

Lab Guide

IBM RPA – Automate Java Apps

Hands-on Lab

Version 1.3 for General Availability

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1. Introduction

This hands-on lab you will use RPA Automation Studio to enhance the automation you created in [Lab 1](#). You will start with an existing automation and make the necessary enhancements.

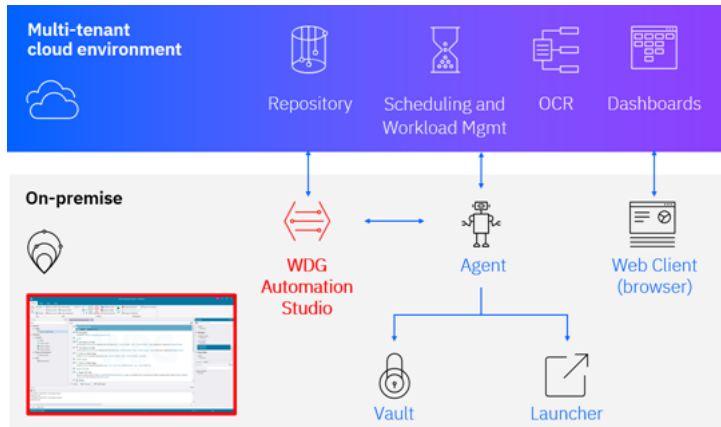


FIGURE 1. RPA – AUTOMATION STUDIO

Use case

In Lab 1 you learned how to automate processing of sales leads that arrive in a CSV/Excel format. The bot you created in Lab 1 automatically entered the sales leads into the online opportunity system of record (JK Automation Sales Leads).

In this Lab you will learn how to enter the sales leads into a legacy Java SWING Application.

	A	B	C	D	E	F	G	H	I	J	K	L
1	First Name	Last Name	Job Title	Company	email	phone	Client Ad	Client City	Client State	Client Zip	Area of Interest	Followup
2	Paul	Pacholski	Consultant	Hannibal Enterprises	pacholsk@hannibalent.com	905-883-8234	119 Barkley Drive	Thornhill	ON	L3T-6N2	Auto ML	Yes
3	Dave	Wakeman	Director of IT	Wakeman Enterprises	dwakema@wakemane.com	515-555-4932	1321 Fleur Des Moines	Des Moines	IA	50309	Robotic Process	Yes
4	Pramod	Prince	IT Developer	United Therapeutics	pramod@unithr.com	612-555-2332	Henrietta	Minneapolis	MN	55404	Microservices	No
5	Otto	Pilot	CIO	Autonomous Systems	otto@autosys.com	669-555-8987	1501 Burlingame	San Jose	CA	95002	Autonomous Systems	Yes
6	Stu	Liebowitz	Vice President	Craymore Industries	stu@craymore.com	512-555-1115	1501 Burlingame	Austin	TX	78702	Business Process	Yes
7	Sheri	Williams	Director of IT	Piston Motors	sheriw@pistonmotors.com	313-555-2503	503 Fasbinder	Detroit	MI	48202	IT Service	No
8	Monika	Datar	Data Scientist	Covfefe Products	monika@covfefe.com	212-555-5151	1501 Burlingame	New York	NY	10026	Machine Learning	Yes
9	Jeff	Goodhue	Director of IT	Dojo Networks	jeff@dojonetworks.com	424-555-4339	12 Sun Valley	Culver City	CA	90233	Content Management	Yes
10	Satoshi	Nakamoto	Lead Developer	Programmer's Paradise	satoshi@pp.com	929-555-2392	8000 Crypt	Seattle	WA	98114	Case Management	No
11	Timothy	McGee	Data Scientist	Coach K Consulting	tim@coachk.com	919-555-0928	10000 Hoops	Raleigh	NC	27676	Data Scientist	Yes
12	Josh	Bockman	Director of IT	HealthFirst	josh@healthfirst.com	617-555-1321	10000 King Street	Boston	MA	2132	Business Process	Yes
13	Stuart	Jones	Enterprise Architect	Wessex Financial	stuart@wessexfinancial.com	630-555-9171	1501 Burlingame	Chicago	IL	60624	Cloud	No

WDG AUTOMATION
An IBM Company

Focus Corp - Sales Lead ManagementSystem (SLMS)- Update

Sales Lead Information

Case Number: 46283294

First Name: Paul

Last Name: Pacholski

Job Title: Consultant

Company: Hannibal Enterprises

Email Address: pacholsk@hannibalent.com

Phone Number: 905-883-8234

Address: 119 Barkley Drive

Country Subdivision:

Zip Code: L3T-6N2

Area of Interest: Auto ML

Follow-up Requested:


ADD EXIT


FIGURE 2. RPA BOT INSERTS CSV DATA INTO JAVA SWING LEGACY APPLICATION


Prerequisites


- Personal RPA Account activated
- RPA Studio installed and configured to your computer


Before you start make sure you download the lab files from this BOX folder:
<https://ibm.box.com/s/g35bfmx4ck66ii2hkxqkr4i6sgpxbb3v>

	Automate Java Apps using RPA from WDG Automation.pdf
---	--

	sales-lead-automation-JavaApp - completed.wal
---	---

	sales-lead-automation-JavaApp - start.wal
---	---

	SalesLeads.csv
---	----------------

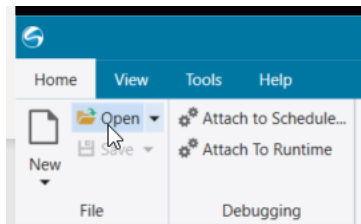
	SLMS.jar
---	----------

2. Run Completed Automation

If you just want to run the automation without authoring it first follow these instructions below.

Open completed lab

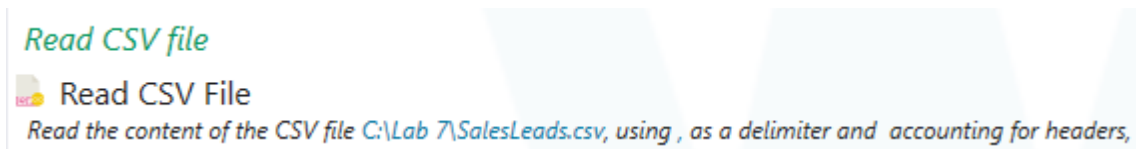
_1. In RPA Studio, Select Open



_2. Navigate to **sales-lead-automation-JavaApp - completed.wal** and click Open .

Change input csv file location

_1. Double click on the Read CSV File command



_2. Click File selection helper icon to change the location of the **SalesLeads.csv** file

Change location of the Java App

_3. Double click on the Launch and Attach Window command



_4. Click File selection helper icon to change the location of the **SLMS.jar** file

Run the automation

_1. Click the green Start icon form the top toolbar. Alternatively you can hit F5.



_2. Follow the steps in [Test your automation](#) on page 21.

3. Lab Instructions

Start RPA Automation Studio

_1. Double-click the RPA Studio shortcut in your desktop.



_2. When the login window opens (might take a while for the first time), type in your username and hit the Login button.

A screenshot of the WDG Automation login interface. At the top is the 'WDG AUTOMATION' logo. Below it is the text 'Please, enter your login data.' There are three input fields: 'User Name' containing 'pacholsk@ca.ibm.cm', 'Tenant' with a dropdown arrow, and 'Password'. A blue 'Login' button is at the bottom, with a 'Forgot Password' link below it.

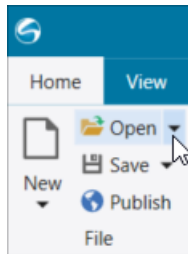
_3. When your tenant name is displayed, type in your password and hit the Login button again.

A second screenshot of the WDG Automation login interface. The 'User Name' field still contains 'pacholsk@ca.ibm.com'. The 'Tenant' dropdown menu is now open, showing 'IBM' as the selected option. The 'Password' field is filled with eight asterisks. The blue 'Login' button and 'Forgot Password' link remain at the bottom.

Import starting automation WAL file

You will now import the automation file that includes some of the code you created in Lab 1: “Build your first RPA bot using RPA Automation” - <https://ibm.box.com/s/6fcqashjedvuzp8xckwu0e4i2o4i14g9>

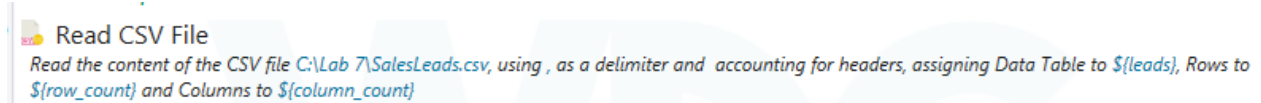
_1. Click Open icon from the top toolbar.



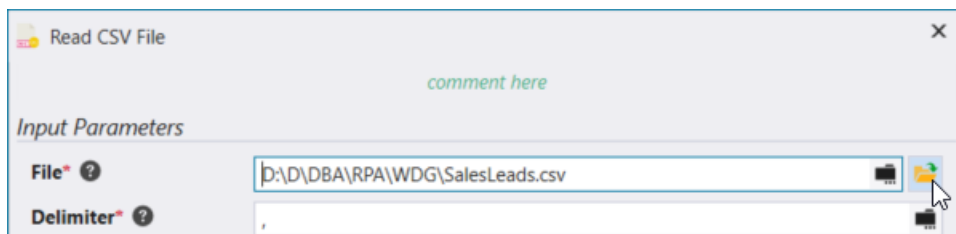
_2. Select **sales-lead-automation-JavaApp - start.wal** and click Open.

Change input csv file location

_1. Double click on the Read CSV File command



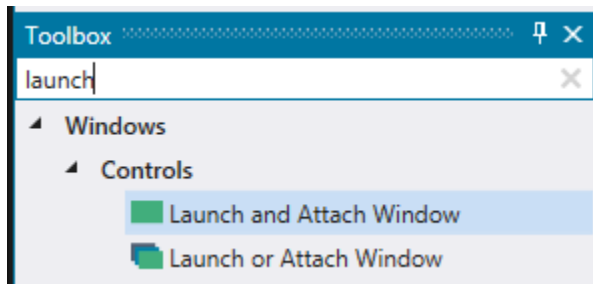
_2. Click File selection helper icon to change the location of the **SalesLeads.csv** file and then click Save



_3. Save your work by hitting Ctrl+S or the Save icon from the top toolbar.

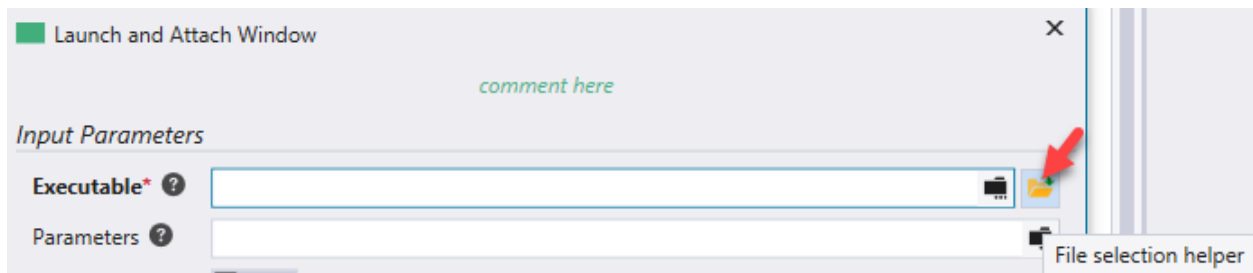
Add Launch Java App Command

_1. In the Toolbox palette enter **Launch**

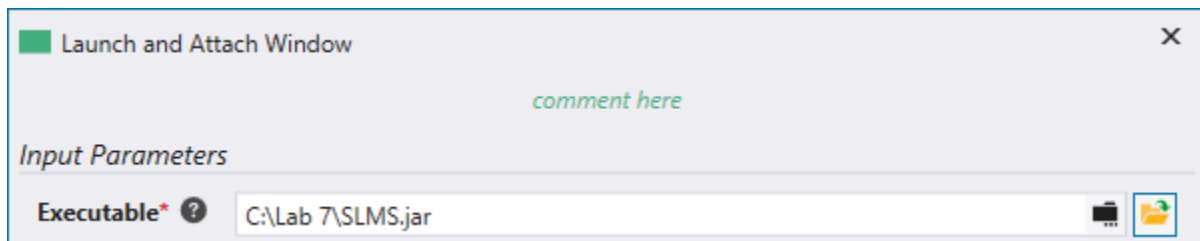


_2. Drag and drop Launch and Attach Window command below line with **Start Java App** comment

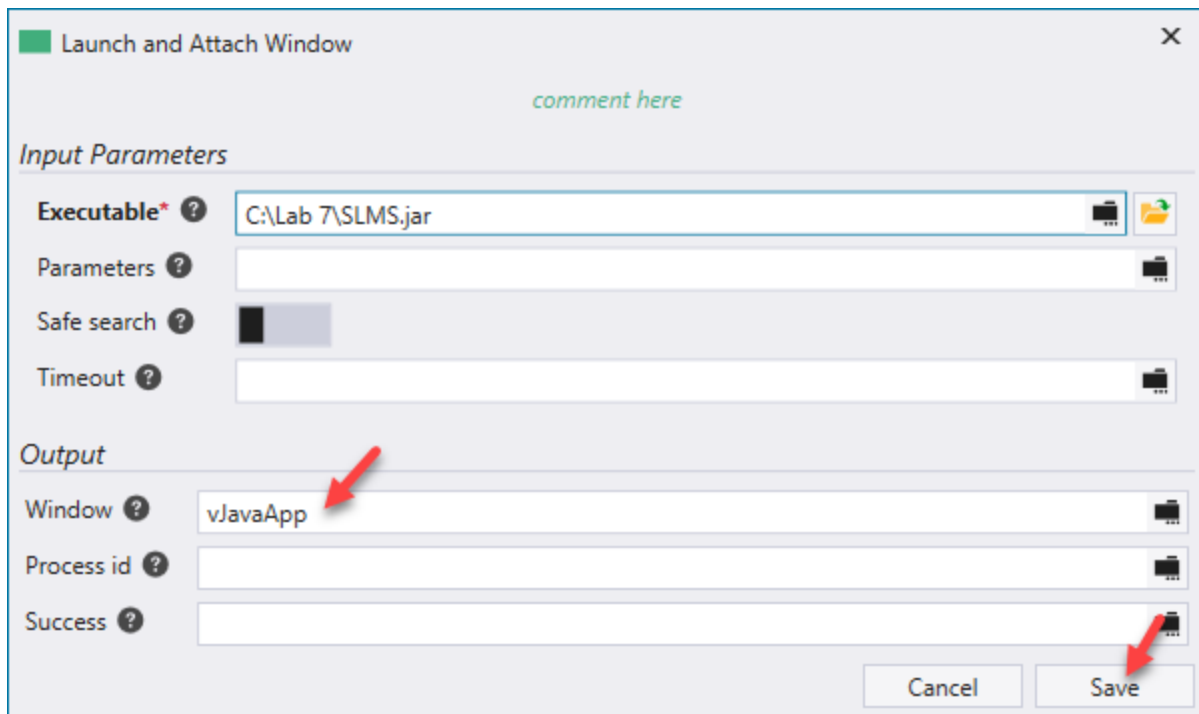
_3. Click File selection helper



_4. Select **SLMS.jar**



_5. For Window enter **vJavaApp** and click Save



Launch and Attach Window

comment here

Input Parameters

Executable* ? C:\Lab 7\SLMS.jar

Parameters ?

Safe search ? ☐

Timeout ?

Output

Window ? vJavaApp

Process id ?

Success ?

Cancel Save

Your new command should look like this



Automate the Login Window

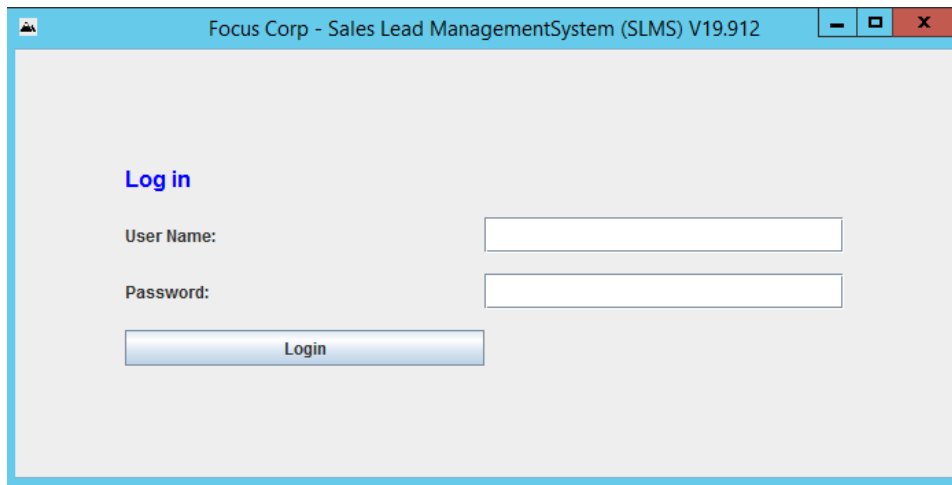
You will use the **Screen Reorder** to capture the ids of the Java App fields and to interact with the

controls in the Java App you are automating.

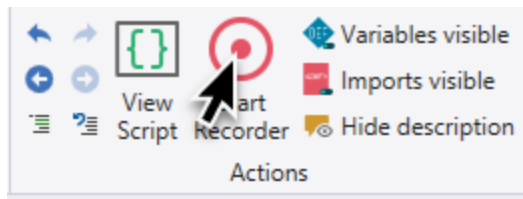


_1. Start the Java App by double clicking on **SLMS.jar** file (this is one of the lab files).

You should now see the login window.



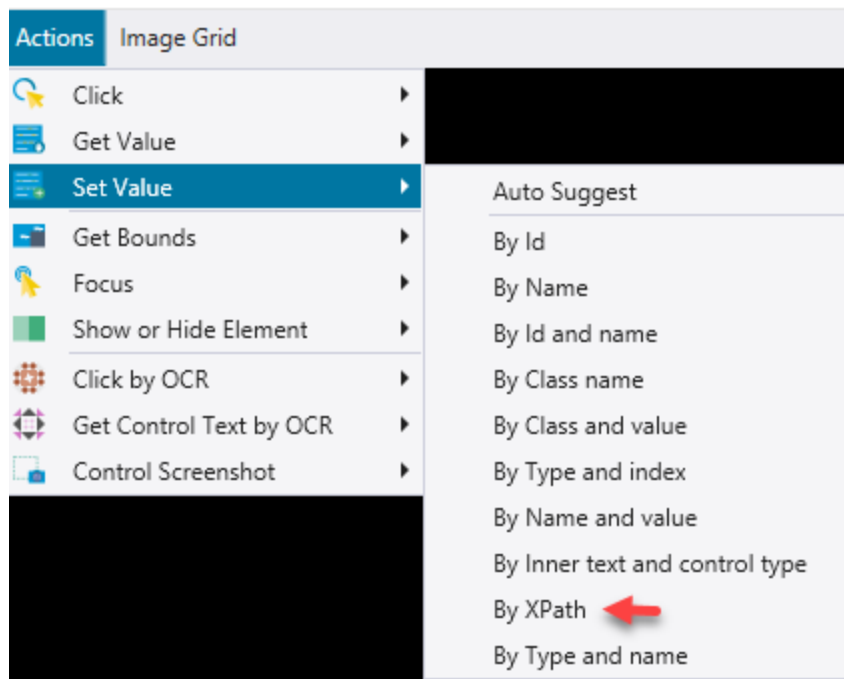
_2. Click Start Recorder



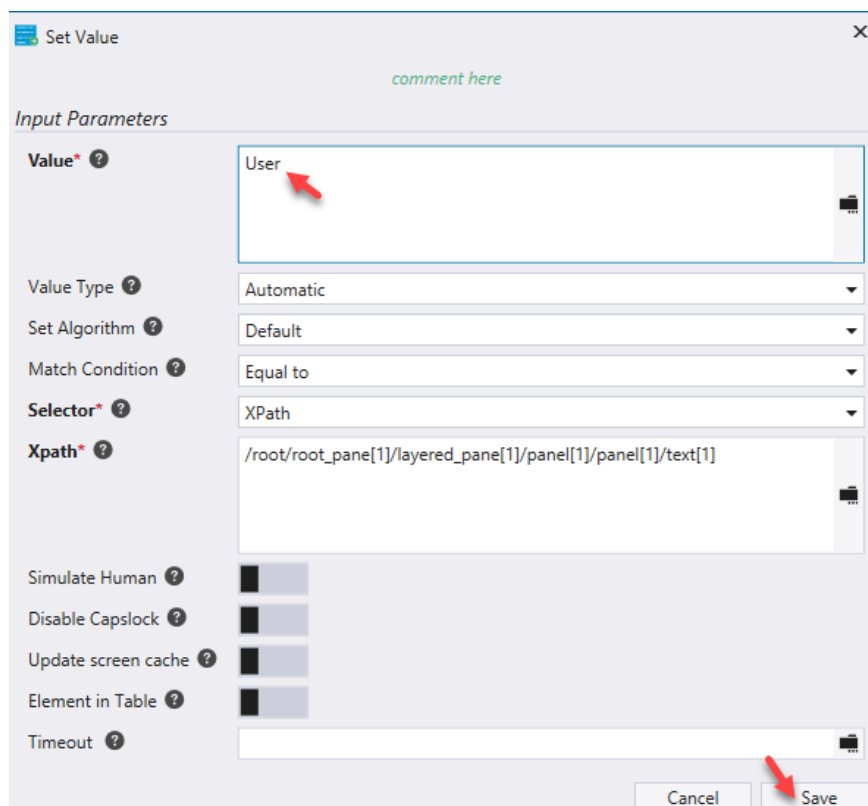
_3. Use Left Ctrl key to select entry field to the left of **User Name** label. When selected the entry field will turn red.



_4. Select Actions > Set Value > By XPath



_5. In Set Value window, For Value enter **User** and click Save

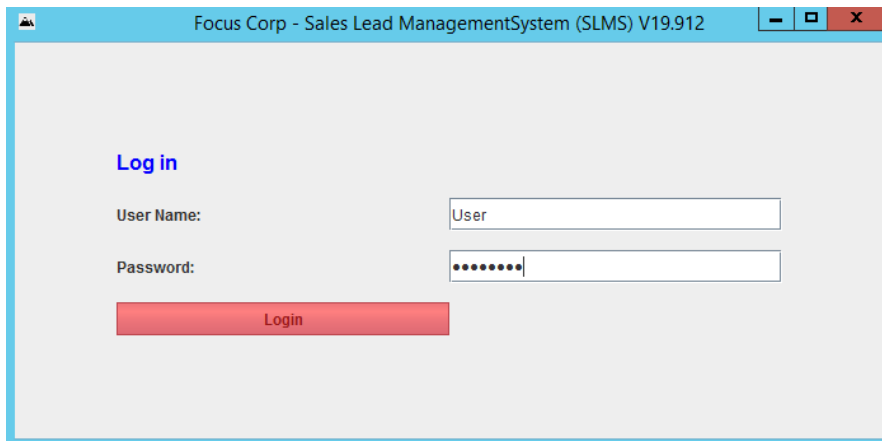


_6. Use Left Ctrl key to select entry field to the left of **Password** label. When selected the entry field will turn red.

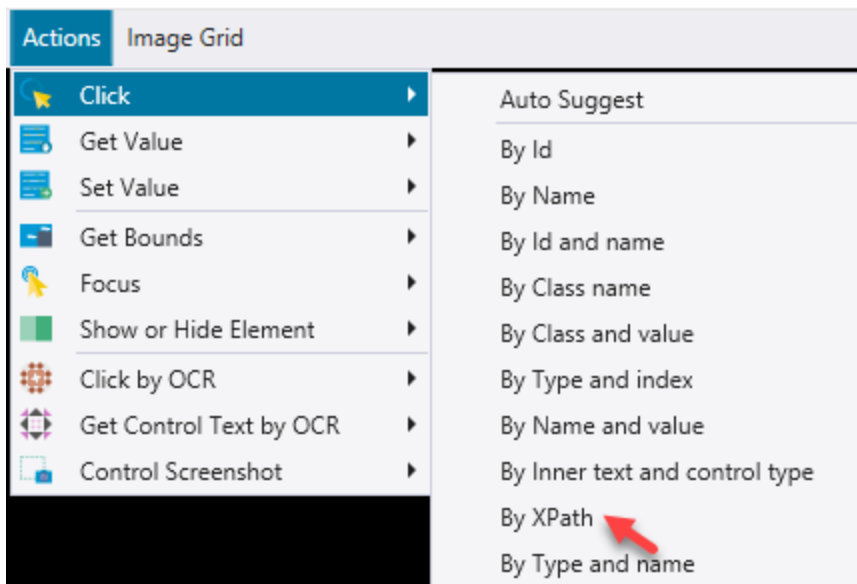
_7. Select Actions > Set Value > By XPath

_8. In Set Value window, For Value enter **password** and click Save

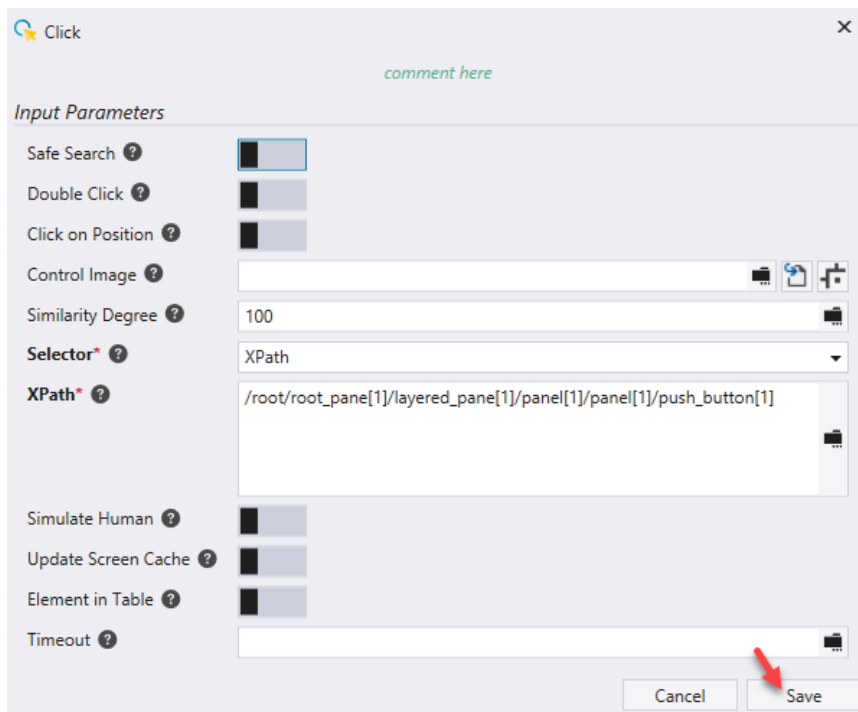
_9. Use Left Ctrl key to select **Login** button. When selected the button will turn red.



_10. Select Actions > Click > By XPath



_11. On Click window click Save



Note that now the Java App display the Update Pane with Case Number for a sales lead already generated

Focus Corp - Sales Lead ManagementSystem (SLMS) - Update

Sales Lead Information

Case Number: 72068718

First Name:

Last Name:

Job Title:

Company:

Email Address:

Phone Number:

Address:

Country Subdivision:

Zip Code:

Area of Interest:

Follow-up Requested:

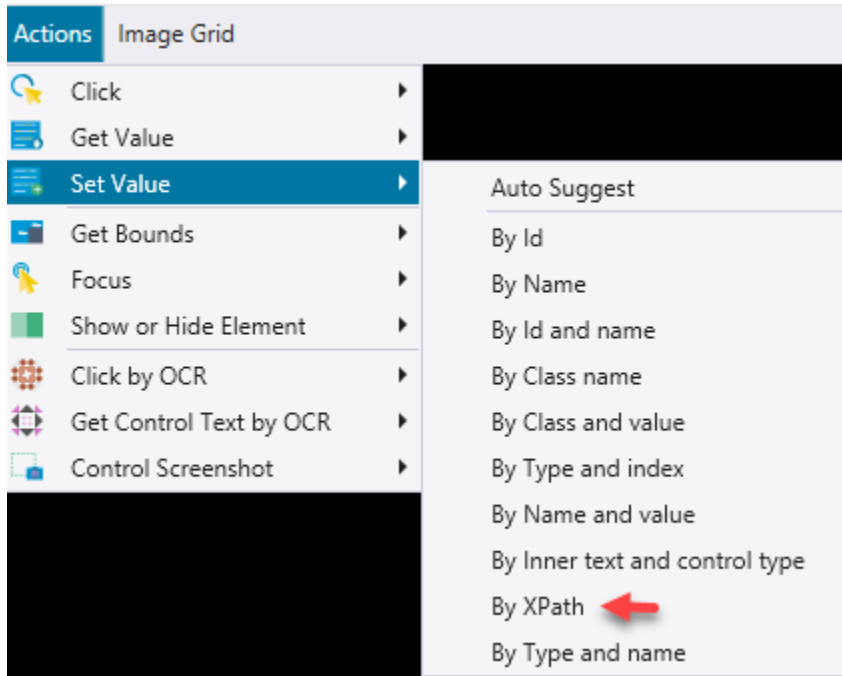
ADD EXIT

Automate the Data Entry onto Update Window

_1. Use `Left Ctrl` key to select entry field to the left of **First** label. When selected the entry field will turn red.

First Name:

_2. Select `Actions > Set Value > By XPath`



_3. In `Set Value Windows` click `Select a variable`

Value* ?

_4. Select **first_name** and click Save

Set Value

comment here

Input Parameters

Value* ?

Value Type ?

Set Algorithm ?

Match Condition ?

Selector* ?

Xpath* ?

Simulate Human ? ☐

Disable Capslock ? ☐

Update screen cache ? ☐

Element in Table ? ☐

Timeout ?

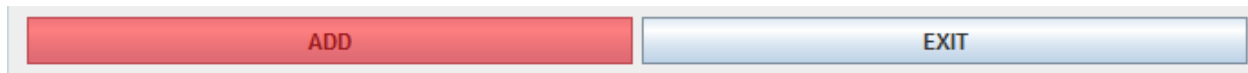
Cancel Save

_5. Repeat the above steps select the matching variables so that your Update pane looks like this:

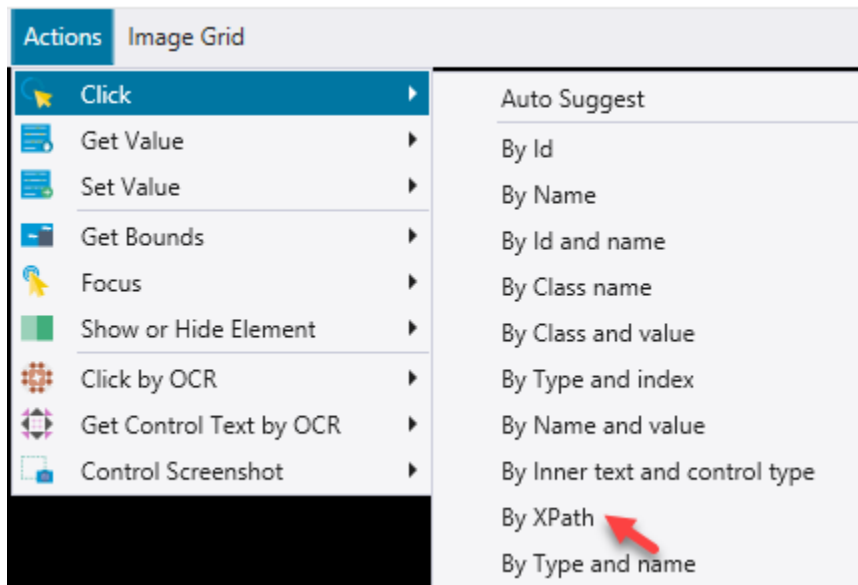
Case Number:	72068718
First Name:	\${first_name}
Last Name:	\${last_name}
Job Title:	\${job_title}
Company:	\${company}
Email Address:	\${email}
Phone Number:	\${phone}
Address:	\${client_address}
Country Subdivision:	\${client_state}
Zip Code:	\${client_zipcode}
Area of Interest:	\${interest}
Follow-up Requested:	\${followup}

Automate Buttons in Update Pane

_1. Use **Left Ctrl** key to select **ADD** button. When selected the button will turn red.

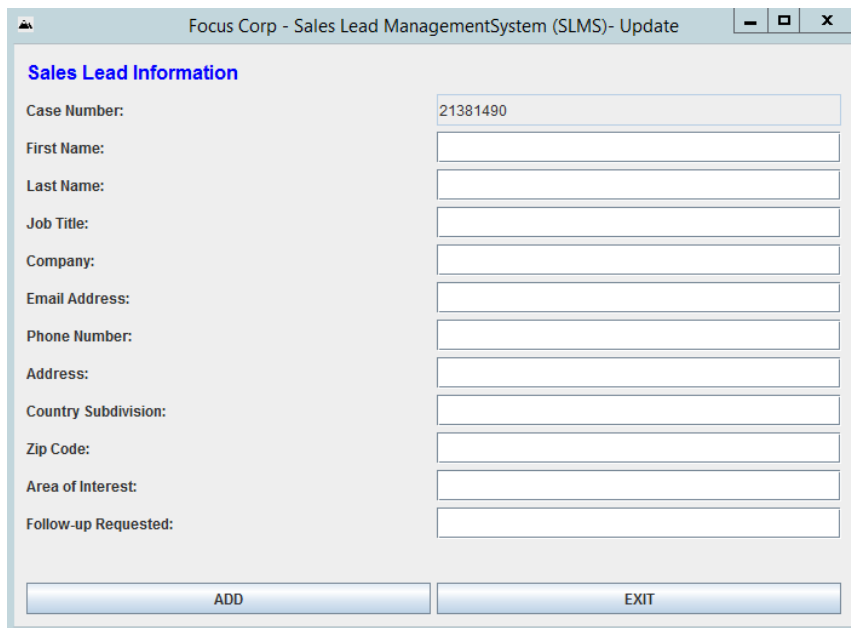


_2. Select **Actions > Click > By XPath**



_3. On **Click** window click **Save**

Note that this action cleared all the entry files and generated a new Case Number



_4. Use `Left Ctrl` key to select **EXIT** button. When selected the button will turn red.

_5. Select `Actions > Click > By XPath`

_6. On `Click` window click `Save`

Note that this action close the Java App.

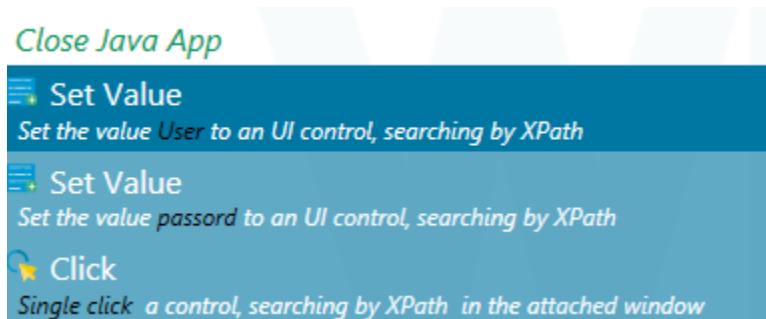
_7. On `x` button to close the Recorder (located in top right corner of your display)



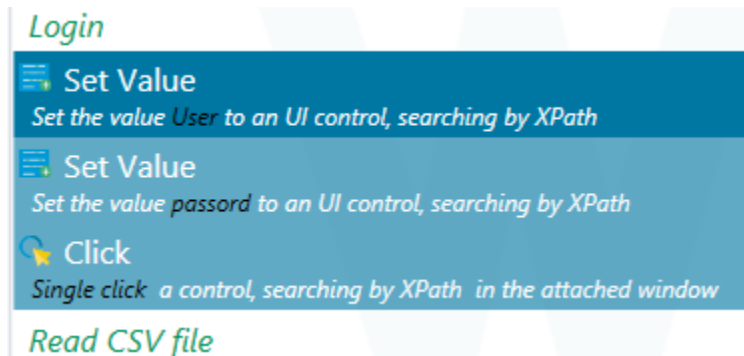
Move Commands Generated by Recorder

The commands generated by the Recorder appear at the end of the WAL file. We will need to move these Commands to the right locations.

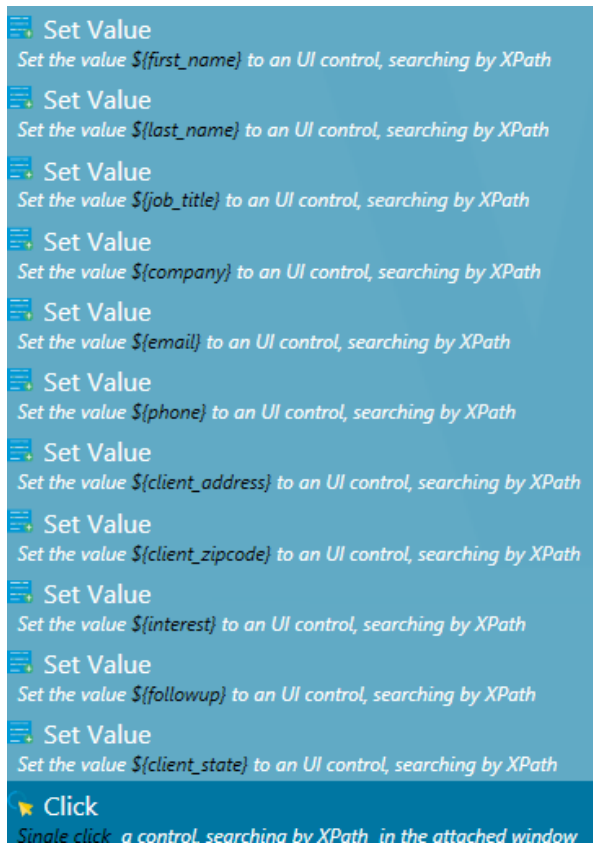
_1. Select the **three Commands** that automate Java App login (use `Shift` key for multiple selection)



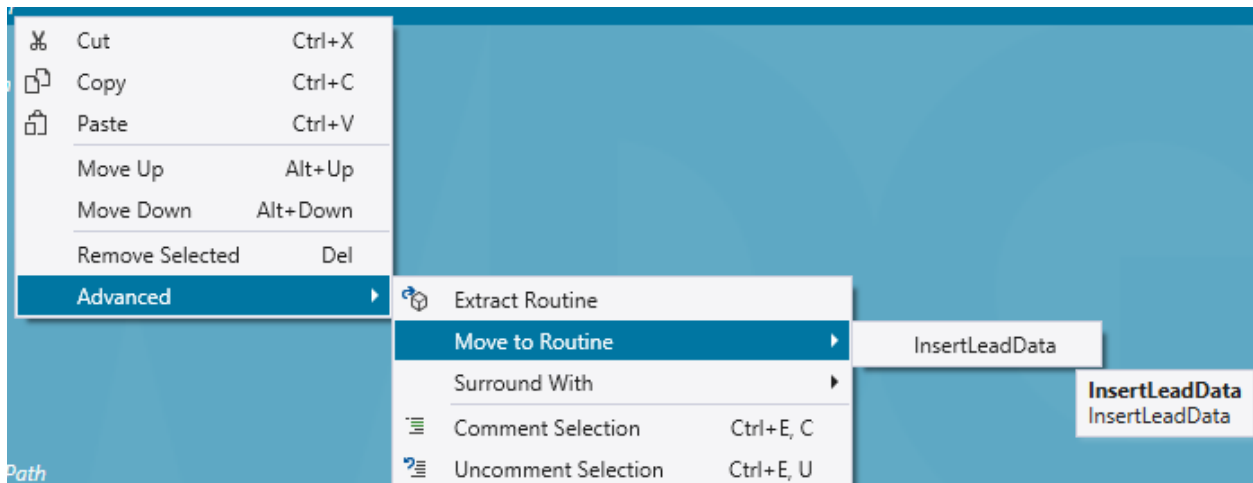
_2. Use `Alt Up Arrow` key to move up the Three Commands below Login comment line



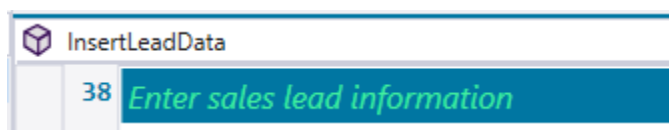
_3. Select the **12 Commands** that automate data entry (use **Shift** key for multiple selection)



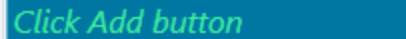
_4. Right click and select **Advanced > Move to Routine > InsertLeadData**



The editor is now open in the InsertLeadData Routine

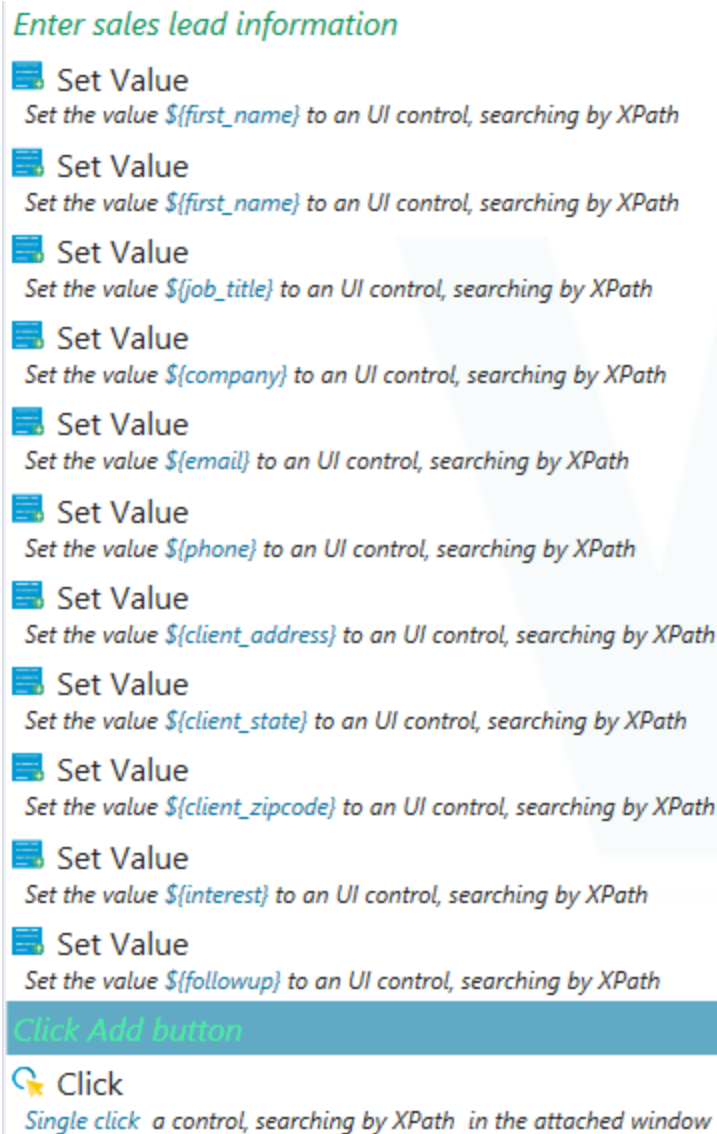


_5. Select **Click Add Button** comment

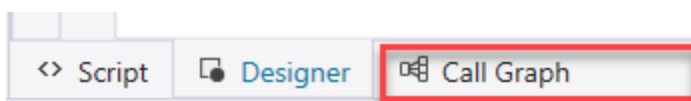


_6. Use **Alt Down Arrow** key to move it down right above Click command

You code should now look like this:



_7. Click **Call Graph** tab



_8. Double click **main**

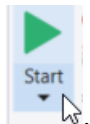


_9. Click **Save** to save your work!



Test your Automation

_1. Click the green **Start** icon form the top toolbar. Alternatively you can hit **F5**.



You should now see the RPA Bot in action

A screenshot of a web application window titled 'Focus Corp - Sales Lead ManagementSystem (SLMS)- Update'. The window displays a form titled 'Sales Lead Information'. The form contains the following fields and values:

Field	Value
Case Number:	46283294
First Name:	Paul
Last Name:	Pacholski
Job Title:	Consultant
Company:	Hannibal Enterprises
Email Address:	pacholsk@hannibalent.com
Phone Number:	905-883-8234
Address:	119 Barkley Drive
Country Subdivision:	
Zip Code:	L3T-6N2
Area of Interest:	Auto ML
Follow-up Requested:	

At the bottom of the form, there are two buttons: 'ADD' and 'EXIT'.

THE END