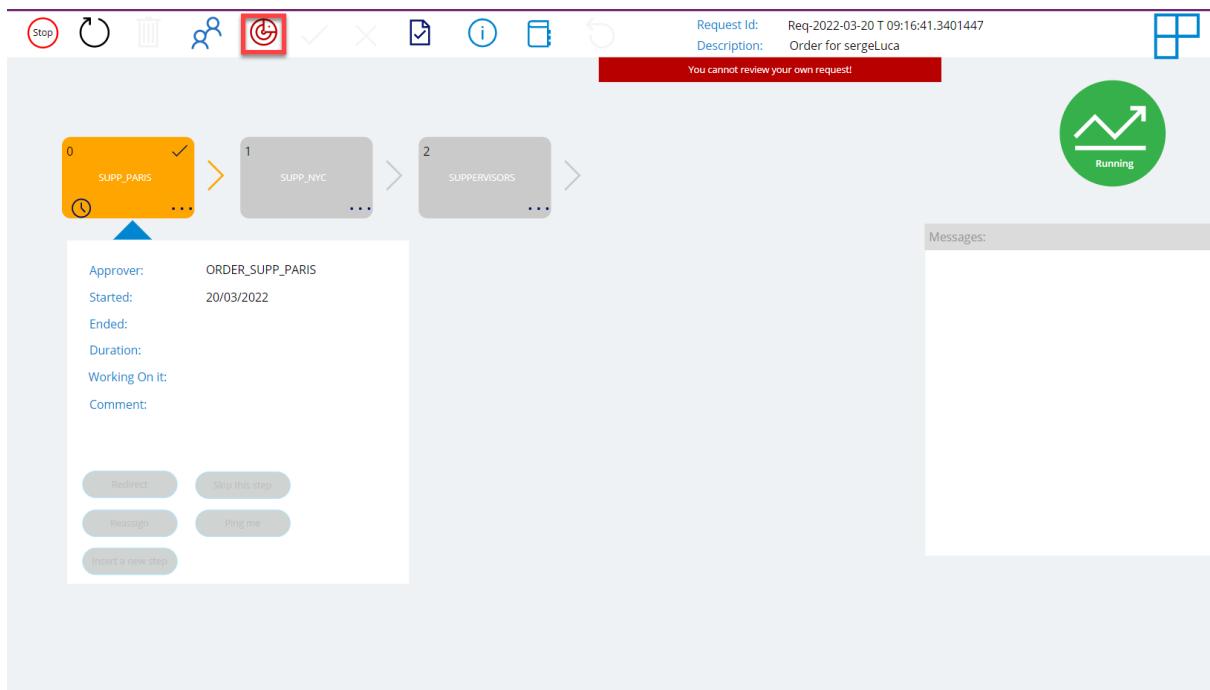
1 All cases    0 Approved    1 Waiting    0 Being worked    0 My ownership    0 Rejected    0 Stopped

Order for sergeLuca  
Req-2022-03-20 T 09:16:41.3401447  
20/03/2022 (>) Running

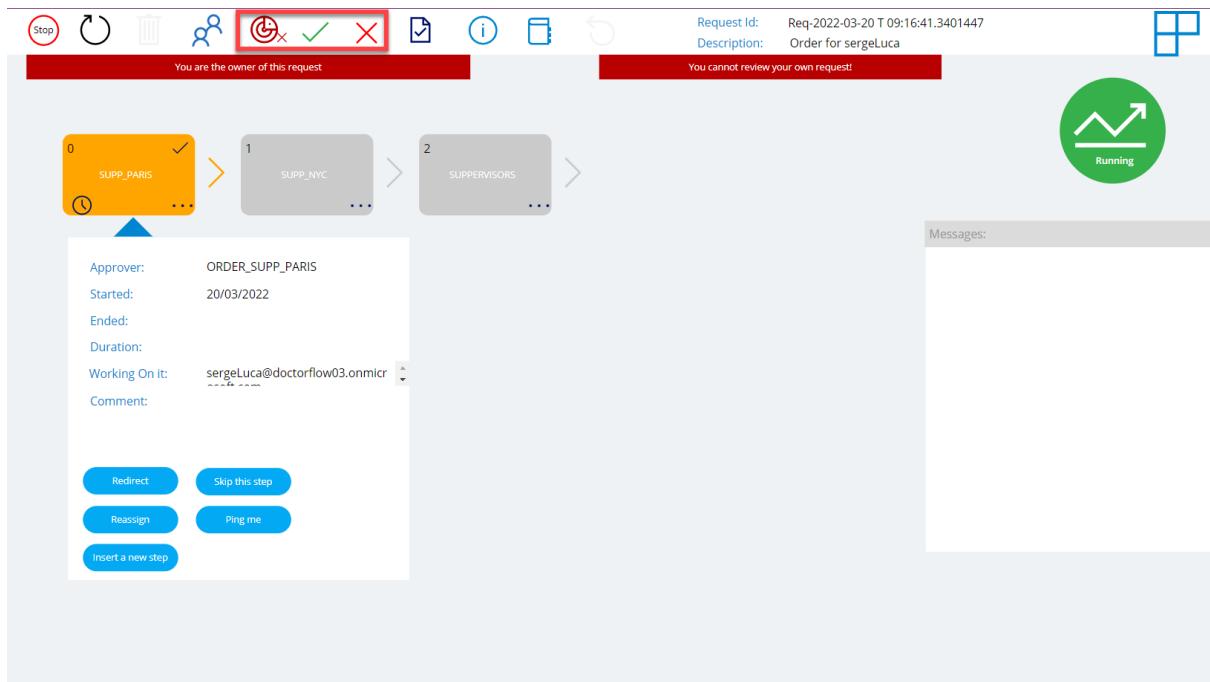
This is a way to treat the request (approve/review,...).



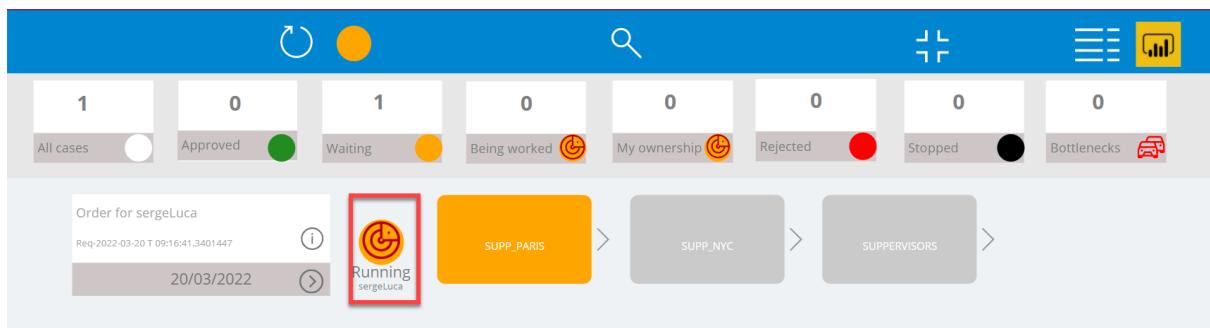
As you can see the workflow is waiting for a member of the role “ORDER\_SUPP\_PARIS” to react. If you are a member of this role, you should be able to work on it. Click the “radar” icon to take ownership of the case.



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:

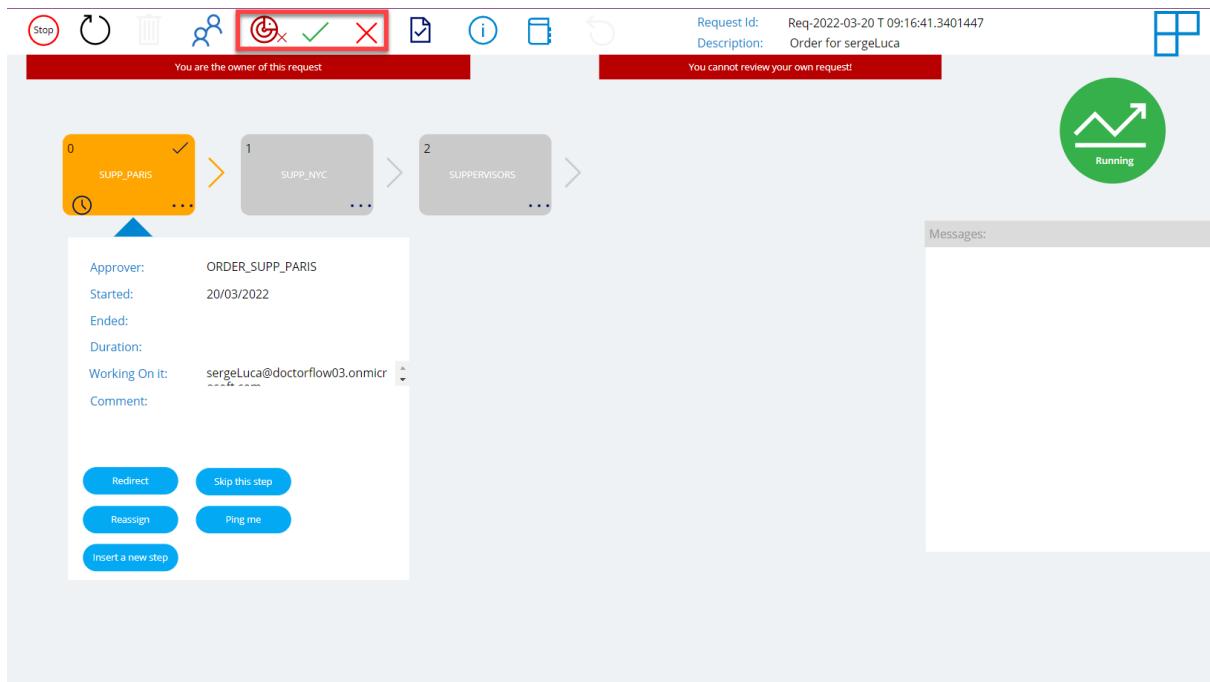


You will see “your task”:



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:



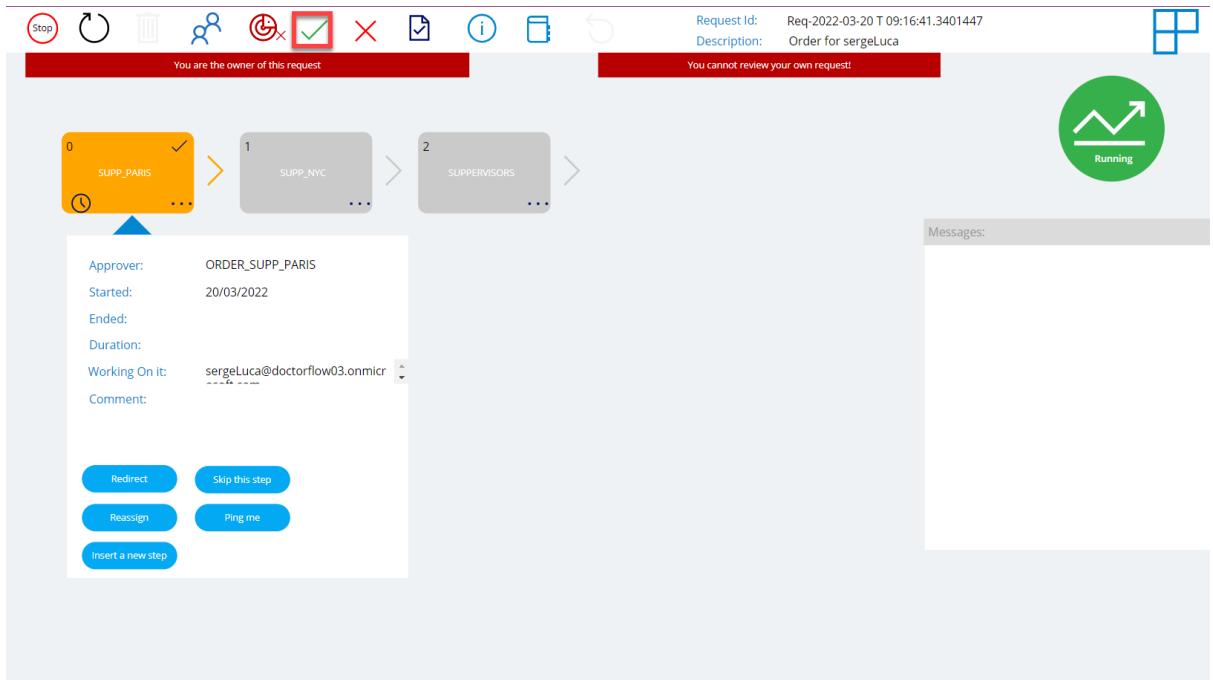
The system knows that it must display the Accept and Reject buttons because in the metaworkflow this step is associated with “Feedback”:

#### BPM Meta Workflows ☆

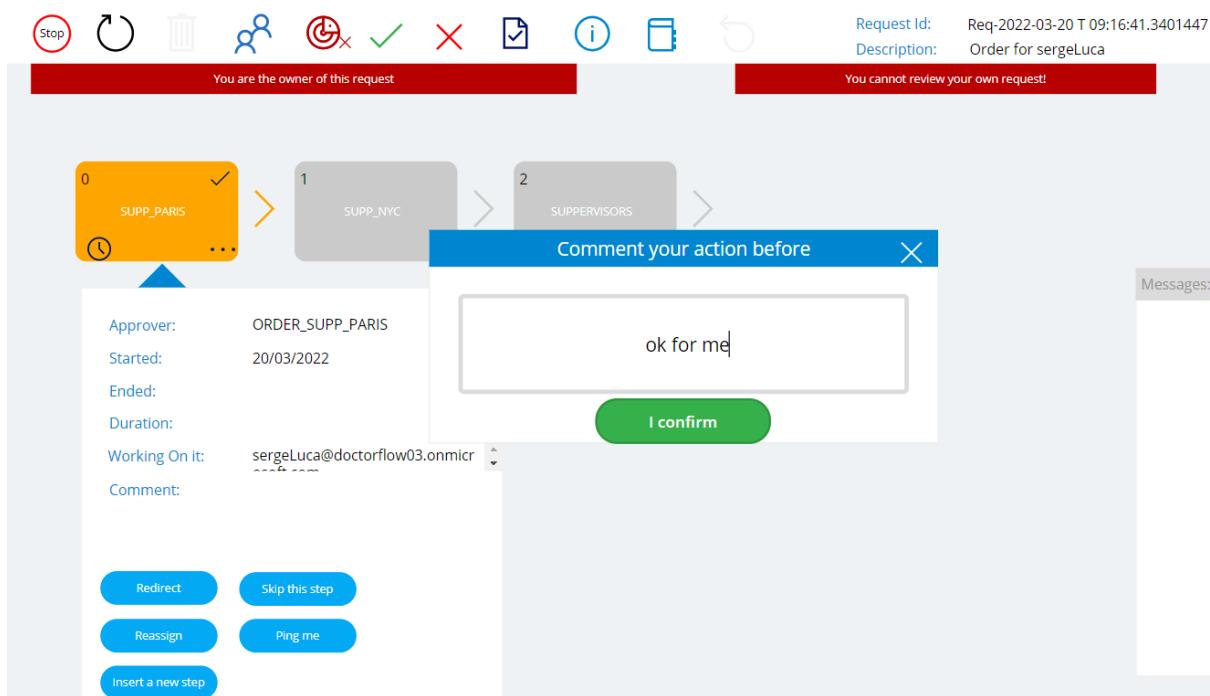
Title	Step	Actor	Type of actor	CaseType	ActionExpected
1	0	ORDER_SUPP_PARIS		PPA_ORDER_WORKFLOW	Feedback
2	1	ORDER_SUPP_NYC		PPA_ORDER_WORKFLOW	Feedback
3	2	ORDER_SUPERVISORS		PPA_ORDER_WORKFLOW	Feedback

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 complete 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).

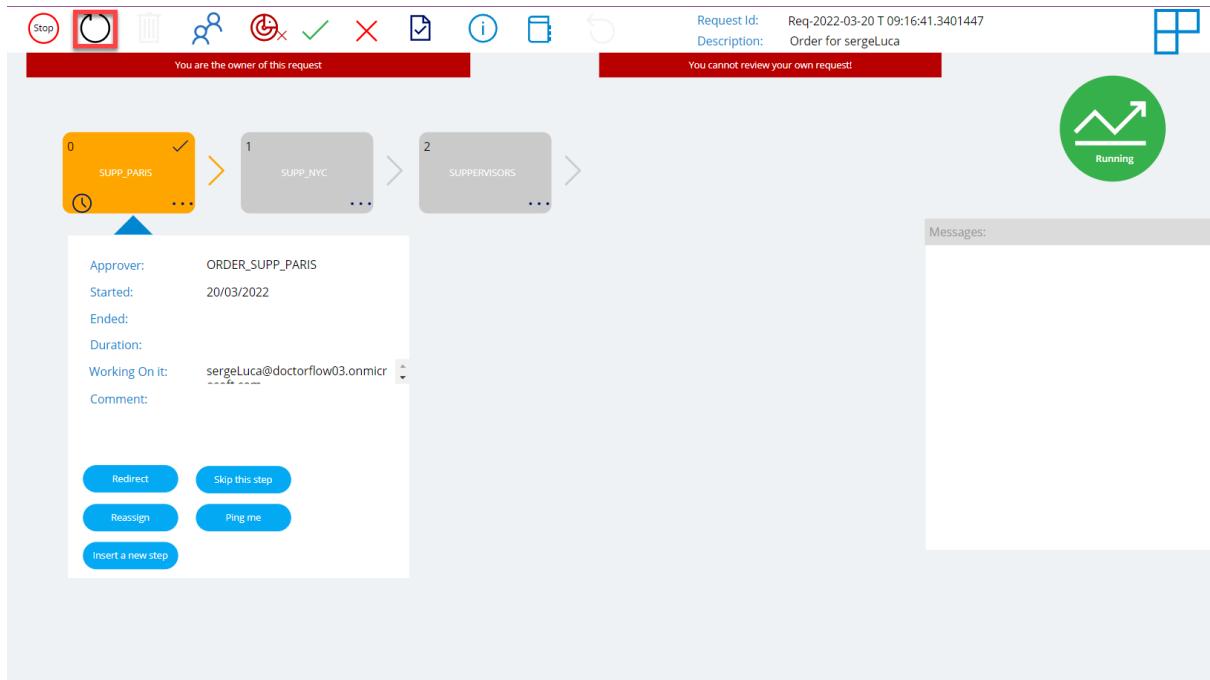
35. Let's click the Accept button



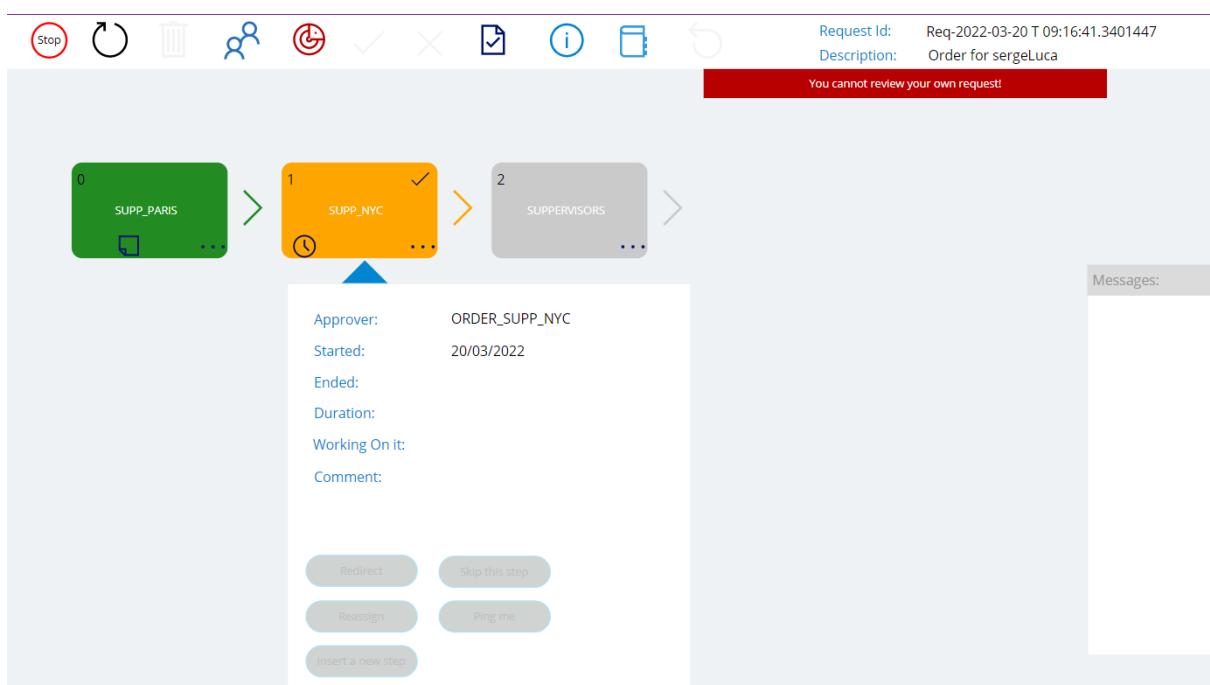
36. Then a window will allow you to add a message and you can click I Confirm:



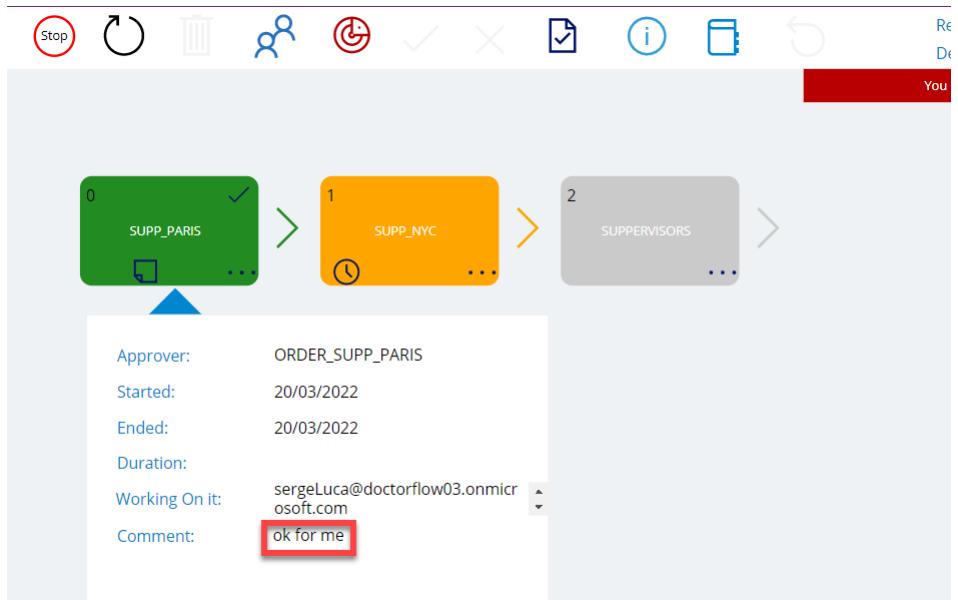
The system will go to the next step, the BPM Toolkit workflow engine is running in the background.  
You must click the **refresh** icon several time to see the new status:



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

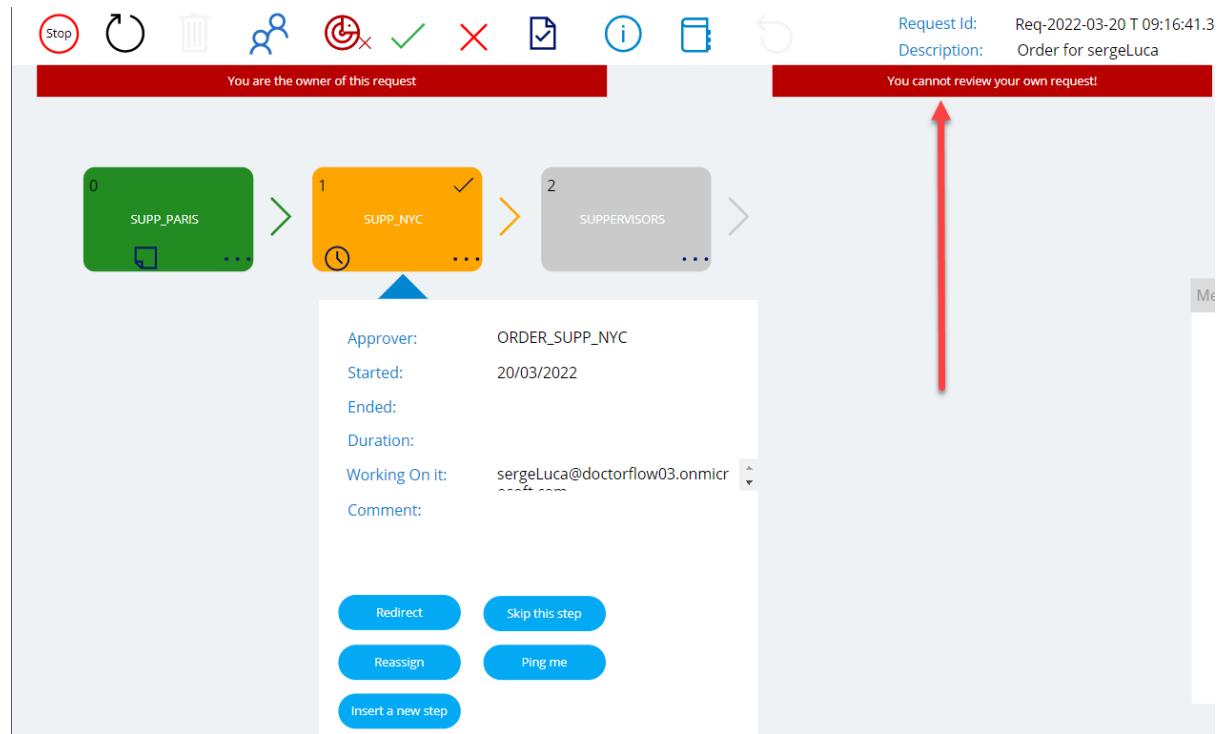


37. If you click the first step, you can still see the message from the previous role:



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 ☆

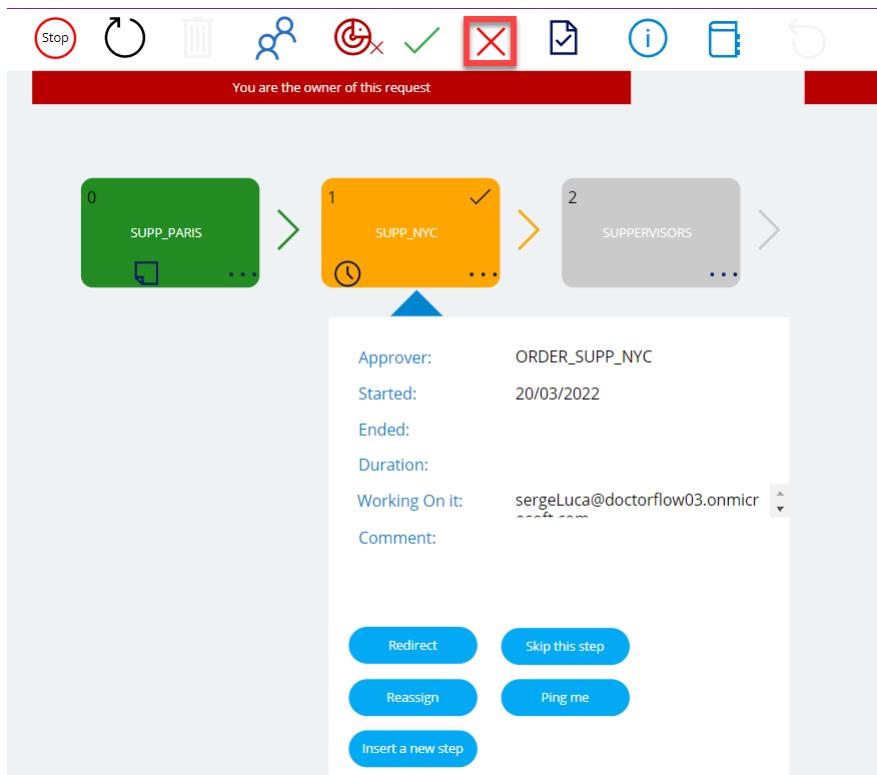
Title	Description	ParamName	ParamValue
	If "No": users cannot see the workflow approval panel if they want to approve their own request (or a request submitted on their own behalf). No should be the default value in production. "Yes" can be used in Test	AllowSelfValidation	Yes

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

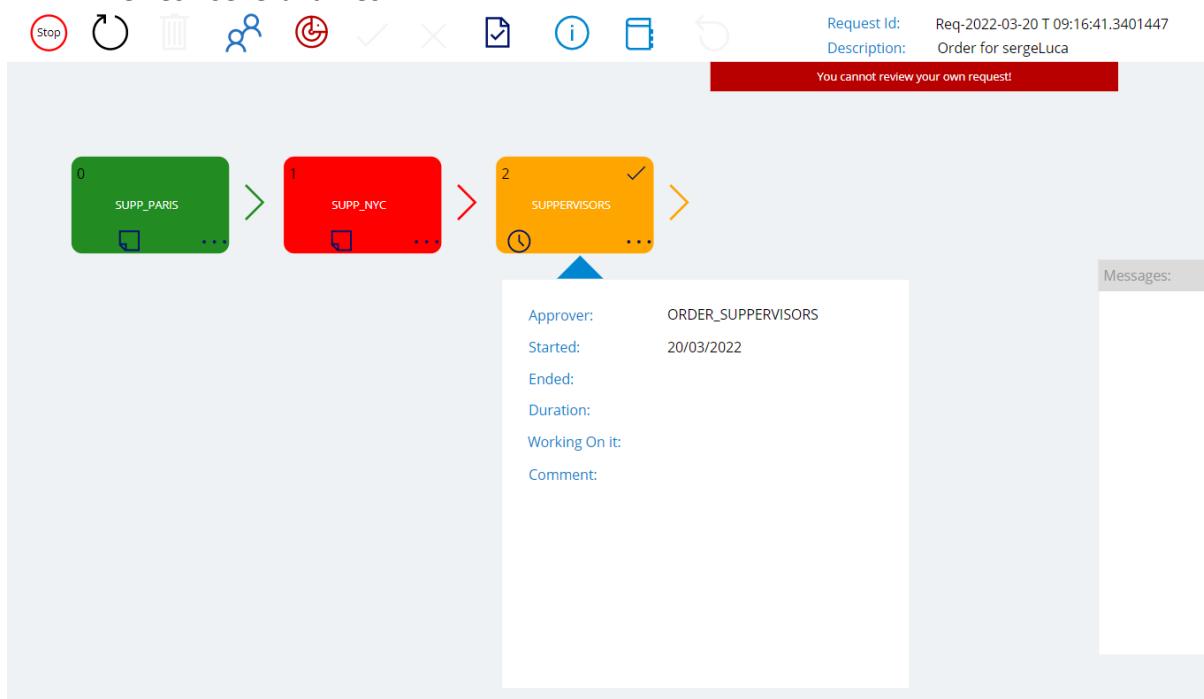


Not Authorized, you cannot approve your own requests...

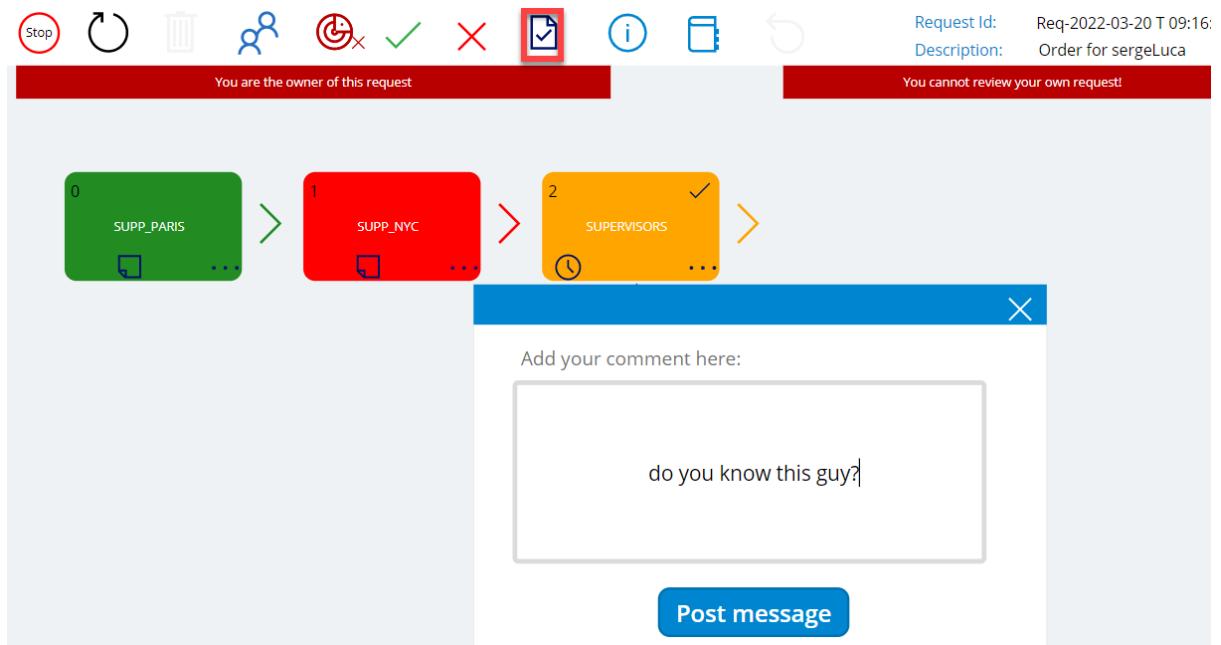
40. Let's switch the value to Yes, and refresh the Workflow panel:  
Since you are member of the roleSUPP\_NYC, you can take ownership of the case and reject it:



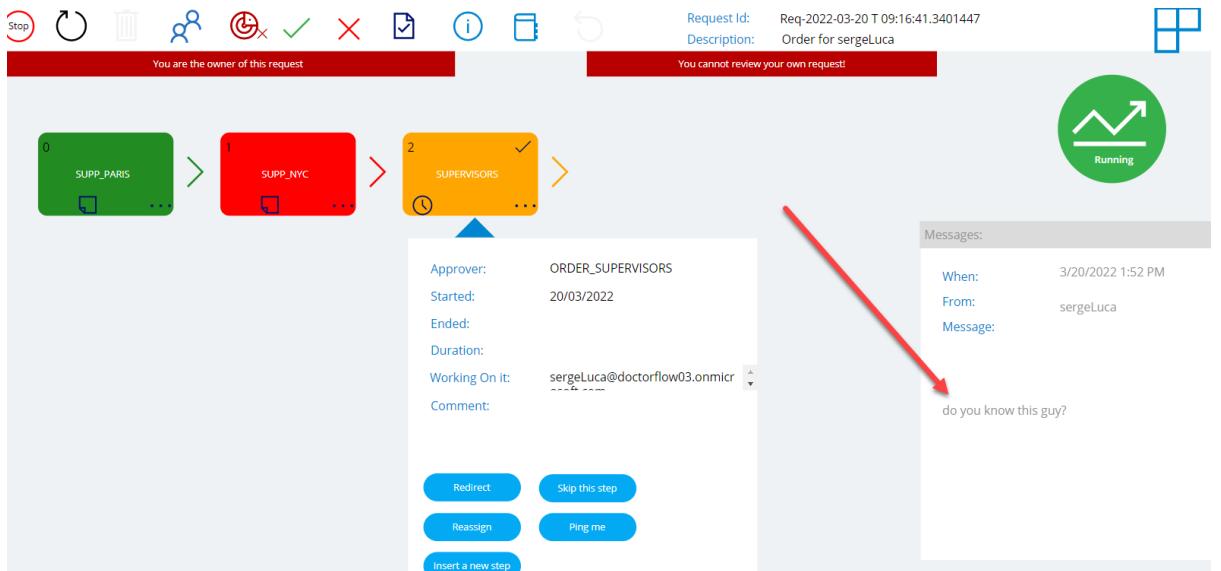
#### 41. Refresh several times:



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



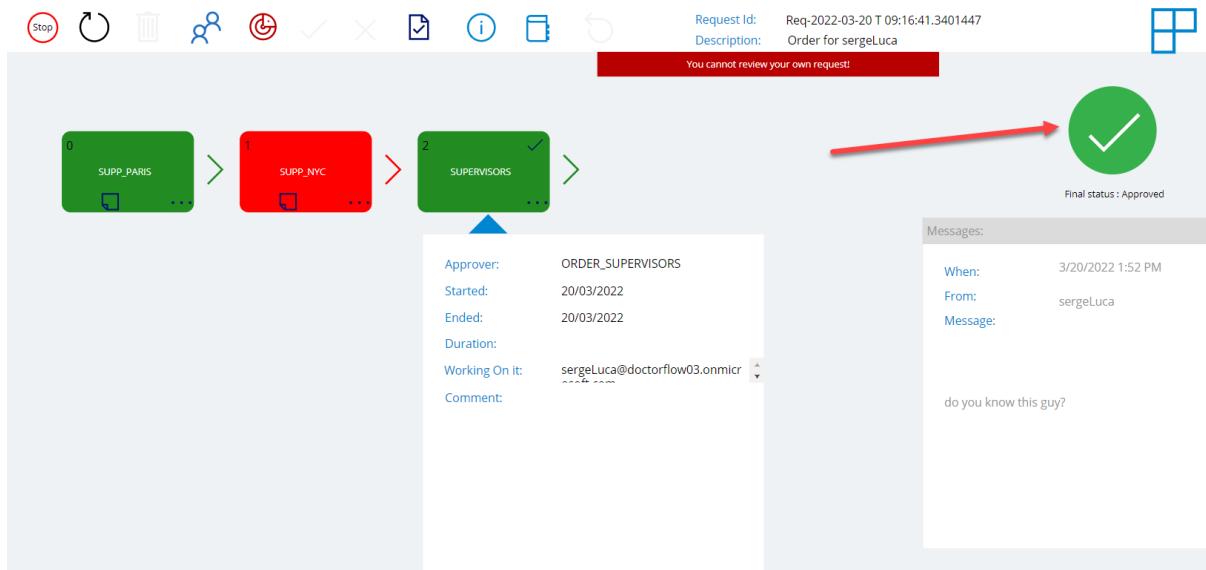
And the message will be displayed here:



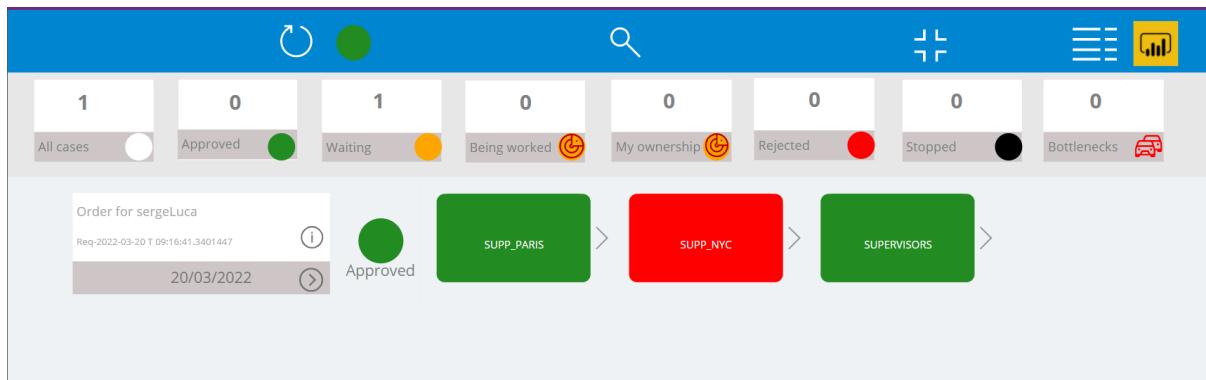
Colleagues can answer/comment.

Some companies want to associate a Microsoft teams 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:

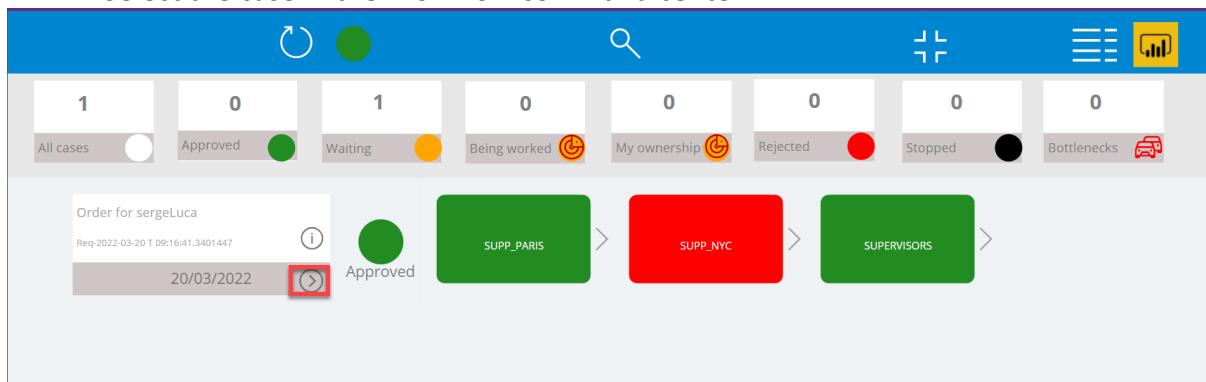


In the Workflow Command Center, you will see the case by clicking on the (green) Approved filter, or on the (white) All cases filter:

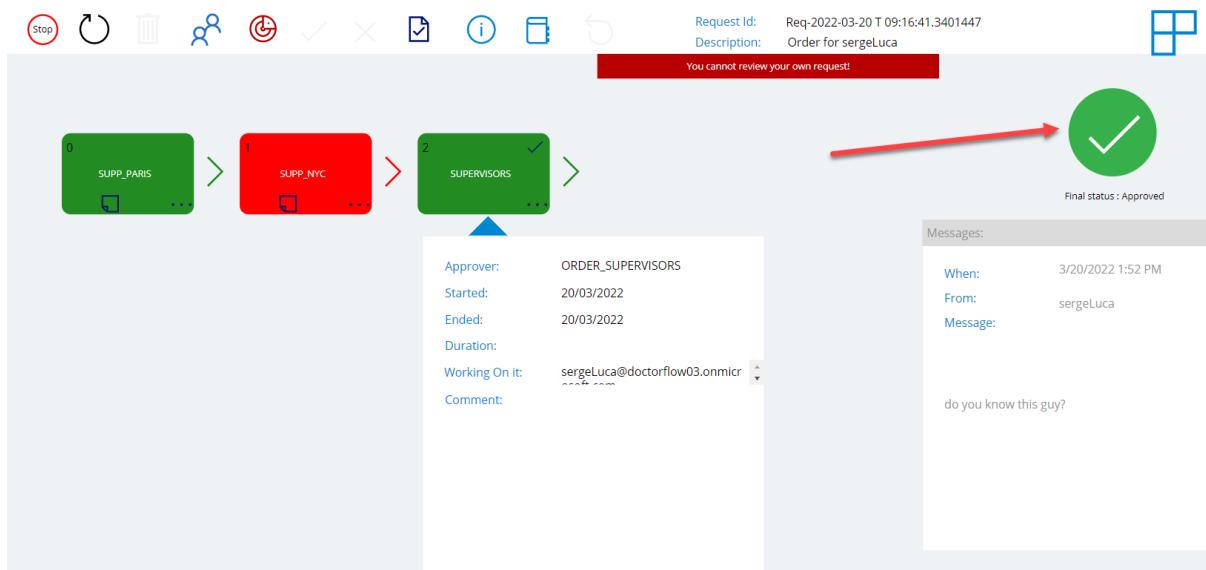


If for any reason you want to reinitialize the case, you can. But this is unusual, and it requires the user to be System.

#### 44. Select the case in the Workflow command center:



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

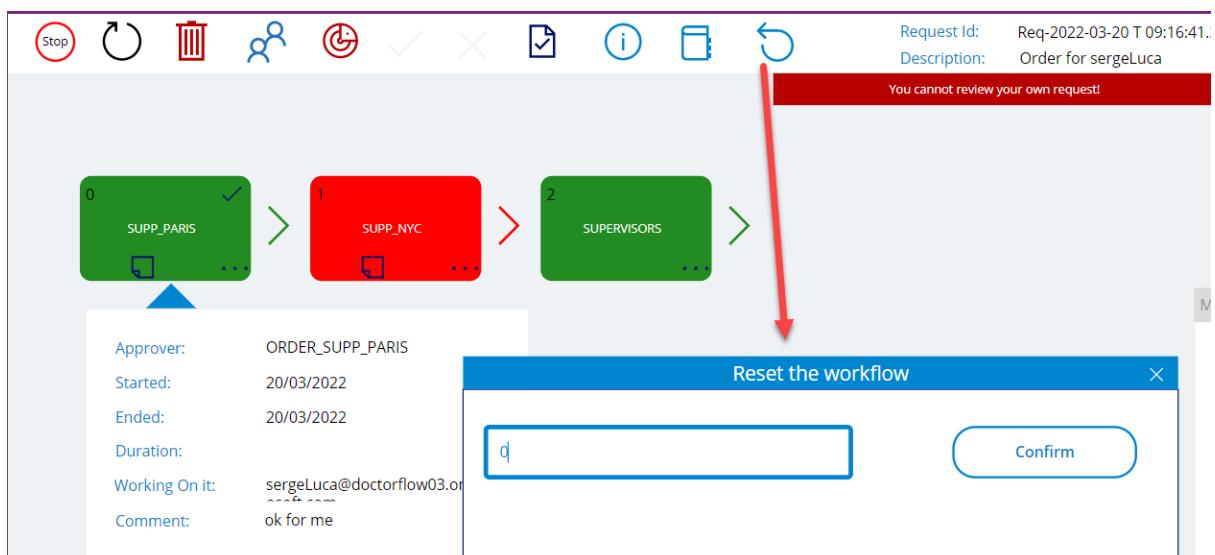


45. To enable it, you have to be System Supervisor, so add yourself in the BPM Persons in Roles list:

#### BPM Persons in Roles ☆

Title	PersonEmail	Active	Role
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	ORDER_SUPERVISORS	
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	ORDER_SUPP_NYC	
sergeLuca@doctorflow03.onmicrosoft.com	sergeLuca@doctorflow03.onmicrosoft.com	ORDER_SUPP_PARIS	
user1@doctorflow03.onmicrosoft.com	user1@doctorflow03.onmicrosoft.com		
sergeLuca@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:



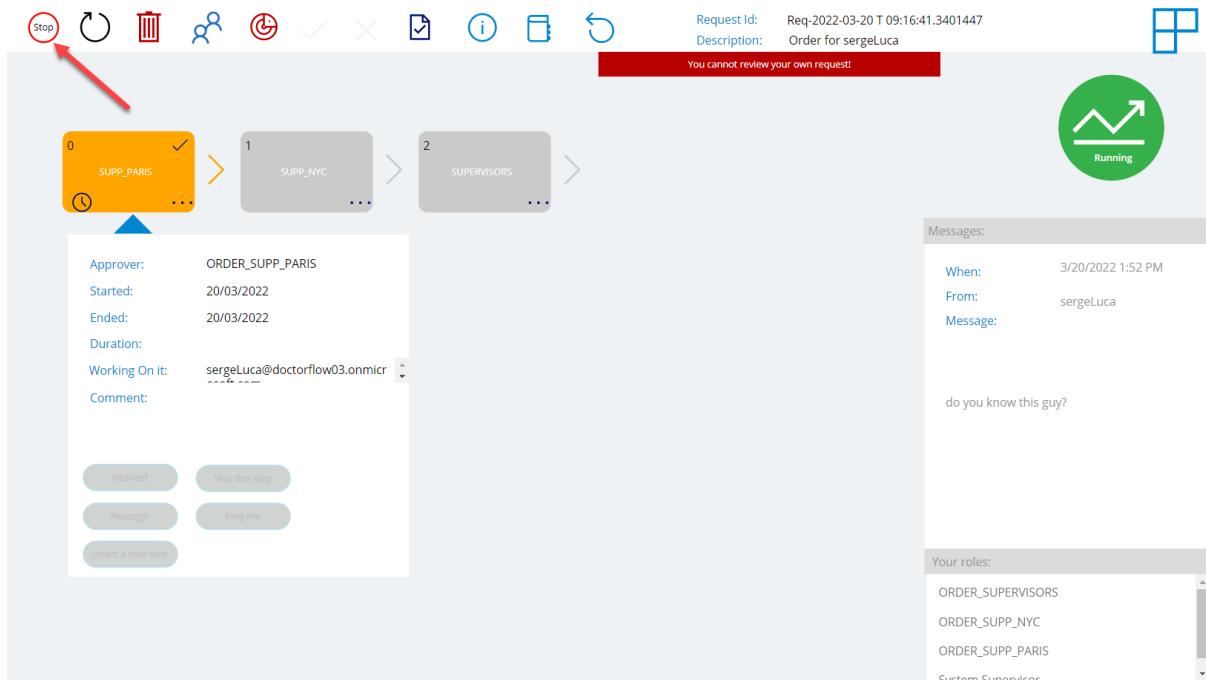
47. Refresh, and you will see that workflow has been reinitialized and is waiting in step 0:



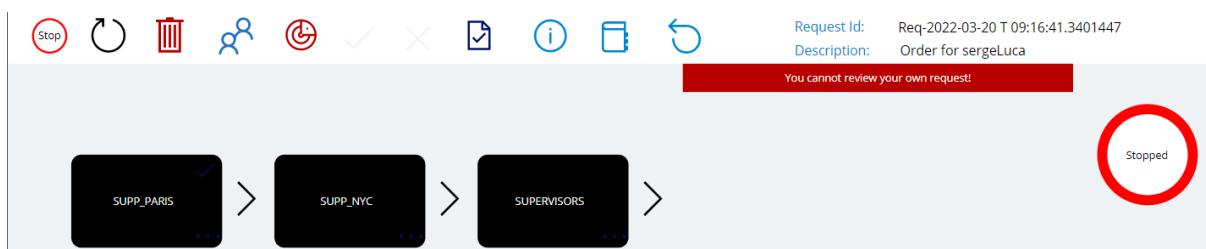
48. Clicking the people icon in the Workflow Panel display the roles you are part of:

The Workflow Panel shows the same workflow with steps 0, 1, and 2. A red arrow points from the people icon in the toolbar to the people icon in the workflow panel. A modal window titled "Your roles:" is displayed, listing "ORDER\_SUPERVISORS", "ORDER\_SUPP\_NYC", "ORDER\_SUPP\_PARIS", and "System Supervisor". The main panel shows workflow details: Approver: ORDER\_SUPP\_PARIS, Started: 20/03/2022, Ended: 20/03/2022, Duration: 00:00:00, Working On It: sergeLuca@doctorflow03.onmicrosoft.com, and a Comment field. Buttons for Redirect, Skip this step, Reassign, Ping me, and Insert a new step are available. A red arrow points from the people icon in the workflow panel to the "Your roles:" list.

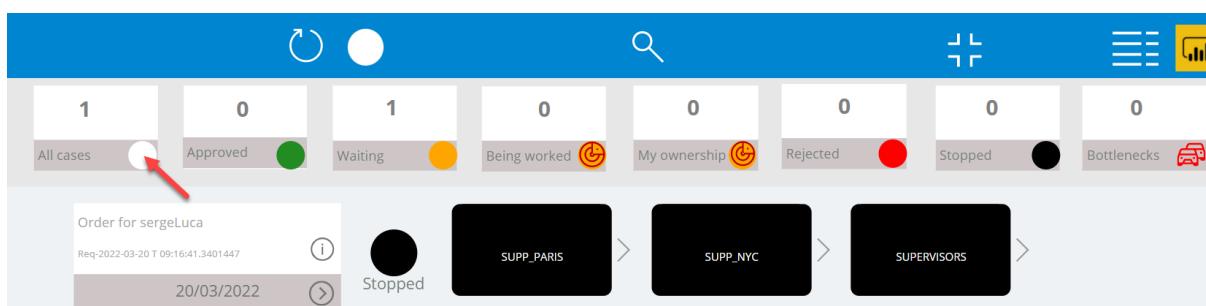
Since you are System supervisor, another super power is to be able to Stop a workflow.



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

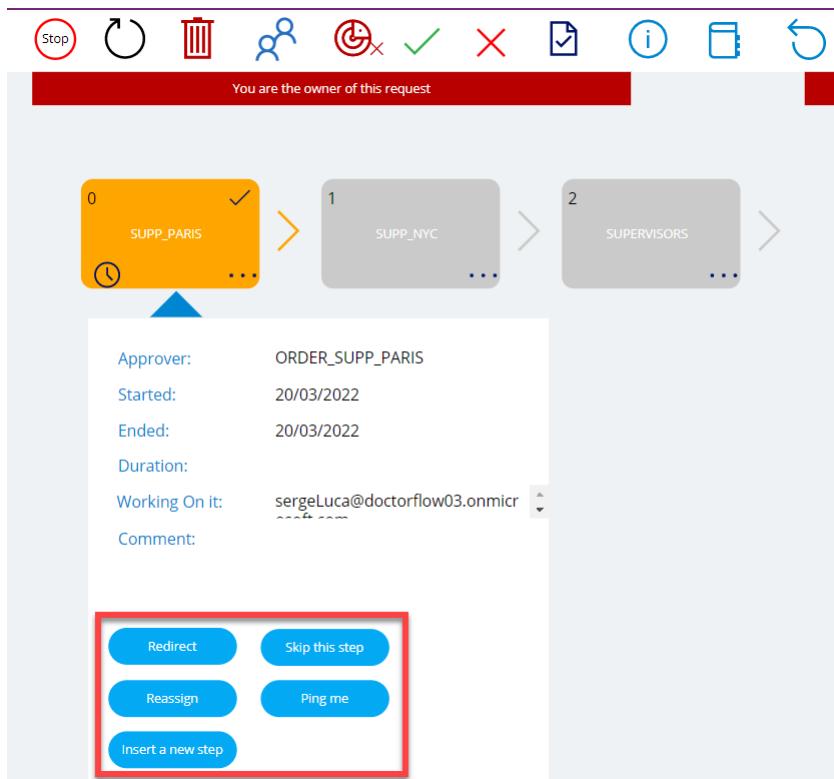


The same in the Workflow Control Center:

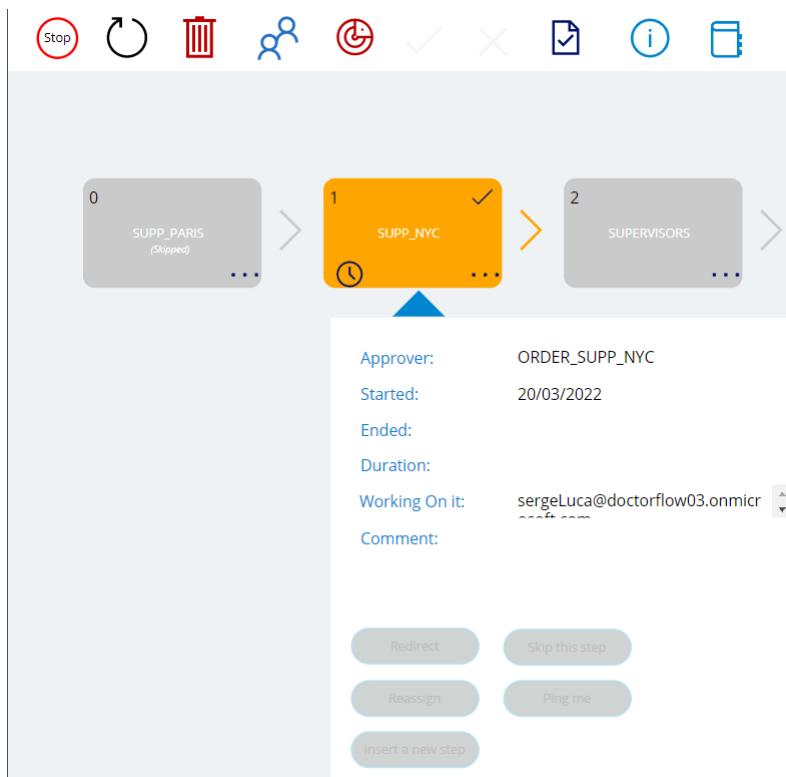


50. Select the Workflow and reinitialize the case again.

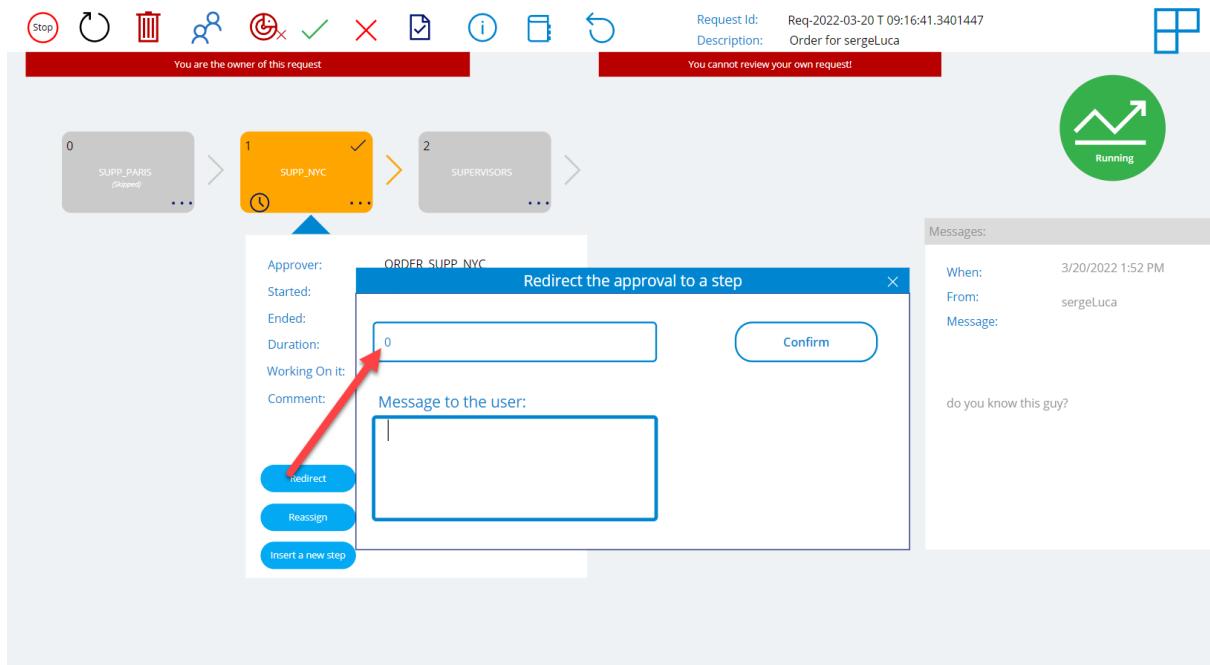
We will describe the following tools:



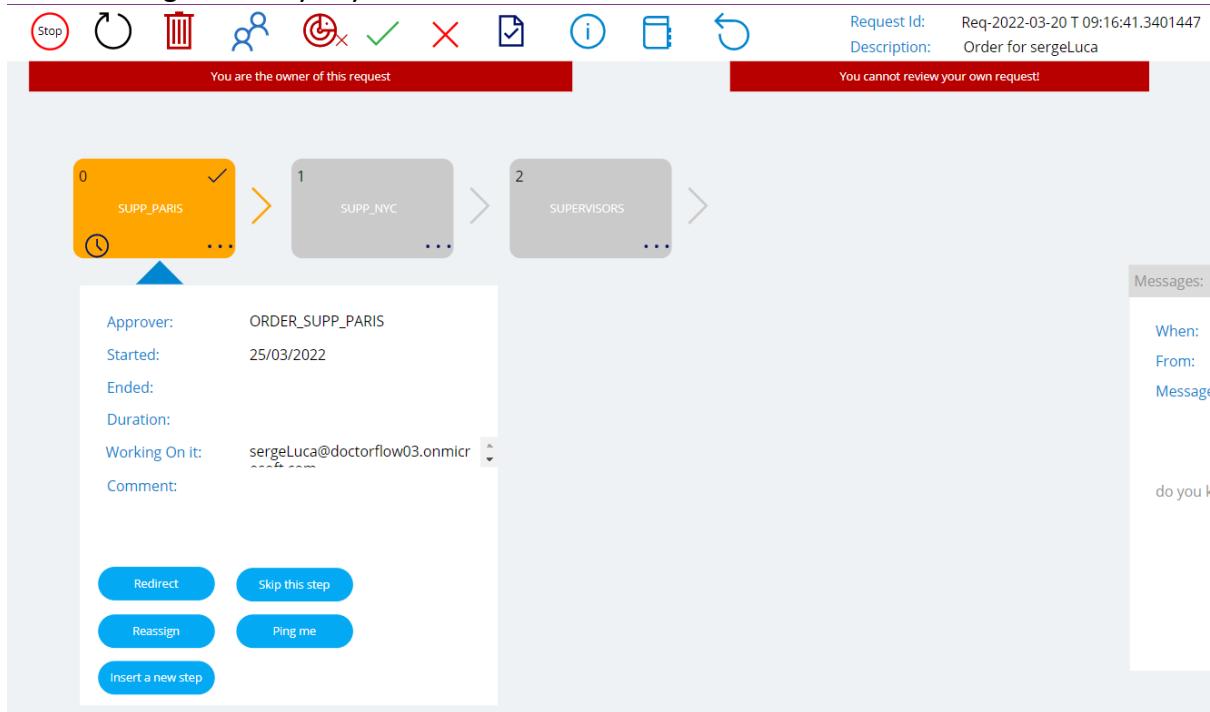
51. Let's say member of the role SUPP\_PARIS don't react, you want to skip this step; just click Skip this Step and refresh. The system moved to the next step:



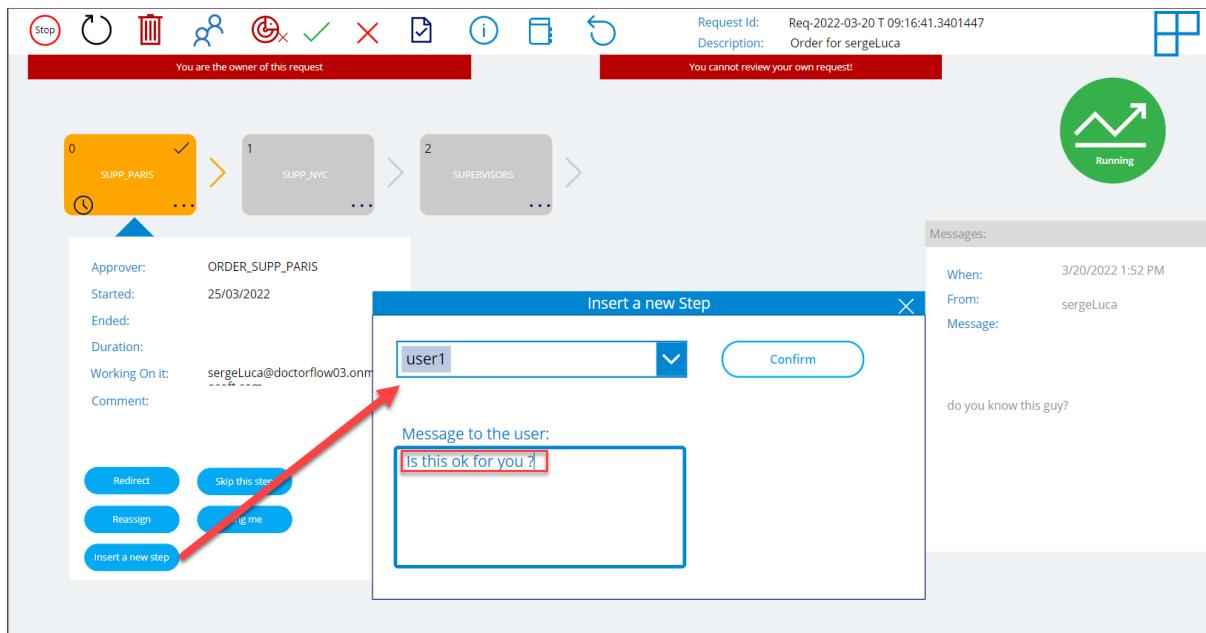
52. If for any reason you want to go back, just take ownership again and click Redirect, and type 0 to specify the step you want to go to:



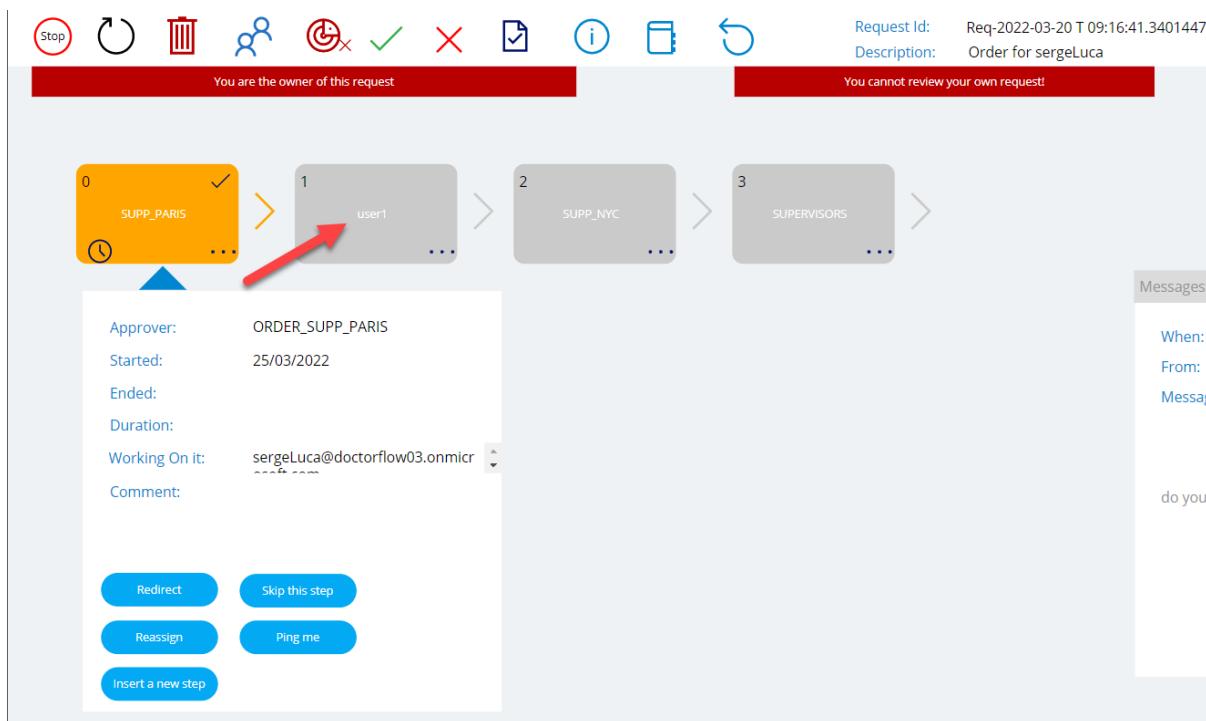
53. Click refresh to refresh the screen; the BPM Toolkit workflow engine will run in the background anyway:



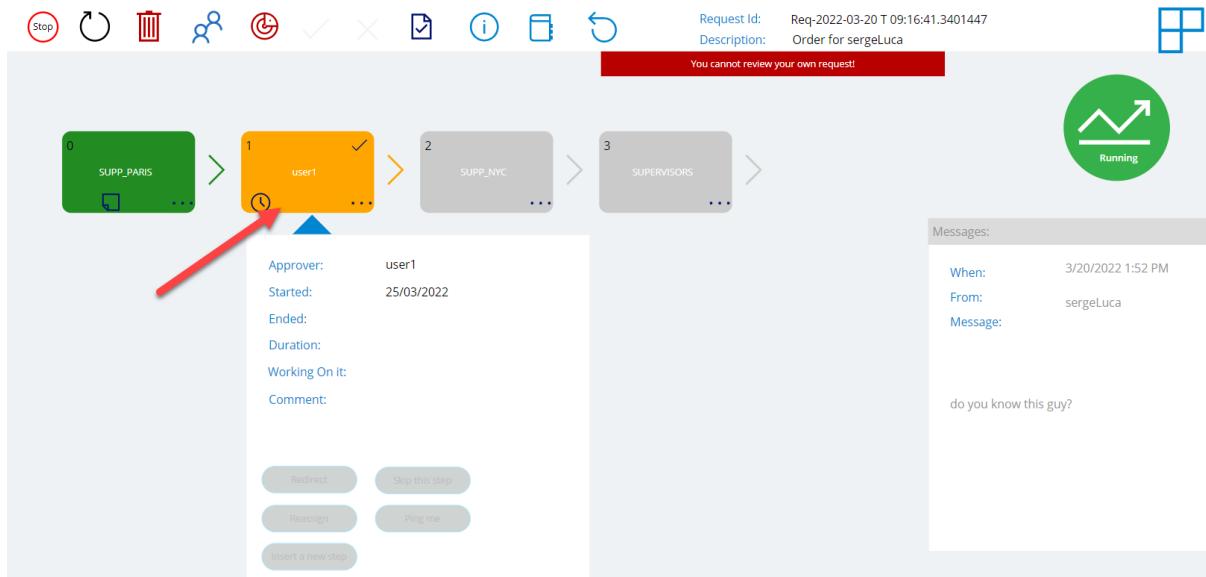
54. Now, let say you want to add someone (a user) in the approval/review pipeline. Just click “Insert a new Step” and select a user (here user 1) and click Confirm:



A new step will be added for user1:



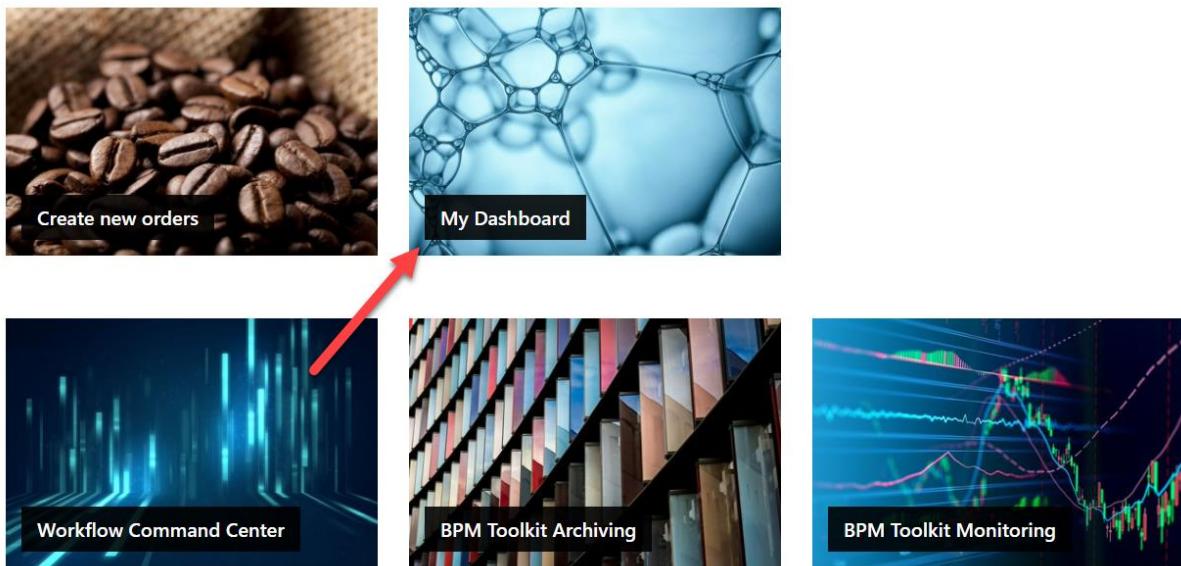
55. Click the Accept button, and Refresh; the workflow moved to User1:



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:

Inbox	Filter
<p>serge Luca Call for Action : request Or... 10:10 AM A new case approval or a review task h...</p> <p>This week</p> <p>serge Luca serge Luca is inviting you to... Sun 3/20 Here's the site that serge Luca shared ...</p>	<h3>Call for Action : request Order for sergeLuca from serge Luca</h3> <p>This message was sent with Low importance</p> <p><b>serge Luca</b> Fri 3/25/2022 10:10 AM To: user1</p> <p>A new case approval or a review task has been assigned to you. Go to My Dashboard App.</p>

57. Go to My Dashboard in the SharePoint site:



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

My requests: user1

My requests

Online Forms

All Waiting + Draft Waiting Rejected Approved Draft Stopped

Submitted on	Request Id	Name of requester	Type
--------------	------------	-------------------	------

Normally, a task is waiting for you:

My tasks, user1

HR Online Forms

All Waiting Rejected Approved

Status	Action	Requests Id	Submitted on	Name of requester	Type	Details	Comments
Waiting	✓ ✖ 📄	Req-2022-03-20 T 09:16:41.3401447	25/03/2022	serge	PPA_ORDER	<a href="#">Details</a>	<a href="#">Comments</a>

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

# New Order



Product:  
Surface Laptop 2

Amount:  
1200

Account:  
serge

Contact:  
serge luca

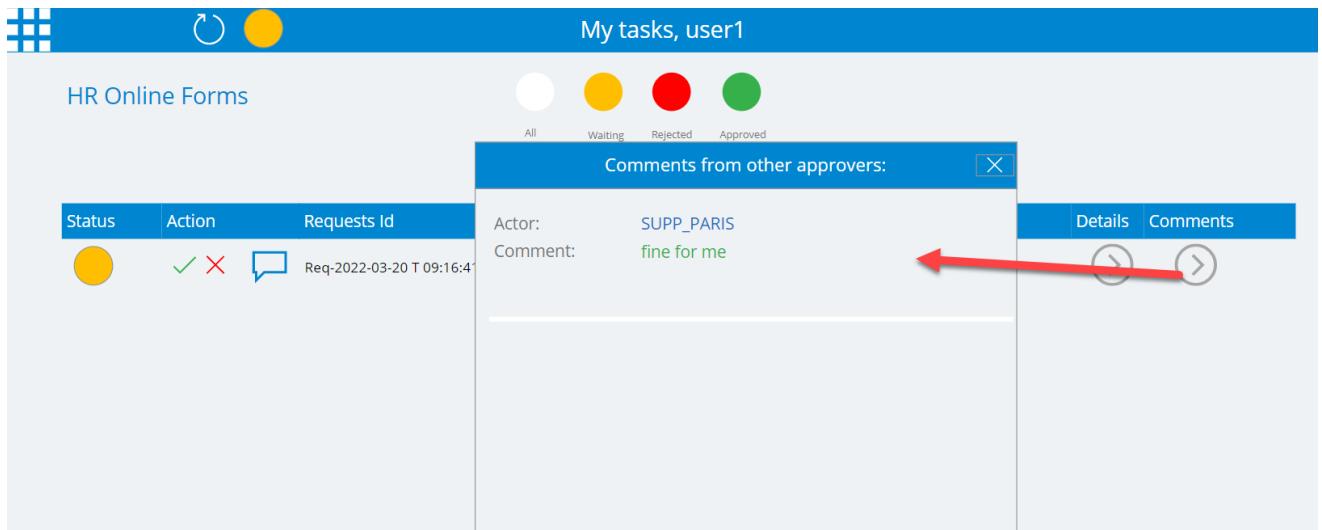
Contact e-mail:  
sergeluca@shareql.com

On Behalf of:  
sergeLuca@doctorflow03.onmicrosoft.com ✓

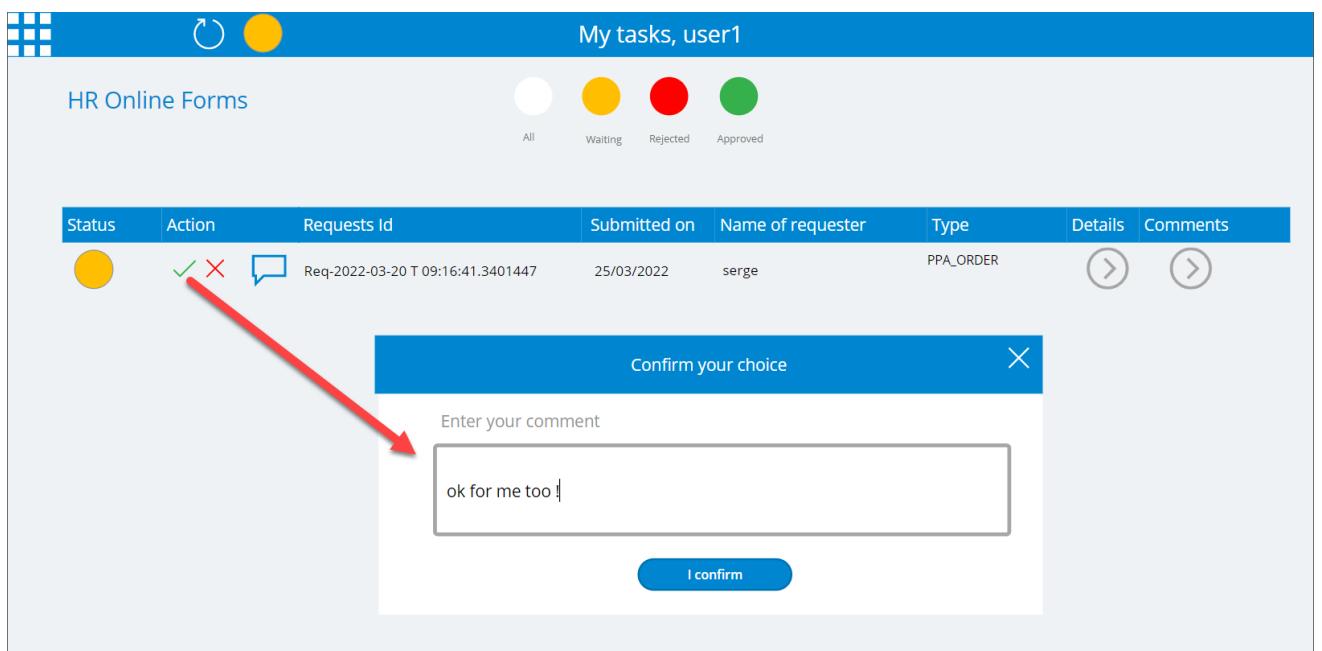
Submitter:  
user1@doctorflow03.onmicrosoft.com

[Save \(Draft\)](#) [Submit to approval](#)

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 ☆

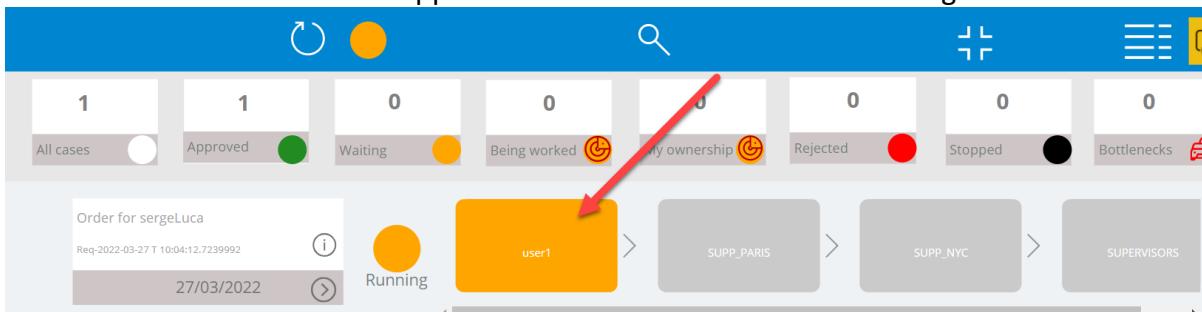
Title	Step	Actor	Type of actor	CaseType	ActionExpected
	0	ORDER_SUPP_PARIS	PPA_ORDER_WORKFLOW	Feedback	
	1	ORDER_SUPP_NYC	PPA_ORDER_WORKFLOW	Feedback	
	2	ORDER_SUPERVISORS	PPA_ORDER_WORKFLOW	Feedback	

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.



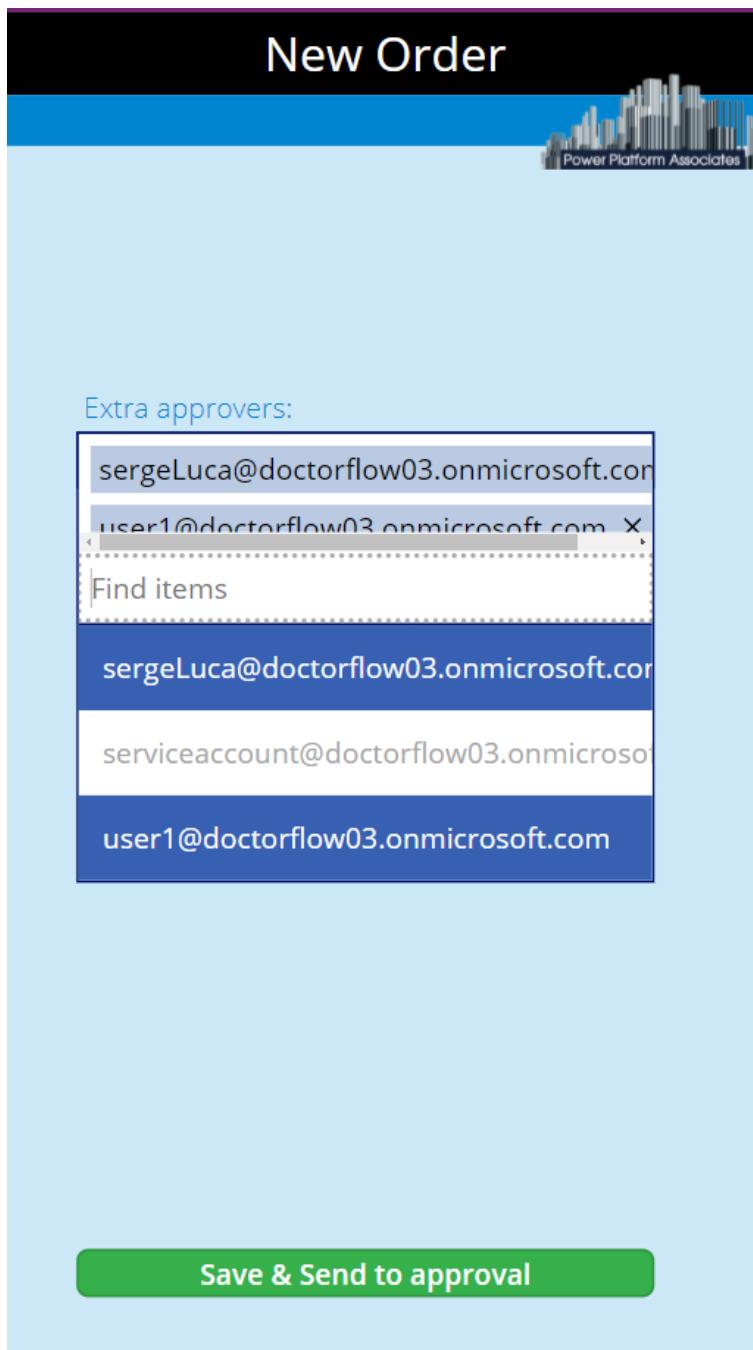
66. And since the “actor” is an individual user, he won’t be able to interact with the Workflow Panel, but he will a task and a notification instead. Log-in as user1 and go to M Dashboard; check your tasks:

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
3	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:

Status	Submitted on	Request Id	Name of requester	Type	Action
<span style="background-color: orange; border-radius: 50%; width: 15px; height: 15px; display: inline-block;"></span>	27/03/2022	Req-2022-03-27 T 10:36:21.7483245	sergeLuca	PPA_ORDER	<span style="color: blue;">(&gt;)</span> <span style="color: red;">X</span>
<span style="background-color: orange; border-radius: 50%; width: 15px; height: 15px; display: inline-block;"></span>	27/03/2022	Req-2022-03-27 T 10:04:12.7239992	sergeLuca	PPA_ORDER	<span style="color: blue;">(&gt;)</span> <span style="color: red;">X</span>
<span style="background-color: #ccc; border-radius: 50%; width: 15px; height: 15px; display: inline-block;"></span>	20/03/2022	Req-2022-03-20 T 09:06:18.4743502	sergeLuca		<span style="color: blue;">(edit)</span> <span style="color: red;">X</span>

**Order for sergeLuca**

```

graph LR
    A[sergeLuca] --> B[user1]
    B --> C[SUPP_PARIS]
    C --> D[SUPP_NYC]
    D --> E[SUPERVISORS]
  
```

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:

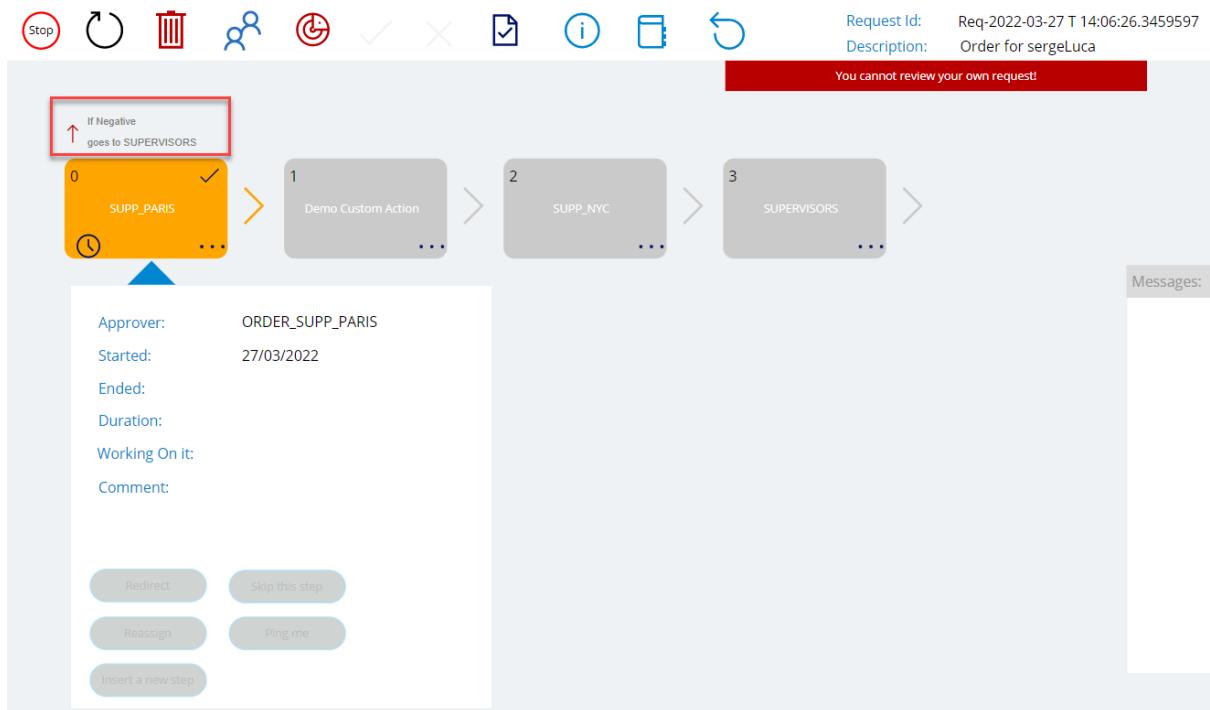
70. If the role SUPP\_PARIS returns a negative feedback (Reject), we want to skip the remaining steps and go directly to SUPERVISORS:

BPM Meta Workflows ☆

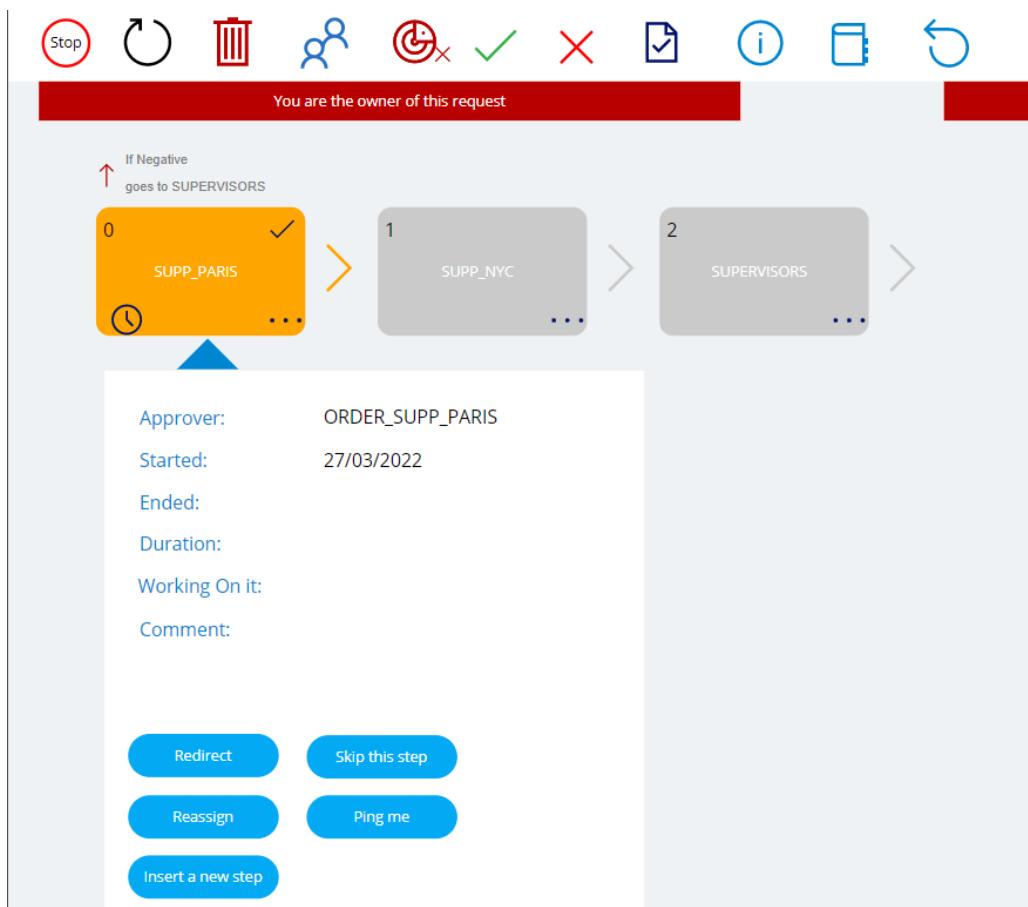
Step ▾	Actor ▾	Type of a... ▾	CaseType ▾	ActionExpected ▾	Goto Step ▾	If property ▾	If operation ▾	If value ▾	If Goto ▾
0	ORDER_SUPP_PARIS	PPA_ORDER_WORKFLOW	Feedback			Status	=	Negative	ORDER_SUPERVISORS
1	ORDER_SUPP_NYC	PPA_ORDER_WORKFLOW	Feedback						
3	ORDER_SUPERVISORS	PPA_ORDER_WORKFLOW	Feedback						

71. Submit a new order.

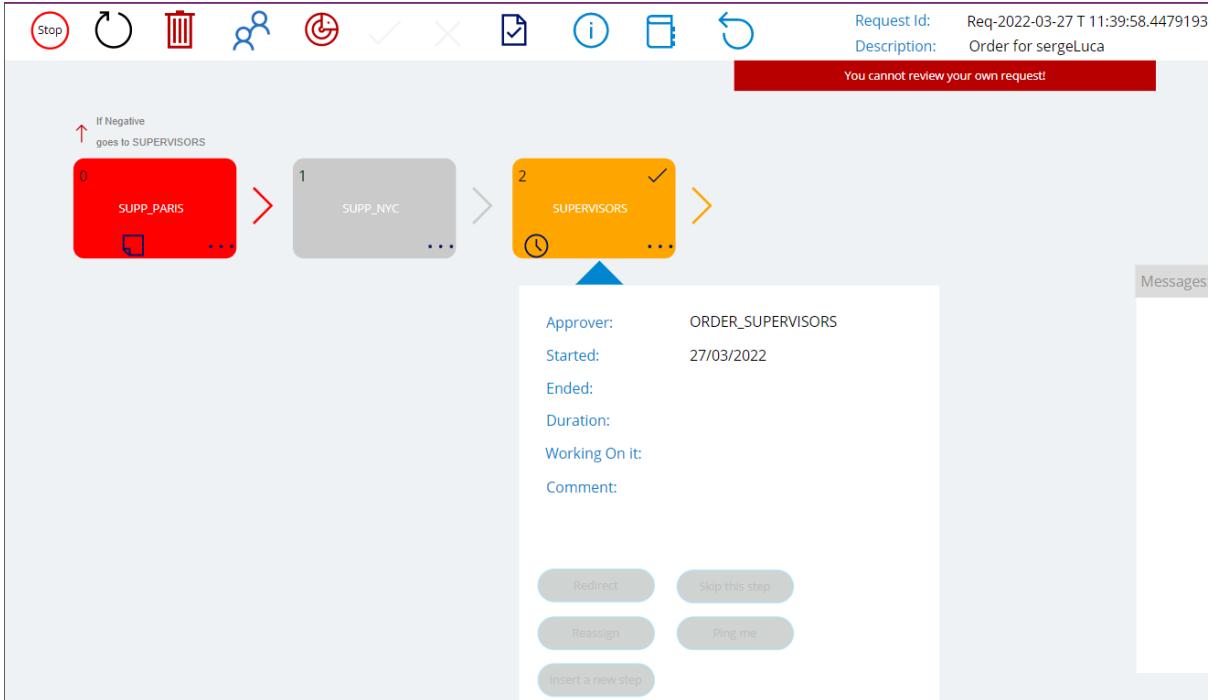
You will see that you can see the GOTO in the workflow design:



72. Now, take ownership of the workflow:



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



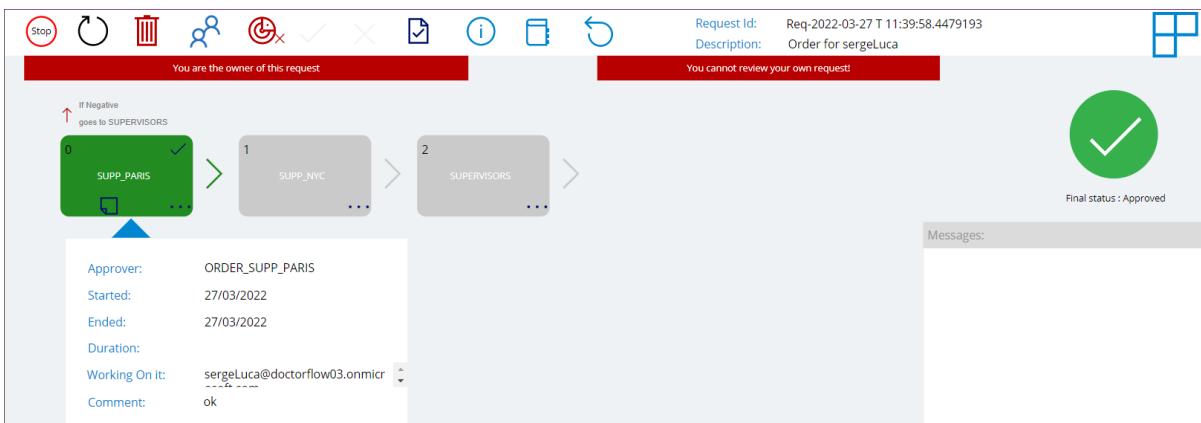
### 74. And of course, you can also have a backward GOTO.

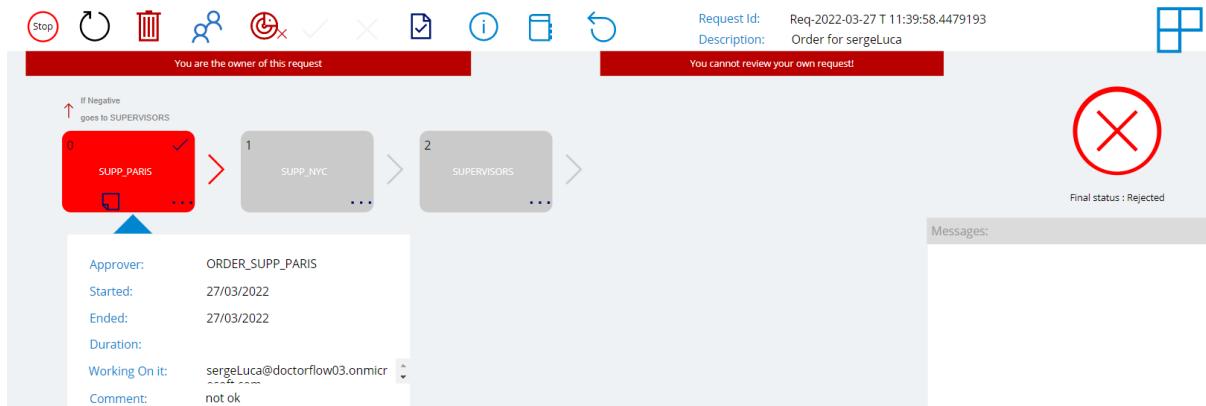
Other verbs for the ActionExpected column are ApprovalStop, Stop, ApproveStop, RejectStop

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 if 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 if 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"
    }
  }
}
```

When a HTTP request is received

HTTP POST URL URL will be generated after save

Request Body JSON Schema

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

Use sample payload to generate schema

Show advanced options ▾

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

When a HTTP request is received

HTTP POST URL

Request Body JSON Schema

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

[Use sample payload to generate schema](#)

[Show advanced options](#) ▾

↓

Compose

\* Inputs  CaseID  Step

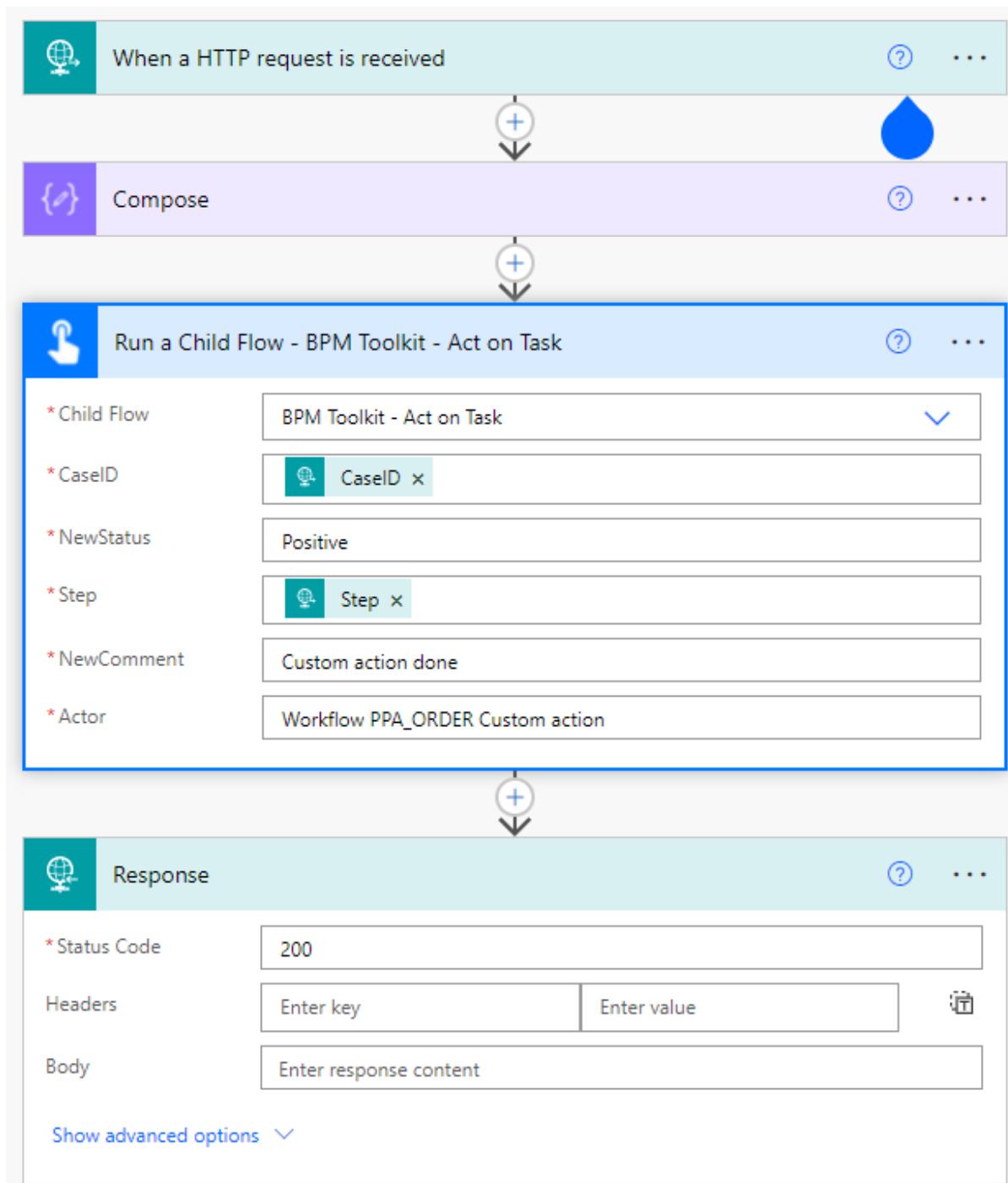
78. Save the flow and click here to grab its url:

The screenshot shows the configuration of an Azure Logic App trigger. At the top, it says "When a HTTP request is received". Below that, the "HTTP POST URL" is set to <https://prod-142.westeurope.logic.azure.com:443/workflows/4ef6ad1dfcc>. A red arrow points from the top right towards this URL field. Below the URL is the "Request Body JSON Schema", which contains the following JSON schema:

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

Below the schema is a link "Use sample payload to generate schema". Underneath the schema is a "Show advanced options" dropdown. The main configuration area has a purple header bar with a "Compose" button and three dots. Below the bar, there is a row for "Inputs" with two entries: "CaseID" and "Step".

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

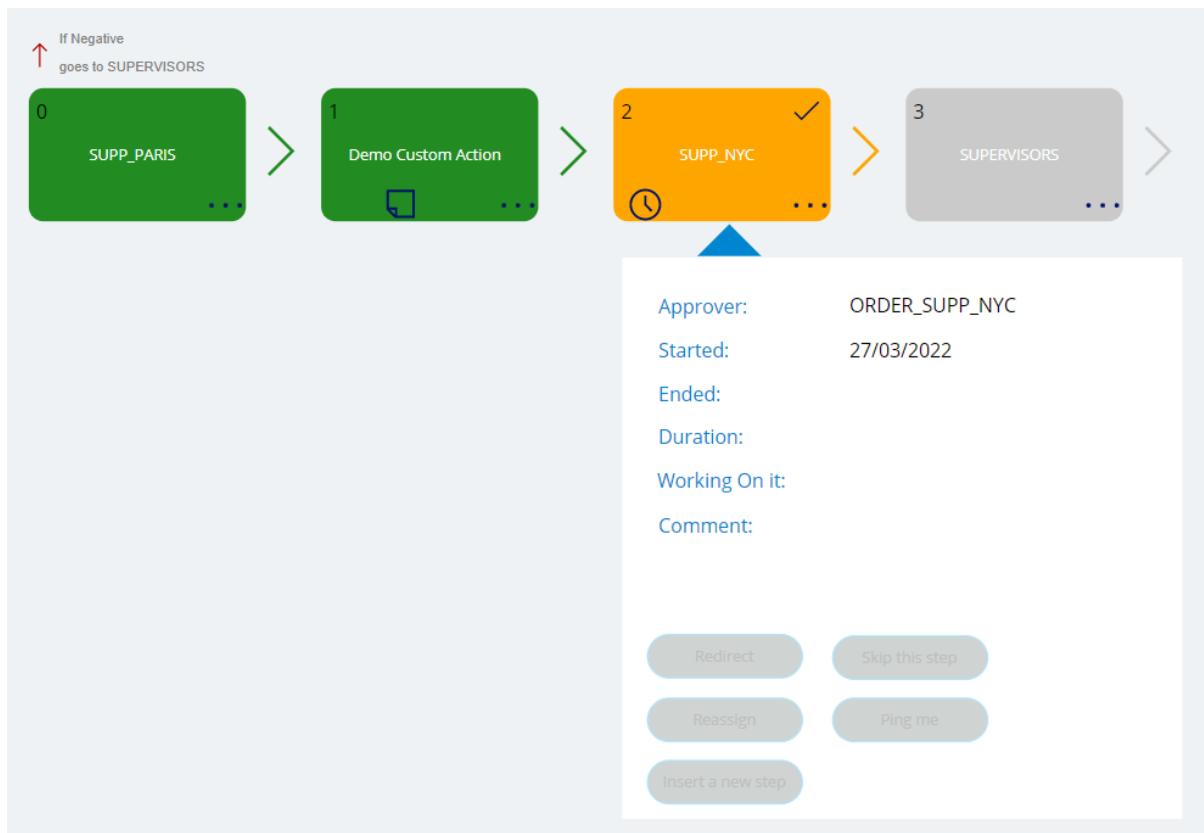


80. And the final action should be the Response Action, returning a 200 status code.  
 The **BPM Toolkit – Act on Task** child flow is an action that will trigger the workflow engine for moving to the next step.

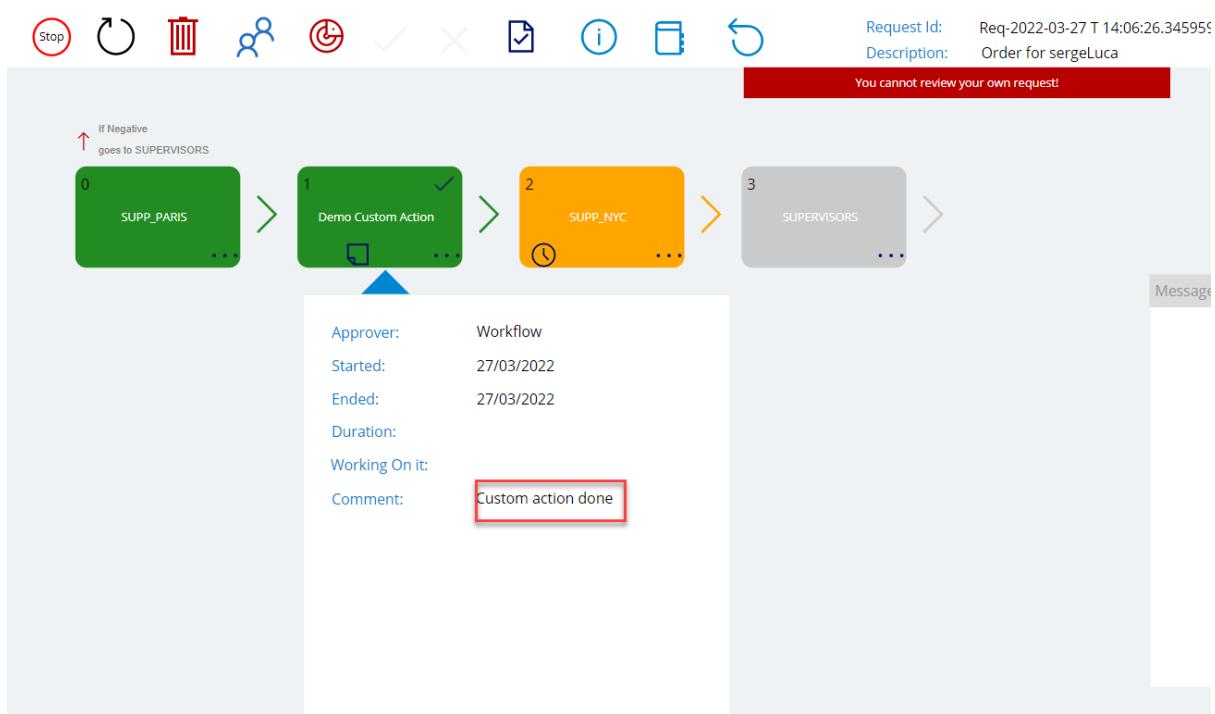
If NewStatus is Positive, the rectangle will be green, if it is Negative it will be red, indicating that something went wrong.

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:

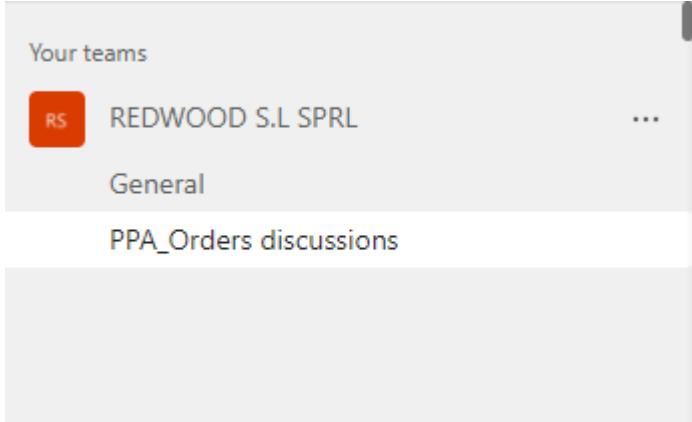


# Integration with Microsoft Teams

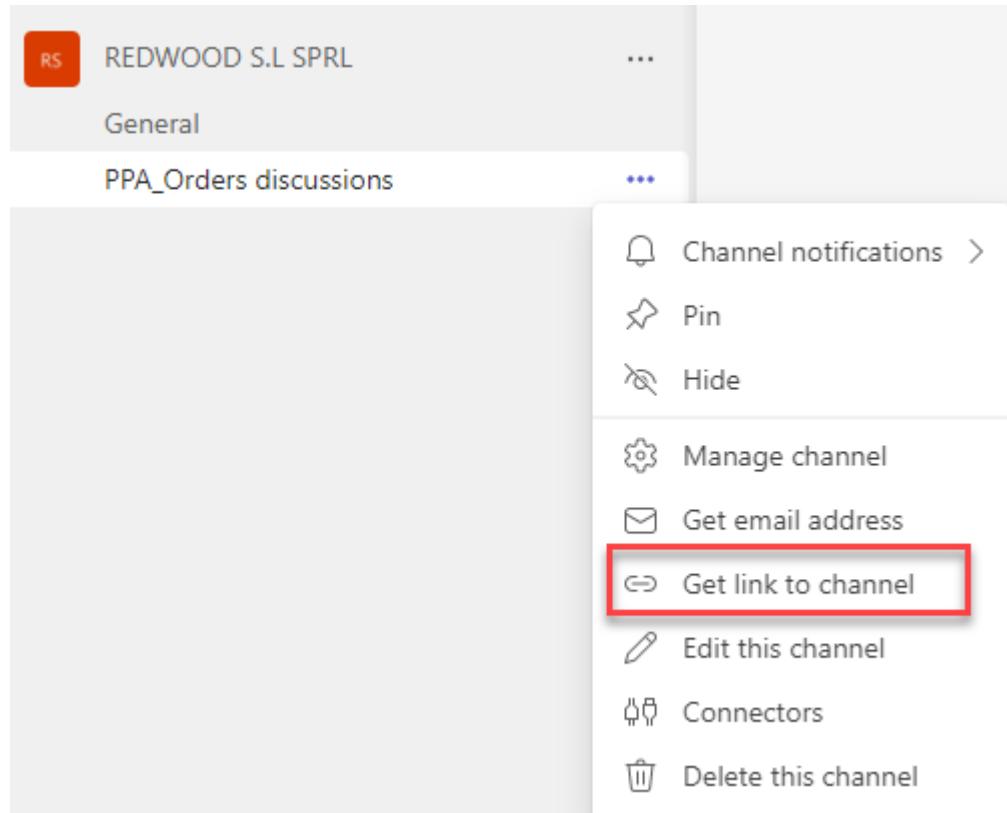
If you remember well, the workflow panel provides an internal messaging system to make sure all roles involved in the case can communicate. For compliance compatibility, the Internal messages are archived when the case is archived.

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

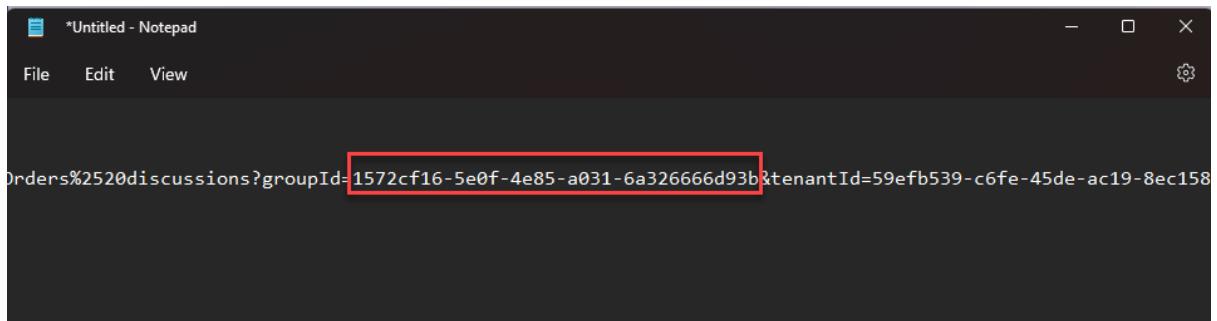
83. Create a Microsoft Teams with 1 channel called PPA\_Orders discussions:



84. Get the value from Get link to channel:

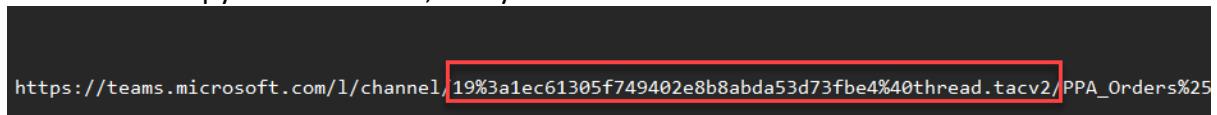


85. In the value that you copied, select the groupid value:



```
*Untitled - Notepad
File Edit View
Orders%2520discussions?groupId=1572cf16-5e0f-4e85-a031-6a326666d93b&tenantId=59efb539-c6fe-45de-ac19-8ec158
```

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



```
https://teams.microsoft.com/l/channel/19%3a1ec61305f749402e8b8abda53d73fbe4%40thread.tacv2/PPA_Orders%2520discussions?groupId=1572cf16-5e0f-4e85-a031-6a326666d93b&tenantId=59efb539-c6fe-45de-ac19-8ec158
```

87. You now need to associate 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:

Case Type

PPA\_ORDER

Security Group

PPA\_ORDER\_GROUP

Security Group Id

Enter value here

SecurityLevel

veryhigh

TeamID

1572cf16-5e0f-4e85-a031-6a326666d93b

TeamChannelID

19%3a1ec61305f749402e8b8abda53d73fbe4%40thread.tacv2

RequestListGuid

b0e49c00-6657-4e83-b277-9d20502785d3

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

SL

serge Luca 3:26 PM



A new request PPA\_ORDER has been submitted

---

**Req-2022-03-27 T 15:08:39.8163363**

On behalf of: sergeLuca@doctorflow03.onmicrosoft.com  
Order for sergeLuca

---

[View the request](#)

[See less](#)

[Reply](#)

89. If you click the link [View the request](#), you will see the request details:

# New Order



Product: Iiyama screen

Amount: 400

Account: serge

Contact: serge luca

Contact e-mail: sergeluca@shareql.com

On Behalf of: sergeLuca@doctorflow03.onmicrosoft.com ▾

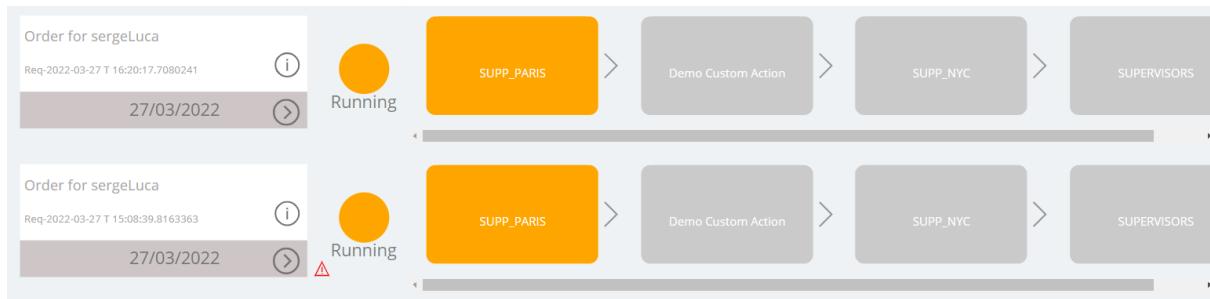
Submitter: sergeLuca@doctorflow03.onmicrosoft.com

[Save \(Draft\)](#) [Submit to approval](#)

## Batch approval

If you are member of a role, and if several Cases are waiting for your 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:

Request Id	Type	Requester	Current status	Workflow
Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	SUPP_PARIS > Demo Custom Action > SUPP_NYC > SUPERVISORS
Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	SUPP_PARIS > Demo Custom Action > SUPP_NYC > SUPERVISORS

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

Select your role: ORDER\_SUPP\_PARIS

Waiting requests

0 requests selected

Request Id	Type	Requester	Current status	Workflow
Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	<span style="color: orange;">●</span> >
Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	<span style="color: orange;">●</span> >

SUPP\_PARIS > Demo Custom Action > SUPP\_NYC > SUPERVISORS >

### 93. Select them all:

Select your role: ORDER\_SUPP\_PARIS

Waiting requests

2 requests selected

Approve	Request Id	Type	Requester	Current status	Workflow
<input checked="" type="checkbox"/>	Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	<span style="color: orange;">●</span> >
<input checked="" type="checkbox"/>	Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	<span style="color: orange;">●</span> >

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

Select your role: ORDER\_SUPP\_PARIS

Waiting requests

2 requests selected

Approve	Request Id	Type	Requester	Current status	Workflow
<input checked="" type="checkbox"/>	Req-2022-03-27 T 15:08:39.8163363	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	<span style="color: orange;">●</span> >
<input checked="" type="checkbox"/>	Req-2022-03-27 T 16:20:17.7080241	PPA_ORDER	sergeLuca@doctorflow03.onmicrosoft.com	<span style="color: orange;">●</span> ● ● ● ●	<span style="color: orange;">●</span> >

Validation

Email notifications will be sent out to all selected Requests with the Approved status

I confirm

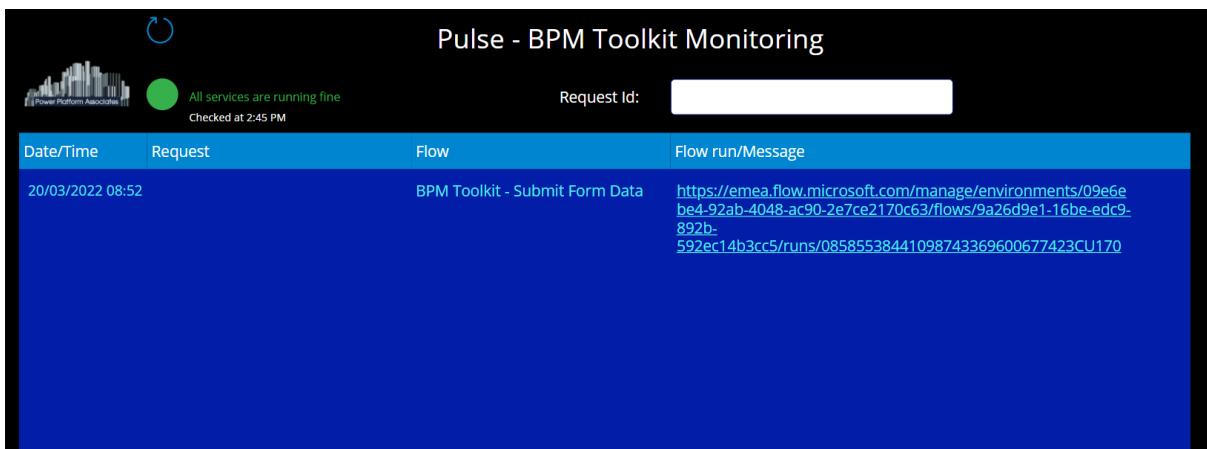
95. Click I confirm, and a long running transaction will start. It can take several minutes to complete.

96. If you go back to the “normal” view of the workflow center, you will see that these 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.

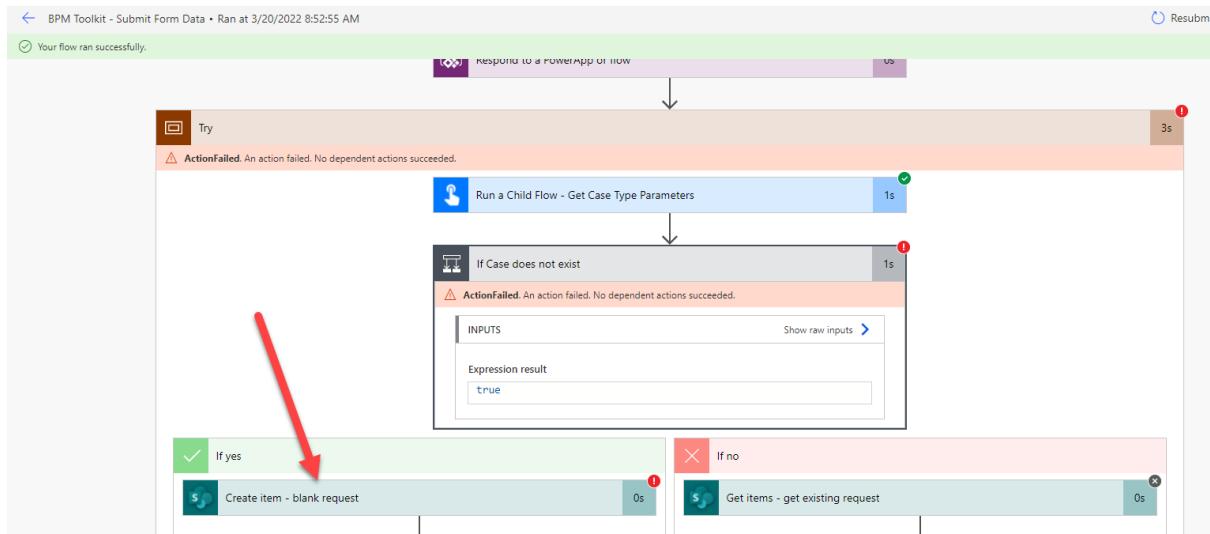
Example here, when the user submitted an order, something went wrong with the flow BPM Toolkit – Submit Form Data.



The screenshot shows a web-based monitoring application titled "Pulse - BPM Toolkit Monitoring". At the top left is the "Power Platform Associates" logo. In the center, there's a green circular icon with a white play button symbol, accompanied by the text "All services are running fine" and "Checked at 2:45 PM". To the right is a search bar labeled "Request Id:". Below the header is a table with four columns: "Date/Time", "Request", "Flow", and "Flow run/Message". A single row of data is visible, showing a timestamp of "20/03/2022 08:52", a request for "BPM Toolkit - Submit Form Data", and a flow URL: <https://emea.flow.microsoft.com/manage/environments/09e6ebe4-92ab-4048-ac90-2e7ce2170c63/flows/9a26d9e1-16be-edc9-892b-592ec14b3cc5/runs/08585538441098743369600677423CU170>.

Date/Time	Request	Flow	Flow run/Message
20/03/2022 08:52	BPM Toolkit - Submit Form Data		<a href="https://emea.flow.microsoft.com/manage/environments/09e6ebe4-92ab-4048-ac90-2e7ce2170c63/flows/9a26d9e1-16be-edc9-892b-592ec14b3cc5/runs/08585538441098743369600677423CU170">https://emea.flow.microsoft.com/manage/environments/09e6ebe4-92ab-4048-ac90-2e7ce2170c63/flows/9a26d9e1-16be-edc9-892b-592ec14b3cc5/runs/08585538441098743369600677423CU170</a>

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:



## BPM Toolkit Archiving Module

Search items

Req-2022-03-20 T 09:16:41.3401447

Archiving date: [Purge date:](#)

28-03-2022 07-04-2022

Request submitted by:

sergeLuca@doctorflow03.onmicrosoft.com

On Behalf of:

sergeLuca@doctorflow03.onmicrosoft.com

Request type:

PPA\_ORDER

Started date: [Ended date:](#)

20-03-2022 24-03-2022

[See details](#)

[See lifecycle](#)

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](#)

< Req-2022-03-20 T 09:16:41.3401447

sergeLuca@doctorflow03.onmicrosoft.com

On Behalf Of

sergeLuca@doctorflow03.onmicrosoft.com

CaseID

Req-2022-03-20 T 09:16:41.3401447

Case Category

PPA\_ORDER

TypeOfrequest

PPA\_ORDER

CaseActors

RequestData\_json

```
{"@odata.etag": "\"5\"", "ItemInternalId": "2", "ID": 2, "Product": "Surface Laptop", "Amount": "1200", "Account": "serge", "Contact": "serge", "Submitter": "sergeLuca@doctorflow03.onmicrosoft.com", "OnBehalfOf": "sergeLuca@doctorflow03.onmicrosoft.com", "CaseID": "Req-2022-03-20 T 09:16:41.3401447", "CaseSubmissionStatus": "FINAL", "RequestType": "PPA_ORDER", "ContactEmail": "sergeluca@shareql.com", "Modified": "2022-03-27T09:27:18Z", "Created": "2022-03-20T08:16:35Z", "Author": ""}
```

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



Req-2022-03-20 T 09:16:41.3401447

25-03-2022 (09:10)

Task executed by:

sergeLuca@doctorflow03.onmicrosoft  
.com

---

Step: Status:

1 Positive

Actor:

user1@doctorflow03.onmicrosoft.com

Step started date:

25-03-2022 (09:10)

Step ended date:

25-03-2022 (13:19)

Task executed by:

user1@doctorflow03.onmicrosoft.com

---

Step: Status:

2 Skipped

Actor:

ORDER\_SUPP\_NYC

Step started date:

25-03-2022 (13:19)

Step ended date:

Task executed by:

sergeLuca@doctorflow03.onmicrosoft

You can also see the purge requests :

The screenshot shows a user interface for the BPM Toolkit Archiving Module. At the top, there is a blue header bar with several icons: a circular arrow, a double arrow, a database icon, and a trash can icon, which is highlighted with a red box. To the right of these icons, the text "BPM Toolkit" and "Archiving Module" is displayed. Below the header is a search bar with the placeholder text "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

At the bottom of the main content area, there are two buttons: "See details" and "See lifecycle".

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



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[See details](#)

[See lifecycle](#)