

IBM Cloud Pak for Business Automation Demos and Labs 2024

Watson Orchestrate x RPA integration.

V 1.0

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1 Introduction

Automating System Registrations with WatsonX Orchestrate and IBM RPA

In the modern corporate environment, process automation is essential for increasing efficiency and reducing human errors. A practical example is the integration between WatsonX Orchestrate and IBM Robotic Process Automation (RPA), which facilitates the registration of employees, products, invoices, among others. In this article, we will explore a detailed scenario of this integration and how it can benefit companies.

Imagine a company with an extensive list of employees in a table. This table may include registration information, products, issued invoices, etc. The manual task of entering this data into various administrative systems is tedious and prone to errors. This is where WatsonX Orchestrate and IBM RPA come into play.

2 Scenario

Automatic Employee Registration

Automated Process Step-by-Step

1. Process Initiation by the User

- The user initiates WatsonX Orchestrate and communicates via the integrated chat, indicating the intention to register a new employee.
- The system displays a dialogue asking the user to specify which row of the table they want to register. In this example, the row can be identified by a number from 1 to 3, representing the employee's ID or a process number.

2. Chat Interaction

- The user responds to the chat request, providing the row number they want to register.

3. Action by WatsonX Orchestrate

- WatsonX Orchestrate triggers a specific Skill to execute an automation BOT from IBM RPA.
- This BOT is a published script that performs the registration task automatically, regardless of the administrative platform used by the company.

4. Workflow Execution

- For this scenario, two different systems need to be updated with the employee's information.
- A Workflow Skill was created to organize the execution of multiple Skills in WatsonX Orchestrate. This allows different IBM RPA bots to be triggered in sequence, where the execution of one bot depends on the successful completion of the previous one.

3 Integration Benefits

- **Error Reduction:** Automation minimizes common errors in manual processes, ensuring greater accuracy in information registration.
- **Efficiency:** With automation, processes that would take hours can be completed in minutes, freeing up employees for more strategic tasks.
- **Scalability:** The integration between WatsonX Orchestrate and IBM RPA allows the company to easily scale its operations by adding new bots and processes as needed.
- **Flexibility:** The Workflow Skill offers a flexible solution to organize and manage the execution of multiple automated tasks, adapting to different business needs.

4 Conclusion

Process automation using WatsonX Orchestrate and IBM RPA is a powerful solution for companies looking to increase operational efficiency and reduce errors. This employee registration scenario exemplifies how the integration of these tools can transform routine tasks into fast and precise processes. As technology advances, automation will become increasingly essential for business success.

5 Requirements

Access to Watson Orchestrate and IBM RPA environments

6 Repository

In this implementation, we will work with assets. You can download this example from the link below:

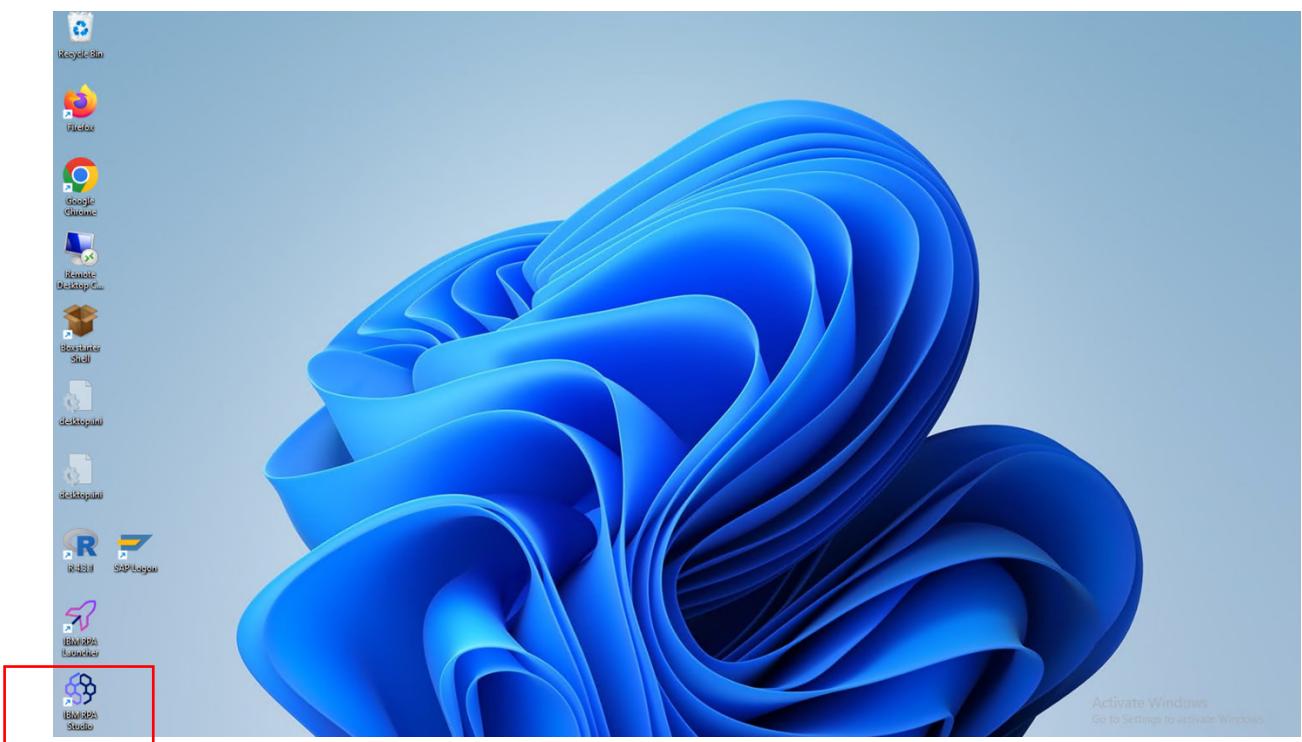
https://github.com/marcocrepaldi/integrationWatsonXOrchestrate_IBMRPA

This repository contains all the scripts and files, as well as a detailed step-by-step guide.

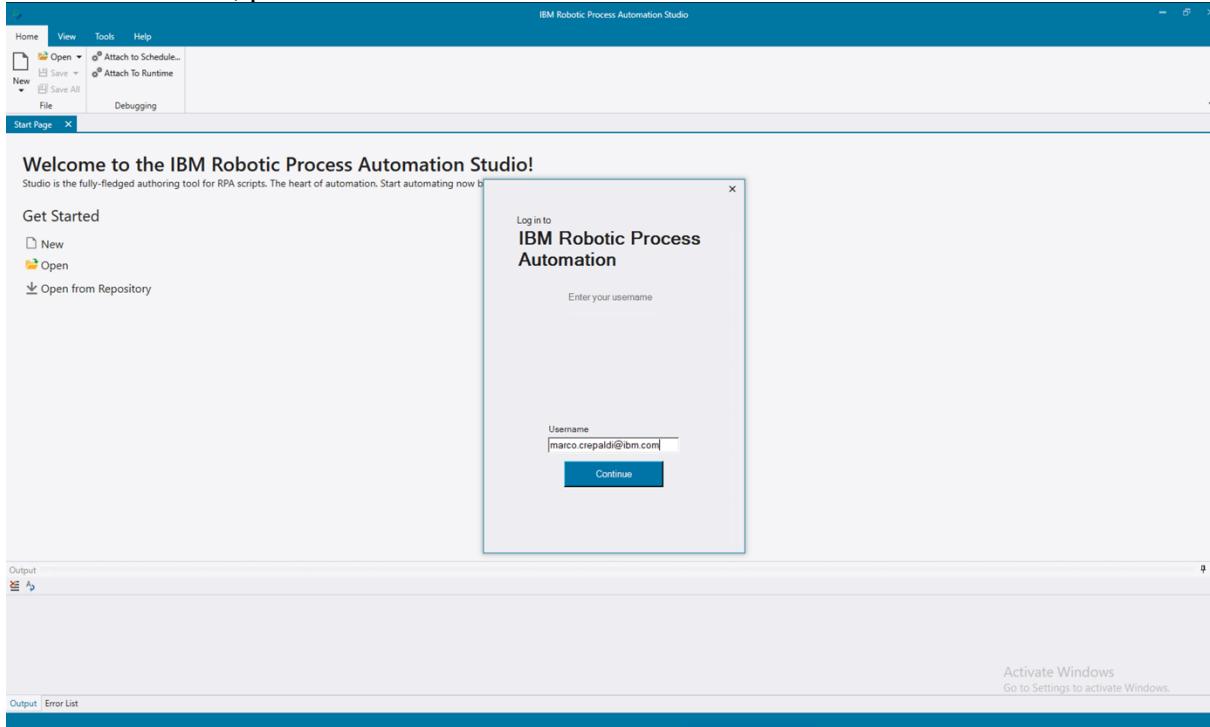
7 Preparing the IBM RPA scripts.

Now that you understand the benefits of this integration between WatsonX Orchestrate and IBM RPA, let's implement it by following these guidelines.

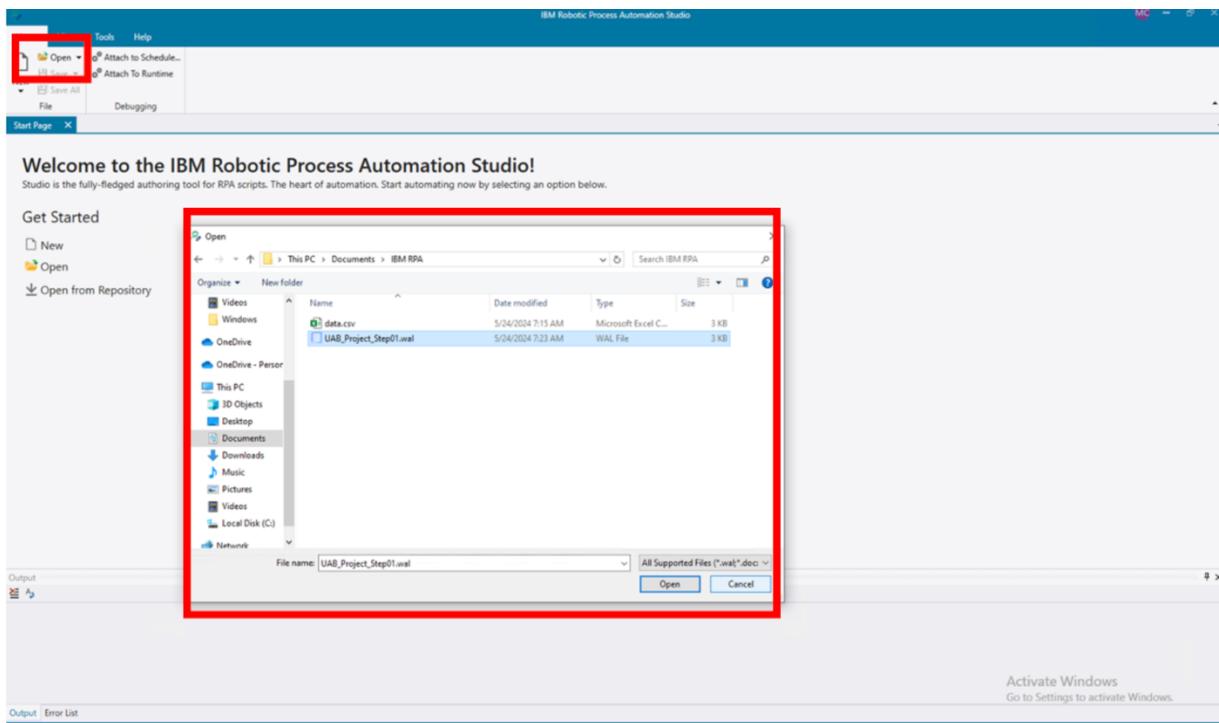
- 7.1- You should open IBM RPA Studio, connect to the Control Center, find the shortcut icon, and double-click it.



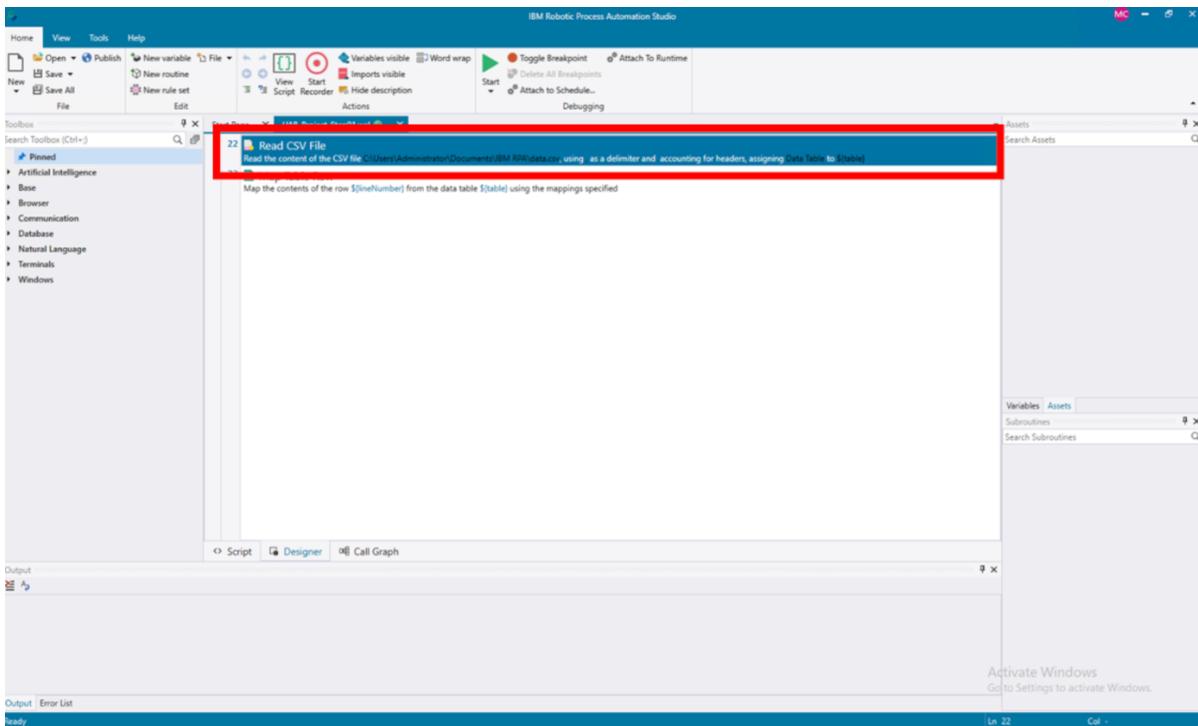
- 7.2- Enter your username and click "Continue". If you have more than one Control Center associated, please select the relevant tenant and click "Continue".



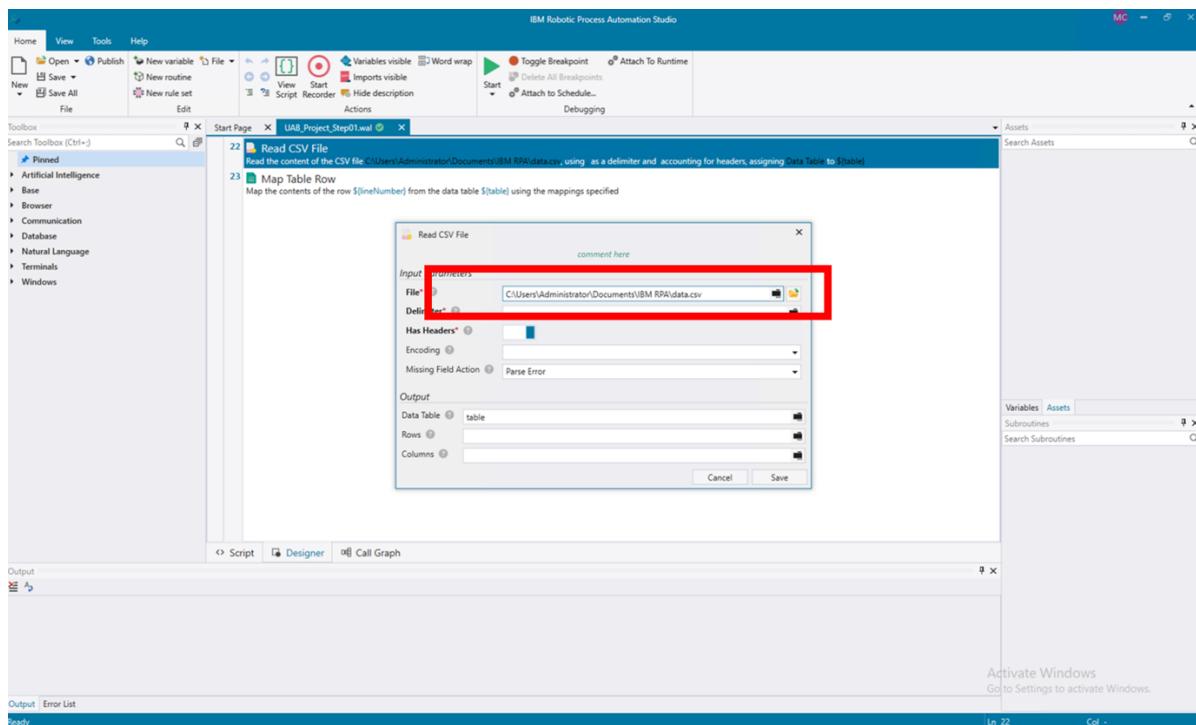
- 7.3- Open the first script in IBM RPA Studio, click "Open," and select the script named "Project_Step01.wal.".



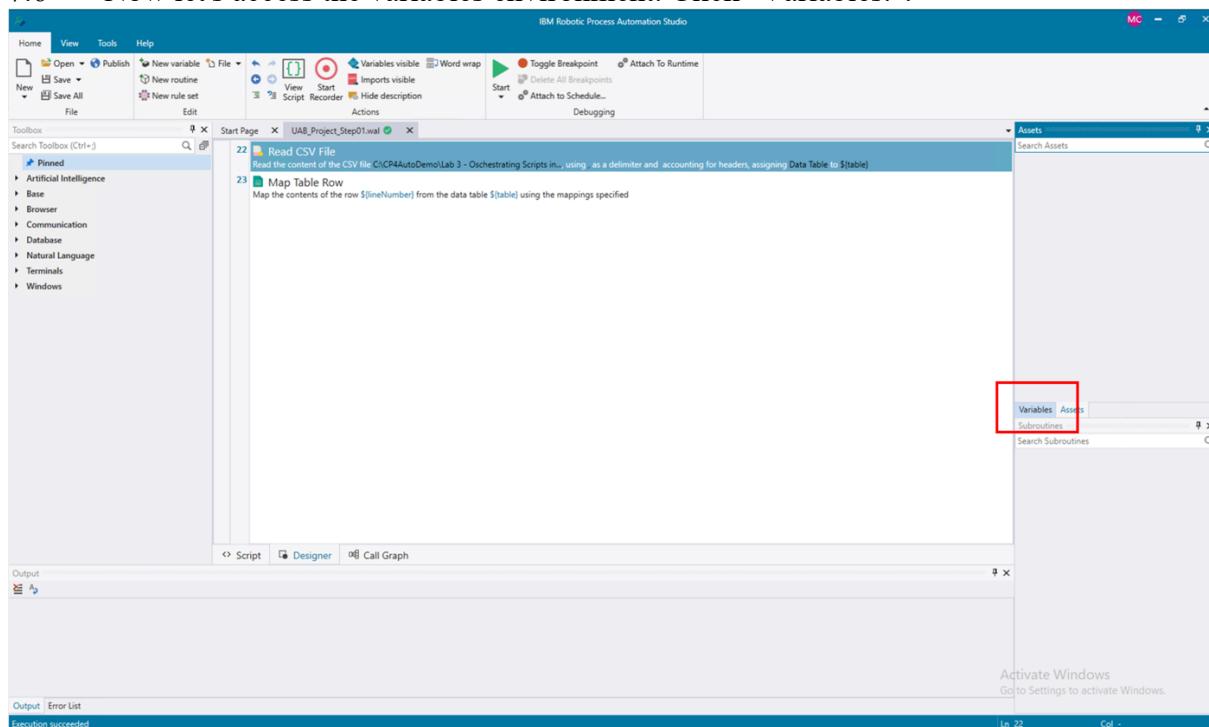
7.4- Double-click the "Read CSV File" command on line 22.



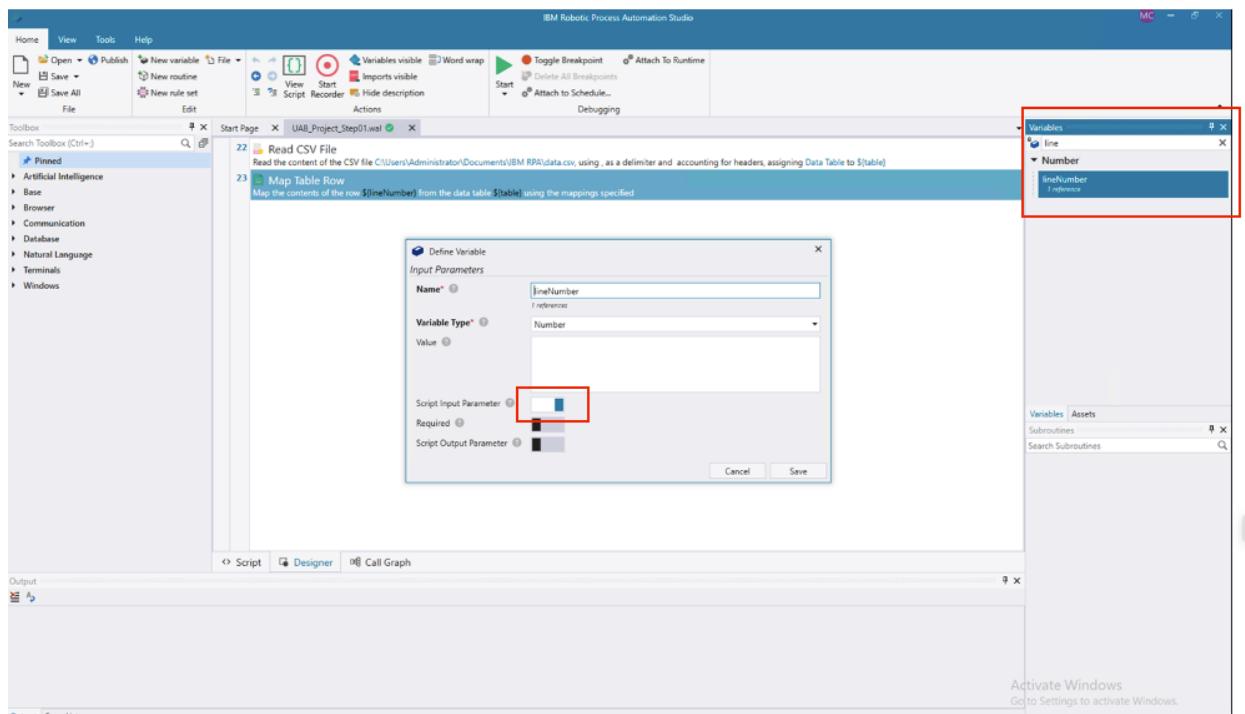
7.5- Change the file path of "data.csv" according to your environment.



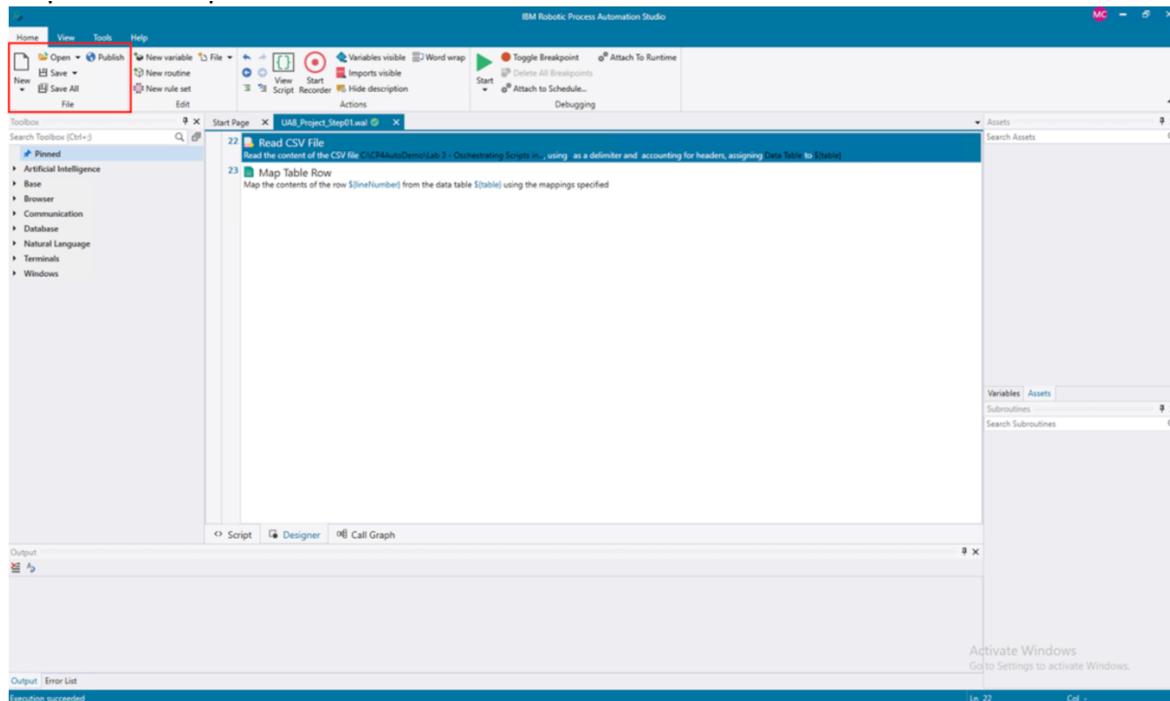
7.6- Now let's access the variables environment. Click "Variables.".



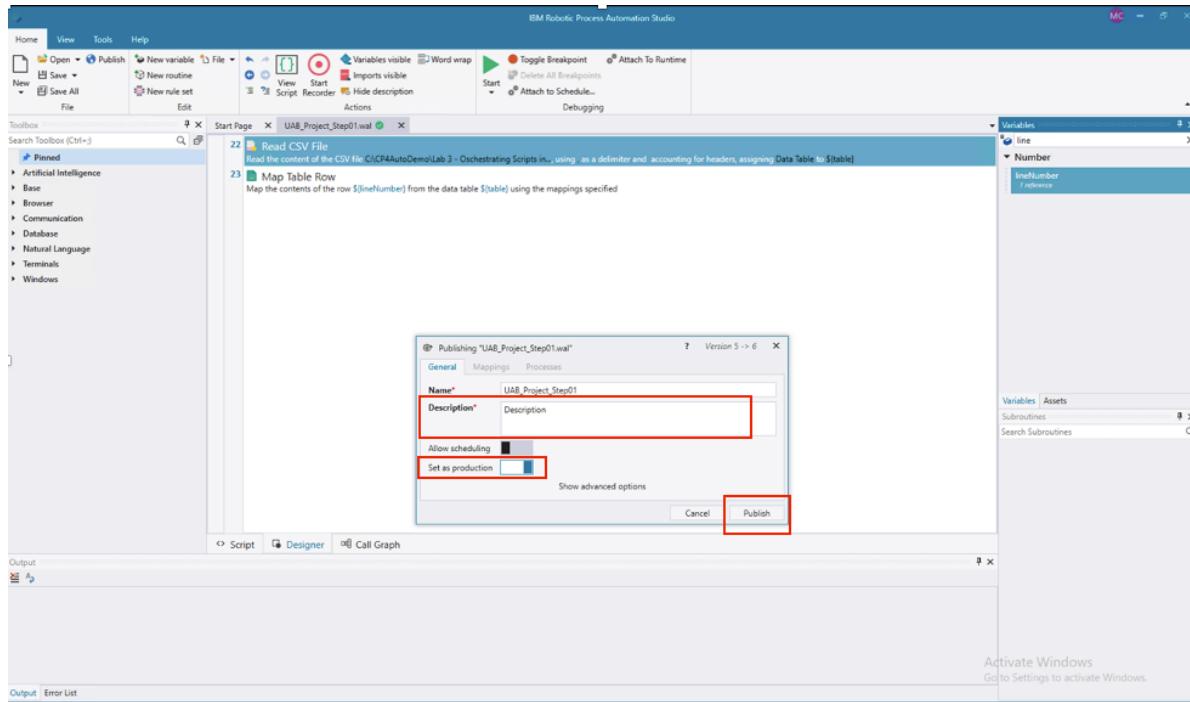
7.7- Locate the variable "lineNumber" and double-click it, then enable the "Script Input Variable" parameter and click save button.



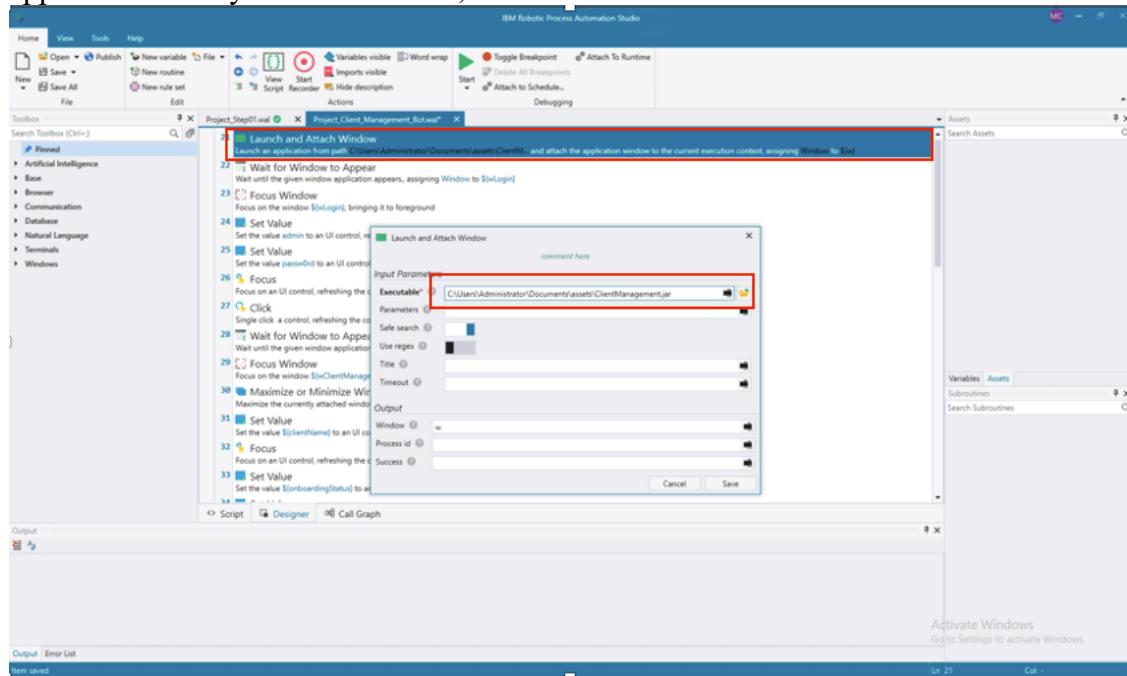
7.8- Click the "Save" button, then click the "Publish" button.



7.9- Fill in the description field and enable the 'Set as production' parameter, then click on the 'Publish' button.



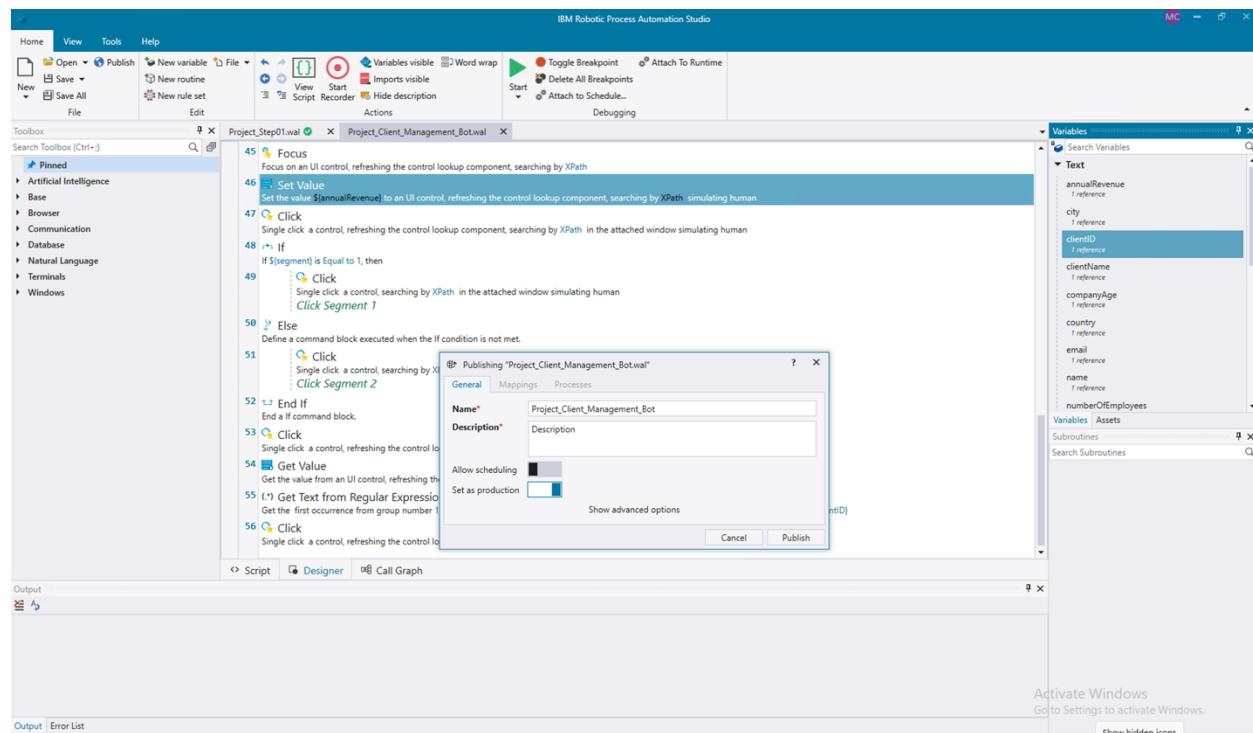
- 7.10- Open the script “Project_Client_Management_Bot.wall” and edit the command on line 21 ‘Launch and Attach Windows’, inserting the path of the ClientManagement.jar application from your environment, then click on the ‘Save’ button.”.



- 7.11- The next step is to define the input and output types of the variables. Below is a table specifying how they should be parameterized according to step 7.7.

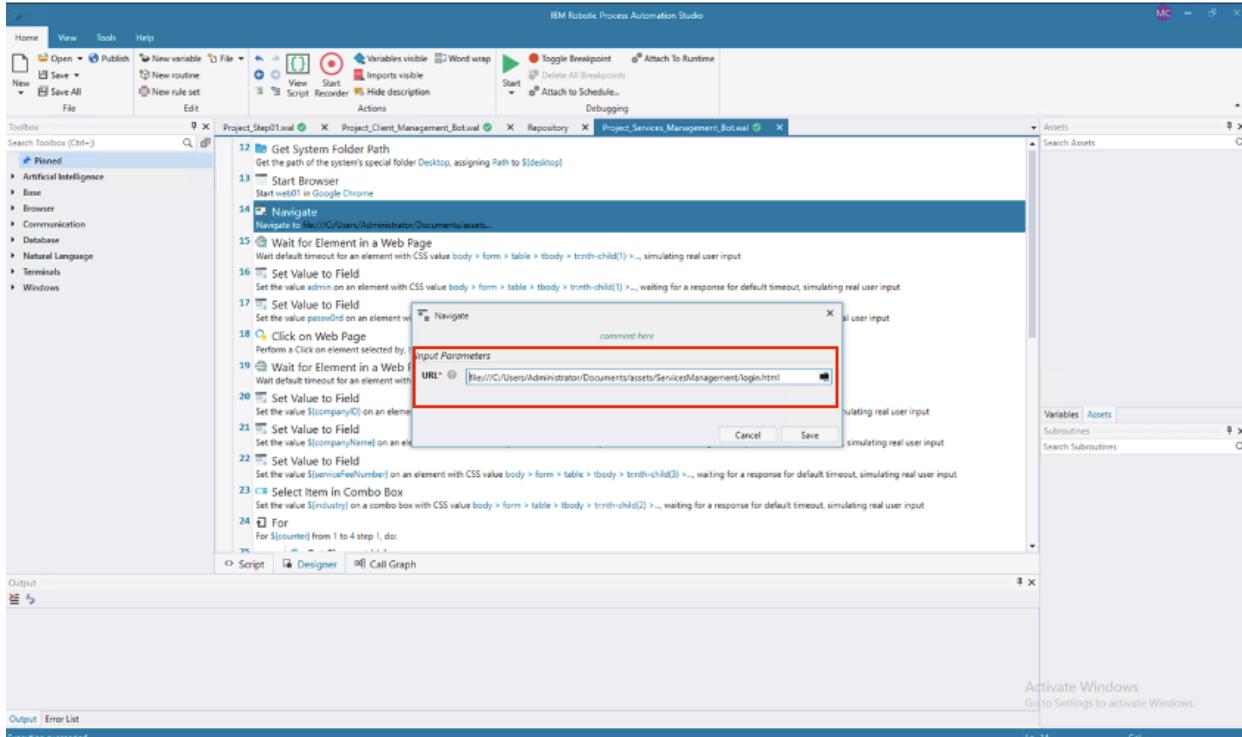
Name Variable	Input/Output
companyName	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
onboardingStatus	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
name	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
phone	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
email	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
Street	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
city	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
zipCode	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
unit	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
state	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
country	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
companyAge	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
numberOfEmployees	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
annualRevenue	Script Input Parameter <input type="button" value="?"/> <input type="button" value=""/>
clientID	Script Output Parameter <input type="button" value="?"/> <input checked="" type="button" value=""/>

7.12- Save your script and publish it.



7.13- Open the script Project_Services_Management_Bot.wal and edit the command on line 14 'Navigate', inserting the path of the login.html file according to your environment.

Execute the file and copy the URL, then paste it into the command and click the 'Save' button."

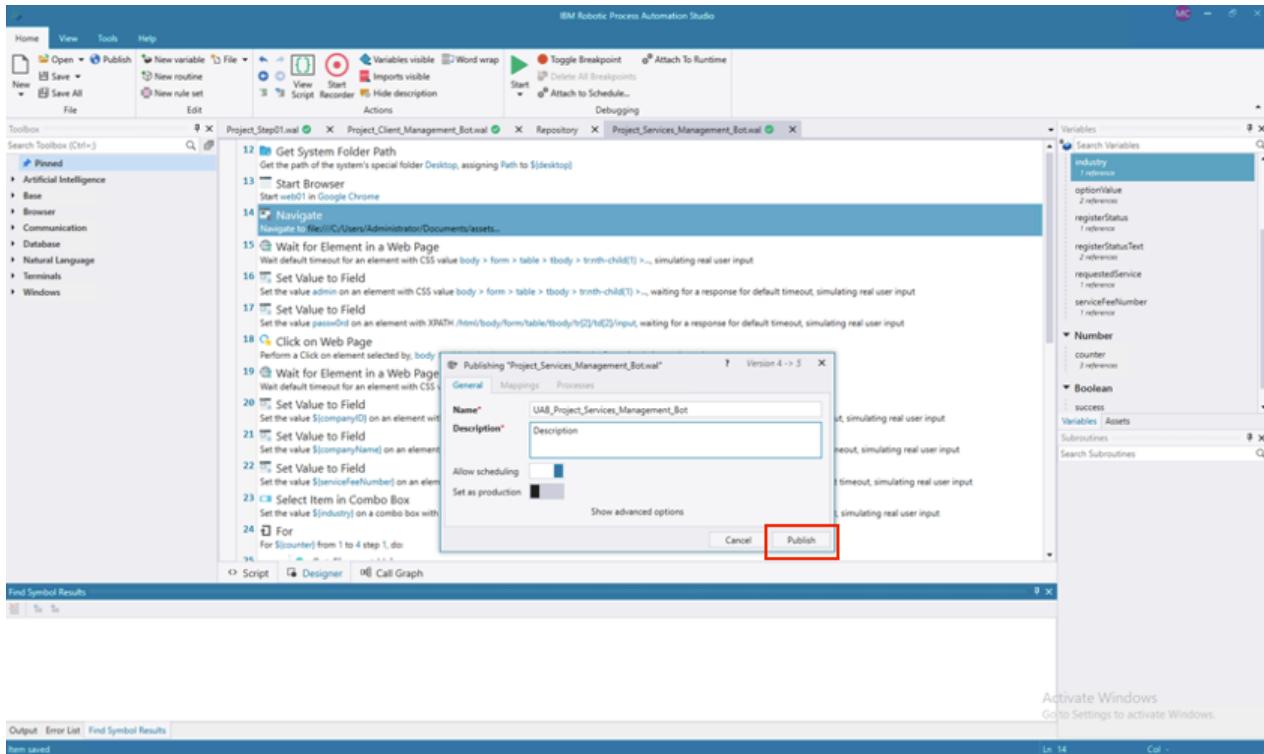


- 7.14- The next step is to define the input and output types of the variables. Below is a table specifying how they should be parameterized according to step 7.7.

Name Variable	Input/Output
companyID	Script Input Parameter <input checked="" type="checkbox"/>
companyName	Script Input Parameter <input checked="" type="checkbox"/>
serviceFeeNumber	Script Input Parameter <input checked="" type="checkbox"/>
registerStatusText	Script Output Parameter <input checked="" type="checkbox"/>

"Important: It is essential to clearly define the input and output parameters in all scripts. Paying attention to these details is crucial. All these parameters will be specified in the IBM RPA API, which will be used to integrate Watson X Orchestrate."

- 7.15- Save the changes and publish the script.



7.16- At the current stage, all scripts must be published in your control room.

Name	Modified by	Modified	Allow scheduling
UAB_Project_Step01	Marco Crepaldi	05/24/2024	●
UAB_Project_Client_Management_Bot	Marco Crepaldi	03/26/2024	●
UAB_Project_Services_Management_Bot	Marco Crepaldi	03/26/2024	●

8 Creating a computer group in the Control Center."

8.1- On the left-hand side menu, click on 'Computers' after the page loads, click on 'Create Computer Group'."

The screenshot shows the 'Define computers' page in the IBM RPA Control Center. The left sidebar has a 'Computers' link highlighted with a red box. The main area shows a table of existing computer groups. The 'Computer groups' tab is active. In the top right of the table header, there is a blue button labeled 'Create computer group'. This button is also highlighted with a red box.

Name	Created	Computers	⋮
Crepaldi Machines	01/31/2024	2	⋮
Documentation	09/23/2021	0	⋮
hello_world_computer_group	03/04/2024	1	⋮
Maquinas Aldo	12/14/2023	1	⋮
W15Group	08/19/2022	1	⋮
WatsonX Orchestrate - Group 1	01/30/2024	1	⋮
WIO - Group 5	07/03/2023	1	⋮

8.2 – Fill in the 'Name' field with the desired name, select the computers, and then click 'Save'.

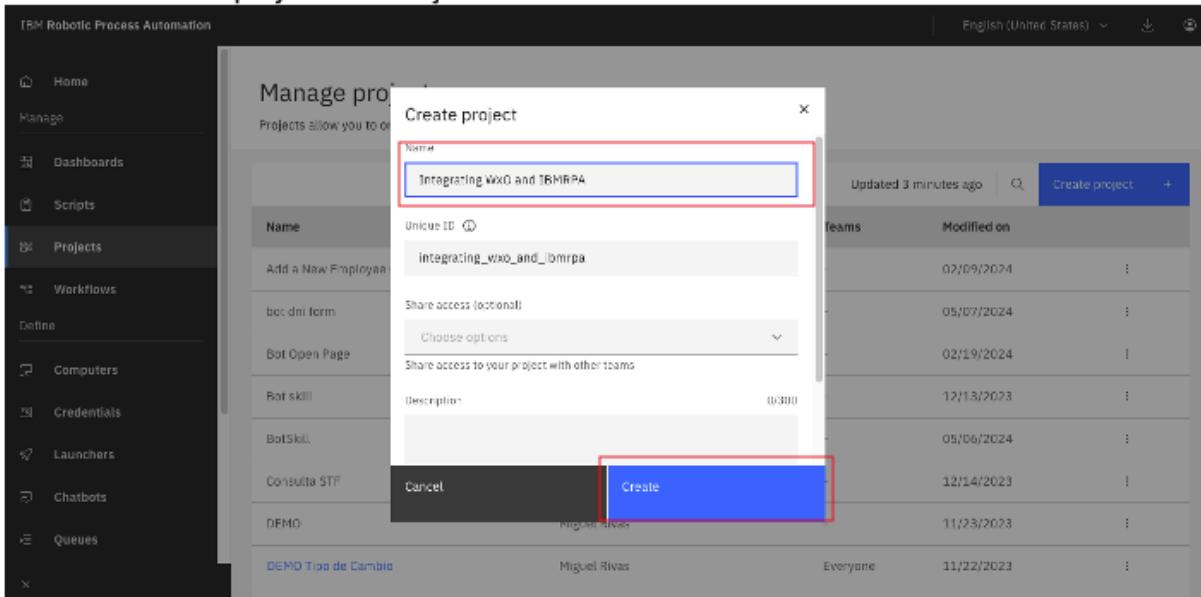
The screenshot shows the 'Define computers' section of the IBM RPA Control Center. On the left is a dark sidebar with various management options like Home, Dashboards, Scripts, Projects, Workflows, etc. The main area has tabs for 'Computers' and 'Computer groups'. Under 'Computer groups', there's a table with columns for Name, Created, and Computers. One row is selected, and a modal window titled 'Edit computer group' is overlaid. The modal has fields for 'Name' (set to 'Crepaldi Machines') and a 'Computers' dropdown (set to 'Computers'). Both the modal and the dropdown are highlighted with red boxes.

9 Create a project in the Control Center.

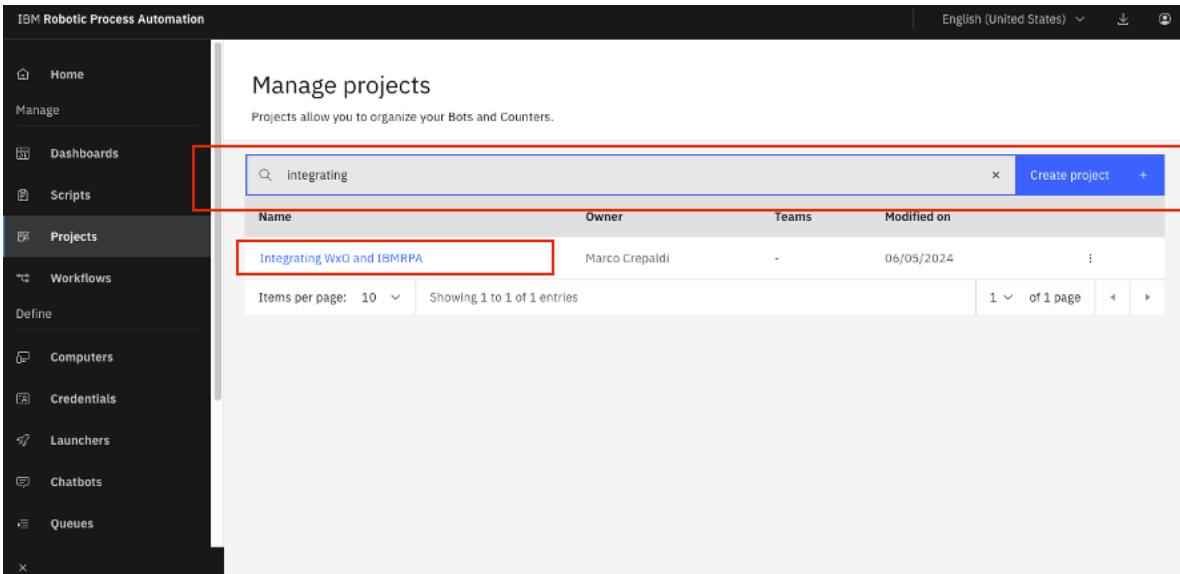
9.1- On the left-hand side menu, click on “Projects” After the page loads, click on 'Create Project'.

The screenshot shows the 'Manage projects' page. The left sidebar includes 'Projects' under the 'Define' section. The main area has a search bar with a 'Create project' button highlighted by a red box. Below the search bar, it says 'No results found'.

9.2- Enter the project name "Integrating WxO and IBMRPA" and description, then click the 'Create' button.

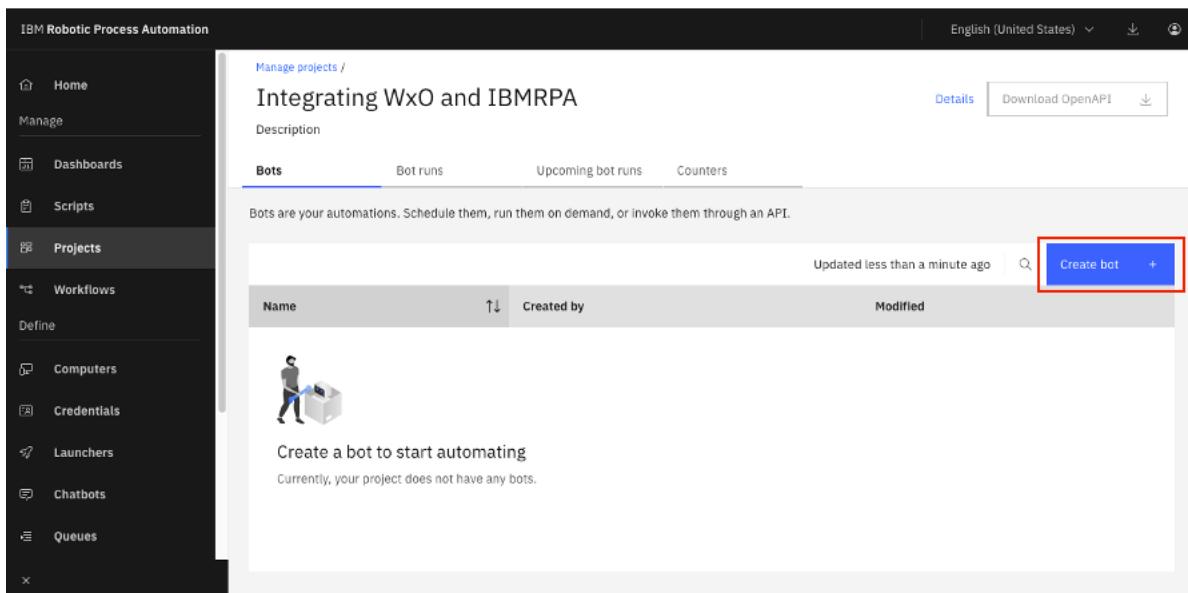


9.3- In the search bar, locate the project 'Integrating WxO and IBMRPA' and click on the project."



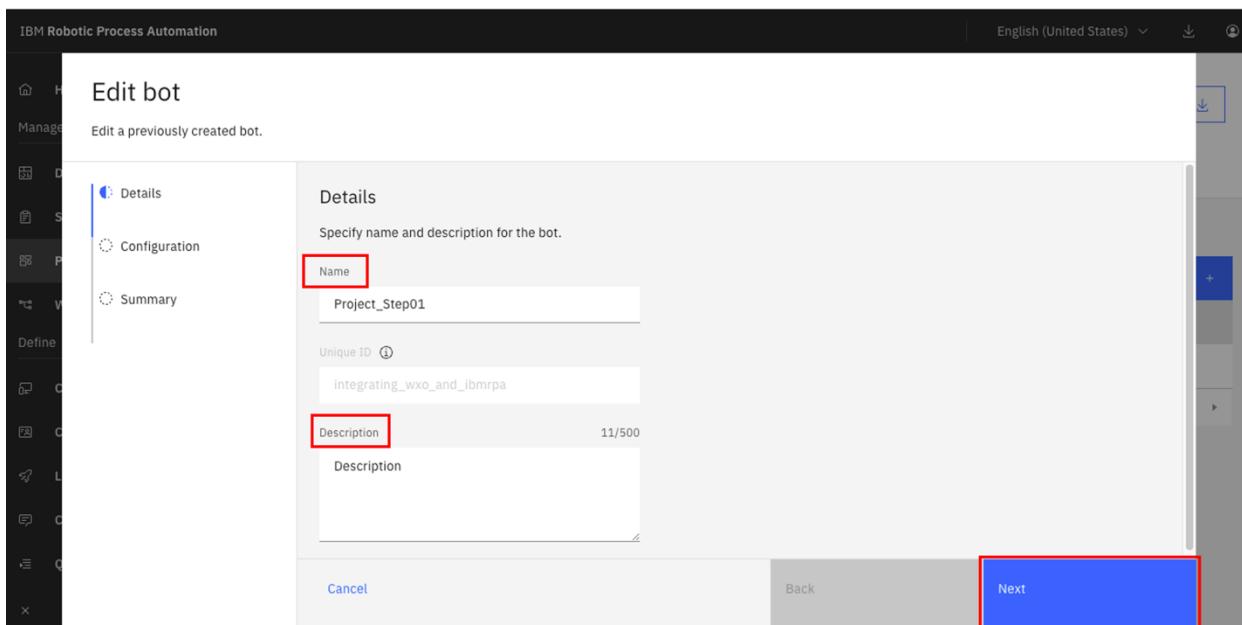
10 Creating the first bot within the project "Integrating WxO and IBMRPA".

10.1- Click on the 'Create Bot' button'.



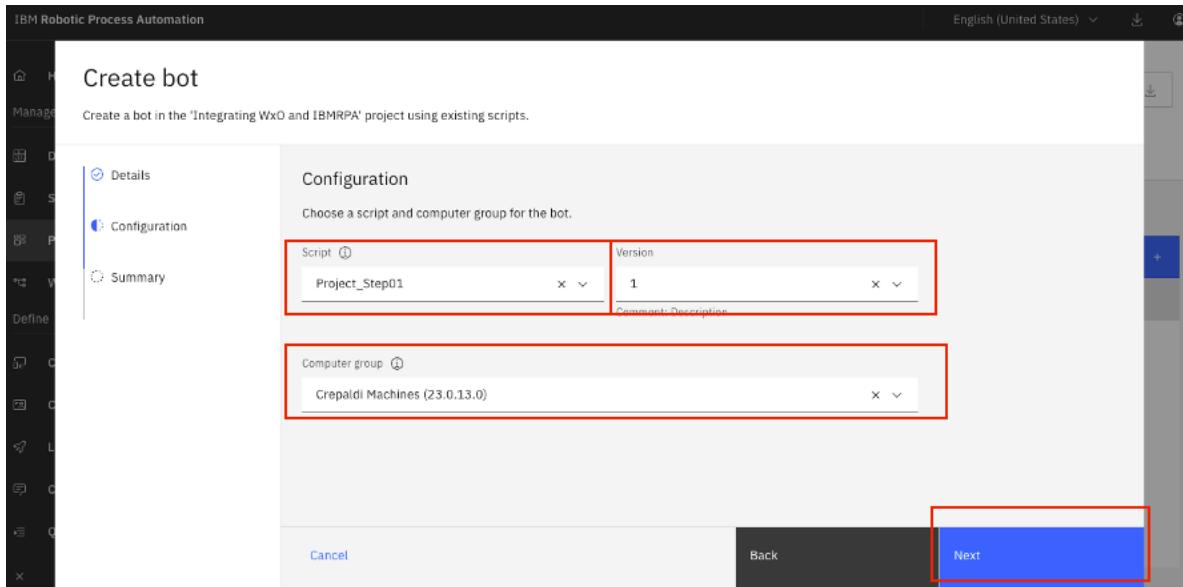
The screenshot shows the IBM RPA interface with the 'Bots' tab selected. On the left, there's a sidebar with various project management options like Home, Manage, Dashboards, Scripts, Projects, Workflows, Computers, Credentials, Launchers, Chatbots, and Queues. The main content area displays a list of bots with columns for Name, Created by, and Modified. A prominent 'Create bot' button is highlighted with a red box. Below the list, there's a section titled 'Create a bot to start automating' with a sub-section 'Currently, your project does not have any bots.'

10.2- Enter the name 'Project_Step01' in the 'Name' field and in the 'Description' field, then click the 'Next' button.

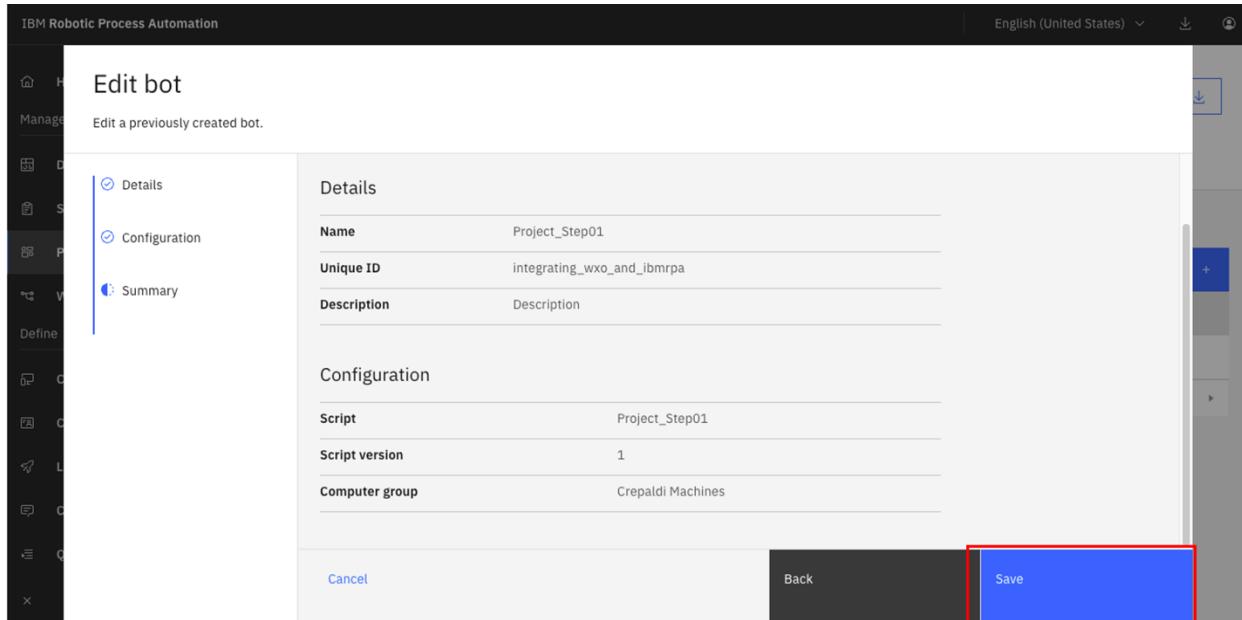


The screenshot shows the 'Edit bot' dialog box. The left sidebar has 'Edit bot' selected. The main panel shows the 'Details' tab, which requires specifying a name and description. The 'Name' field is filled with 'Project_Step01'. The 'Description' field is also filled. Both fields are highlighted with a red box. At the bottom right of the dialog, the 'Next' button is also highlighted with a red box.

10.3- Select the script 'Project_Step01' and its latest version, then select the machine group and click the 'Next' button.



10.4- After reviewing the summary, click on the 'Create' button'.



11 Creating the second bot within the project "Integrating WxO and IBMRPA".

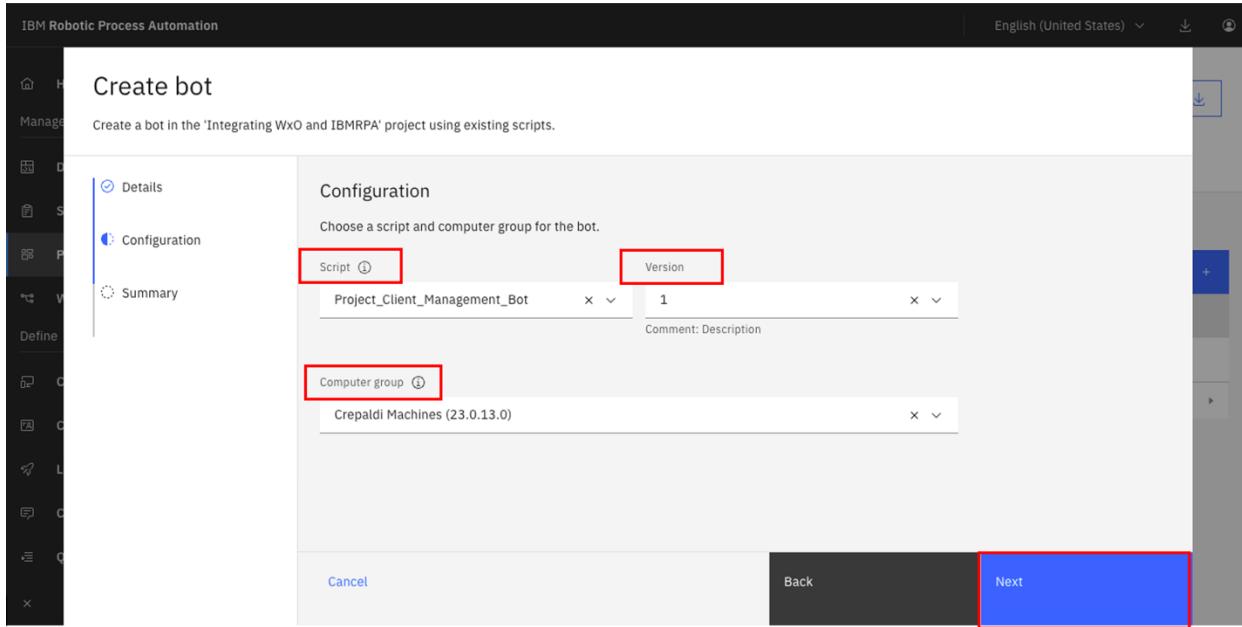
11.1 - Click on the 'Create Bot' button'.

The screenshot shows the 'IBM Robotic Process Automation' interface. On the left, there's a sidebar with various management options like Home, Dashboards, Scripts, Projects, Workflows, Computers, Credentials, Launchers, Chatbots, and Queues. The main area is titled 'Manage projects / Integrating WxO and IBMRPA'. It shows a table of existing bots. The 'Bots' tab is selected. A red box highlights the 'Create bot' button in the top right corner of the table area. The table has columns for Name, Created by, and Modified. One entry is visible: 'Integrating WxO and IBMRPA' created by Marco Crepaldi on 06/05/2024.

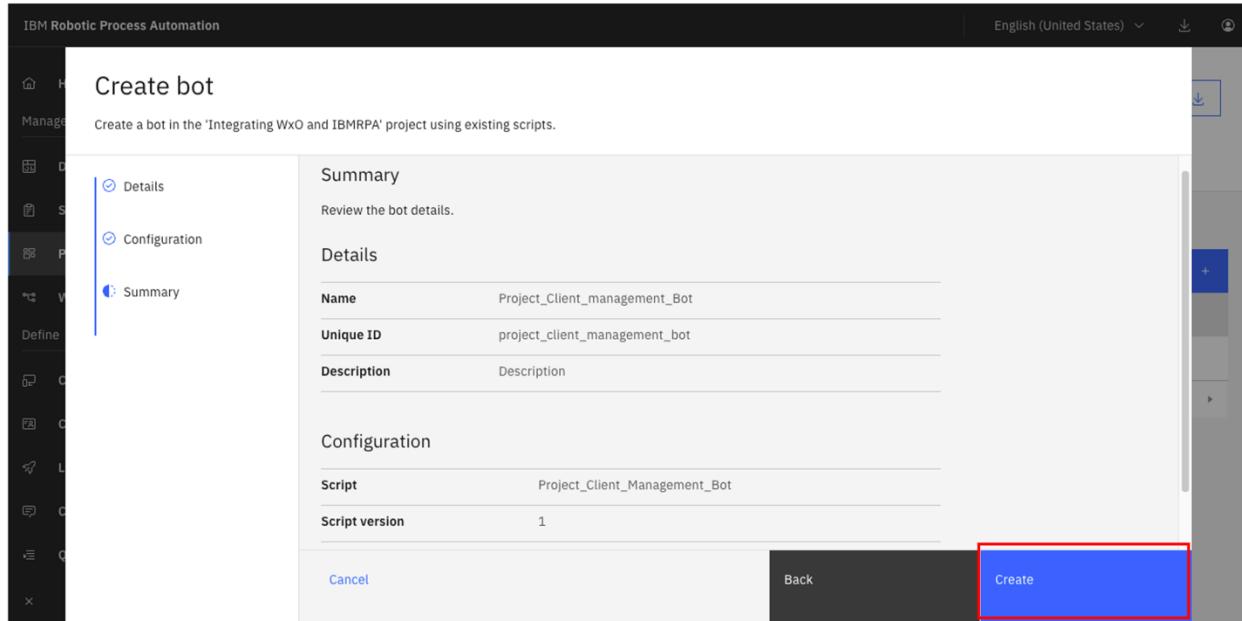
11.2 - "Fill in the 'Name' field with 'Project_Client_Management_Bot' and the 'Description' field."

The screenshot shows the 'Create bot' dialog box. The 'Details' tab is selected. In the 'Details' section, the 'Name' field is filled with 'Project_Client_management_Bot'. The 'Unique ID' field below it contains 'project_client_management_bot'. The 'Description' field is empty. At the bottom right of the dialog, a red box highlights the 'Next' button.

11.3 - Select the script 'Project_Client_Management_Bot' and its latest version, then select the machine group and click the 'Next' button.



11.4- After reviewing the summary, click on the 'Create' button'.



12 Creating the third bot within the project "Integrating WxO and IBMRPA".

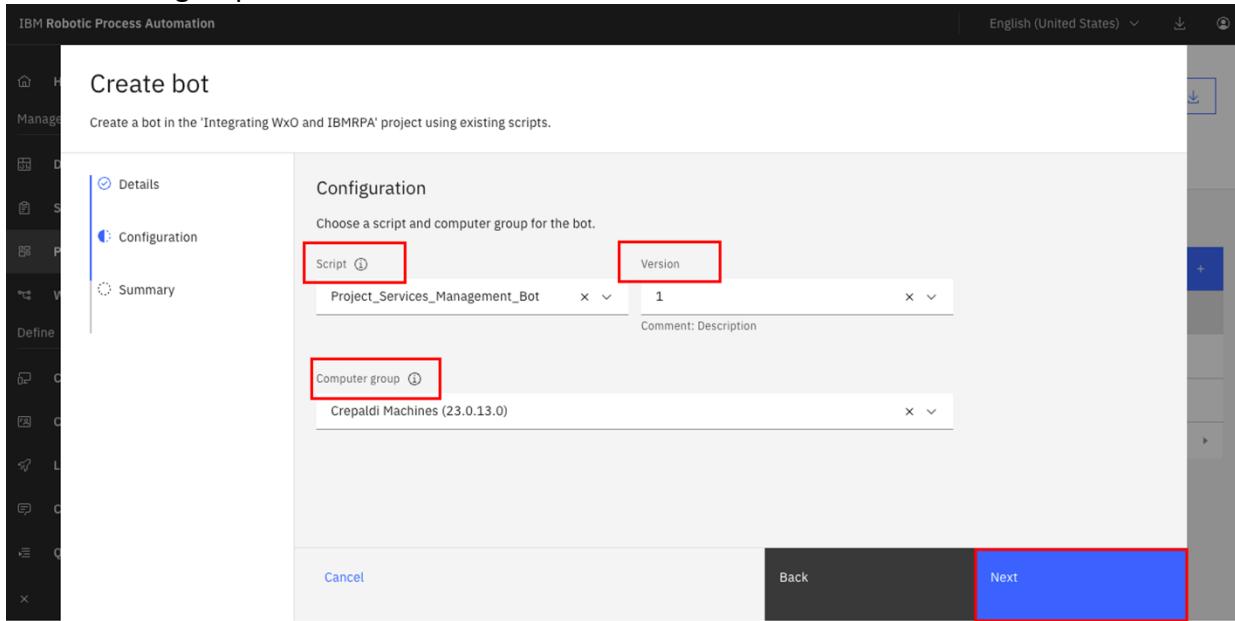
12.1 - Click on the 'Create Bot' button'.

The screenshot shows the 'IBM Robotic Process Automation' interface. On the left, there's a sidebar with various project management options like Home, Manage, Dashboards, Scripts, Projects (which is selected), Workflows, Define, Computers, Credentials, Launchers, Chatbots, and Queues. The main area is titled 'Integrating WxO and IBMRPA'. It has tabs for 'Bots', 'Bot runs', 'Upcoming bot runs', and 'Counters'. Below the tabs, it says 'Bots are your automations. Schedule them, run them on demand, or invoke them through an API.' There's a table with two entries: 'Project_Client_management_Bot' and 'Project_Step01'. At the top right of the table, there's a blue button labeled 'Create bot' with a '+' sign, which is highlighted with a red box. The table also includes columns for 'Name', 'Created by', and 'Modified', along with a search bar and pagination controls.

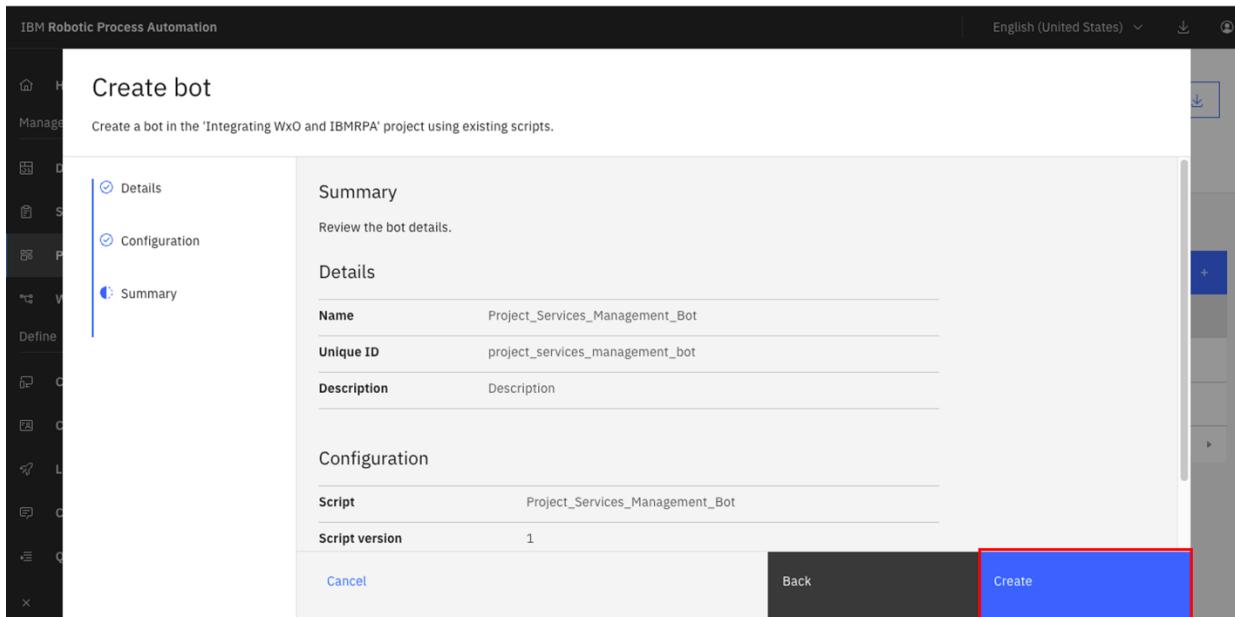
12.2 - "Fill in the 'Name' field with 'Project_Services_Management_Bot' and the 'Description' field."

The screenshot shows the 'Create bot' dialog box. On the left, there are three tabs: 'Details' (selected), 'Configuration', and 'Summary'. The 'Details' tab has a sub-section for specifying the name and description of the bot. The 'Name' field is filled with 'Project_Services_Management_Bot', the 'Unique ID' field is filled with 'project_services_management_bot', and the 'Description' field is empty. At the bottom right of the dialog, there are 'Cancel', 'Back', and 'Next' buttons, with the 'Next' button being highlighted with a red box.

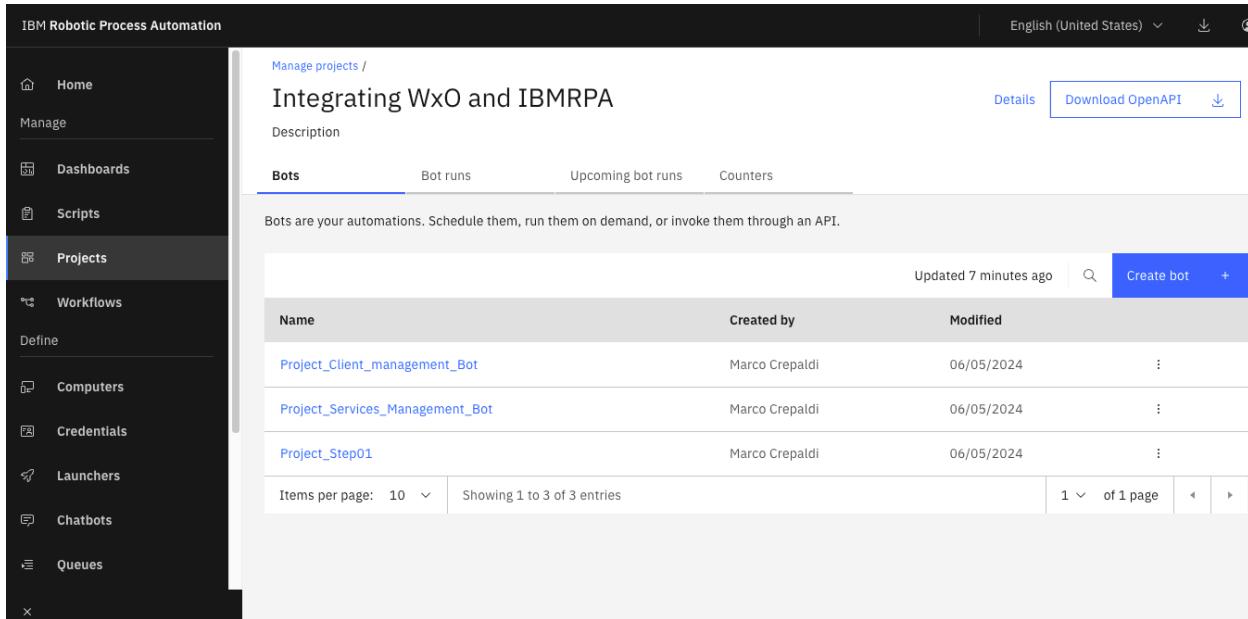
12.3 - Select the script 'Project_Services_Management_Bot' and its latest version, then select the machine group and click the 'Next' button.



12.4- After reviewing the summary, click on the 'Create' button'.



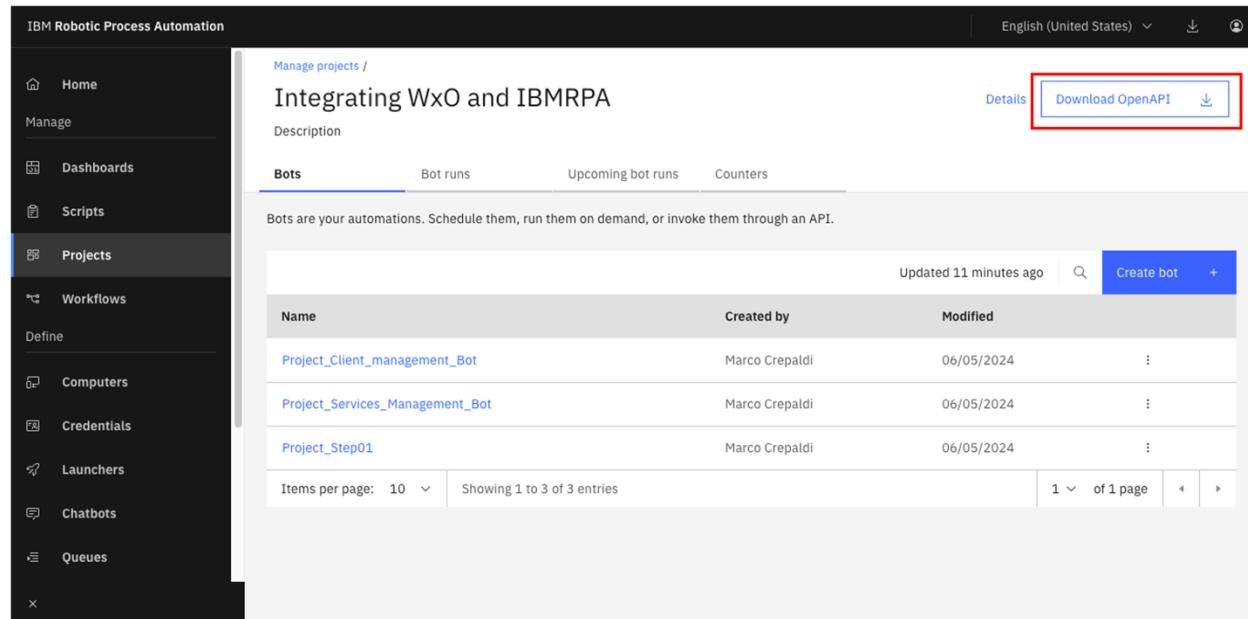
12.5- "At this stage, your project should have 3 bots created.".



Name	Created by	Modified
Project_Client_management_Bot	Marco Crepaldi	06/05/2024
Project_Services_Management_Bot	Marco Crepaldi	06/05/2024
Project_Step01	Marco Crepaldi	06/05/2024

13 Download OpenAPI

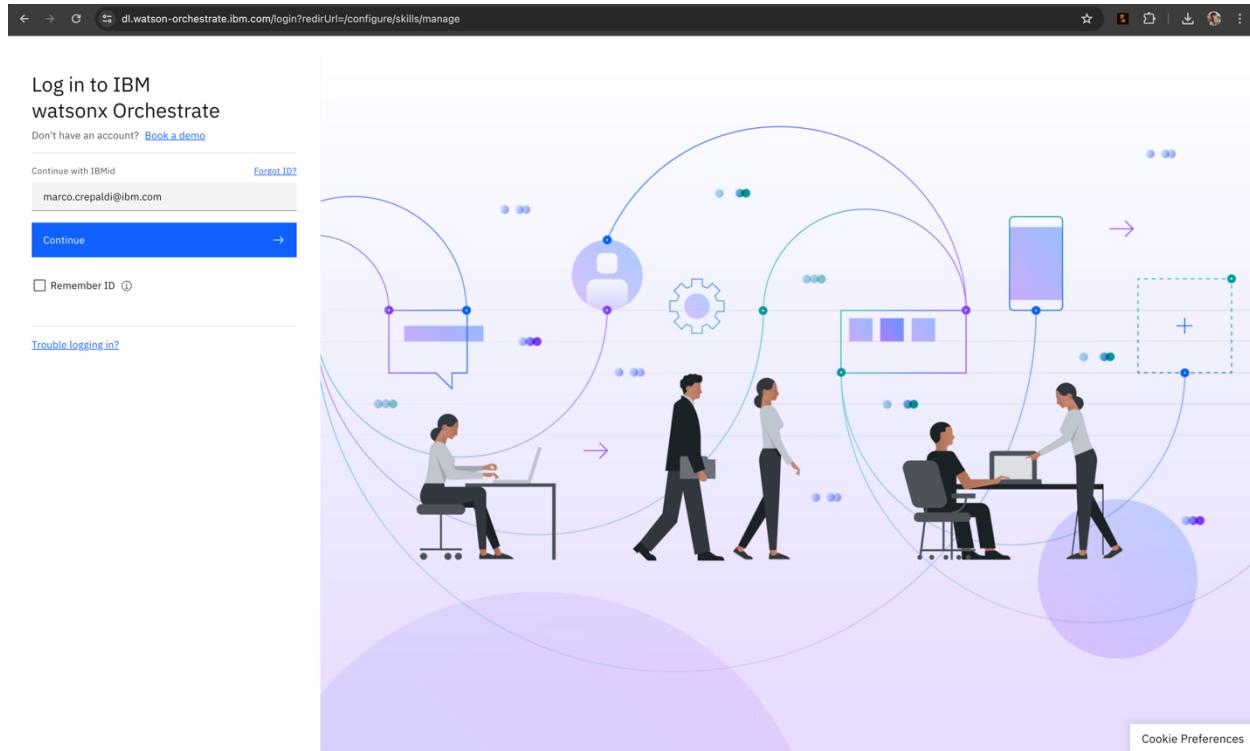
13.1 - "Now, you should download the integration API, click on the blue button 'Download OpenAPI' on the top right of the screen.".



Name	Created by	Modified
Project_Client_management_Bot	Marco Crepaldi	06/05/2024
Project_Services_Management_Bot	Marco Crepaldi	06/05/2024
Project_Step01	Marco Crepaldi	06/05/2024

14 Creating the integration in WatsonX Orchestrate.

14.1- Login to Watsonx Orchestrate, enter the username and click on the Continue button.



14.2- click on Skills layer.

A screenshot of the WatsonX Orchestrate Skills and apps page. The top navigation bar shows "IBM watsonx Orchestrate" and "Skills and apps". The main content area has tabs for "Skills" (which is selected) and "Apps". A search bar at the top says "Find a skill". Below is a table titled "Skills" with columns: Name, Step in the process, Status, Skill type, Author, and Last edited. The table lists nine skills, each with a dropdown arrow icon. The skills are: "Search For Items", "Create Order", "Request New Items", "Query Orders", "Change Order Status", "Query Order Items", "UsrXXXSalesCampaignApproval", "UsrXXX Send Campaign Email UAB", and "UsrXXX scoreboard".

14.3 – Click on Add Skill button.

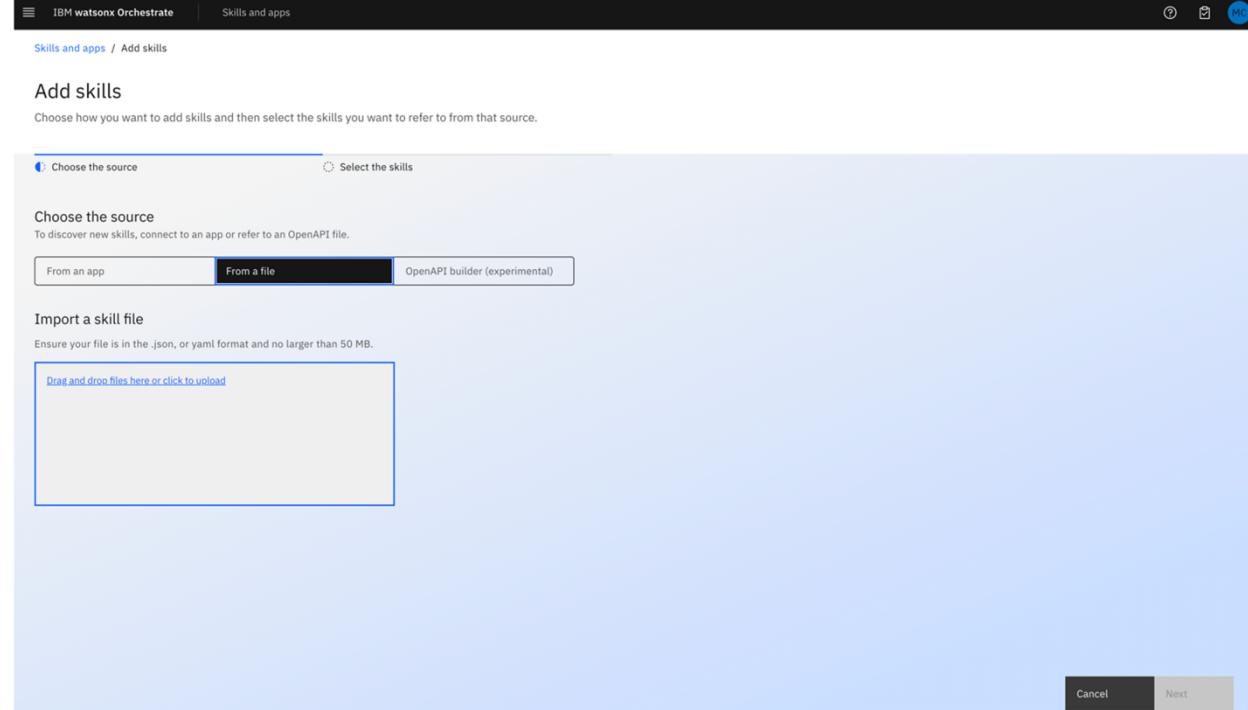
The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. At the top right, there is a blue button labeled 'Add skills' with a downward arrow. This button is highlighted with a red rectangular box. Below the button, there is a search bar with the placeholder 'Find a skill' and a filter icon. The main area is titled 'Skills' and contains a table with columns: Name, Step in the process, Status, Skill type, Author, and Last edited. The 'Skills' tab is selected, indicated by a blue border around the tab name.

14.4 – Click on From a File.

The screenshot shows the 'Add skills' dialog box. At the top, there are two radio buttons: 'Choose the source' (selected) and 'Select the skills'. Below this, there is a heading 'Choose the source' with a sub-instruction: 'To discover new skills, connect to an app or refer to an OpenAPI file.' There are three options: 'From an app', 'From a file' (which is highlighted with a red rectangular box), and 'OpenAPI builder (experimental)'. Below these options, there are five cards representing different skill sources: 'IBM Cloud Pak for Business Automation - On premises', 'IBM Cloud Pak for Business Automation as a service', 'UiPath', 'IBM Robotic Process Automation (RPA)', and 'IBM Business Automation Workflow as a service'. At the bottom right of the dialog box is a 'Cancel' button.

14.5 – "Import the file integrating_wxo and ibmrpa-openapi.yml", wait for the green check mark and click next button.

The OpenAPI file or skill package is good to go! 



Skills and apps / Add skills

Add skills

Choose how you want to add skills and then select the skills you want to refer to from that source.

Choose the source  Select the skills 

Choose the source
To discover new skills, connect to an app or refer to an OpenAPI file.

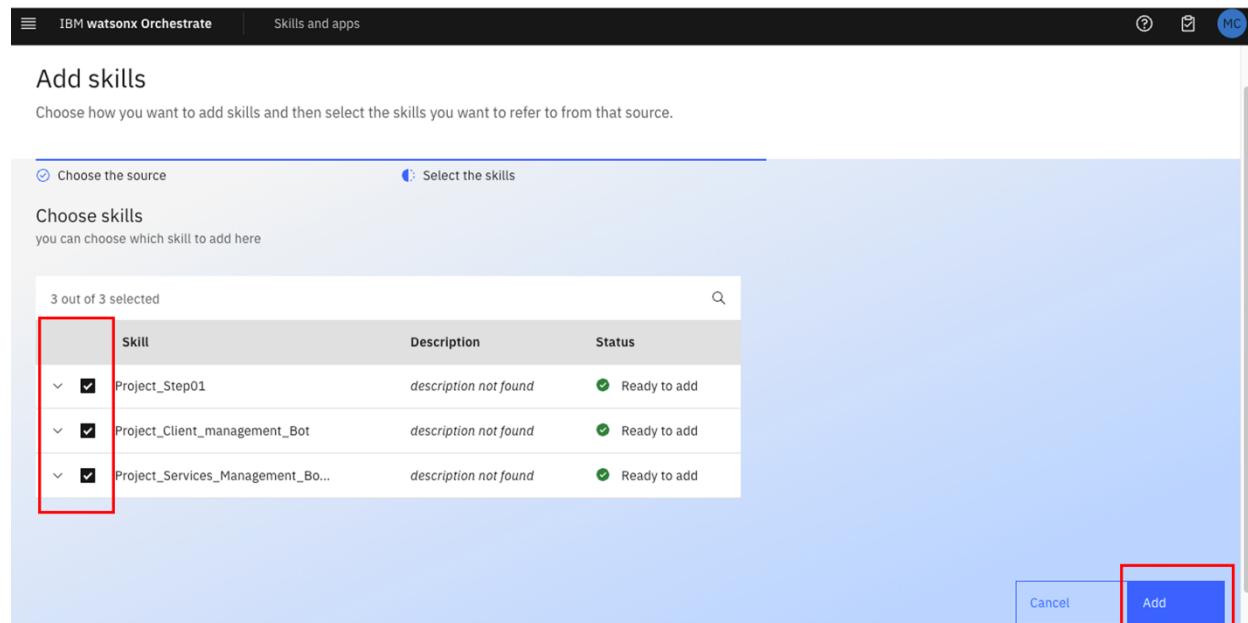
From an app  From a file  OpenAPI builder (experimental)

Import a skill file
Ensure your file is in the .json, or yaml format and no larger than 50 MB.

Drag and drop files here or click to upload

Cancel Next

14.6 – Select the 3 skills and click on the Add button.



Skills and apps

Add skills

Choose how you want to add skills and then select the skills you want to refer to from that source.

Choose the source  Select the skills 

Choose skills
you can choose which skill to add here

3 out of 3 selected

Skill	Description	Status
Project_Step01	description not found	 Ready to add
Project_Client_management_Bot	description not found	 Ready to add
Project_Services_Management_Bo...	description not found	 Ready to add

Cancel  Add

14.7 – In the Project_Step01 skill, click on the edit options.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. A green success message at the top right states '3 skills were added successfully.' Below it is a timestamp '18:45:46'. The 'Skills' tab is selected. A table lists three skills:

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Step01	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Client_management_Bot	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Services_Management_Bot	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024

The 'Project_Step01' row is highlighted with a red box around its entire row. The 'More options' button (three dots) in the last column of the same row is also highlighted with a red box.

14.8 – Click on the “Enhance this skill” option.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. A green success message at the top right states '3 skills were added successfully.' Below it is a timestamp '18:45:46'. The 'Skills' tab is selected. A table lists five skills, including 'Project_Step01' which was added in the previous step. A context menu is open over the 'Project_Step01' row, with the 'Enhance this skill' option highlighted by a red box.

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Step01	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Client_management_Bot	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Services_Management_Bot	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Query Order Items	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024
Query Orders	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024

14.9 – Click on Input layer.

The screenshot shows the 'Enhance the "Project_Step01" skill' page. The 'Input' tab is highlighted with a red box. On the right, a green success message box displays '3 skills were added successfully.' and the timestamp '18:45:46'. The 'Preview' section shows how the skill will look in the catalog, and the 'Skill set' section shows it in the skill set. At the bottom, there are 'Cancel', 'Publish', and 'Save as draft' buttons.

14.10- Enter the line number and check the required option and click Publish button.

The screenshot shows the 'Request body' configuration under the 'Input' tab. A field named 'lineNumber' is highlighted with a red box. To its right, a checkbox labeled 'Required' is also highlighted with a red box. The 'Edit response' dropdown menu is visible below the request body. At the bottom, there are 'Cancel', 'Publish', and 'Save as draft' buttons.

14.11- In the Project_Client_management_bot, click on the edit options.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. A message bar at the top right indicates '3 skills were added successfully.' and 'Published successful'. The 'Skills' tab is selected. A table lists three skills:

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Step01	Ready to use	✓ Published	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Client_management_Bot	Just 1 step away to be ready	✓ Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Services_Management_Bot	Just 1 step away to be ready	✓ Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024

The 'Project_Client_management_Bot' row is highlighted with a red box around its entire row. The 'More options' button (three dots) in the last column of this row is also highlighted with a red box.

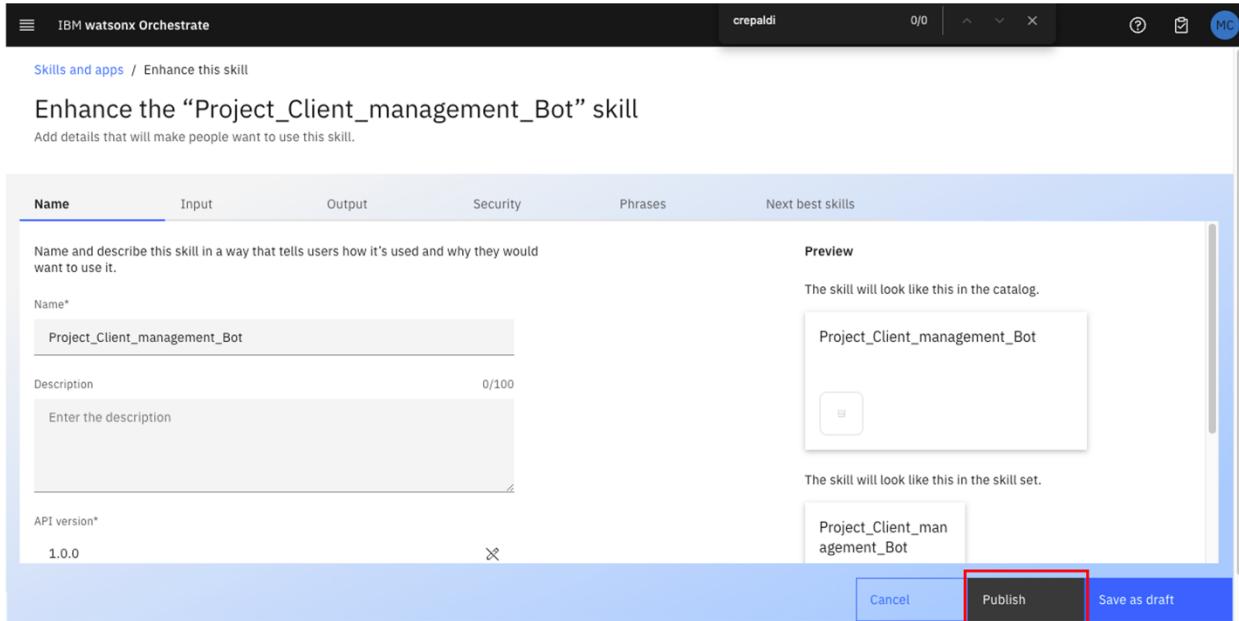
14.12- Click on the “Enhance this skill” option.

The screenshot shows the same 'Skills and apps' section after an action has been taken. The 'Skills' tab is selected. The table now includes a fourth row:

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Step01	Ready to use	✓ Published	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Client_management_Bot	Just 1 step away to be ready	✓ Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Services_Management_Bot	Just 1 step away to be ready	✓ Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Query Order Items	Ready to use	✓ Published	Imported	houbf@cn.ibm.com	May 29 2024

The 'Project_Client_management_Bot' row is highlighted with a red box around its entire row. The 'Enhance this skill' button in the last column of this row is highlighted with a red box.

14.13 – Click on the publish Button



14.14 - In the Project_Services_Management_Bot, click on the edit options.

The screenshot shows the 'Skills and apps' page. The 'Skills' tab is selected. A table lists skills with columns: Name, Step in the process, Status, Skill type, Author, Last edited, and an edit icon. The row for 'Project_Services_Management_Bot' is highlighted with a red box, and its edit options menu (three dots) is also highlighted with a red box.

Name	Step in the process	Status	Skill type	Author	Last edited	⋮
Project_Client_management_Bot	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024	⋮
Project_Step01	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024	⋮
Project_Services_Management_Bot	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024	⋮
Query Order Items	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024	⋮
Query Orders	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024	⋮
Create Order	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024	⋮

14.15 - Click on the “Enhance this skill” option.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. A context menu is open over the 'Project_Services_Management_Bot' skill, with the 'Enhance this skill' option highlighted by a red box.

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Client_management_Bot	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Step01	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Services_Management_Bot	Just 1 step away to be ready	Ready to publish	Imported	marco.crepaldi@ibm.com	June 05 2024
Query Order Items	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024
Query Orders	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024
Create Order	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024
Request New Items	Ready to use	Published	Imported	houbf@cn.ibm.com	May 28 2024

14.16 – Click on the Publish Button

The screenshot shows the 'Enhance the “Project_Services_Management_Bot” skill' configuration page. The 'Publish' button at the bottom right is highlighted by a red box.

Name	Input	Output	Security	Phrases	Next best skills
Project_Services_Management_Bot					

Preview: The skill will look like this in the catalog.

Description: Enter the description

API version*: 1.0.0

Publish (highlighted)

14.17 – The three skills need to be published.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. The 'Skills' tab is selected. A search bar at the top says 'Find a skill'. Below it is a table with three rows, each representing a skill. The table has columns for Name, Step in the process, Status, Skill type, Author, and Last edited. All three skills listed are 'Published' and imported from marco.crepaldi@ibm.com. The entire table area is highlighted with a red border.

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Services_Management_Bot	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 06 2024
Project_Client_management_Bot	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Step01	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024

14.18- In the left sidebar menu, click on Skill catalog.

The screenshot shows the left sidebar of the IBM WatsonX Orchestrate interface. The 'Skill catalog' option is highlighted with a red box. The sidebar also lists other options like Chat, Monitor skills, Skills and apps, AI assistant builder, and Automations. The main content area shows the same table of skills as the previous screenshot, with the first row visible.

Name	Step in the process	Status	Skill type	Author	Last edited
Project_Services_Management_Bot	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 06 2024
Project_Client_management_Bot	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024
Project_Step01	Ready to use	Published	Imported	marco.crepaldi@ibm.com	June 05 2024

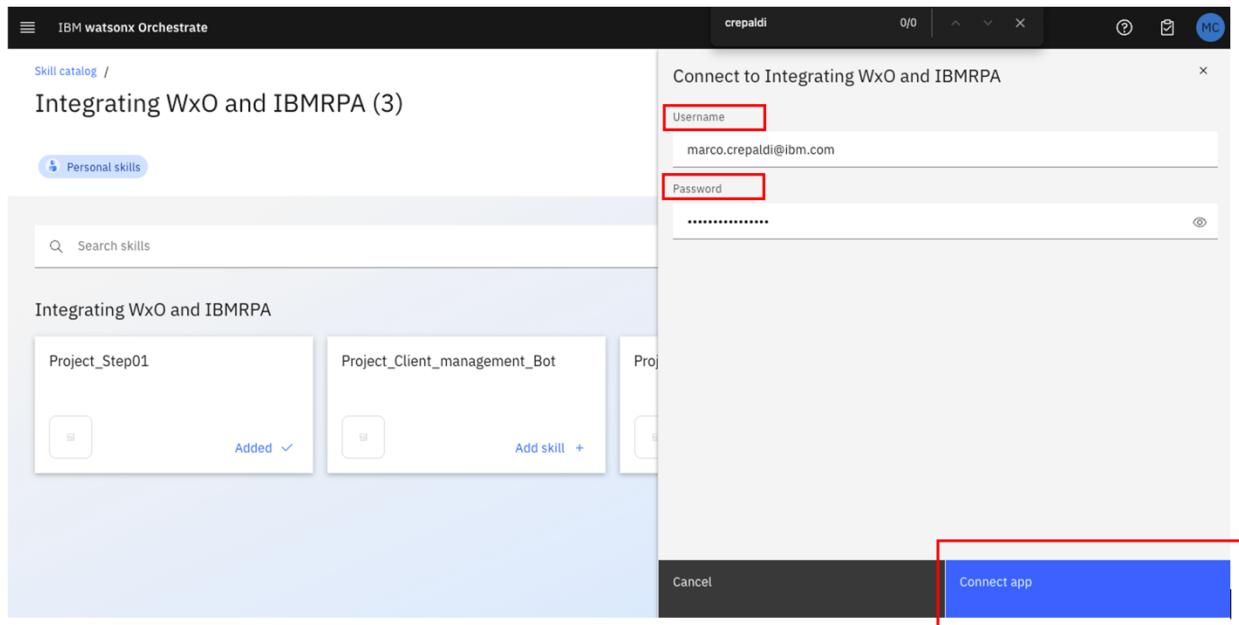
14.19 - Locate your main skill that contains the three skills and click on it.

The screenshot shows the 'All Apps' section of the IBM WatsonX Orchestrate interface. It displays a grid of various applications and their skill counts. One application, 'Integrating WxO and IBMRPA (3)', which contains 3 skills, is highlighted with a red box. Other visible applications include GitHub (11 skills), GitLab (40 skills), Google Cloud Storage (6 skills), Greenhouse (13 skills), HubSpot CRM (33 skills), IBM Cloud Object Stora... (9 skills), Insightly (54 skills), Jira (4 skills), MailChimp (15 skills), Marketo (10 skills), monday.com (24 skills), Microsoft Dynamics 365... (67 skills), Microsoft Dynamics 365... (27 skills), Microsoft Outlook (30 skills), and Microsoft OneDrive for ... (15 skills).

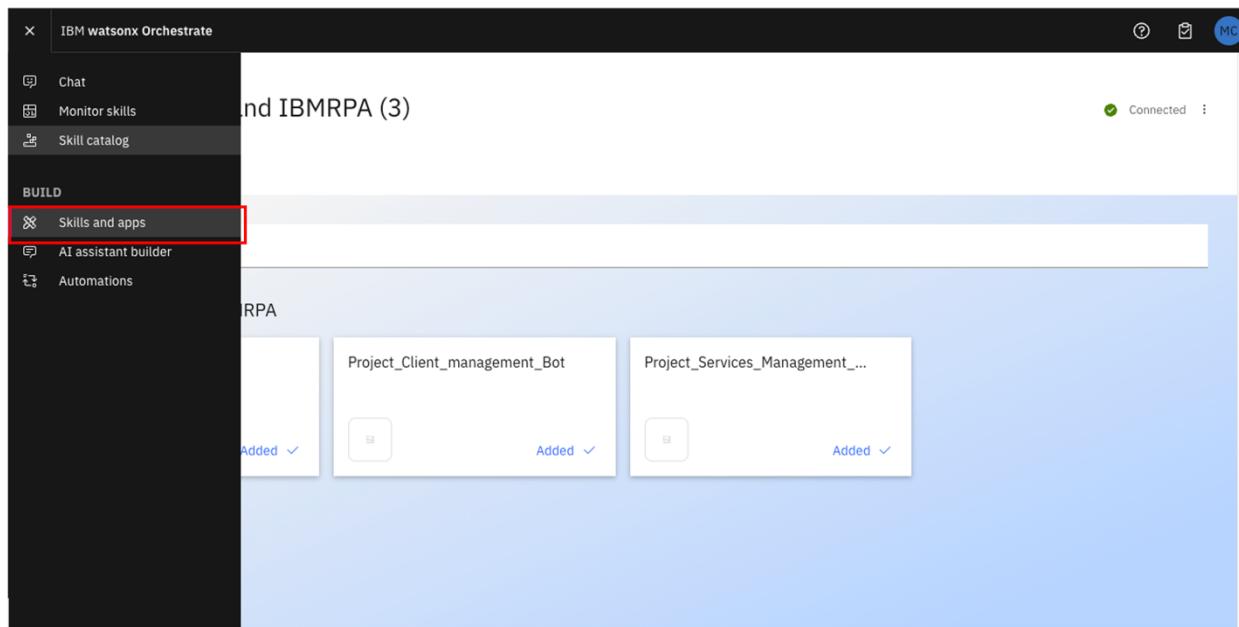
14.20 - Click on Add Skill + for the three skills and then click on Connect app.

The screenshot shows the 'Skill catalog / Integrating WxO and IBMRPA (3)' page. It lists three skills: 'Project_Step01', 'Project_Client_management_Bot', and 'Project_Services_Management_...'. Each skill card has an 'Add skill +' button, which is highlighted with a red box. In the top right corner, there is a large blue 'Connect app' button, also highlighted with a red box.

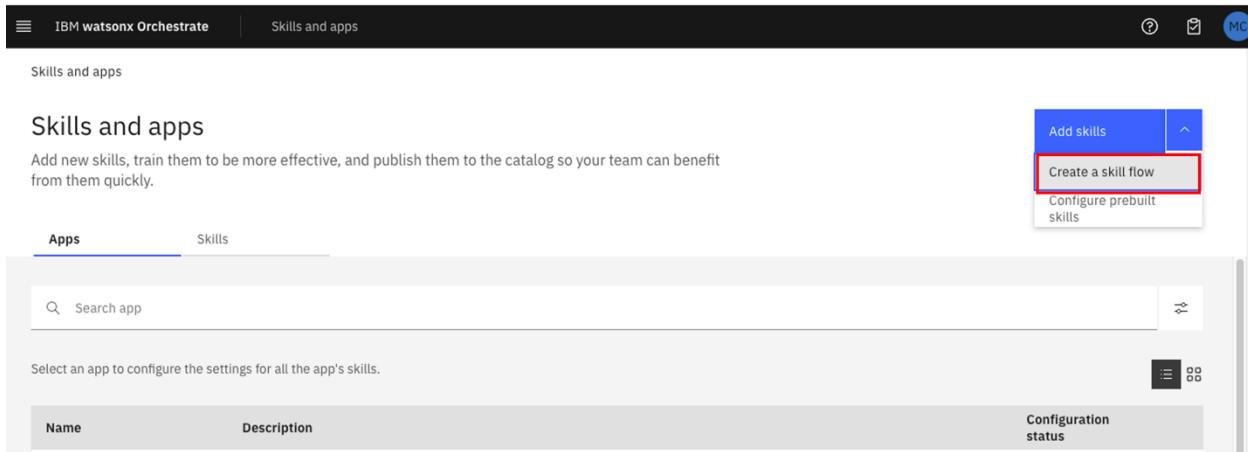
14.21 –Please provide the username and password for the control center connection and click on the Connect app button.



14.22 – In the left sidebar menu, click on Skill and Apps.

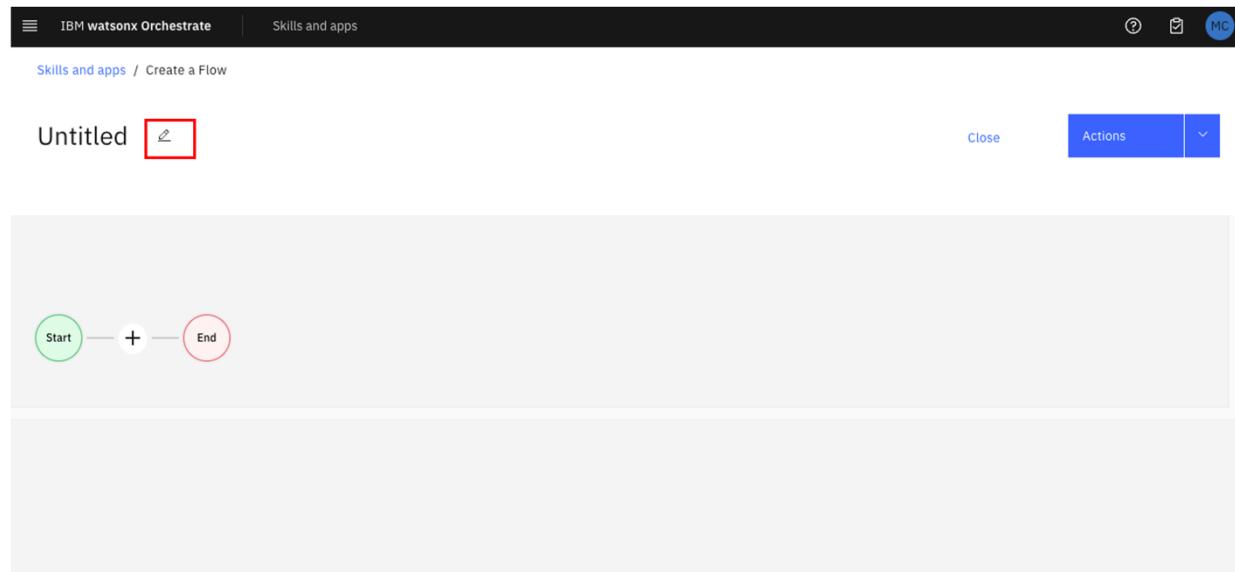


14.23 – Click on the options of the Add Skills button and select the Create a skill flow option.



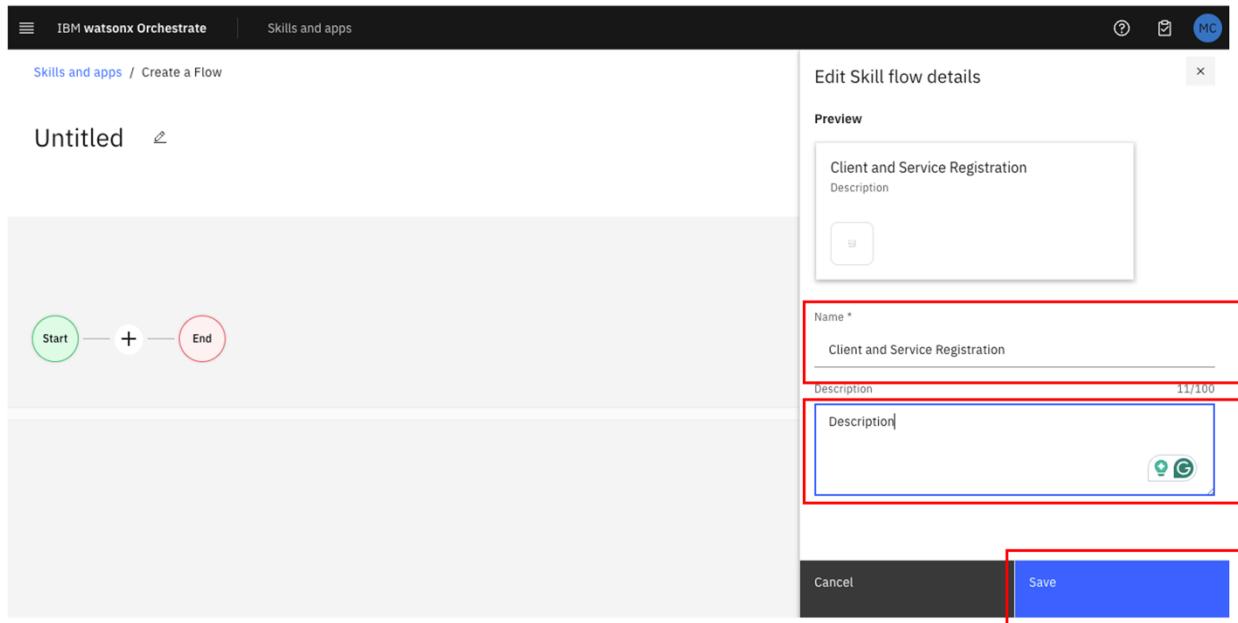
The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. At the top right, there is a context menu with three options: 'Add skills', 'Create a skill flow' (which is highlighted with a red box), and 'Configure prebuilt skills'. Below the menu, there is a search bar labeled 'Search app' and a table with columns 'Name', 'Description', and 'Configuration status'. The 'Apps' tab is selected.

14.24 – Click on the pencil icon to name the Skill Flow.

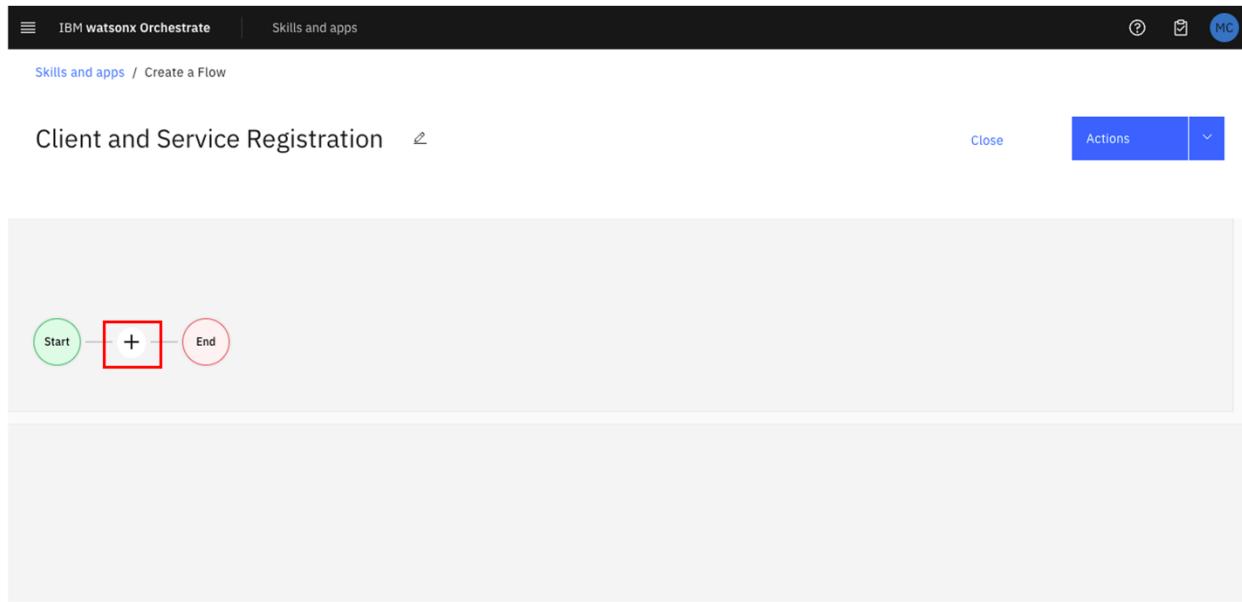


The screenshot shows the 'Create a Flow' dialog box. The flow name 'Untitled' is highlighted with a red box. The dialog displays a basic flow diagram with a green 'Start' node and a red 'End' node connected by a single step. There are also 'Actions' and 'Close' buttons at the top right.

14.25 - Enter a name for the skill flow, a description, and then click on the Save button.



14.26 – Click on the icon to add a skill.



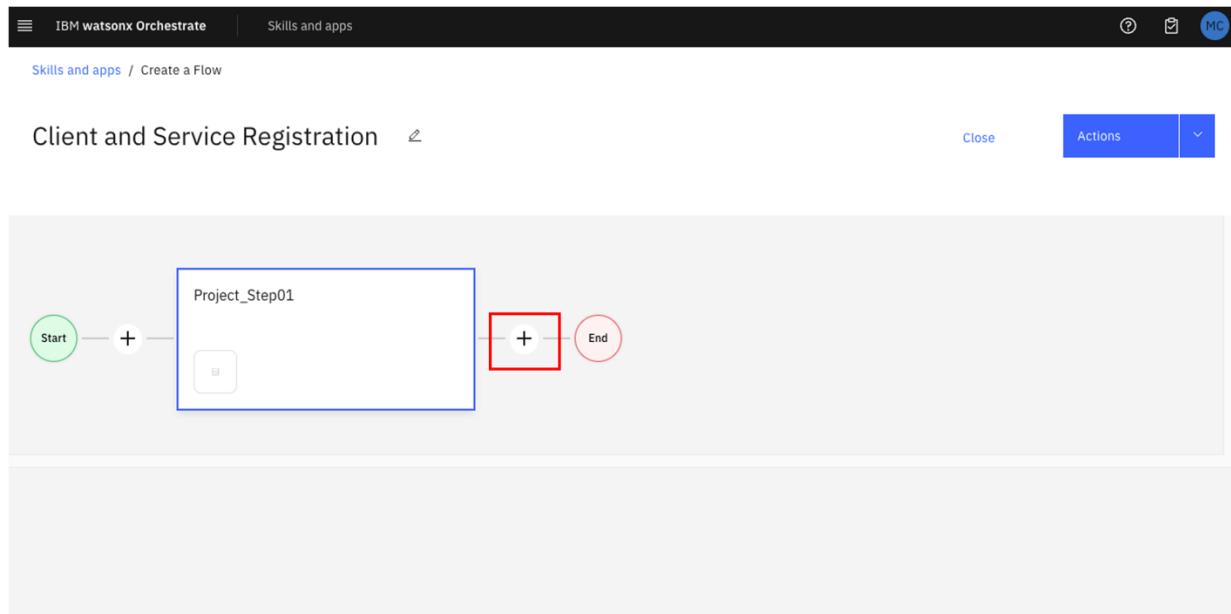
14.27 - Select the app Integrating WxO and IBM RPA.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. At the top, there is a navigation bar with the title 'IBM WatsonX Orchestrate' and a 'Skills and apps' button. Below the navigation bar is a search bar labeled 'Search apps'. Underneath the search bar, there is a heading 'All Apps' followed by a grid of app cards. One specific app card, 'Integrating WxO and IB...', is highlighted with a red box. This card shows a small icon, the app name, and '3 skills'. Other visible app cards include 'Custom forms', 'Gmail', 'AWS Lambda', 'Amazon S3', 'Amazon SNS', 'Amazon SQS', 'Anaplan', 'PL - Employee Eligibility', 'Asana', 'Microsoft Entra ID', and 'Microsoft Azure Blob st...'. Each card also indicates the number of skills it contains.

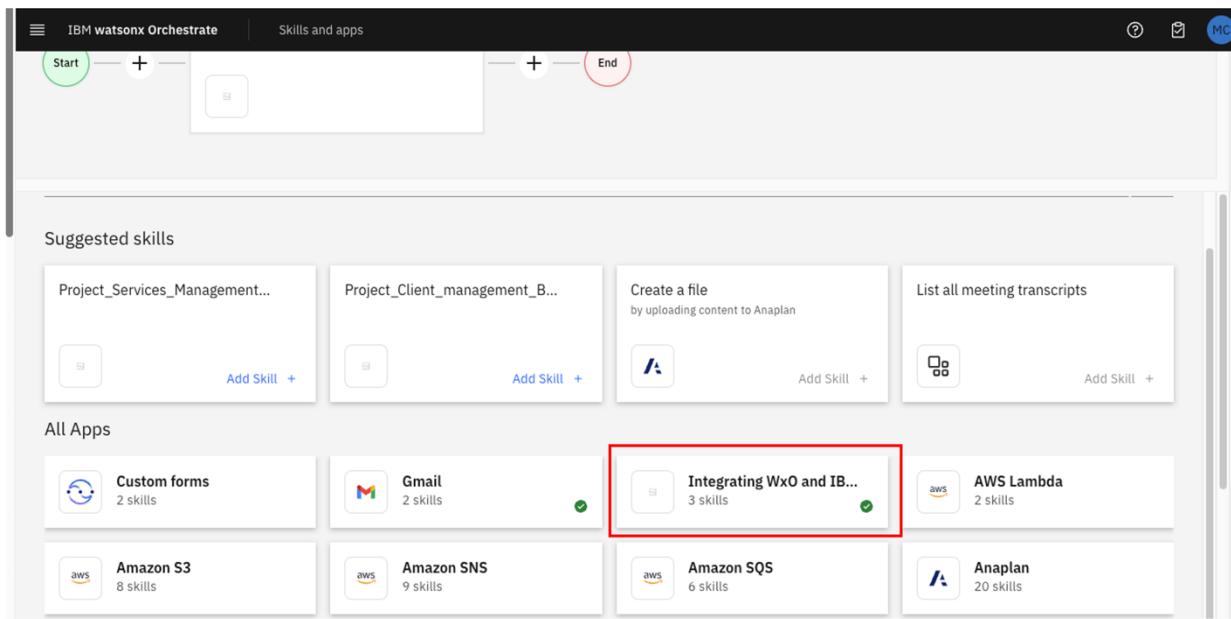
14.28 –Click on the 'add skill +' button for the skill Project_Step01.

The screenshot shows the 'Skills and apps' section of the IBM WatsonX Orchestrate interface. At the top, there is a navigation bar with the title 'IBM WatsonX Orchestrate' and a 'Skills and apps' button. Below the navigation bar is a search bar labeled 'Search skills'. Underneath the search bar, there is a heading 'Integrating WxO and IBMRPA' followed by a list of skills. One skill, 'Project_Step01', has its 'Add Skill +' button highlighted with a red box. Other visible skills include 'Project_Client_management_Bot' and 'Project_Services_Management...'. Each skill card shows a small icon and the skill name.

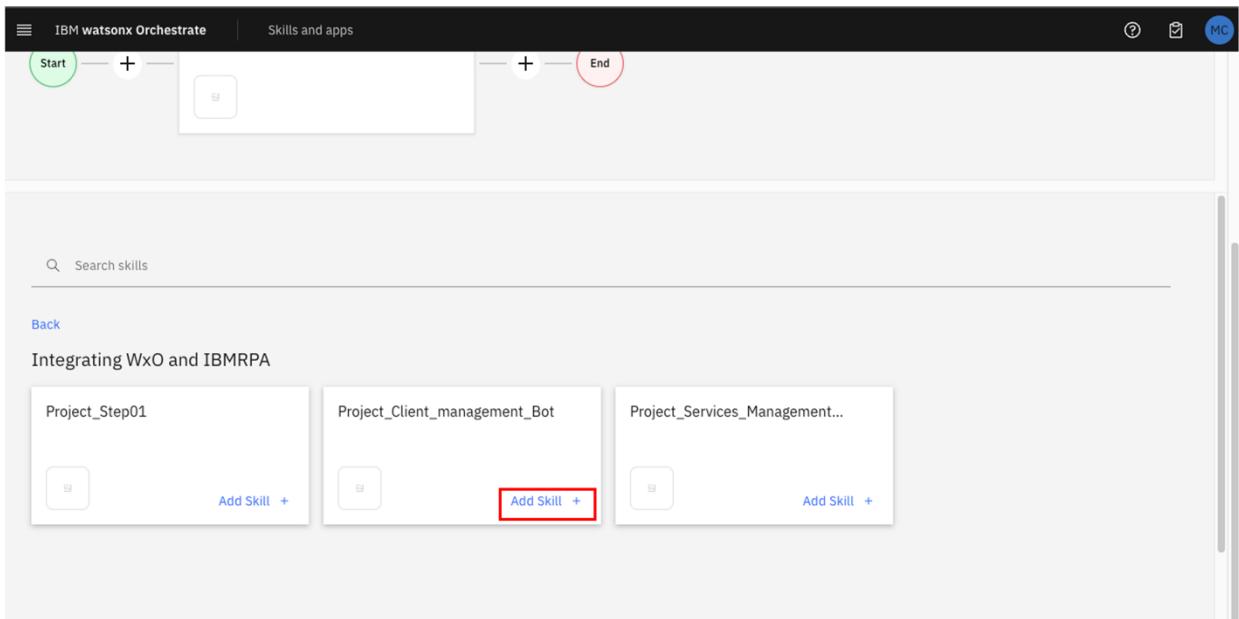
14.29- Click on the icon to add a second skill.



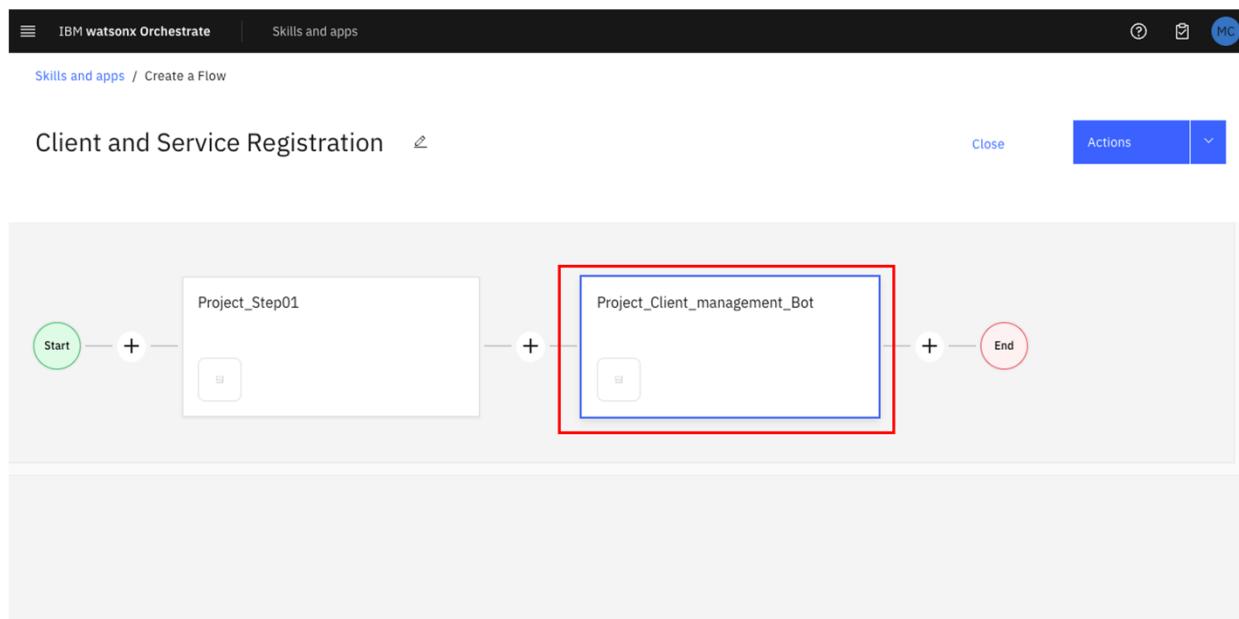
14.30 - Select the app Integrating WxO and IBM RPA.



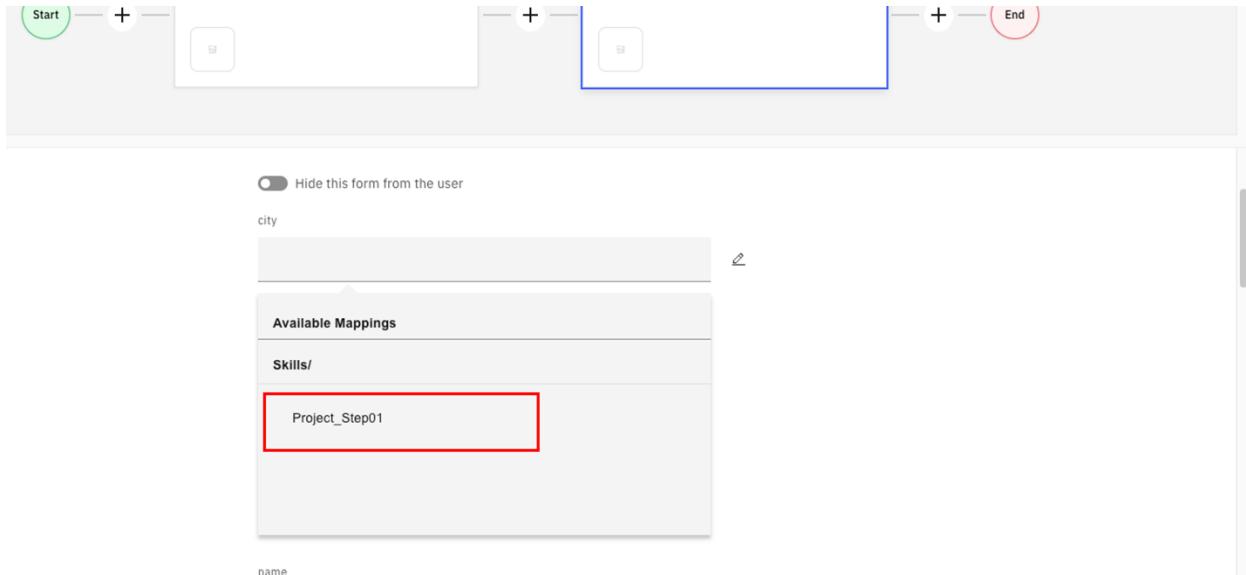
14.31 - Click on the 'add skill +' button for the skill Project_Client_management_bot.



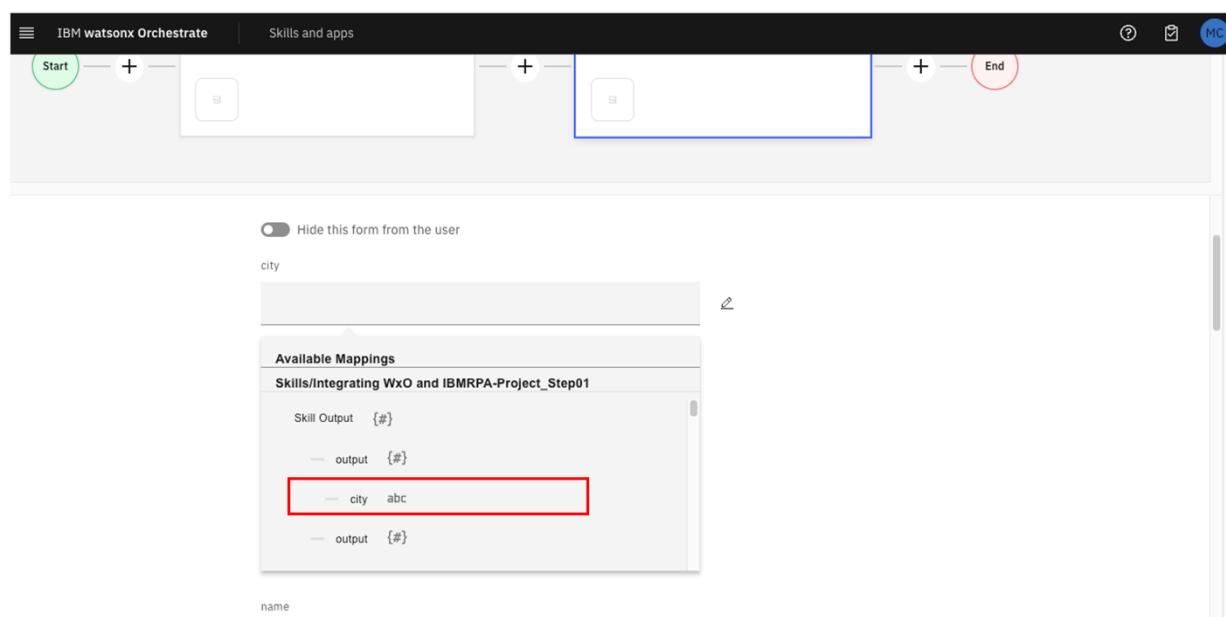
14.32 – Click on the Skill to display the configuration options.



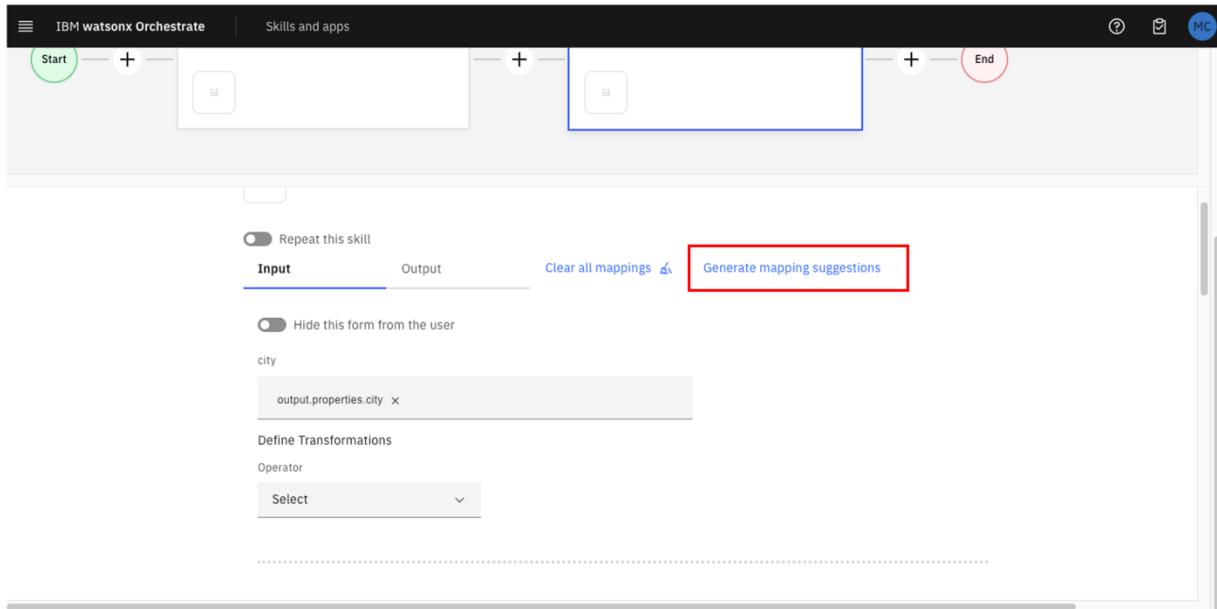
14.33 - For all inputs of the bot Project_client_management, it is necessary to specify the source of the data coming from the output of the script Project_management_Step01. You can manually enter each of the parameters or click the '**Generate Mapping Suggestion**' button. The first input in the 'City' field will be done manually. Click on the 'City' field, then select the data source 'Project_Step01'."



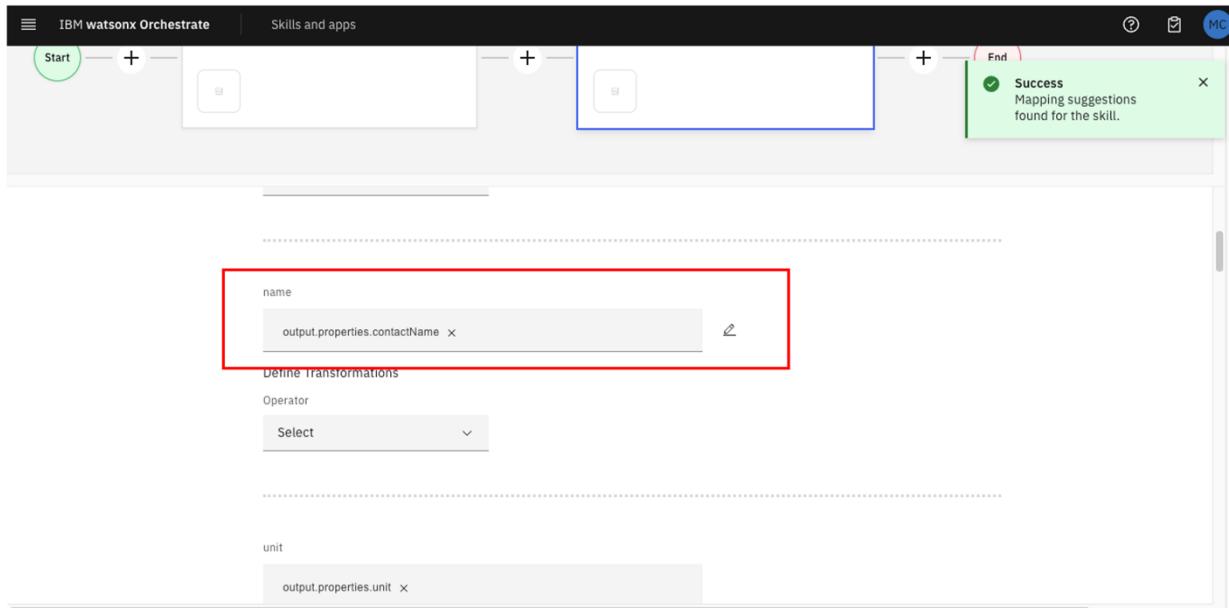
14.34 -Select variable city



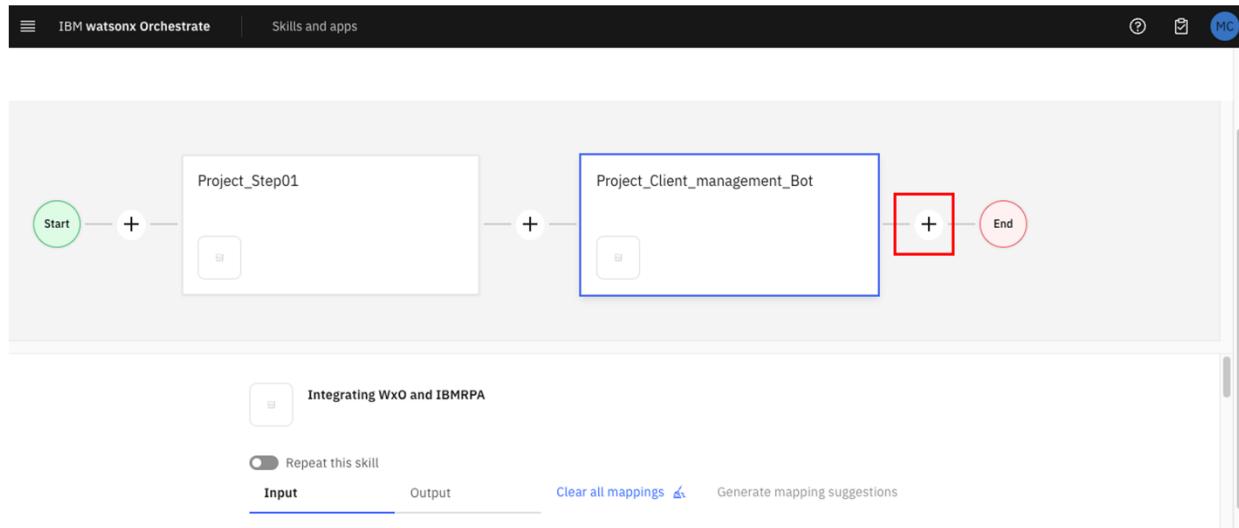
14.35 - For the remaining parameters, let's follow the filling suggestion from Watsonx Orchestrate. Click on 'Generate mapping suggestions'. When the filling is completed, a success message will be displayed.



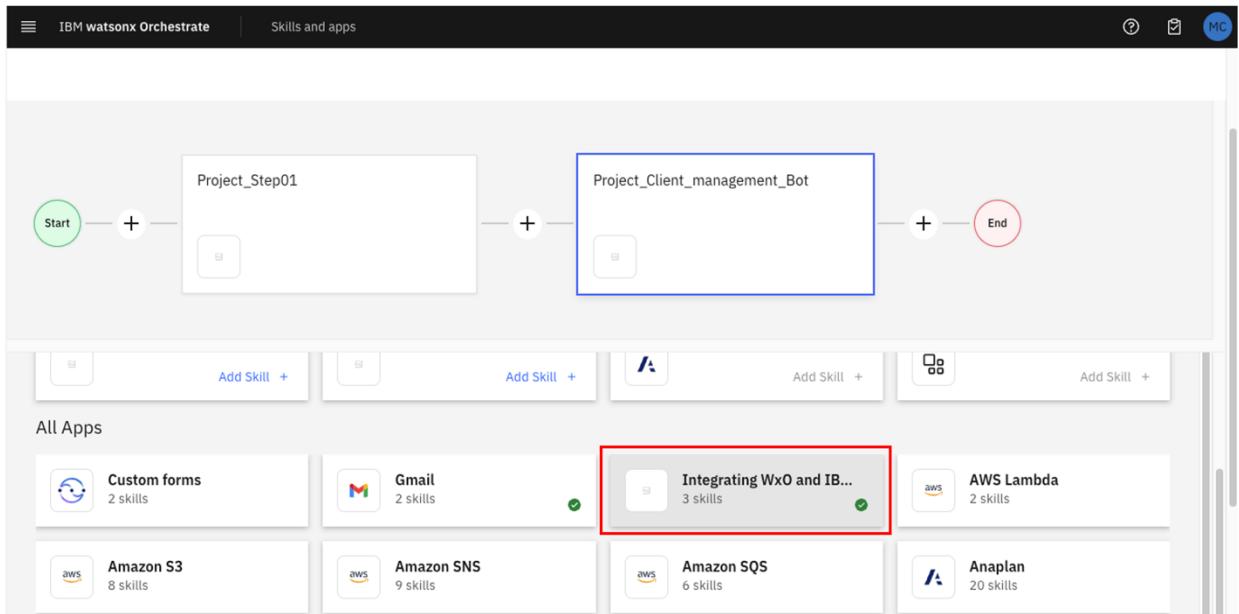
14.36 - Confirm if all parameters have been filled correctly. If necessary, adjust manually.



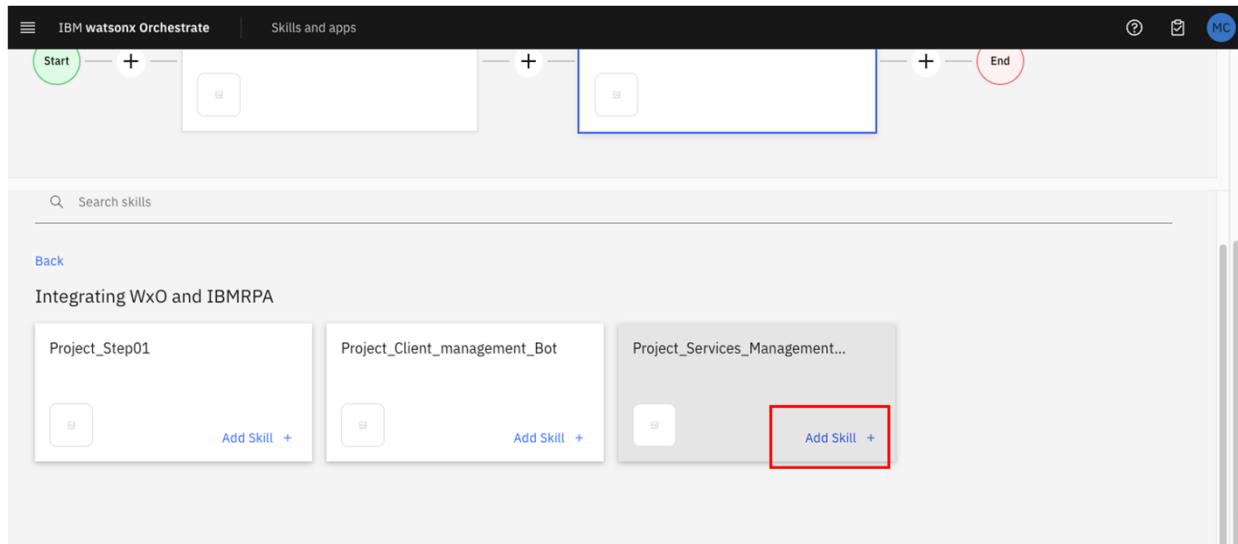
14.37 - Let's add a new skill. Click on the plus icon.



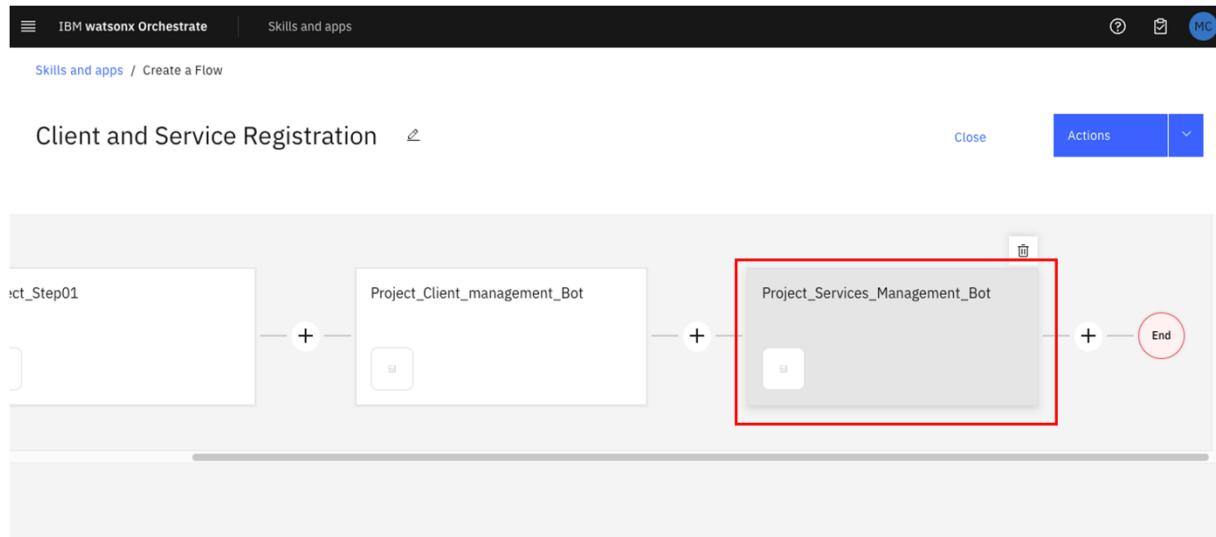
14.38 - Select the app Integrating WxO and IBM RPA.



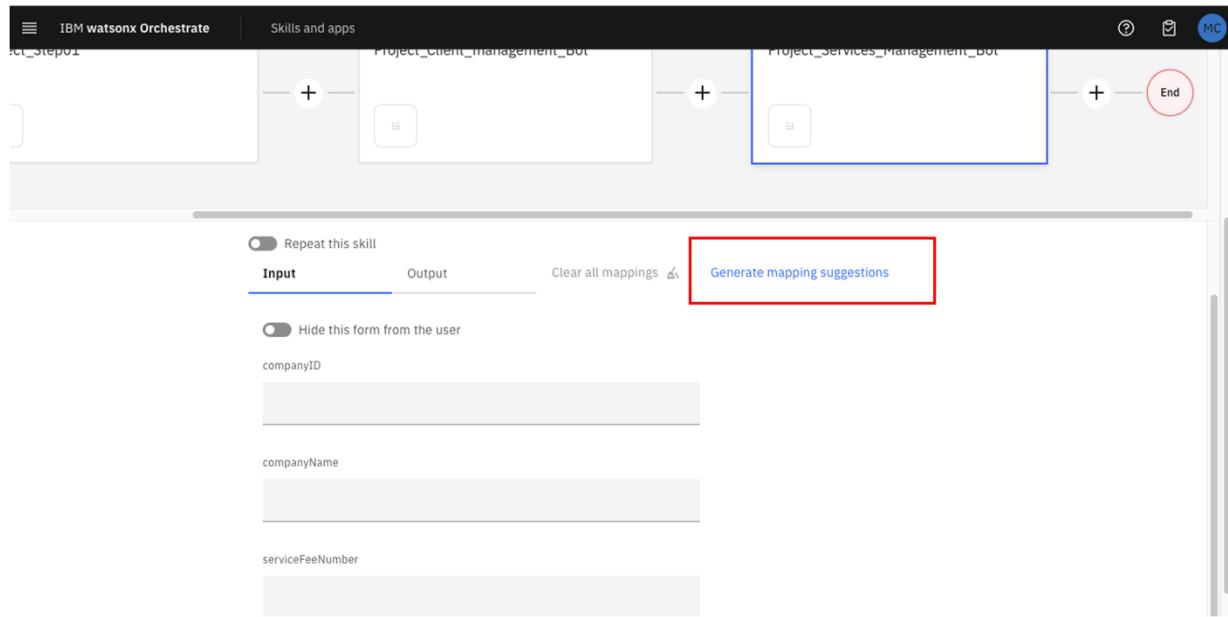
14.39 - Click on the 'add skill +' button for the skill Project_Services_Management_bot.



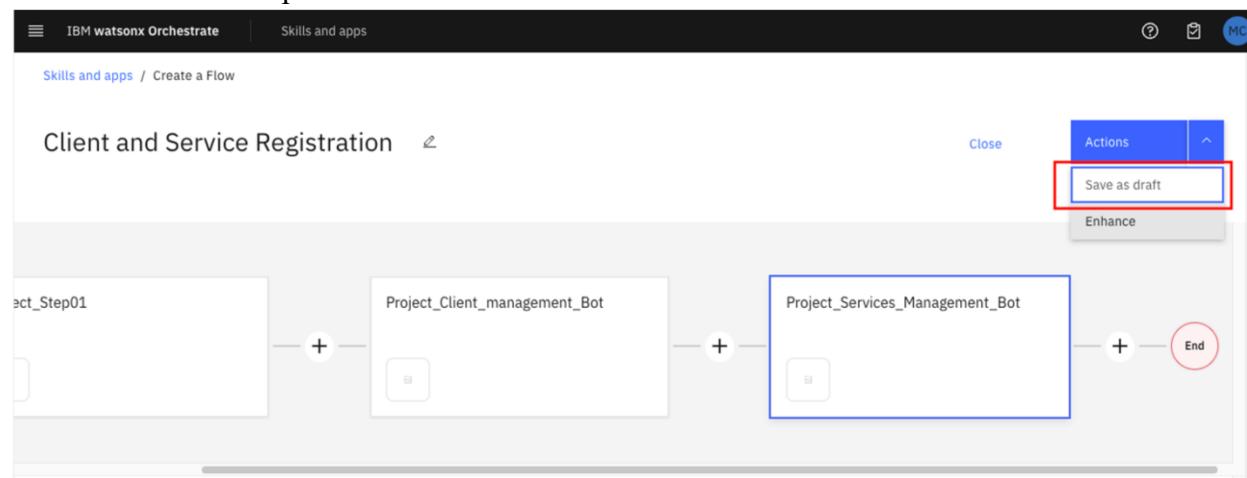
14.40 - Click on the skill to perform the mapping



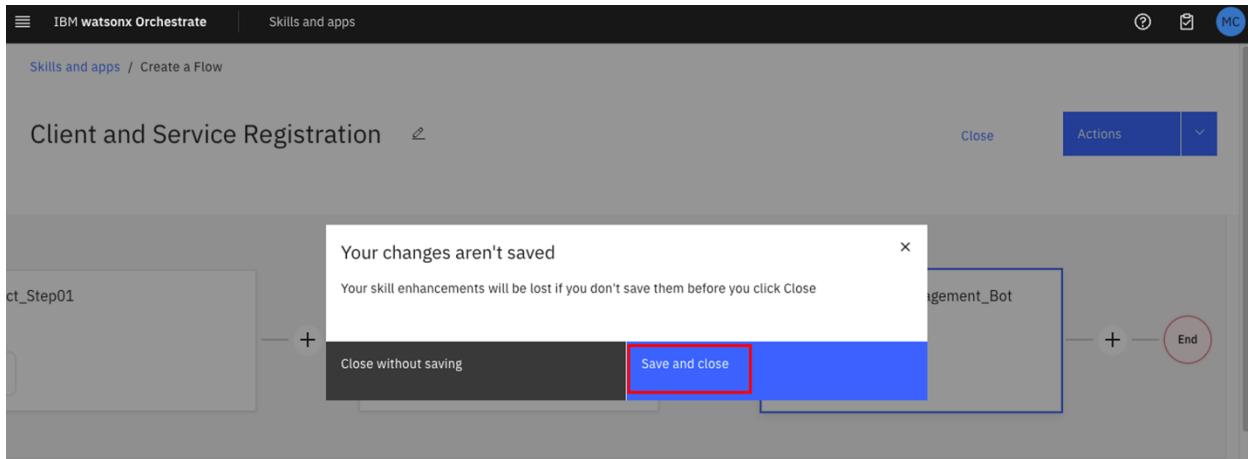
14.41 - Click on 'Generate mapping suggestions (item 14.31)



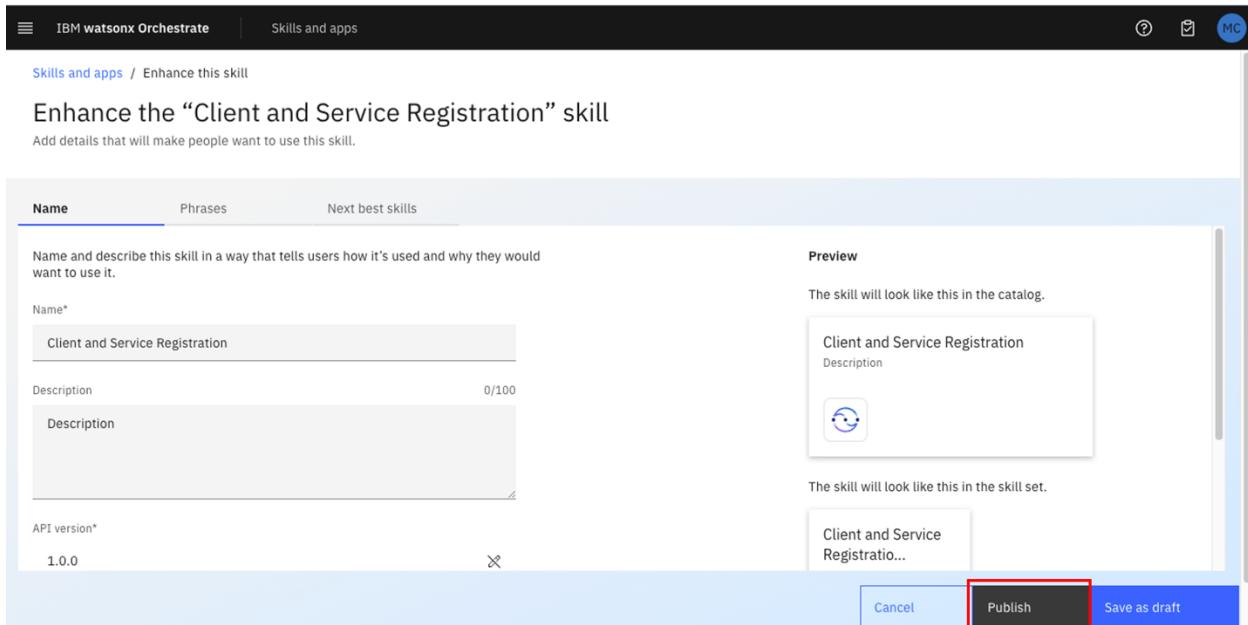
14.42- Click on the options of the Actions button and select Enhance.



14.43 – Click on the Save an Close button



14.44 - Now, let's publish the skill flow 'Client and Service Registration.' Click on the 'Publish' button.



14.45 - Now, let's add the skill to the catalog, On the left-hand side menu, click on 'Skill Catalog.'.

The screenshot shows the IBM WatsonX Orchestrate interface. On the left sidebar, under the 'BUILD' section, the 'Skill catalog' option is highlighted with a red box. A green notification bar at the top right indicates 'Published successful' with the message 'Published skill Client and Service Registration.' and the timestamp '08:33:32'. The main content area displays a table of skills:

	Step in the process	Status	Skill type	Author	Last edited	⋮
Client Onboarding	Ready to use	Published	Skill flow	marco.crepaldi@ibm.com	June 06 2024	⋮
Client Onboarding	Ready to use	Published	Imported	pooja.luthra@ibm.com	June 06 2024	⋮
Client Onboarding	Ready to use	Published	Imported	pooja.luthra@ibm.com	June 06 2024	⋮

14.46 – Find to Skill flow and click

The screenshot shows the 'All Apps' section of the IBM WatsonX Orchestrate interface. The 'Skill flows' category is highlighted with a red box. It contains 140 skills. Other categories visible include 'Cognos' (8 skills), 'Client Onboarding App ...' (2 skills), 'UsrXXX Client Onboardi...' (2 skills), 'DnB Beneficial Ownersh...' (1 skill), 'DnB Control and Owner...' (1 skill), 'DnB Company Financial...' (1 skill), and 'DnB Company Financial...' (1 skill). A footer message at the bottom left states 'Total apps: 95. Viewing section 1 of 2'.

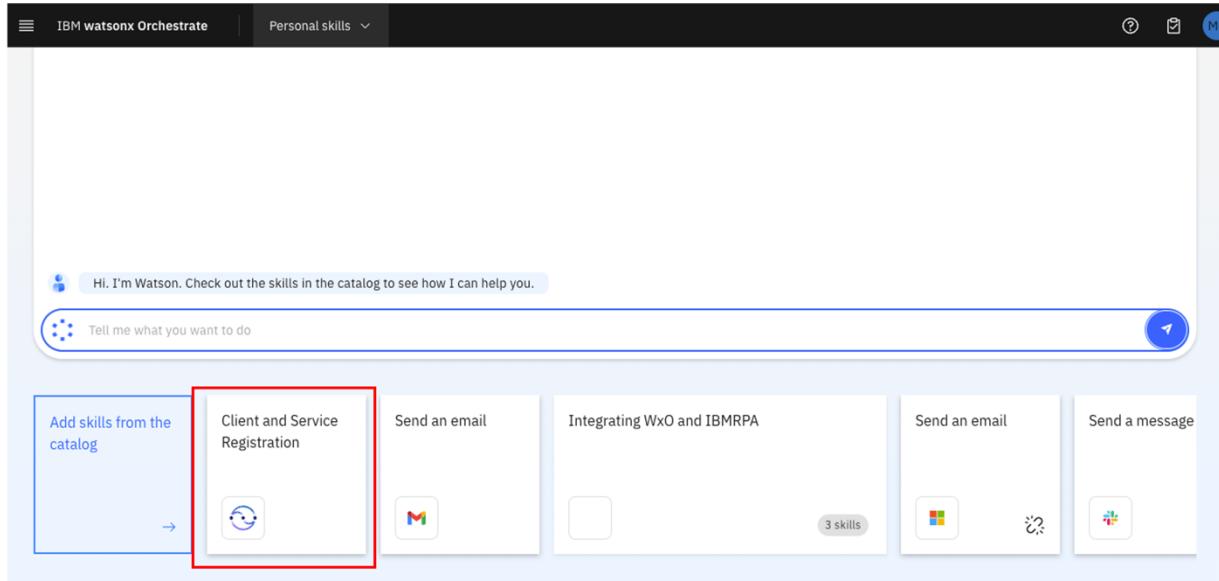
14.47 – Click on the Add Skill + Button

The screenshot shows the 'Skill flows (140)' section of the IBM WatsonX Orchestrate interface. A search bar at the top allows for searching skills. Below it, a grid of skill cards is displayed. One specific skill card, 'Client and Service Registration', has its 'Add skill +' button highlighted with a red box. The card itself contains a brief description: 'Description'.

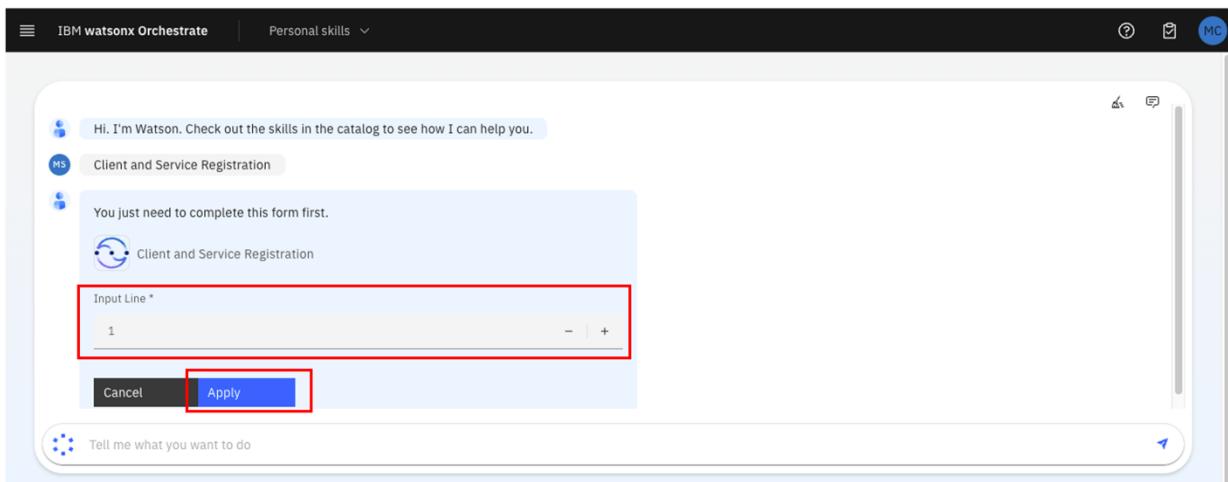
14.48 - On the left-hand side menu, click on 'Chat.'

The screenshot shows the left-hand sidebar of the IBM WatsonX Orchestrate interface. The 'Chat' option is highlighted with a red box. Other options in the sidebar include 'Monitor skills', 'Skill catalog', 'Skills and apps', 'AI assistant builder', and 'Automations'. The main content area displays the same skill flows grid as the previous screenshot, with the 'Client and Service Registration' skill now showing an 'Added ✓' status next to its 'Add skill +' button.

14.49 - Now, your skill flow is available in the chat. Click to interact using the shortcut or engage in the chat. Click on the Client and Service Registration skill.



14.50- Fill in the input line. This input requests which line of the data.csv table will be registered. The table currently has a total of 2 lines, but you can insert more records.Click on the Apply button.



14.51 - The records will be displayed in the form. You can confirm or edit these values. To proceed to the next skill, click the 'Apply' button.

The screenshot shows a configuration dialog box from the IBM Watsonx Orchestrate interface. The dialog contains three input fields:

- onboardingStatus: Yes
- companyName: Hilpert and Sons
- companyAge: 7

At the bottom of the dialog are two buttons: "Cancel" and "Apply". The "Apply" button is highlighted with a red border. Below the dialog, there is a search bar with the placeholder "Tell me what you want to do" and a small blue icon.

Congratulations on successfully integrating Watsonx Orchestrate with IBM RPA! Now that the integration is complete, you have the opportunity to enhance the project by integrating error-handling routines in the IBM RPA scripts, creating interaction phrases for chat communication, customizing the display fields in the chat, and more. If you have any questions, feel free to reach out for assistance..