PRACTICAL NO. 1

A) Aim: Create a Sequence based project.

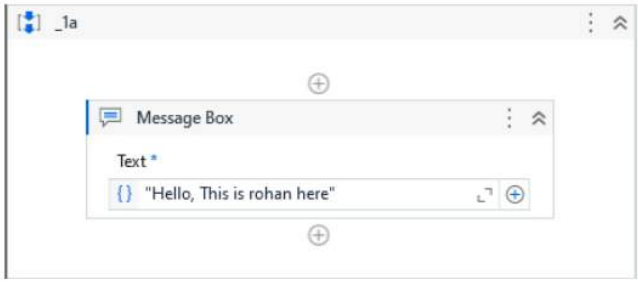
Steps: -

Step 1: Open UiPath Studio. Start a Blank Process and give a name to it.

Step 2: Drag and Drop a Sequence Activity from the Activity Panel in the workflow.

Step 3: Drag and drop a Message Box Activity in the Sequence Activity and type anything that you want to print. (e.g. "Hello, This is rohan here".)

Step 4: Run



Output:

B) Aim: Create a Flowchart based project.

Steps: -

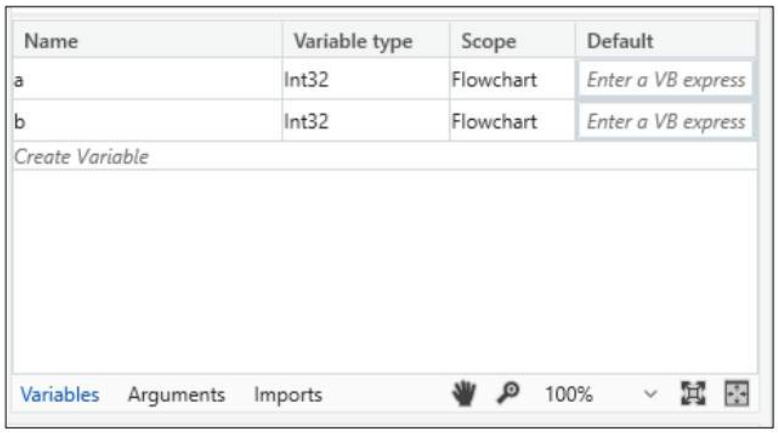
Step 1: First, add a Flowchart from the Activities panel into the Designer panel.

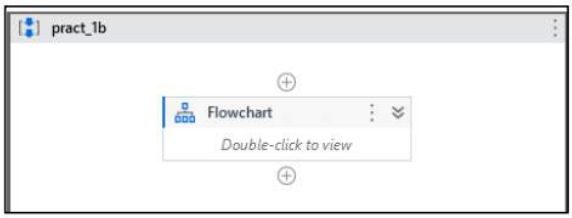
Step 2: Take two Input dialog activities (for entering the numbers to be added) inside flowchart

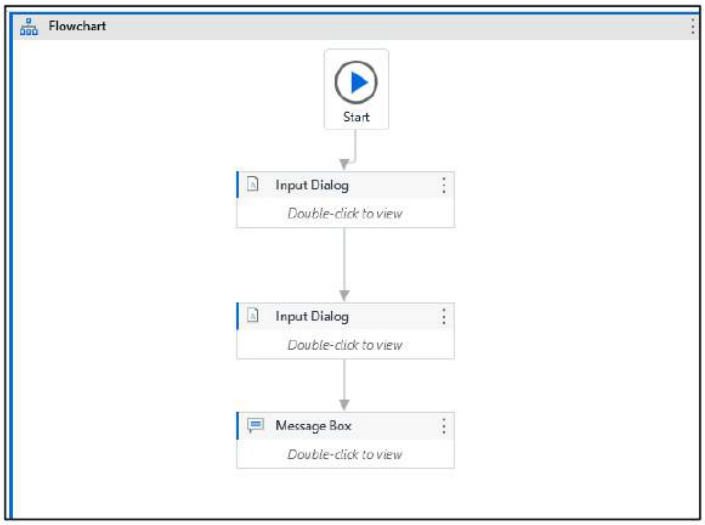
Step 3: Create the variables **x** and **y** to save the values.

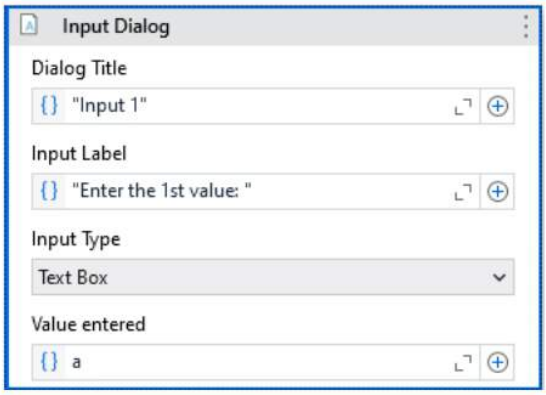
Step 4: Next, add a Message box activity to perform a mathematical operation(addition). To show sum of the two numbers write: x + y

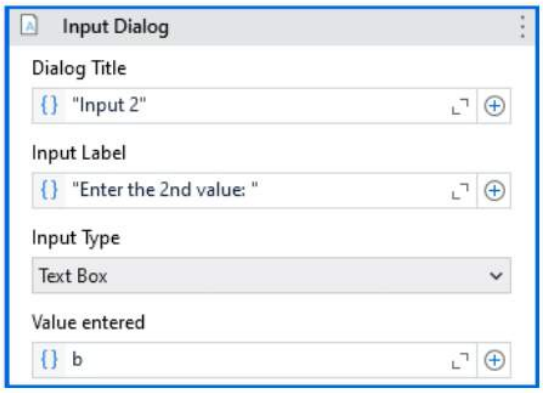
Step 5: Run

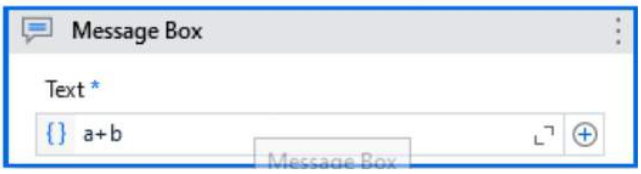




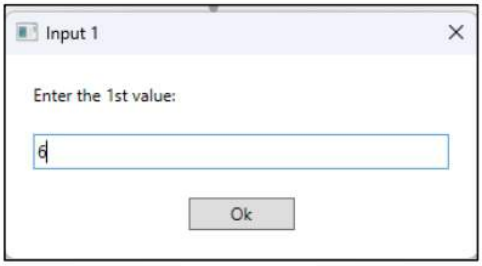


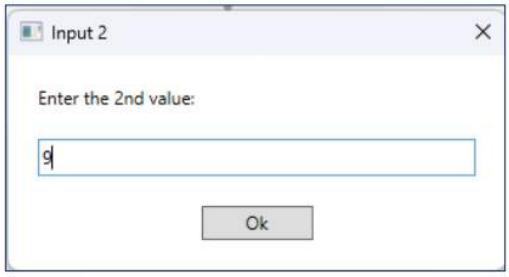




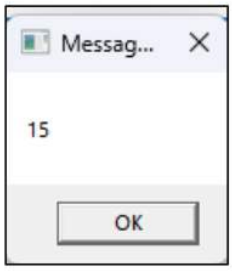


Output:





Addition of two numbers:



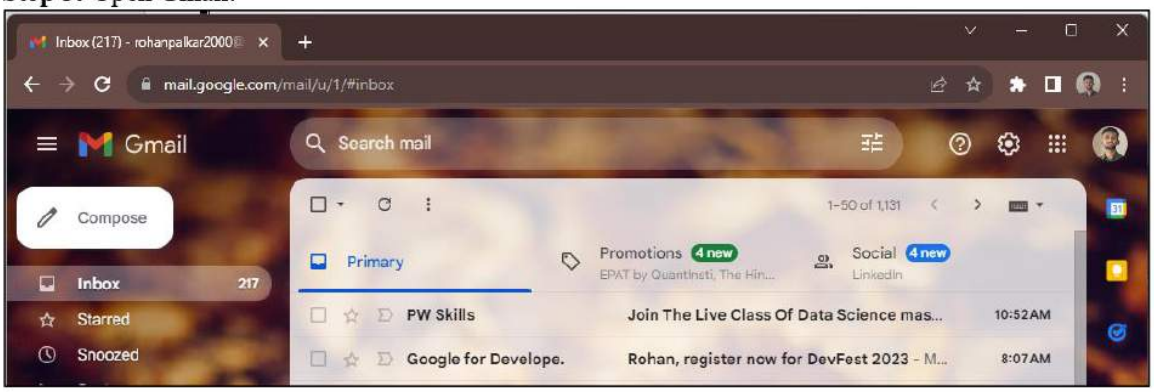
C) Aim: Create an UiPath Robot which can empty a folder in Gmail solely on basis of recording.

Steps: -

Step 1: Open UiPath Studio. Start a blank Process and give it a meaningful name.

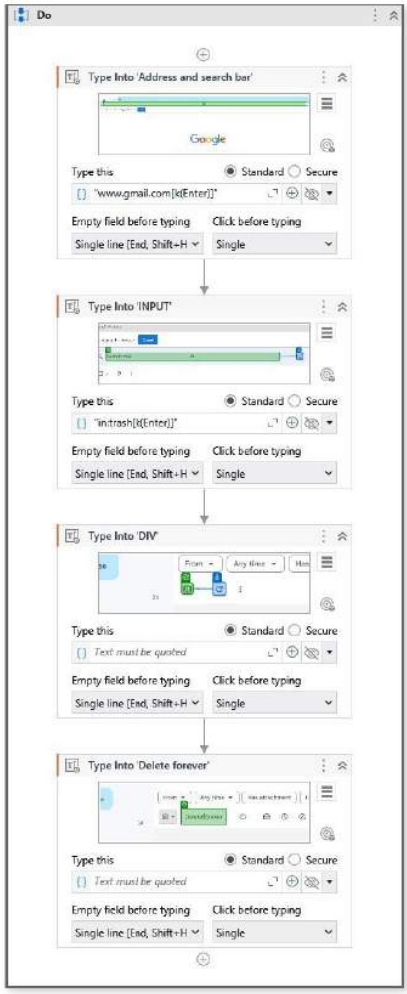
Step 2: Drag and drop "Sequence" activity in the designer panel.

Step 3: Open Gmail.



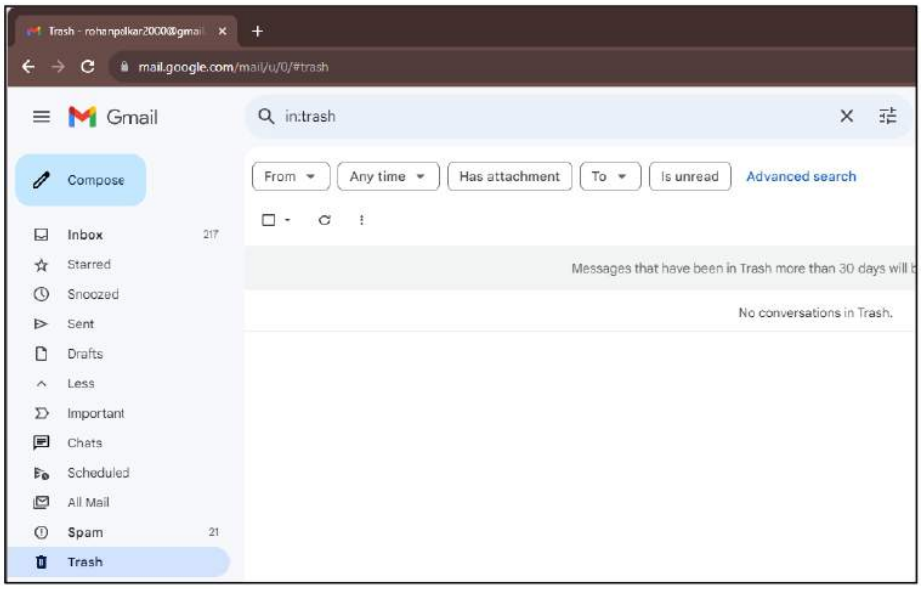
Step 4: Click on "App/ Web Recorder" Icon to record the following steps using the "Use Browser" Activity.

Step 5: Record the following steps Click on the "Bin", then click on "Empty Bin" and Click on Yes to Confirm the Empty Bin action. Save and confirm to return back to UiPath Studio. This will create a Recorder Sequence in the workspace.



Step 6: Click the Run button and see the result.

Output:



PRACTICAL NO. 2

A. Aim: Automate UiPath Number Calculation (Subtraction, Multiplication, Division of numbers).

Steps: -

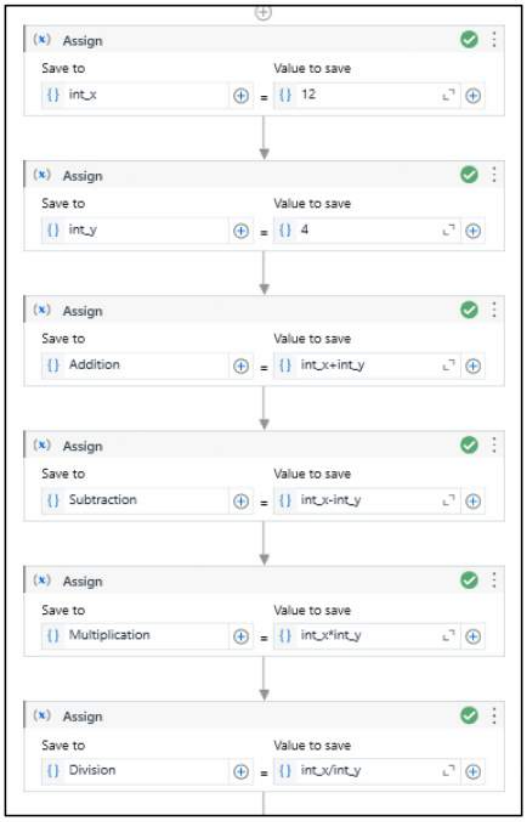
Step 1: Drag and Drop a Flowchart Activity in the workflow from the Activity Panel.

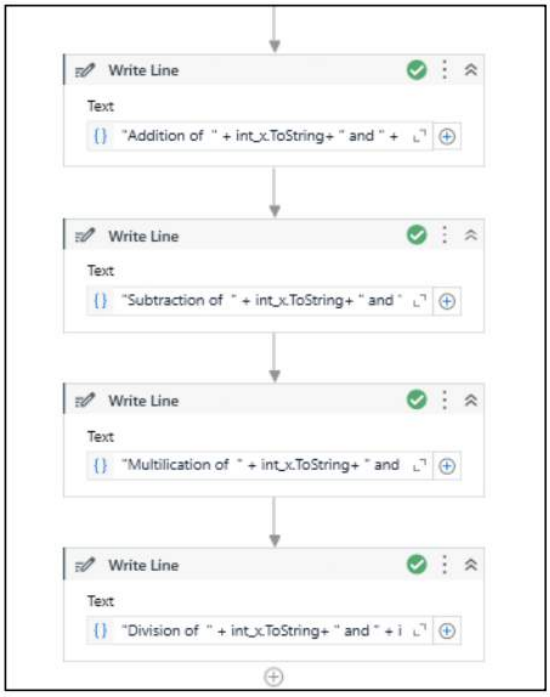
Step 2: First drag and drop two Assign Activity in the flowchart to store two numbers.

Step 3: Again, take four Assign Activity for mathematical calculation: addition, subtraction, division and multiplication. Create a variable for each Assign Activity and save it.

Step 4: Now take a WriteLine Activity from the Activity Panel. In the Text field type"Sum of x + y is" + Enter the name of the variable created (here we have taken int_sum). Similarly perform all operations by writeline activity.

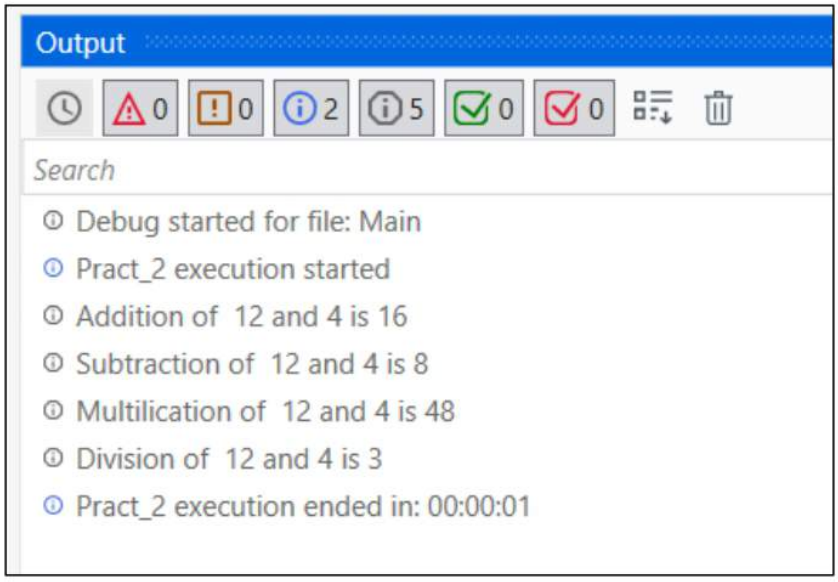
Step 5: Run





Name	Variable type	Scope	Default
int_x	Int64	Main Sequenc	Enter a VB expression
int_y	Int64	Main Sequenc	Enter a VB expression
Addition	Int64	Main Sequenc	Enter a VB expression
Subtraction	Int64	Main Sequenc	Enter a VB expression
Multiplication	Int64	Main Sequenc	Enter a VB expression
Division	GenericValue	Main Sequenc	Enter a VB expression

Output:



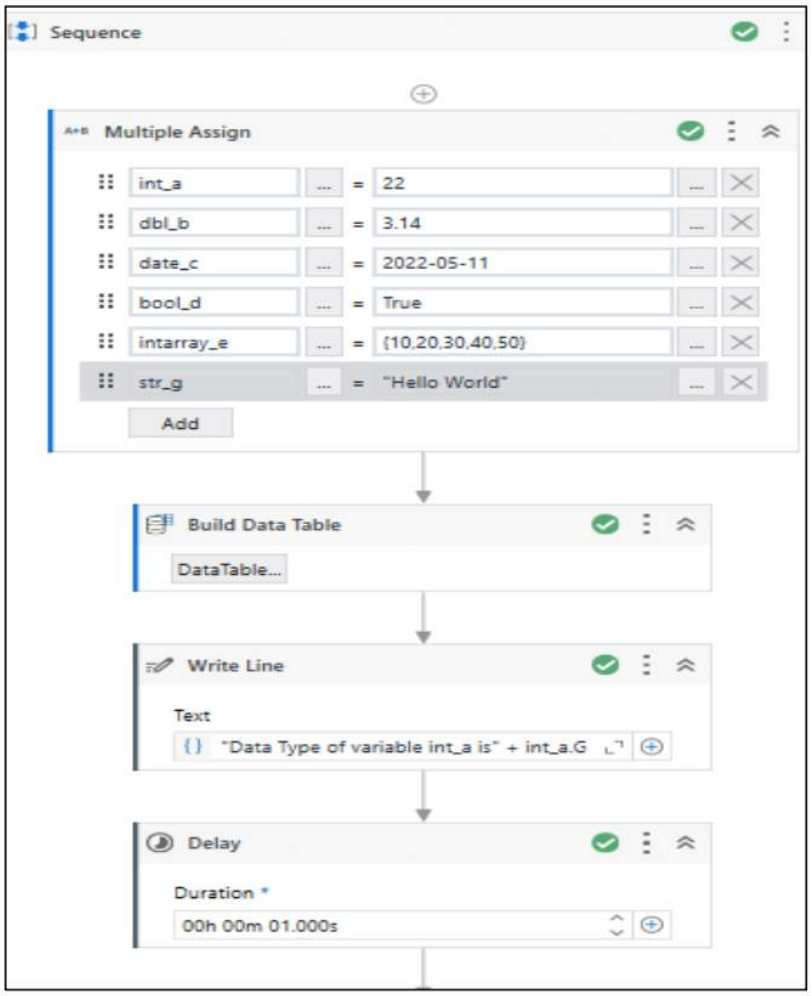
B. Aim: Create an automation UiPath project using different types of variables (number, datetime, Boolean, generic, array, datatable).

Steps: -

Step 1: Drag and drop Sequence Activity from the Activity Panel.

Step 2: Now drag and drop a Multiple Assign Activity in the flowchart.

Step 3: Add six Multiple Assign Activity (assign int_a, dbl_b, date_c, bool_d intarray_e, str_g , variables). Create a variable for each Multiple Assign Activity and save it.



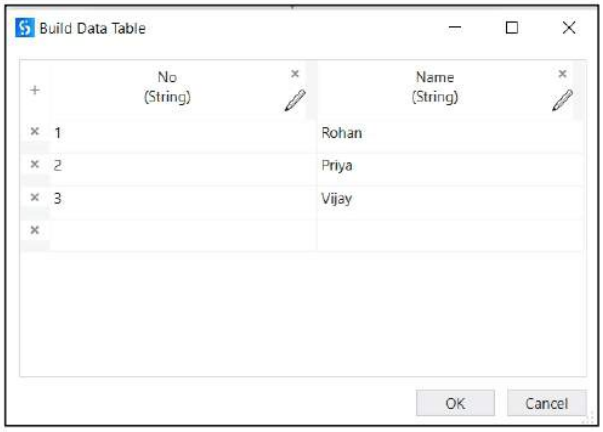
Write Line
Text
"Data Type of variable dbl_b is" + dbl_b.
Delay
Duration *
00h 00m 01.000s
Write Line
Text
"Data Type of variable date_c is" + date.
Delay
Duration *
00h 00m 01.000s
Write Line
Text
"Data Type of variable bool_d is" + bool
Delay

Write Line
Text
"Data Type of variable intarray_e is" + in
Delay
Duration *
00h 00m 01.000s
Write Line
Text
"Data Type of variable dt_f is" + dt_f.Get
Delay
Duration *
00h 00m 01.000s
Write Line
Text
"Data Type of variable str_g is" + str_g.G
Delay
Duration *

Name	Variable type	Scope	Default
int_a	Int32	Sequence	Enter a VB expression
dbl_b	Double	Sequence	Enter a VB expression
date_c	DateTime	Sequence	Enter a VB expression
bool_d	Boolean	Sequence	Enter a VB expression
intarray_e	Int32[]	Sequence	Enter a VB expression
str_g	String	Sequence	Enter a VB expression
dt_f	DataTable	Sequence	Enter a VB expression
Create Variable			

Step 4: For Data Table drag and drop Build Data Table Activity under Multiple assign activity.

Step 5: Add a column in Build Data Table and name it as No and Name. In Property Panel of Build Data Table in output type dbl_b.(variable created in Step 5).



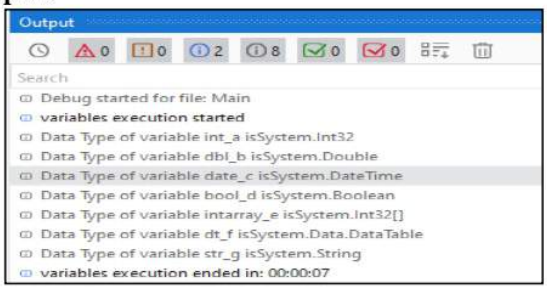
Step 6: Now take a Write Line and Delay Activity.

Step 7: In the text Field of Write line Activity for number type "Data type of variable int_a is " + int_a.GetTypeOf.ToString and set duration property if Delay Activity.

Step 8: Repeat Step 8 and Step 9 for other Multiple Assign Activity as well(dbl_b, bool_d, intarray_e, dt_f, str_g).

Step 9: Run

Output:



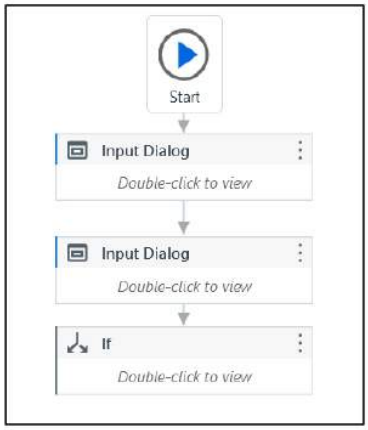
PRACTICAL NO. 3

A. Aim: Create an automation UiPath using decision statements.
i. If Activity:

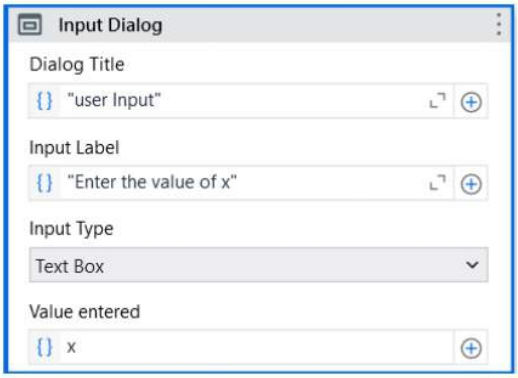
Steps: -

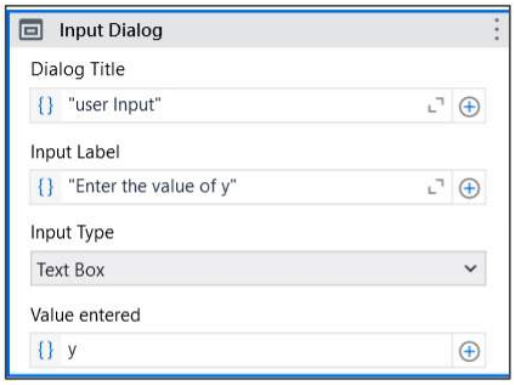
Step 1: Open UiPath Studio. Start a BlankProcess.

Step 2: Add a Flowchart from the Activities panel.



Step 3: Add two Input dialog activities. Create two integer variables, x and y.



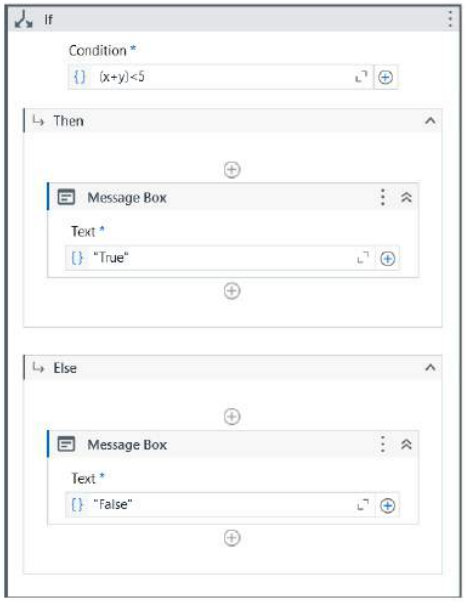


Step 4: In the Properties panel, change the label name and title name of both the Input dialog activities.

Step 5: Now, specify these names of these two variables in the Result property of both the Input dialog activities.

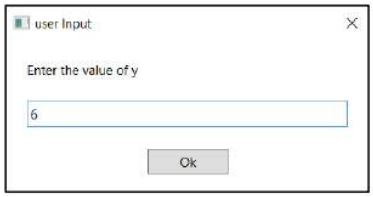
Step 6: Now add the If activity to the Designer panel:

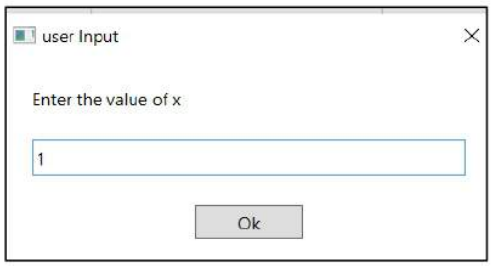
Step 7: In the condition part, x+y<5, check whether it is true or false. Add two Write line activities and type "True" in one and "False" in the other:

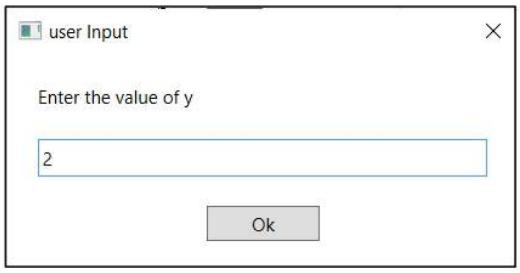


Step 8: Run

Output:







ii. Flow decision:

Steps: -

Step 1: First, add a Flowchart from the Activities panel into the Designer panel.

Step 2: Add a Sequence activity within the Flowchart.

Step 3: Take two Input dialog activities (for entering the numbers to be added) inside the Sequence activity.

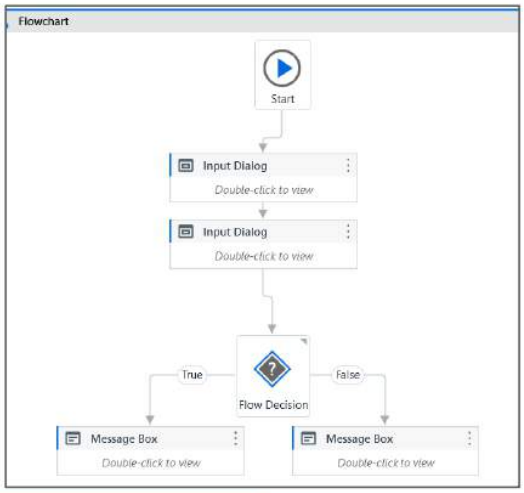
Step 4: Create the variables **x** and **y** to save the values. Assign these variables in Input dialog activity.

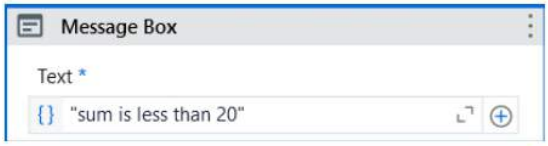
Step 5: Next, add a Message box activity to perform a mathematical operation. In our case, the sum of the two numbers is less than 20:

$x + y < 20$

Step 6: Now, add a Flow Decision activity to check the mathematical operation.

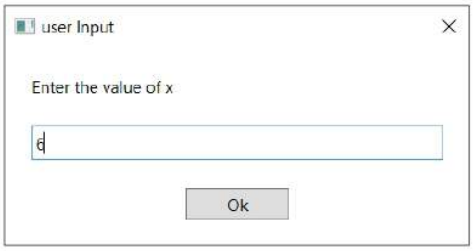
Step 7: If true, the Flow Decision will flow toward the true branch. Otherwise, it will flow towards false branch.

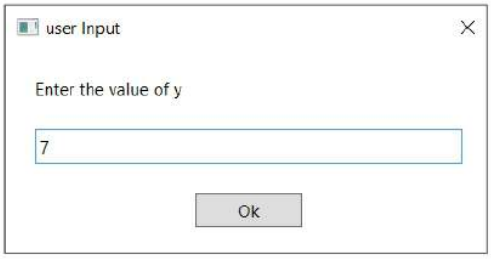




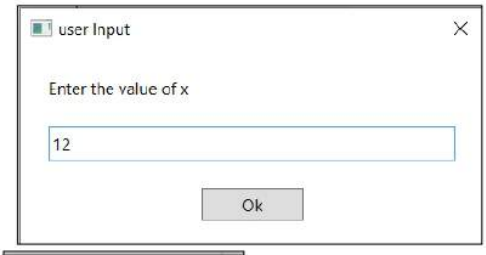
Output:

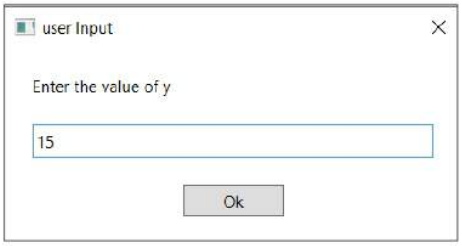
1) Sum is less than 20:





2) Sum is greater than 20:





B. Aim: Create an automation UiPath using looping statements.

i. While

Steps: -

Step 1: Open UiPath Studio. Start a BlankProcess. Give it a name.

Step 2: Add sequence in the Designer Panel.

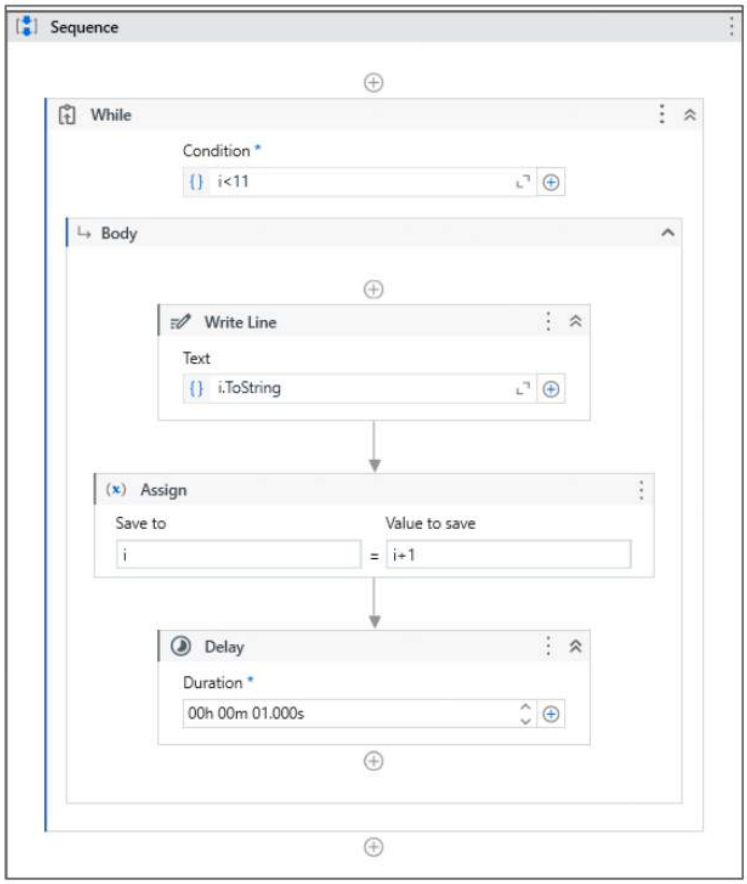
Step 3: Add a While activity from the Activities panel.

Step 4: In the condition section, set the condition i<11.The loop will continue until the condition holds true

Step 5: In the body section of the While activity, add an Writeline activity and type in text field as: i.ToString.

Step 6: Create an integer variable i in the result under property panel and save it. Assign i=1

Step 7: Under Writeline Activity again take Assign Activity. Set i = i+1 in the value section of the Assign activity to increment the result each time by 1 until the loop is executed.



Name	Variable type	Scope	Default
i	Int32	Main Sequence	1
Create Variable			

Step 8: Run.

ii. Do…While

Steps: -

Step 1: Open UiPath Studio. Start a BlankProcess. Give a name to it.

Step 2: Add sequence in the Designer Panel.

Step 3: Add a Do while activity from the Activities panel.

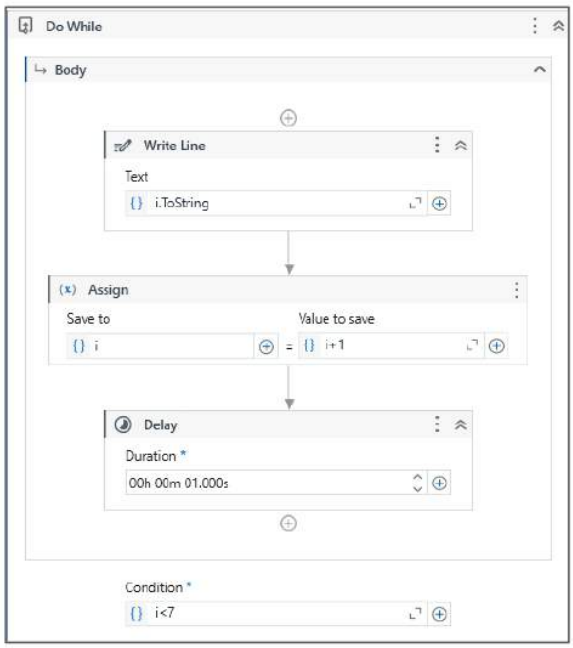
Step 4: In the body section of the Do while activity, add an Writeline activity and type in text field as: i.ToString.

Step 5: Add Assign Activity.

Step 6: Create an integer variable i in the result under property panel and save it. Assign i=7

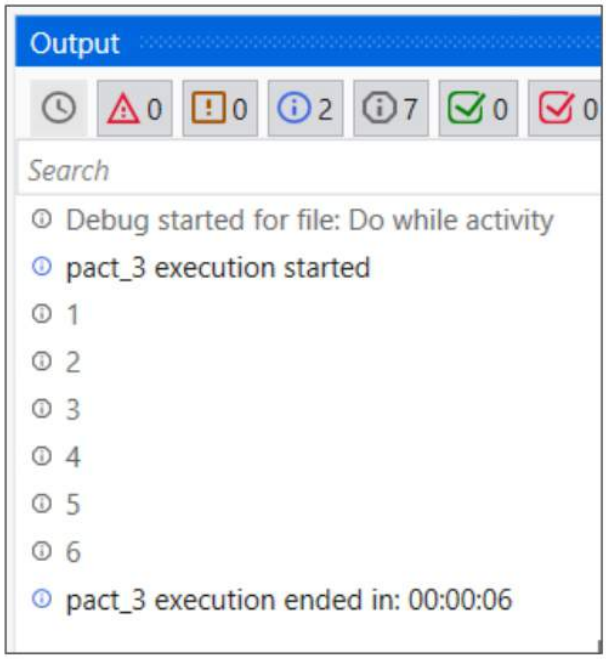
Step 7: Add Delay Activity (00:00m:01s)

Step 8: In the condition section, set the condition i>7.



Name	Variable type	Scope	Default
i	Int32	Main Sequence	1
Create Variable			

Step 8: Run



iii. For each

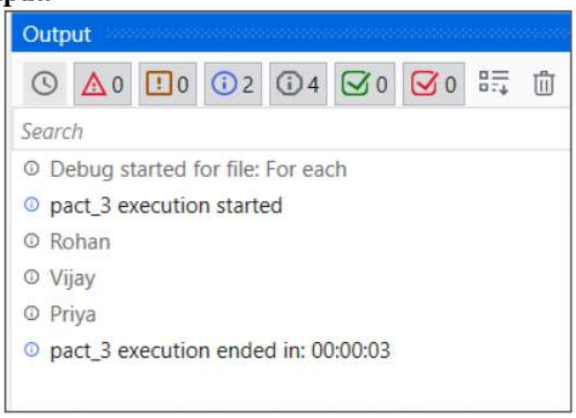
Steps: -

Step 1: Open UiPath Studio. Start a Blank Process and give a name to it.
Step 2: Add For each Activity.
Step 3: Create variables; an string variable named item, and give named x. Then, set them to the text field.
Step 4: Now, assign a default value to the string variable x.
Step 6: Under the For Each activity, add a Write line activity.
Step 7: In the Write line activity, type **currentitem** in the text field.

Name	Variable type	Scope	Default
x	String[]	_2	Enter a VB expression
Create Variable			

Step 8: Debug file. It will display the elements one by one, as shown in the following screenshot.

Output:

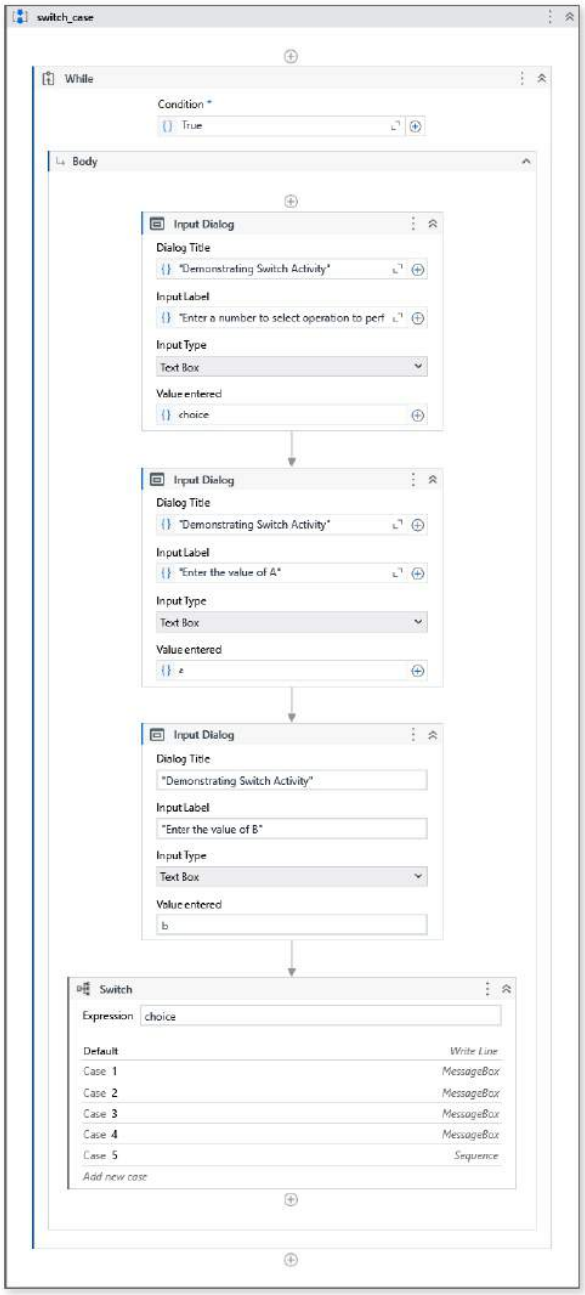


iv. Switch:

Steps: -

Step 1: Open UiPath Studio. Start a Blank Process and give a name to it.
Step 2: Add a Sequence activity.
Step 3: Add while Activity and Give condition True.
Step 4: Add an Input dialog activity inside the While Activity. Create variable a, b, choice type of int.
Step 5: Add the Switch activity under the Input dialog activity.
Step 6: Add a Write line activity to the Default section i.e. case 0 and type in the text field, "Exit".
Step 7: Now, create Case 1, add the one other Message box activity to it, and in the text field, " Addition of " + a.ToString + " & " + b.ToString + " is " + (a+b).ToString.
Step 8: Now, create Case 2, add the one other Message box activity to it, and in the text field, " Difference of " + a.ToString + " & " + b.ToString + " is " + (a-b).ToString
Step 9: Now, create Case 3, add the one other Message box activity to it, and in the text field, " Product of " + a.ToString + " & " + b.ToString + " is " + (a*b).ToString
Step 10: Now, create Case 4, add the one other Message box activity to it, and in the text field, " Quotient of " + a.ToString + " & " + b.ToString + " is " + (a/b).ToString
Step 11: Now, create Case 5, add the one other Message box activity to it, and in the text field, "Exit" and Break the loop.

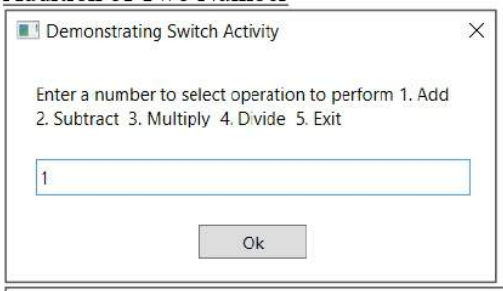
Name	Variable type	Scope	Default
a	Int32	switch_case	*Enter a VB expression*
b	Int32	switch_case	*Enter a VB expression*
choice	Int32	switch_case	*Enter a VB expression*
Create Variable			

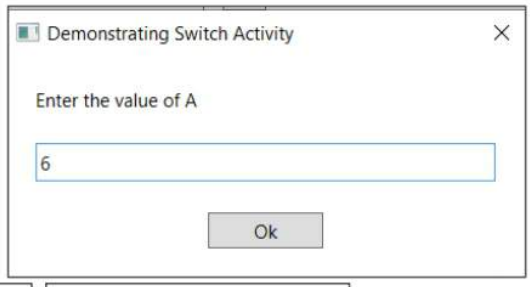

switch_case
While
Condition *
True
Body
Input Dialog
Dialog Title
"Demonstrating Switch Activity"
Input Label
"Enter a number to select operation to perf
Input Type
Text Box
Value entered
choice
Input Dialog
Dialog Title
"Demonstrating Switch Activity"
Input Label
"Enter the value of A"
Input Type
Text Box
Value entered
a
Input Dialog
Dialog Title
"Demonstrating Switch Activity"
Input Label
"Enter the value of B"
Input Type
Text Box
Value entered
b
Switch
Expression
choice
Default
Write Line
Case 1
MessageBox
Case 2
MessageBox
Case 3
MessageBox
Case 4
MessageBox
Case 5
Sequence
Add new case

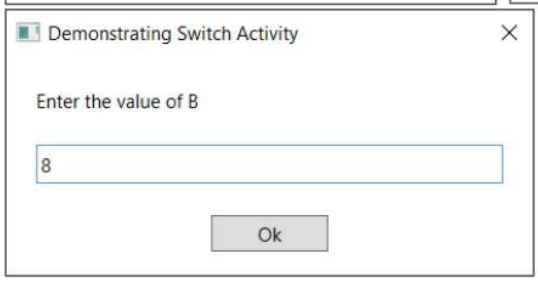
Step 8: Run.

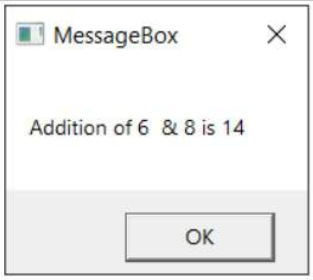
Output:

Addition of Two Number

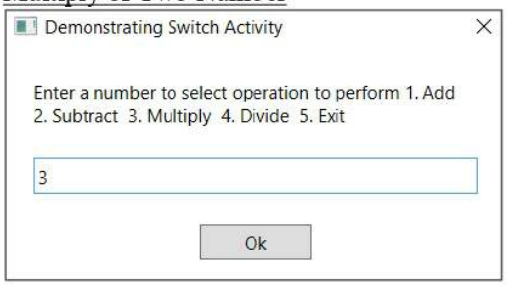


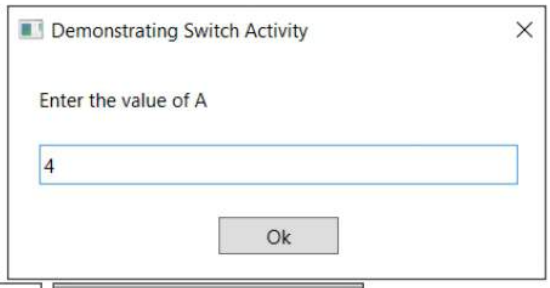


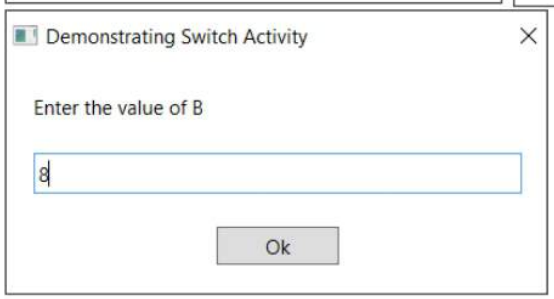


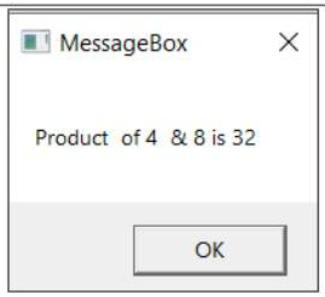


Multiply of Two Number









PRACTICAL NO. 4

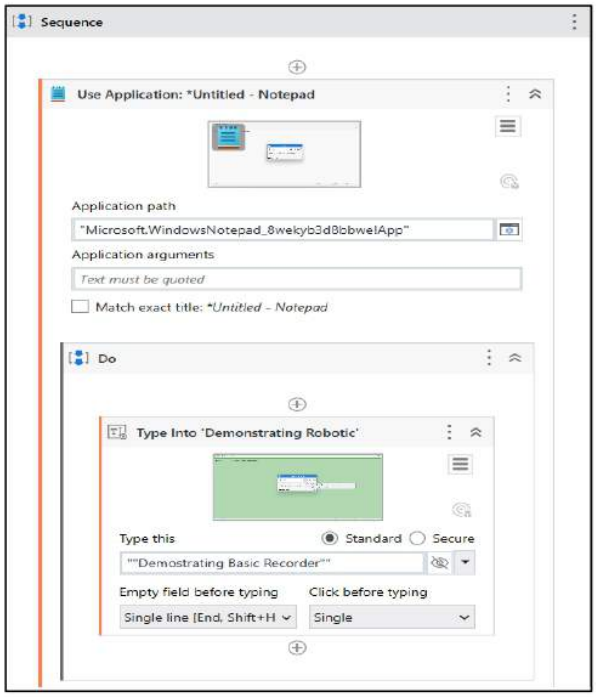
A. Aim: Automate any process using basic recording.

Steps: -

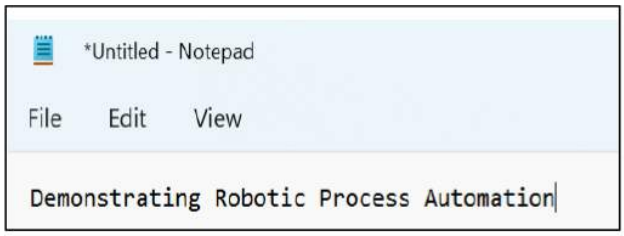
Step 1: Open UiPath Studio. Start a BlankProcess. Give it a name.

Step 2: Drag and drop a Flowchart activity. Now, click on the Recording icon and choose Basic recording. You can record your actions on the desktop on your own and then save it.

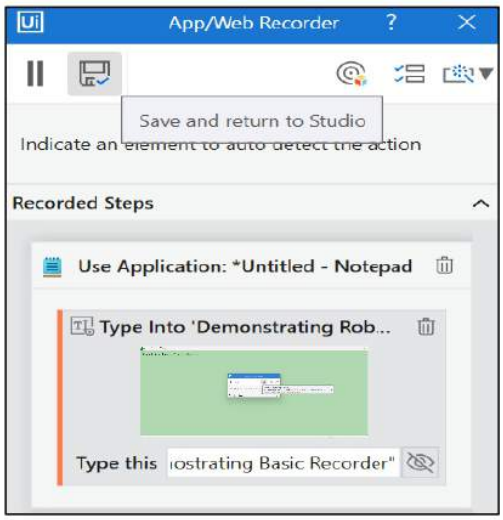
Step 3: Click on basic recorder.



Step 4: Next, type some text in the notepad.

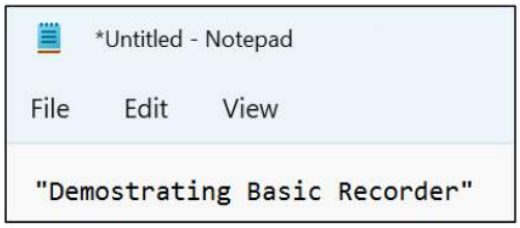


Step 5: Pressed the Esc key to exit the recording and click on the Save and Exit button.



Step 6: Now, a recording sequence is generated in our Designer panel. Connect this sequence to the Start node.

Step 7: Run

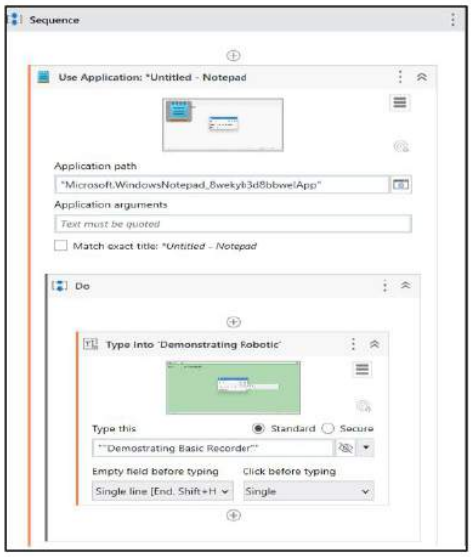


B. Aim: Automate any process using desktop recording.

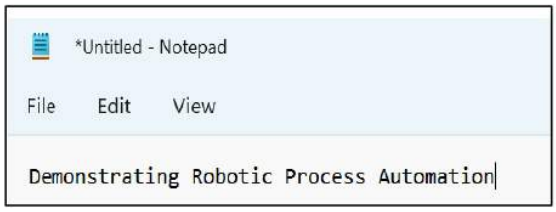
Steps: -

Step 1: Open UiPath Studio. Start a BlankProcess and give a name to it.

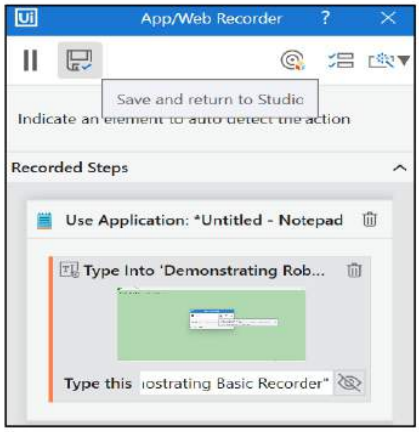
Step 2: Drag and drop a Flowchart activity. Now, click on the Recording icon and choose Desktop recording.



Step 3: Next, type some text in the notepad.

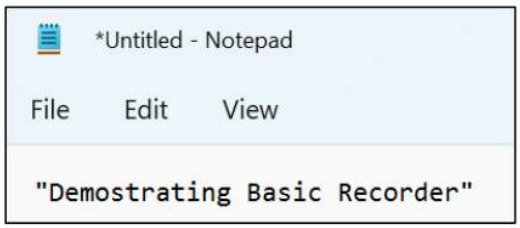


Step 4: Then, press the Esc key to exit the recording and clicked on the Save and Exit button.



Step 5: Now, a recording sequence is generated in our Designer panel. Connect this sequence to the Start node.

Step 6: Hit the Run button to see the result. In the following screenshot, you can see the sequence generated by the Basic recorder.


*Untitled - Notepad
File
Edit
View
"Demostrating Basic Recorder"

C. Aim: Automate any process using web recording.

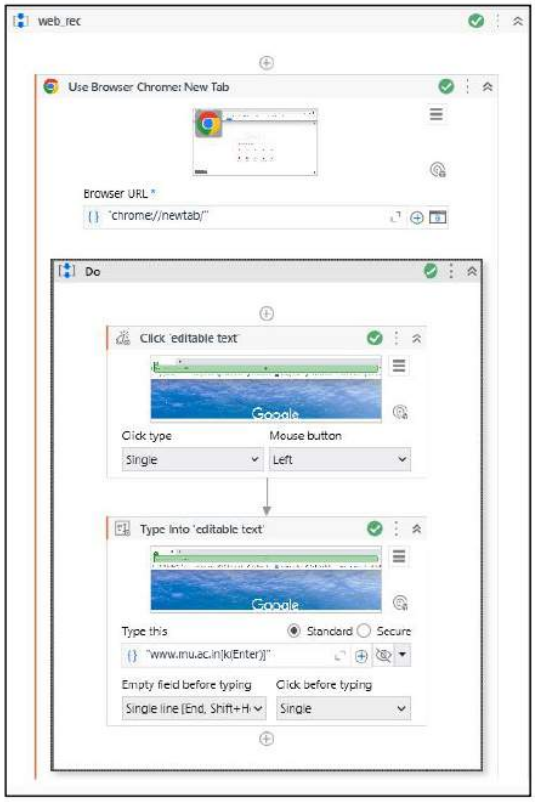
Steps: -

Step 1: Open UiPath Studio. Start a BlankProcess. Give the BlankProcess a name.

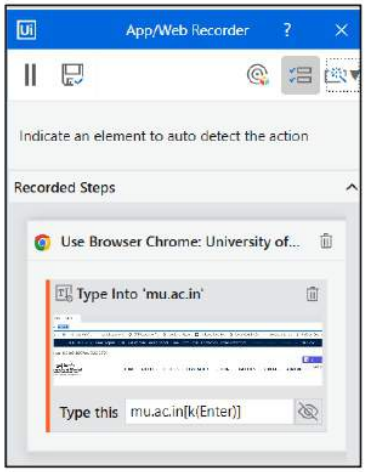
Step 2: Drag and drop a Flowchart activity.

Step 3: Then, start the recording by clicking on the Record button of the web recorder.

Step 4: Next, type some text in the search bar of Google and performed the Click activity.

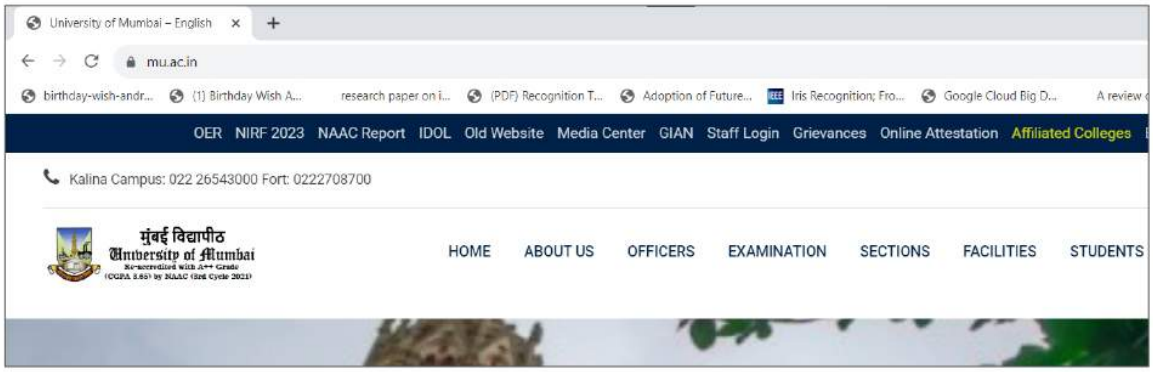


Step 5: Then, we pressed the Esc key to exit the recording and clicked on the Save and Exit button.



Step 6: Now, a recording sequence is generated in our Designer panel. Connect this sequence to the Start node.

Step 7: Hit the Run button to see the result. In the following screenshot, you can see the sequence generated by the Web recorder.



PRACTICAL NO. 5

A. Aim: Consider an array of names. We have to find out how many of them start with the letter "a". Create an automation where the number of names starting with "a" is counted and the result is displayed.

Steps: -

Step 1: Open UiPath Studio. Start a BlankProcess and give a name to it.

Step 2: Drag and Drop Sequence Activity from the Activity Panel.

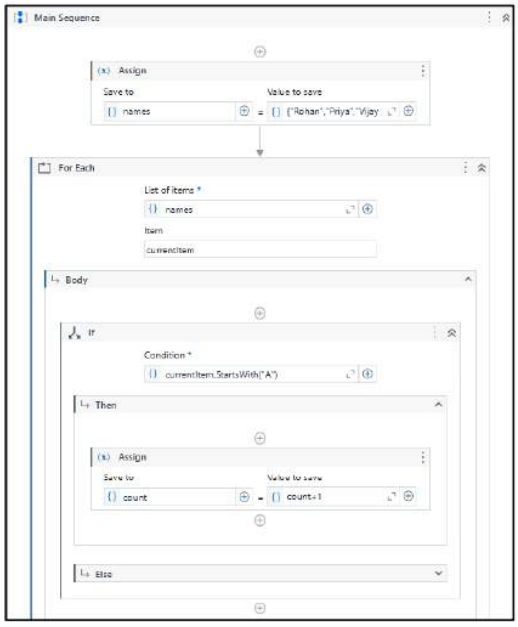
Step 3 Add an Assign Activity again under Input Dialog Box and create a variable name with Array of String Type and assign name =

{"Rohan","Priya","Vijay","Ajinkya","Ajay","Agastya","Amar"} .

Step 4: Now take a For Each Activity. Assign the default variable "currentitem" as name. For the body part drag and drop If Activity.

Step 5: Set the condition for If Activity as currentitem.StartsWith("A).

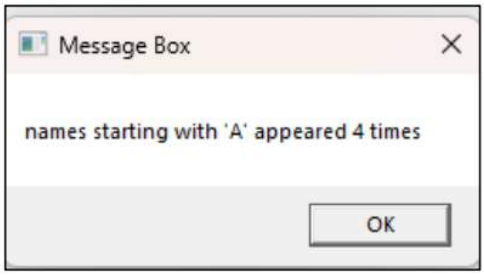
Step 6: In the then part of If Activity drag and drop an Assign Activity and set it as count = count+1.



Step 7: Now take Message Box Activity under Sequence Activity and in text field type "names starting with 'A' appeared "+ count.ToString + " times"

Step 8: Run.

Output:



PRACTICAL NO. 6

A. Aim: Create an application automating the read, write and append operation on excel file.

- **Read Cell**

Steps: -

Step 1: Drag and drop the Sequence Activity.

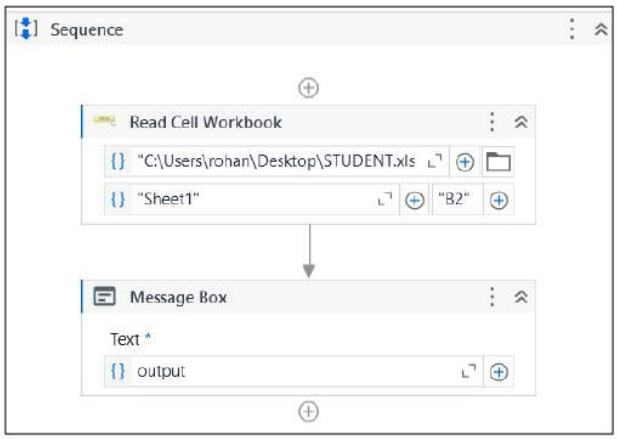
Step 2: In Sequence drop the Read Cell Workbook Activity.

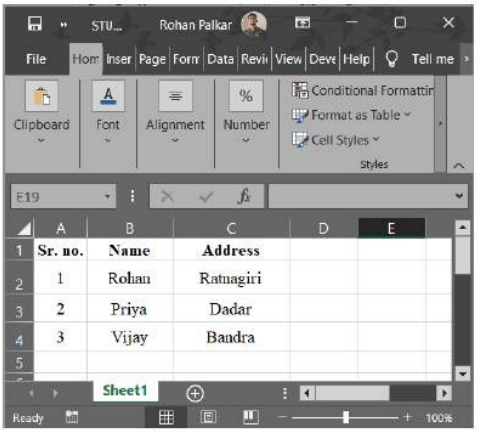
Step 3: Create an excel file with some data and save it. Give a desired path of excel file in the Read Cell Workbook. Also give the "sheet name" (Sheet1) and assign the cell you want to read("B2"). Create a variable **output** by pressing ctrl+k. In the output filed of Rad cell Activity write created variable: **output**

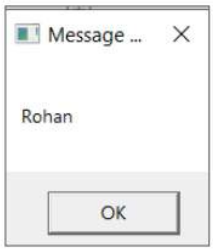
Name	Variable type	Scope	Default
output	String	Sequence	*Enter a VB expression*
Create Variable			

Step 4: Add Message Box Activity and connect it to Read Cell Workbook. In the Text field, type variable "output" created in Step 4.

Step 5: Run.







- **Write Cell**

Steps: -

Step 1: Drag and drop the Sequence Activity from the Activity Panel.

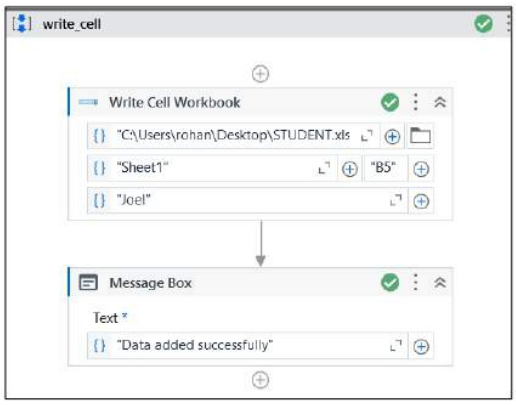
Step 2: In sequence drop the Write Cell Workbook Activity.

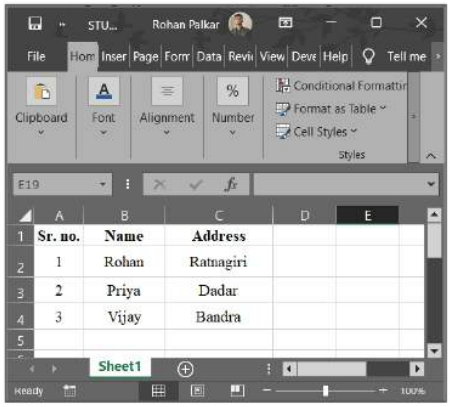
Step 3: Give a desired path of already existing excel file in the Write Cell Workbook. Also give the "sheet name" (Sheet1) and assign the cell you want to write("B5"). Type anything you want in quotes for text field.

Step 5: Add Message Box Activity and connect it to Write Cell Workbook. Write "Data added successfully"

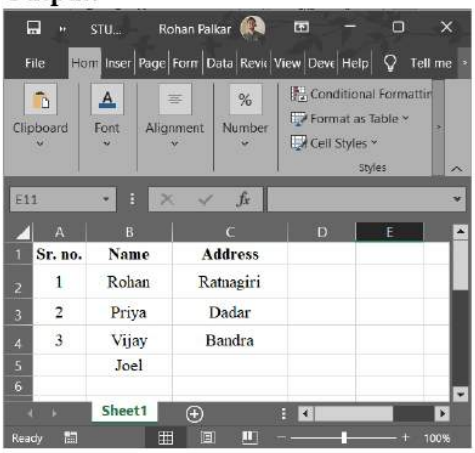
Step 6: Run.

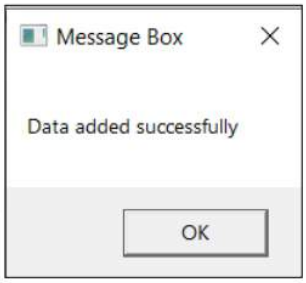
Name	Variable type	Scope	Default
output	Object	write_cell	Enter a VB expression
Create Variable			





Output:





- **Read Range**

Steps: -

Step 1: Drag and drop the Sequence Activity from the Activity Panel.

Step 2: In sequence drop the Read Range Workbook Activity.

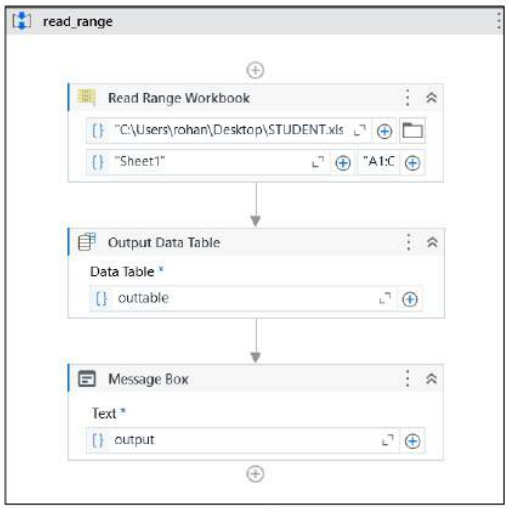
Step 4: Create an excel file with some data and save it. Give a desired path of excel file in the Read Range Workbook. Also give the "sheet name" (Sheet1) and assign the cell you want to read ("A1:B4"). Create a variable outputtable by pressing ctrl+k.

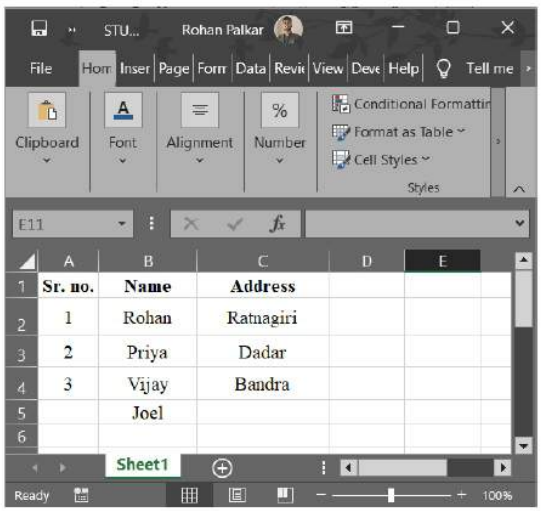
Step 5: Add Output Data Table Activity under Read Range Workbook Activity. Set output of Read range activity-outputtable. Create a variable "output" of string type and set its input to outputtable and output to "output"

Name	Variable type	Scope	Default
outtable	DataTable	read_range	Enter a VB expre:
output	String	read_range	Enter a VB expre:
Create Variable			

Step 6: Add Message Box Activity and connect it to Read Range Workbook. In the Text field, type variable "output"

Step 7: Run.





- **Write Range**

Step 1: Drag and drop the Sequence Activity from the Activity Panel.

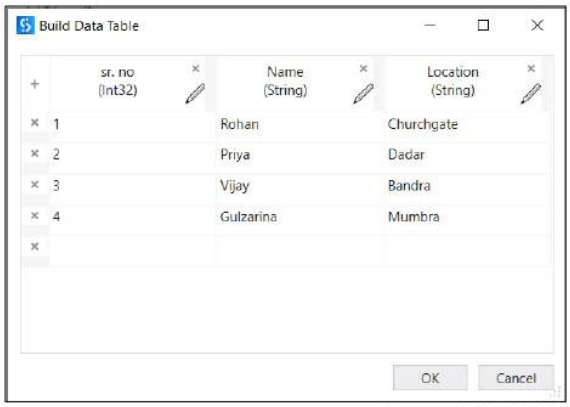
Step 2: Now drag and drop the Build Data Table. Create three columns Roll No, Name and Location. Create a variable **inputtable** by pressing **ctr+k.**

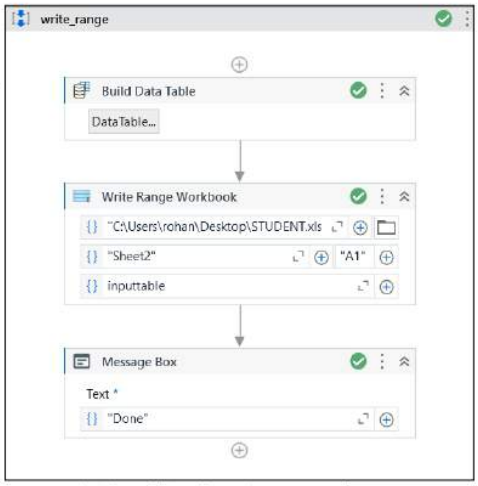
Step 3: Take Write Range Workbook Activity under Build Data Table.

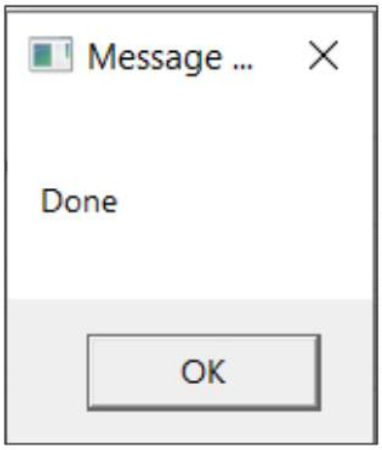
Step 4: Create an empty excel file with and save it. Give a desired path of excel file in the Write Range Workbook. Also give the "sheet name" (**Sheet2**) and assign the cell you want to write from("A1"). Type the created variable **inputtable** in the text.

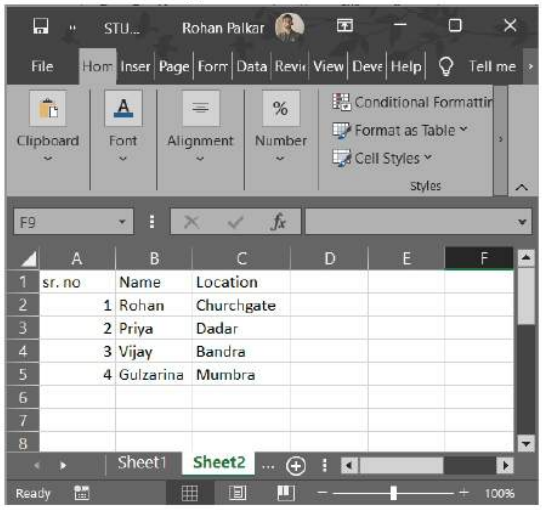
Step 5: Add Message Box Activity and connect it to Write Range Workbook. In the Text field, type "Done".

Sep 6: Run.









- **Append Range**

Step 1: Drag and drop the Sequence Activity from the Activity Panel.

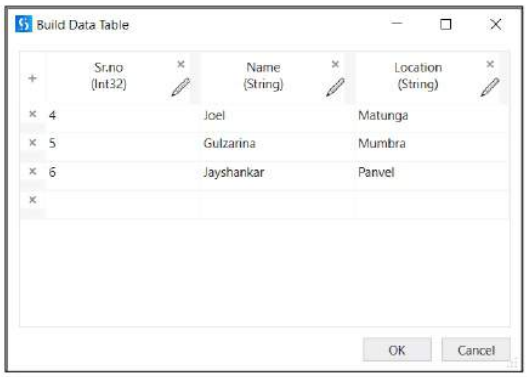
Step 2: Now drag and drop the Build Data Table. Create three columns Roll No, Name and Location. Create a variable **inputdata** by pressing ctrl+k.

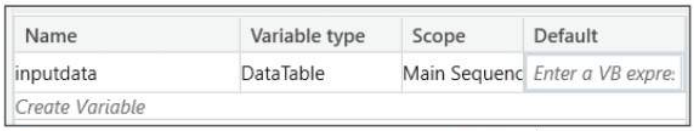
Step 5: Take Append Range Workbook Activity under Build Data Table.

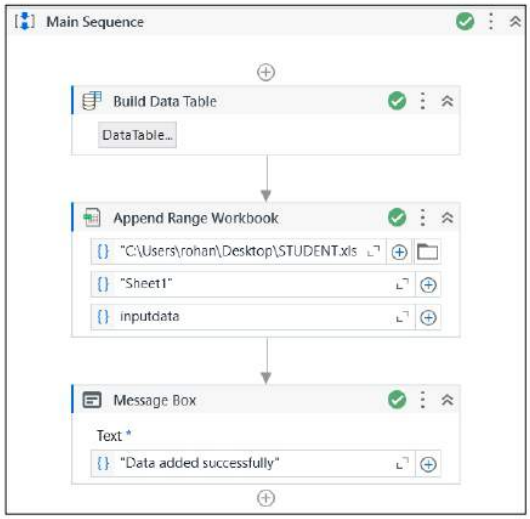
Step 6: Create an excel file with some data and save it. Give a desired path of excel file in the Append Range Workbook. Also give the "sheet name" (Sheet1). Type the created variable **inputdata** in the text field.

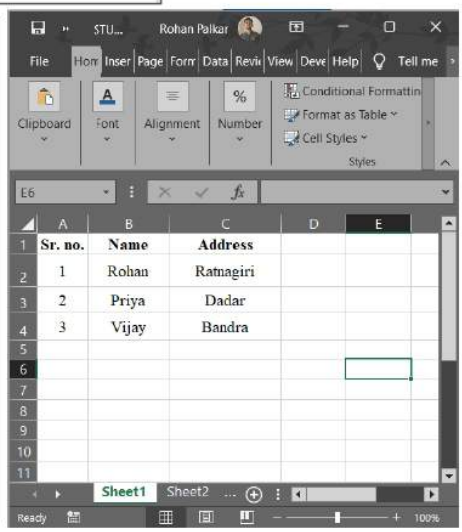
Step 7: Add Message Box Activity and connect it to Write Range Workbook. In the Text field, type "Data added successfully".

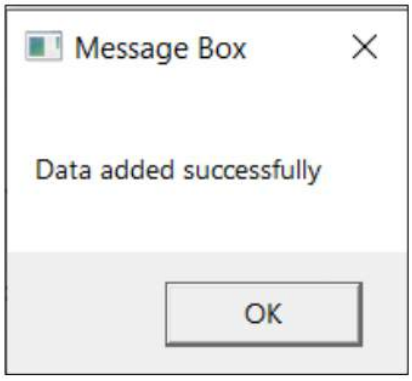
Sep 8: Run.

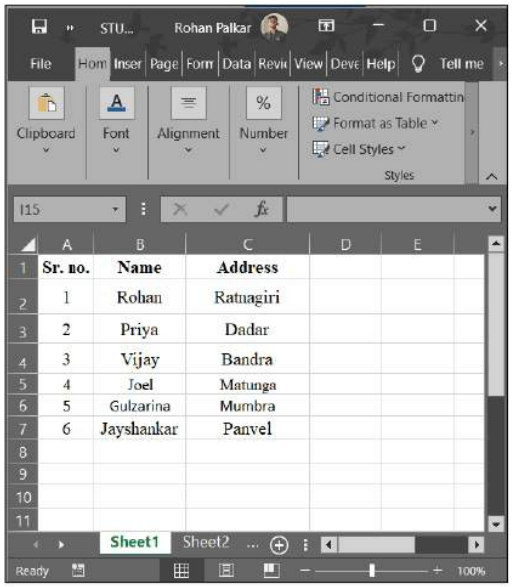












Sr. no.	Name	Address
1	Rohan	Ratnagiri
2	Priya	Dadar
3	Vijay	Bandra
4	Joel	Matunga
5	Gulzarina	Mumbra
6	Jayshankar	Panvel

B. Aim: Automate the process to extract data from an excel file into a data table and vice versa.

Steps: -

Step 1: Open UiPath Studio. Start a BlankProcess. Give the BlankProcess a name.

Step 2: Drag and drop the Sequence Activity from the Activity Panel.

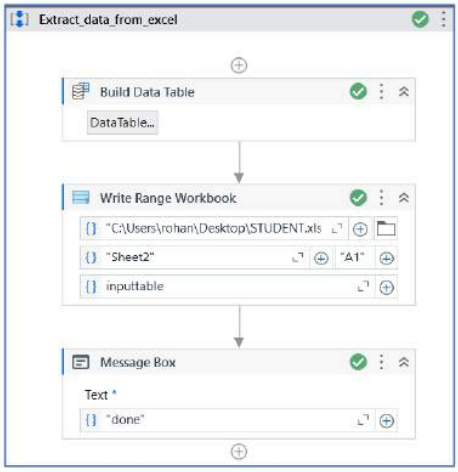
Step 3: Now drag and drop the Build Data Table. Create three columns Roll No, Name and Location. Create a variable **inputtable** by pressing ctrl+k.

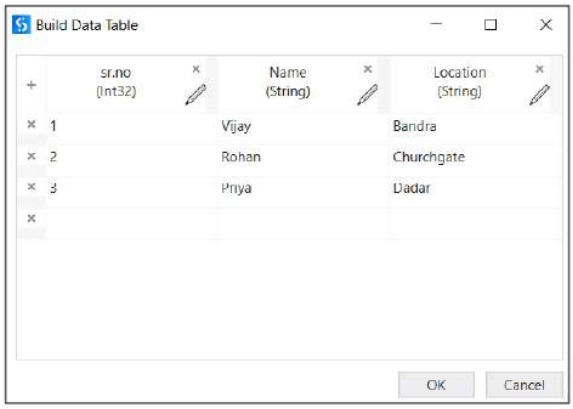
Step 4: Take Write Range Workbook Activity under Build Data Table.

Step 5: Create an empty excel file with and save it. Give a desired path of excel file in the Write Range Workbook. Also give the "sheet name" (Sheet2) and assign the cell you want to write from("A1"). Type the created variable **inputtable** in the text field.

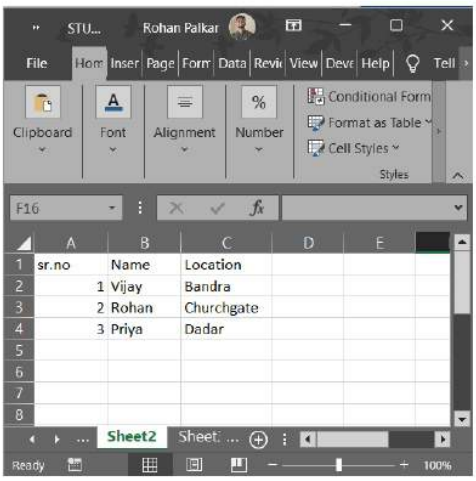
Step 6: Add Message Box Activity and connect it to Write Range Workbook. In the Text field, type "Done".

Sep 7: Run.





Name	Variable type	Scope	Default
inputtable	DataTable	Extract_data_f	Enter a VB expressio
Create Variable			



PRACTICAL NO. 7

A. Aim: Implement the attach window activity.

Table Extraction:
Steps: -

Step 1: Open UiPath Studio.

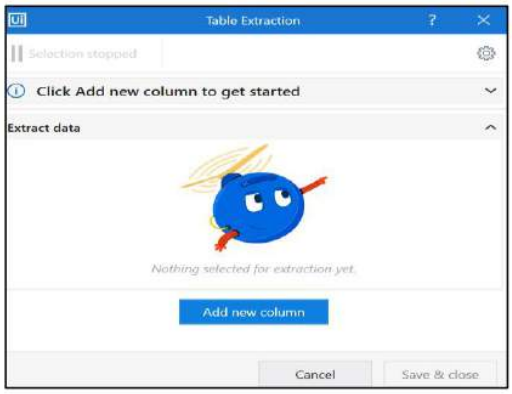
Step 2: Start a BlankProcess. Give the BlankProcess a name.

Step 3: Drag and drop the Sequence Activity from the Activity Panel.

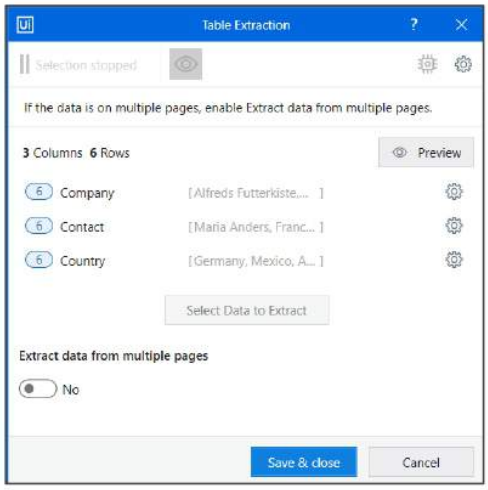
Step 4: Now drag and drop the Use Application/Browser. Indicate the screen where you want to extract data(Google Chrome -> https://www.w3schools.com/html/html_tables.asp).

Step 5: In Ribbon Panel go to the Design and click on Table Extraction. Add Table Extraction in Do part of Use Application/Browser.

Step 6: Open the website where you want to extract data. Click on Add new Column then click on Extract data.



Step 7: It will display all the data as shown in the image below.



Step 7: Next click on Save and Close. If you wish to extract multiple pages then press the on button for Extract data for Multiple pages

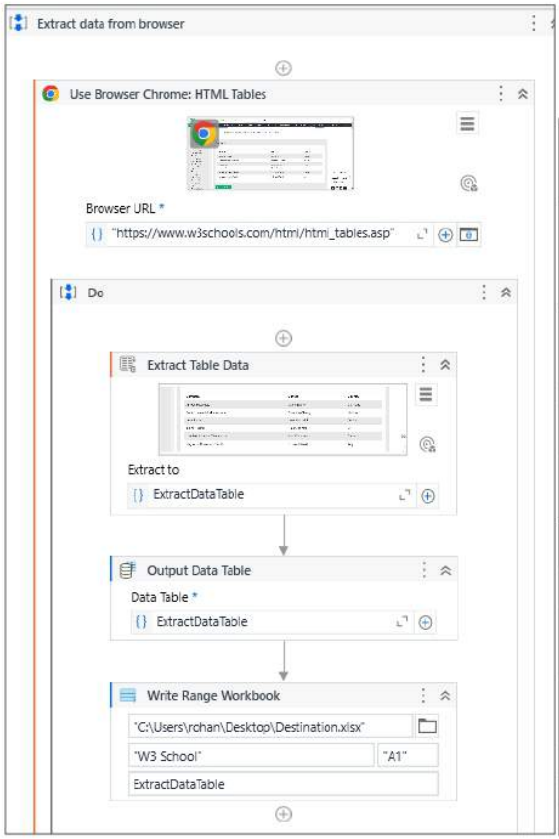
Sep 8: A default variable of Sytem.Datatable "**ExtractDataTable**" is created, set its scope from Sequence.

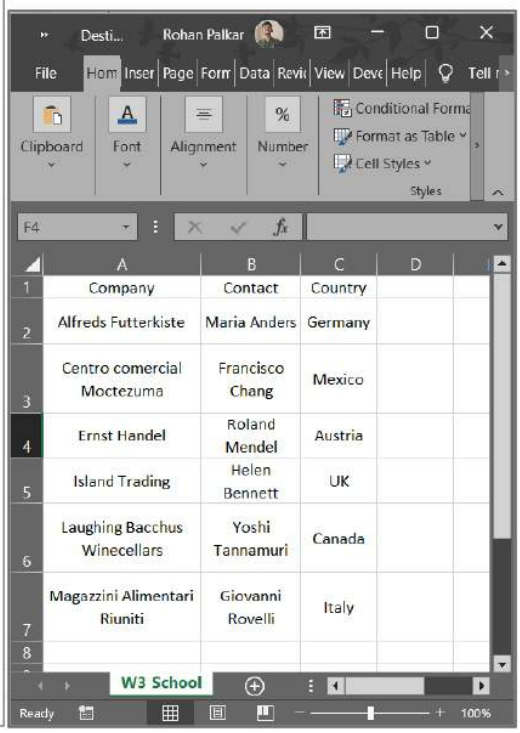
Step 9: Take Write Range Workbook Activity.

Step 10: Create an empty excel file with and save it. Give a desired path of excel file in the Write Range Workbook. Also give the "sheet name" (W3 School) and assign the cell you want to write from("A1"). Type the created variable **ExtractDataTable** Table in the text field.

Name	Variable type	Scope	Default
ExtractDataTable	DataTable	Do	*Enter a VB expression*
output	String	Do	*Enter a VB expression*
Create Variable			

Step 11: Run.





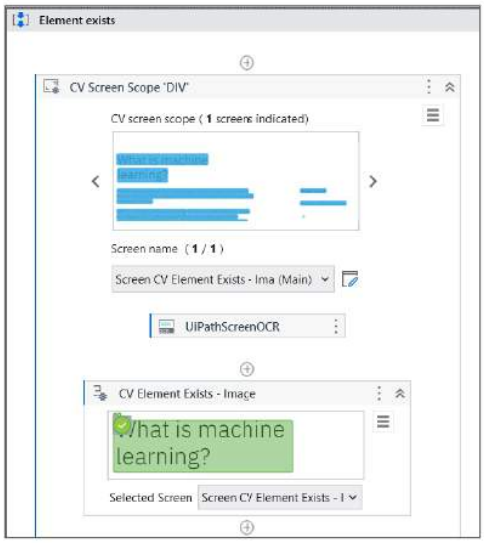
B. Aim: Find different controls using UiPath.

1. Element Exists:

Step 1: Drag and drop sequence activity in the workflow.

Step 2: Drag and drop "CV Screen Scope" Activity. Indicate the screen.

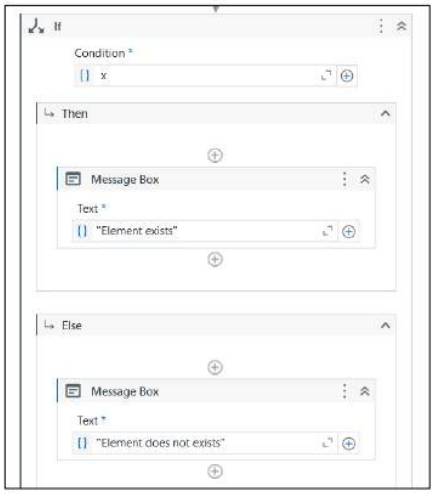
Step 3: Drag and drop "CV Element Exists" Activity. Indicate the Element. Create and set an output variable to store the Boolean Value Output.



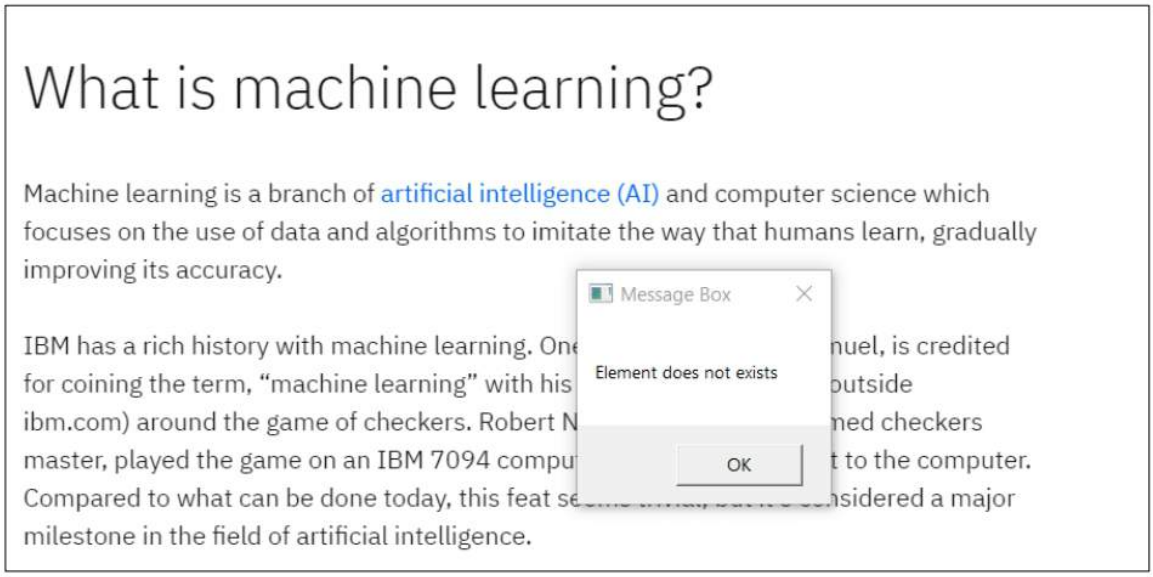
Name	Variable type	Scope	Default
x	Boolean	Element exists	Enter a VB expressi
Create Variable			

Step 4: drag and drop If activity and set its condition.

Step 5: Add two Message Box: one in Then part and another in Else Part to check whether element is exists or not. And Run.



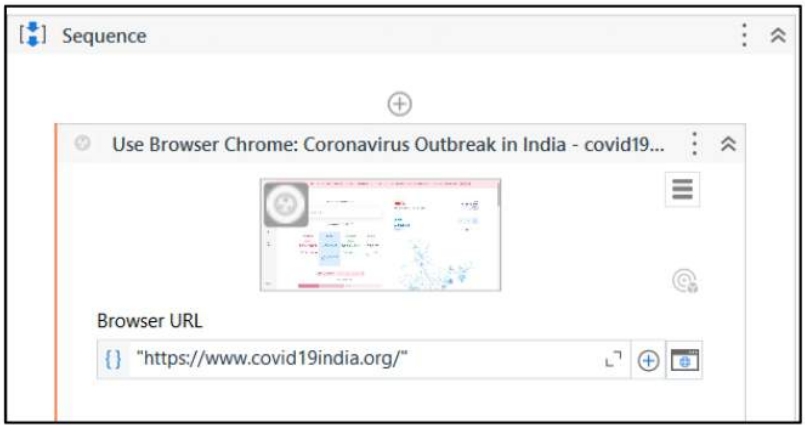
Output:


What is machine learning?
Machine learning is a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy.
IBM has a rich history with machine learning. On
nuel, is credited
for coining the term, "machine learning" with his
outside
ibm.com) around the game of checkers. Robert N
ned checkers
master, played the game on an IBM 7094 compu
t to the computer.
Compared to what can be done today, this feat se
nsidered a major
milestone in the field of artificial intelligence.
Message Box
Element does not exists
OK

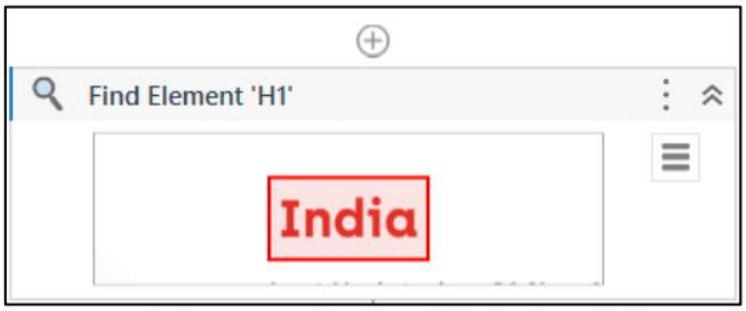
2. Find Element:

Step 2: Drag and drop "Sequence" in the Activities panel and then drag and drop it onto the Designer Panel.

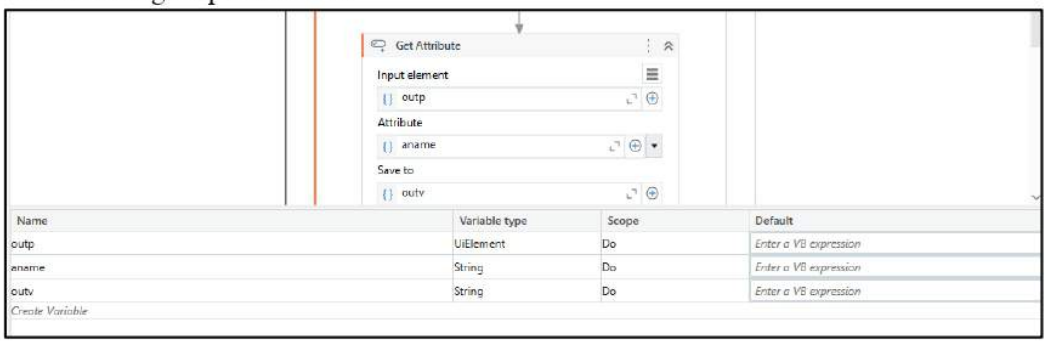
Step 3: Drag and drop "Use Browser/ Application" activity Indicate the screen you want to include in the workflow.



Step 4: Add "Find Element" Activity in the Activities Panel and drag it inside the sequence workflow. Indicate the Element you want to look for and Click on Save & Close. Create and set an output variable to store the Attribute Value Output.

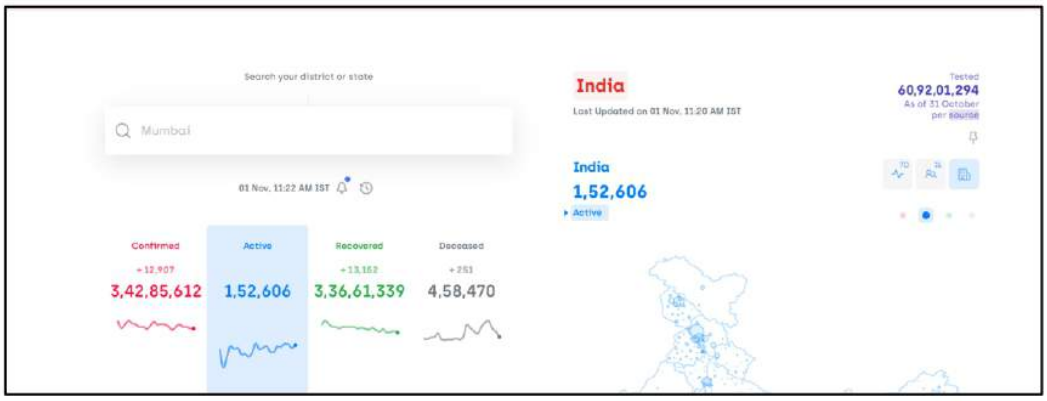


Step 5: Search for "Get Attribute" Activity in the Activities Panel and drag it inside the sequence workflow. Input element as the Find Element ouput, create and set an attribute value and and String output variable.



Step 6: Search for "Message Box" Activity in the Activities Panel and drag it inside the sequence. Enter the Output value.

Step 7: Click the Run button and see the result.

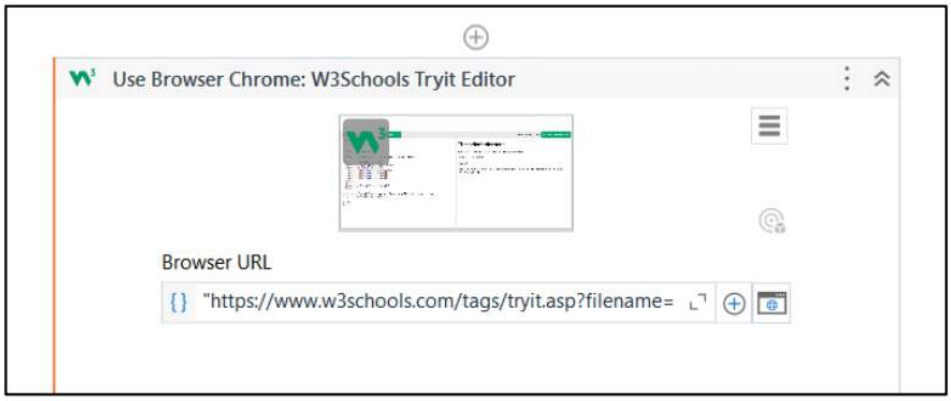


3. Find Children

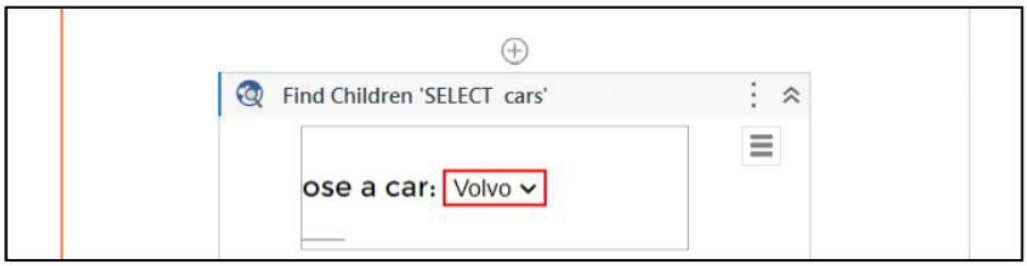
Steps: -

Step 1: Drag and drop "Sequence" activity in main workflow.

Step 2: Drag and drop "Use Browser/ Application" Activity inside sequence. Indicate the screen you want to include in the workflow.



Step 4: Add "Find Children" Activity in the Activities Panel and drag it inside the sequence workflow. Indicate the Element you want to look for and Click on Save & Close. Create and set an output variable to store the Attribute Value Output.

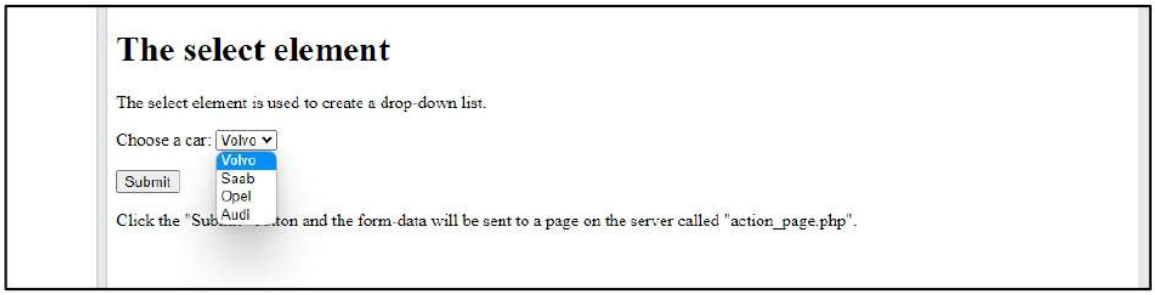


Step 6: Search for "For Each" Activity in the Activities Panel and drag it inside the sequence workflow.

Step 6: Search for "Get Attribute" Activity in the Activities Panel and drag it inside the sequence workflow. Input element as the Find Element ouput, create and set an attribute value and and String output variable.

Step 6: Search for "Write Line" Activity in the Activities Panel and drag it inside the sequence. Enter the Output value.

Step 7: Click the Run button and see the result.



C. Aim: Demonstrate the following activities in UiPath:

1. Mouse (click, double click and hover)

- **Mouse Click**

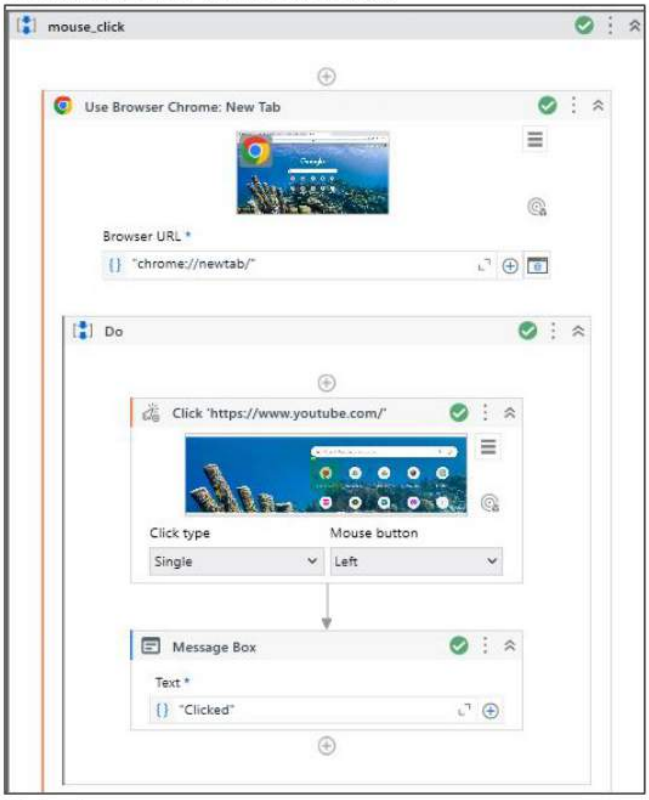
Steps: -

Step 1: Drag and drop a Sequence activity on the Designer panel.

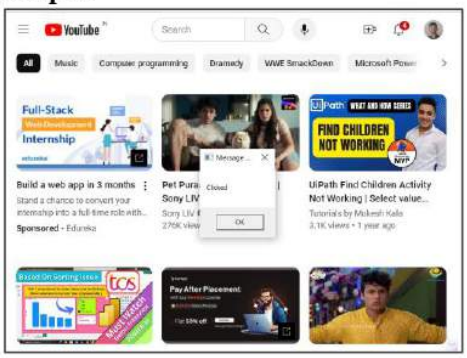
Step 2: Drag and drop use Application/Browser activity.

Step 3: Drag and drop the Click activity.

Step 4: Click on Indicate on screen and indicate the UI element you want to click on: Hit the Run button to the see the result.



Output:



- **Double Click**

  Steps: -

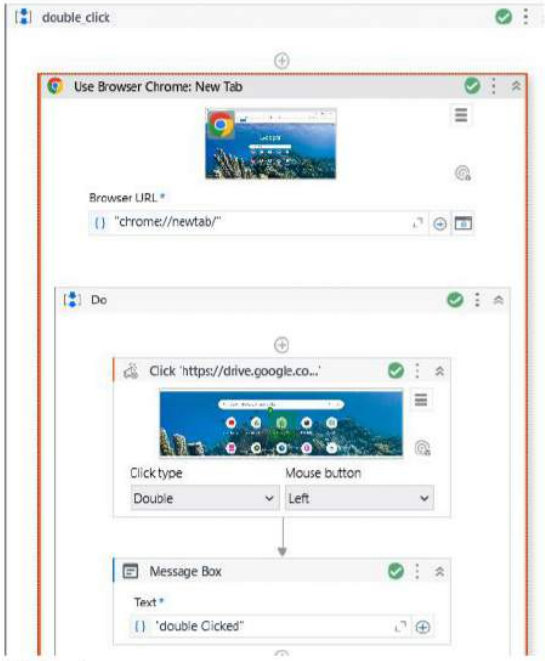
  Step 1: Drag and drop a Sequence activity in the Designer panel.

  Step 2: Drag and drop use Application/Browser activity.

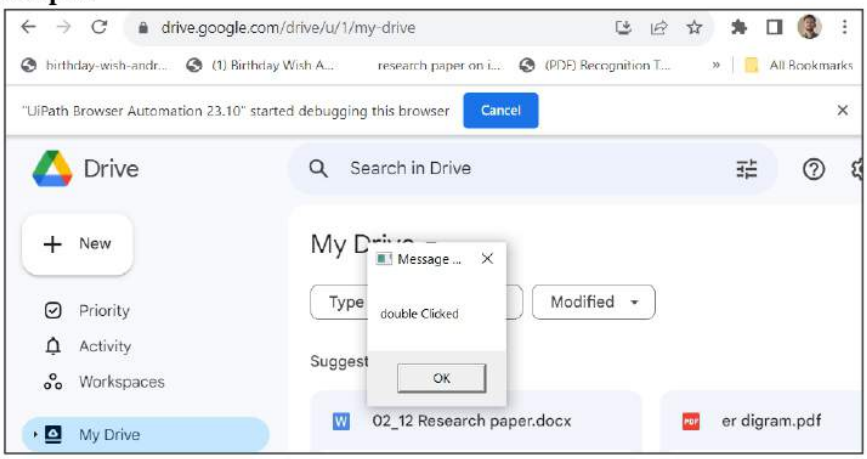
  Step 3: Drag and drop the Click activity

  Step 4: Indicate the Element you want to double-click on and Click on Save & Close. Select Click Type as "Double". Click on Indicate on screen and indicate the UI element you want to double-click on

  Step 5: Run



Output:



- **Mouse Hover:**

  Steps: -

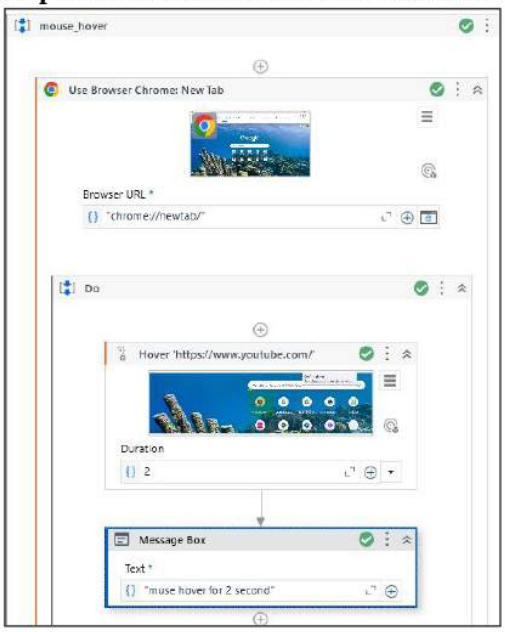
  Step 1: Drag and drop a Sequence activity in the Designer panel.

  Step 2: Drag and drop use Application/Browser activity.

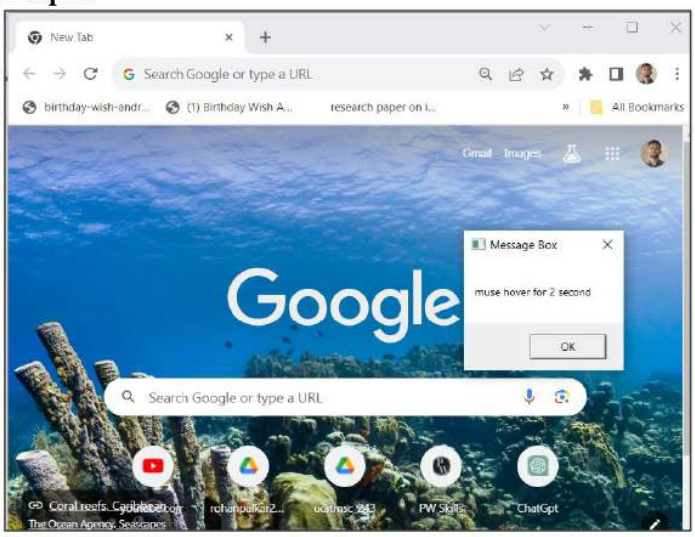
  Step 3: Drag and drop the Hover activity.

  Step 4: Click on Indicate on screen and indicate the UI element you want to hover on and set duration of 2 sec.

  Step 5: Hit the Run button to the see the result.



Output:



2. **Type into:**

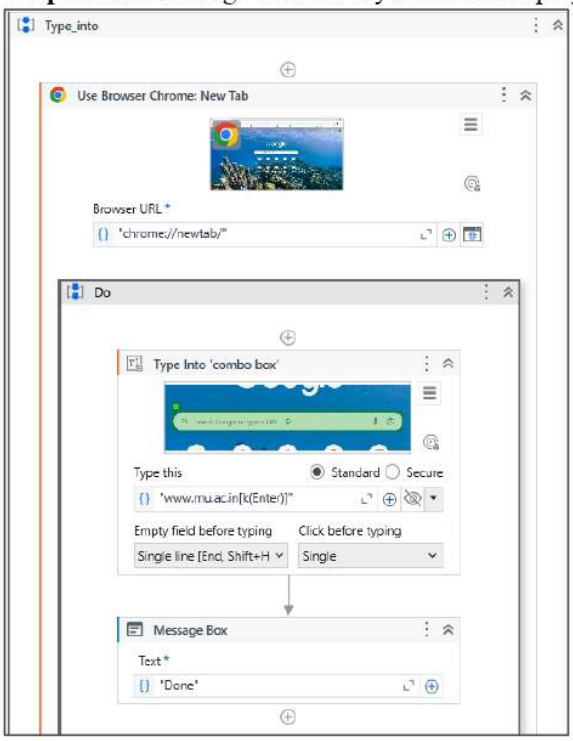
Steps: -

Step 1: Drag and drop Use Application/Browser.

Step 1: Click on "Indicate on screen". Locate the chrome screen.

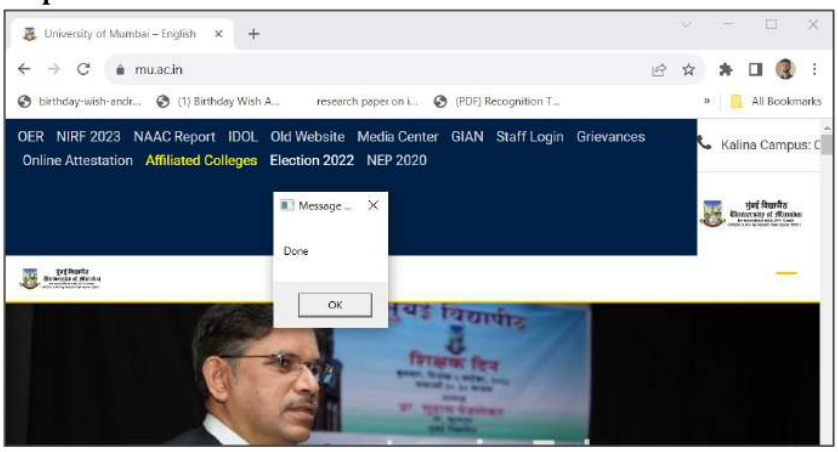
Step 4: Add a Type into Activity and again indicate your search section.

Step 5: Add message box activity to check the project is successful.



Step 6: Run

Output



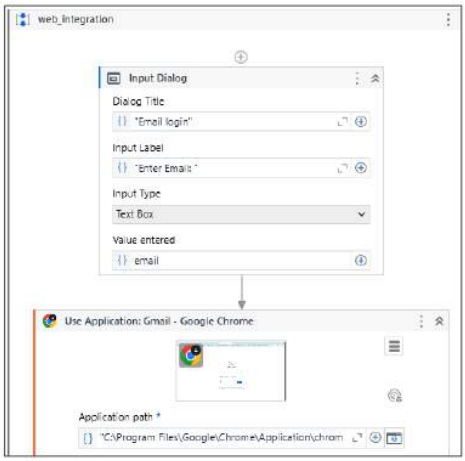
3. Type secure text:

Steps: -

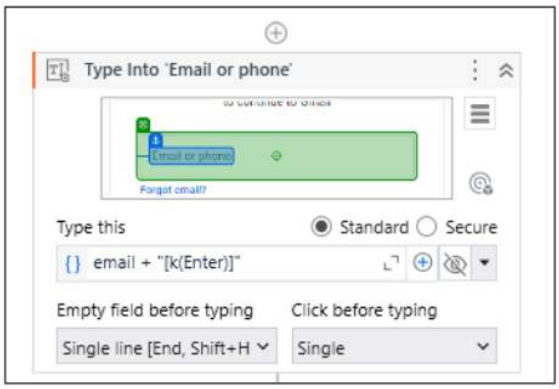
Step 1: Select sequence activity

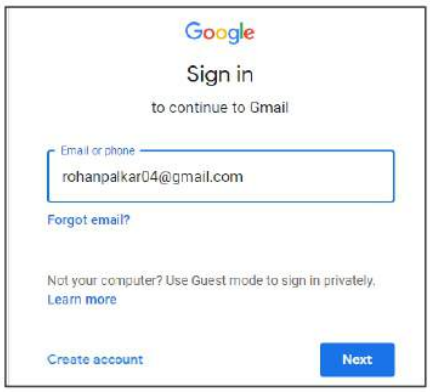
Step 2: Drag and drop Input dialog activity inside the Sequence. Write the appropriate message on the Label of the Input dialog. Create a variable and specify the variable in the Result property of the Input dialog box.

Step 3: Drag and drop "Use Browser/ Application" inside the sequence workflow. Indicate the screen you want to include in the workflow.

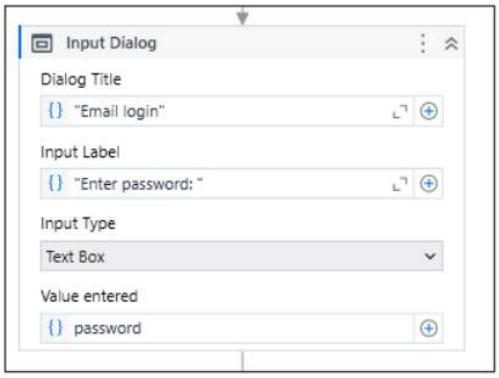


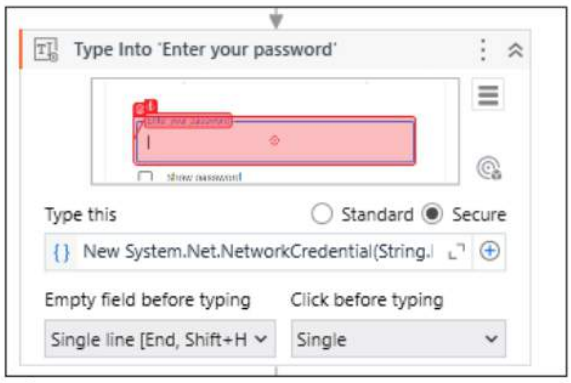
Step 5: Drag and "Type Into" Activity inside the sequence workflow. Indicate the Element you want to click on and Click on Save & Close.

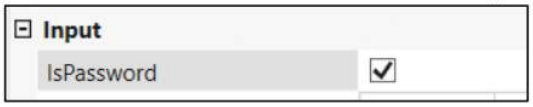




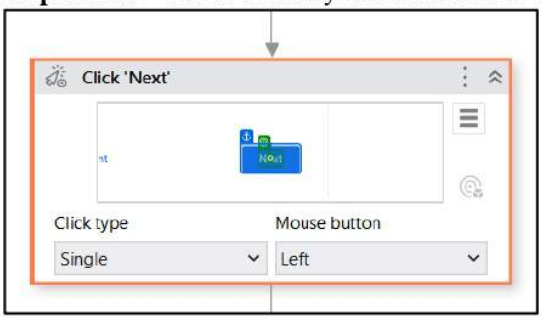
Step 6: Check the IsPassword property. Select the Secure Radio Button. Set the variable as Secure String using the code – "**new System.Net.NetworkCredential(String.Empty, password).SecurePassword**".





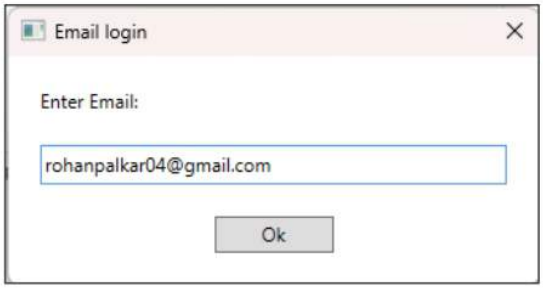


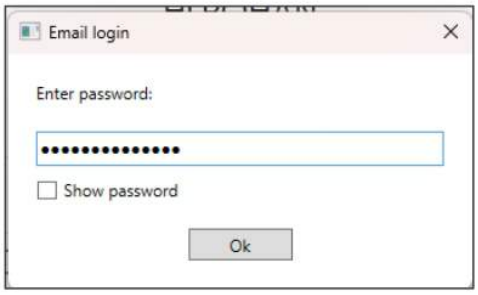
Step 7: Add "Click" Activity and Indicate the "Next" button.

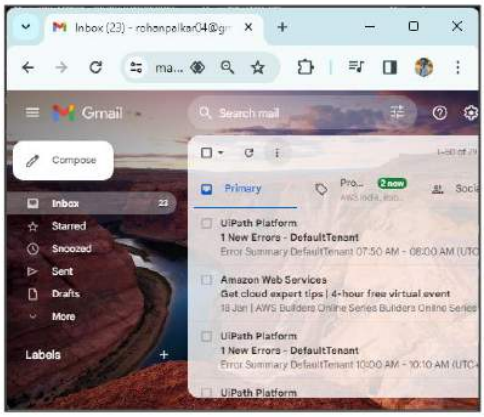


Step 8: Click the Run button and see the result.

Output:







PRACTICAL NO. 8

A. Aim: Demonstrate the following events in UiPath:

1. Element triggering event

- **Click Trigger**

Steps: -

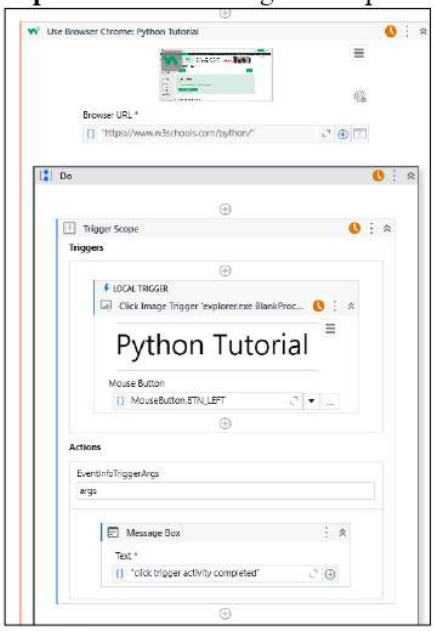
Step 1: Drag and drop a Sequence Activity.

Step 2: Take Use Application/Browser Activity. Indicate the screen where you want

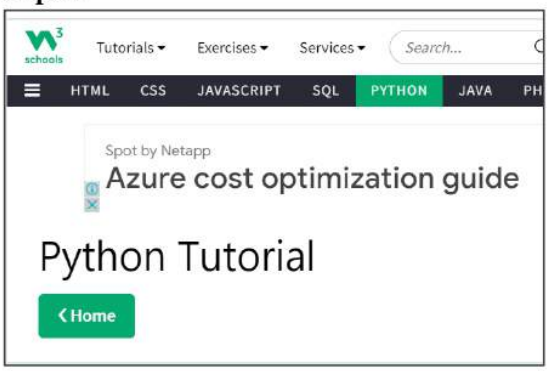
Step 3: Add Trigger Scope Activity. In the Trigger Action drag and drop a Click Trigger. Indicate the screen on a particular thing.

Step 4: Select BTN_LEFT of Mouse Button and check true for Include Children.

Step 5: For Actions drag and drop the Message Box Activity. Hit the Run button.



Output:



- **Key press**

Steps: -

Step 1: Open UiPath Studio.

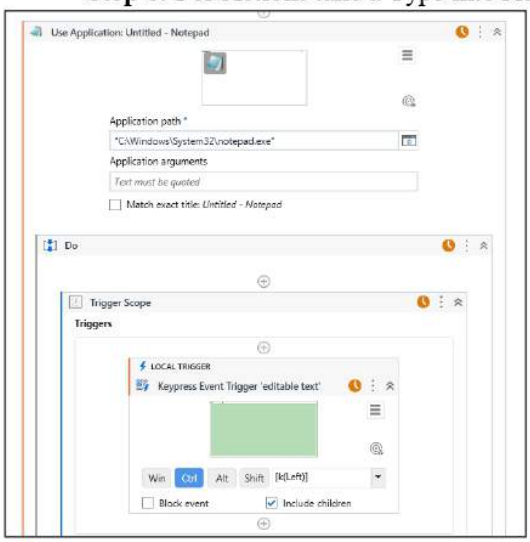
Step 2: Start a BlankProcess. Give the BlankProcess a name.

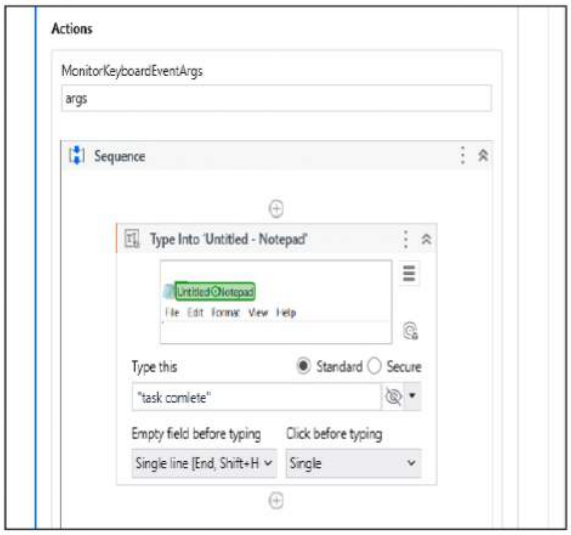
Step 3: Drag and drop a Sequence Activity.

Step 4: Take Use Application/Browser Activity. Create a Notepad file and indicate the screen on Notepad.

Step 5: Add Trigger Scope Activity. In the Trigger Action drag and drop a Key Press Trigger. Select ctrl + left key.

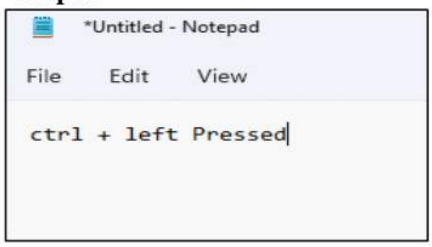
Step 6: For Actions take a Type into Activity and indicate screen on notepad.





Step 7: Run.

Output



2. **Image triggering event:**

Steps: -

Step 1: Drag and drop a Sequence Activity.

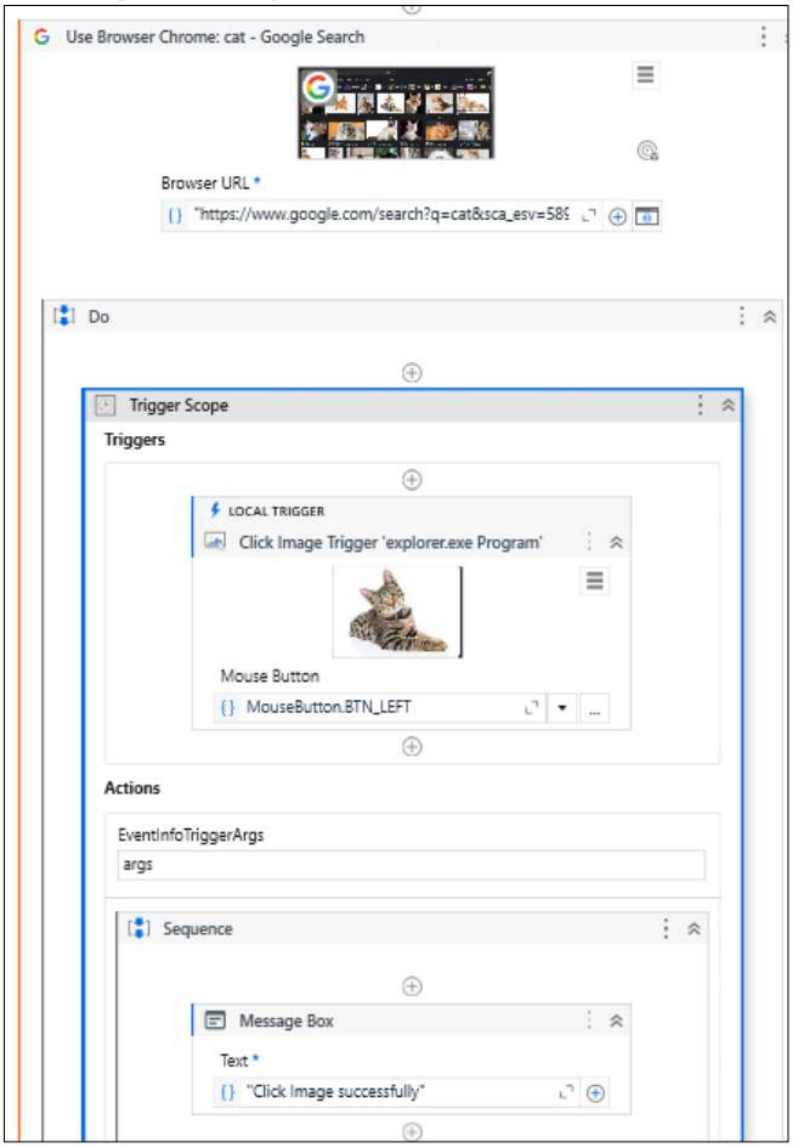
Step 2: Take Use Application/Browser Activity. Indicate the screen to the image.

Step 3: Add Trigger Scope Activity. In the Trigger Action drag and drop a Click Image Trigger. Drag the cursor on the image and also indicate the scope.

Step 4: Select BTN_LEFT of Mouse Button.

Step 5: In selector option Select Indicate Element.

Step 6: For Actions drag and drop the Message Box Activity. In the text field type "Click image successfully".



Step 7: Run. (After run click on image)

Output:

Message Box
Click Image successfully
OK
Smithsonian Magazine
Cats React to 'Baby Talk' From The

3. **System triggering event:**

- **Hot Key**

Steps: -

Step 1: Open UiPath Studio.

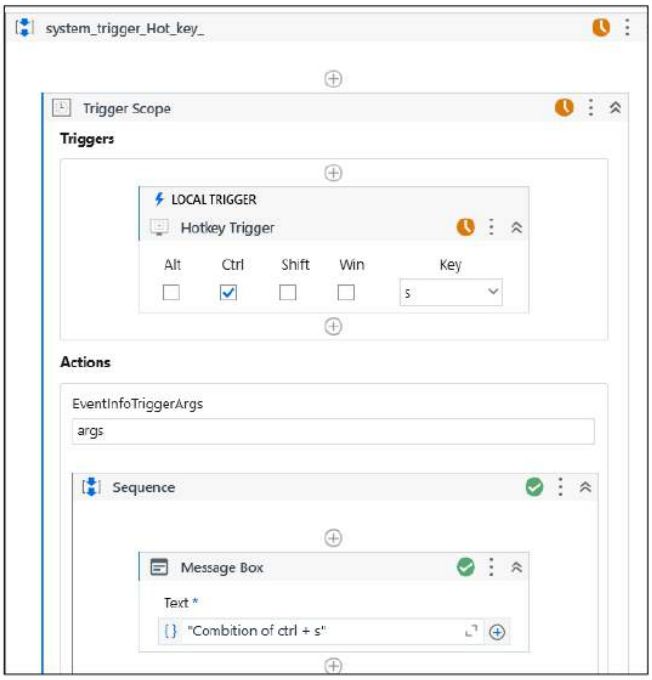
Step 2: Start a BlankProcess. Give the BlankProcess a name.

Step 3: Drag and drop a Sequence Activity.

Step 4: Add Trigger Scope Activity. In the Trigger Action drag and drop a Hotkey Trigger.

Step 5: Select ctrl + s.

Step 6: For Actions drag and drop the Message Box Activity. In the text field type "Combination of ctrl + s".



Step 7: Run. (After run click ctrl+s)

Output:

- **Mouse Trigger**

Steps: -

Step 1: Open UiPath Studio.

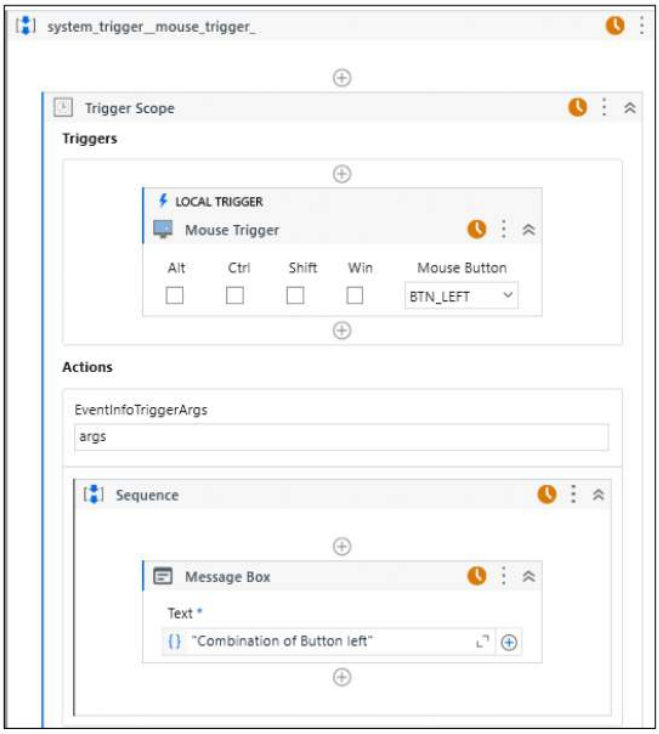
Step 2: Start a BlankProcess. Give the BlankProcess a name.

Step 3: Drag and drop a Sequence Activity.

Step 4: Add Trigger Scope Activity. In the Trigger Action drag and drop a Mouse Trigger.

Step 5: Select BTN_LEFT of Mouse Button.

Step 6: For Actions drag and drop the Message Box Activity. In the text field type "Combination of Button Left".



Step 7: Run. (After run click right button.)

Output:

- **System Trigger**

Steps: -

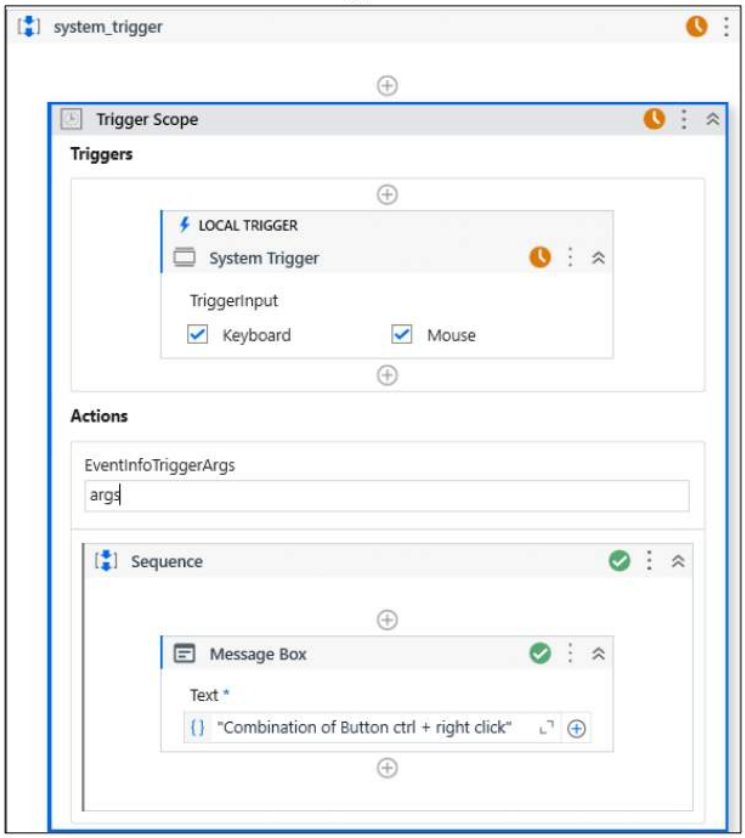
Step 1: Open UiPath Studio.

Step 2: Start a BlankProcess. Give the BlankProcess a name.

Step 3: Drag and drop a Sequence Activity.

Step 4: Add Trigger Scope Activity. In the Trigger Action drag and drop a System Trigger.

Step 6: For Actions drag and drop the Message Box Activity. In the text field type "Combination of Button ctrl + right click".



Step 7: Run. (After run click ctrl + right click)

Output:

B. Aim: Install and automate any process using UiPath with the following plugins:

i. Java Plugin

Steps: -

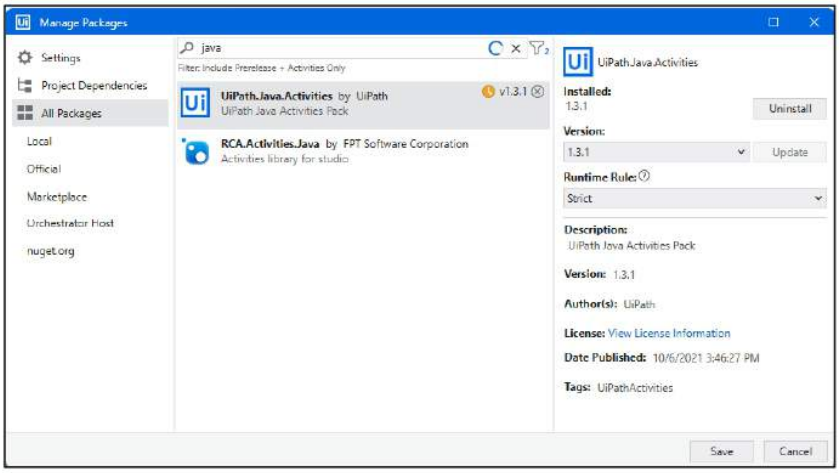
Step 1: Open UiPath Studio.In the Ribbon Panel go to the Manage Package.

Step 2: Select All Packages.A list of activities package will appear.

Step 3: Search Java, UiPath.Java.Activities will appear. Click on install.

Step 4: Java Plugin is installed.

Output:



ii. Mail Plugin

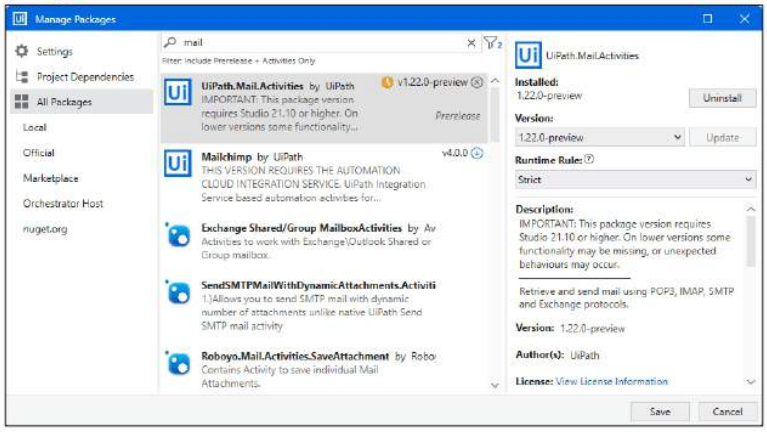
Steps: -

Step 1: Open UiPath Studio.In the Ribbon Panel go to the Manage Package.

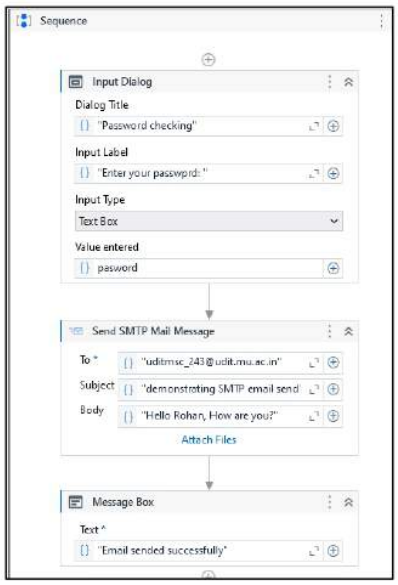
Step 2: Select All Packages. A list of activities package will appear.

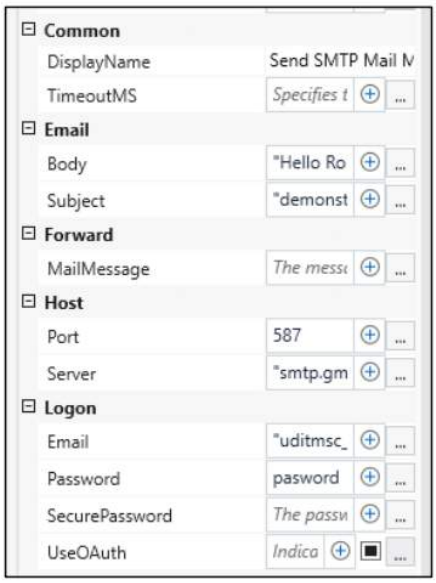
Step 3: Search mail UiPath.Mail.Activities will appear. Click on install

Step 4: Mail Plugin is installed.



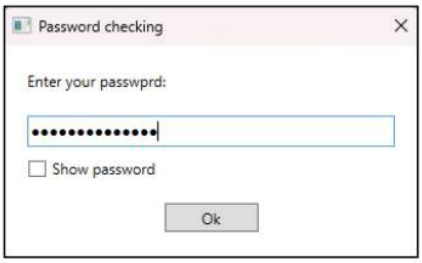
Step 6: Add Input dialog box and create variable password. Add "Send SMTP Mail Message" inside the sequence workflow. Enter the recipient's email address, subject line and message. Enter the password, port number, mail server name in the properties panel.

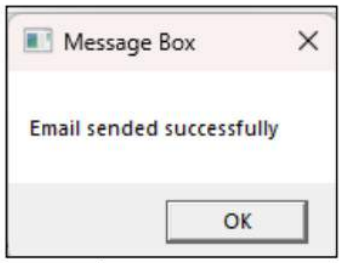




Name	Variable type	Scope	Default
pasword	String	Sequence	Enter a VB expre

Step 7: Run





iii. PDF Plugin

Steps: -

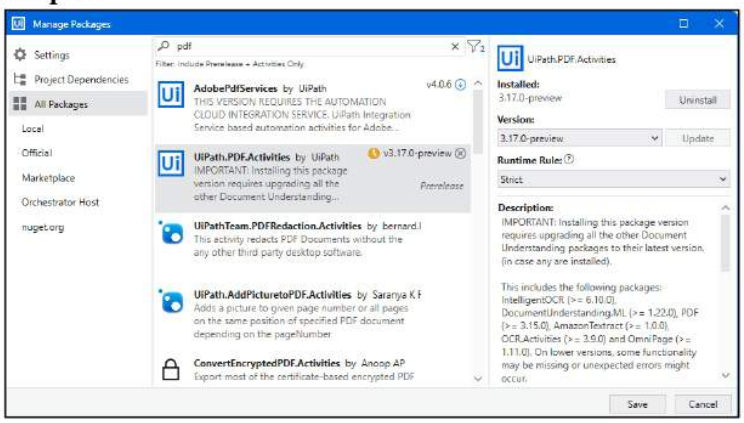
Step 1: Open UiPath Studio. In the Ribbon Panel go to the Manage Package.

Step 2: Select All Packages.A list of activities package will appear.

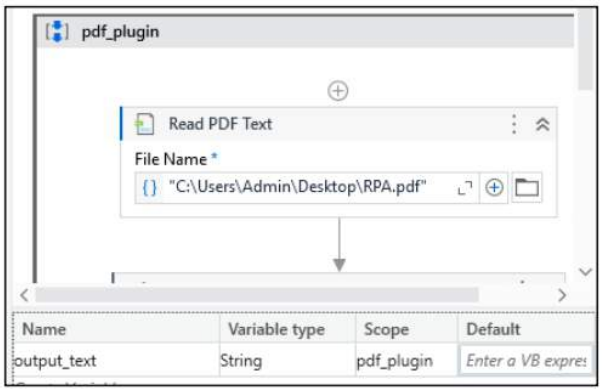
Step 3: Search PDF, UiPath.PDF.Activities will appear. Click on install.

Step 4: PDF Plugin is installed.

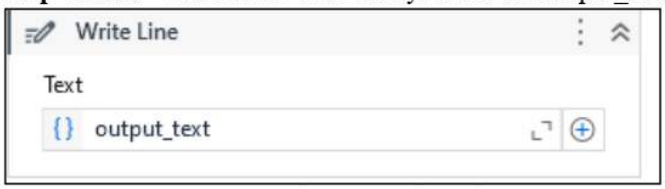
Output:



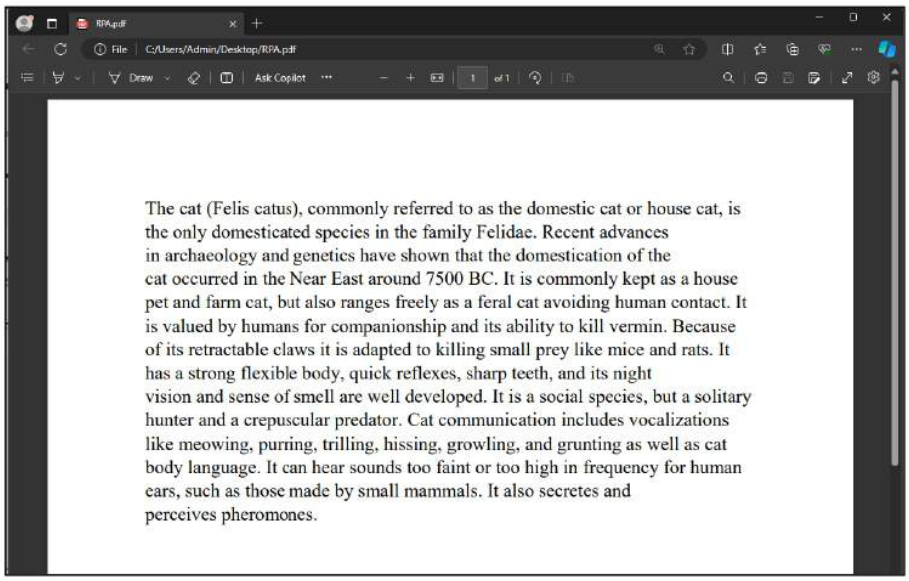
Step 5: Drag and drop sequence activity. Drag and drop "Read PDF Text". Enter the file location of the PDF to read from. Create and assign an output variable.



Step 6: Add "Write Line" in Activity. Enter the output_text.

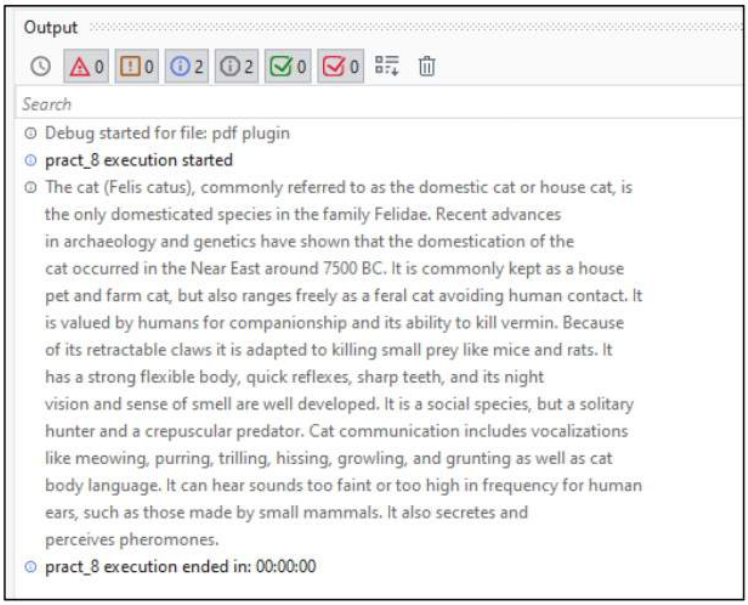


Step 7: Click on the Run button and see the Results.



The cat (Felis catus), commonly referred to as the domestic cat or house cat, is the only domesticated species in the family Felidae. Recent advances in archaeology and genetics have shown that the domestication of the cat occurred in the Near East around 7500 BC. It is commonly kept as a house pet and farm cat, but also ranges freely as a feral cat avoiding human contact. It is valued by humans for companionship and its ability to kill vermin. Because of its retractable claws it is adapted to killing small prey like mice and rats. It has a strong flexible body, quick reflexes, sharp teeth, and its night vision and sense of smell are well developed. It is a social species, but a solitary hunter and a crepuscular predator. Cat communication includes vocalizations like meowing, purring, trilling, hissing, growling, and grunting as well as cat body language. It can hear sounds too faint or too high in frequency for human ears, such as those made by small mammals. It also secretes and perceives pheromones.

Output:



Output

Search

Debug started for file: pdf plugin

pract_8 execution started

The cat (Felis catus), commonly referred to as the domestic cat or house cat, is the only domesticated species in the family Felidae. Recent advances in archaeology and genetics have shown that the domestication of the cat occurred in the Near East around 7500 BC. It is commonly kept as a house pet and farm cat, but also ranges freely as a feral cat avoiding human contact. It is valued by humans for companionship and its ability to kill vermin. Because of its retractable claws it is adapted to killing small prey like mice and rats. It has a strong flexible body, quick reflexes, sharp teeth, and its night vision and sense of smell are well developed. It is a social species, but a solitary hunter and a crepuscular predator. Cat communication includes vocalizations like meowing, purring, trilling, hissing, growling, and grunting as well as cat body language. It can hear sounds too faint or too high in frequency for human ears, such as those made by small mammals. It also secretes and perceives pheromones.

pract_8 execution ended in: 00:00:00

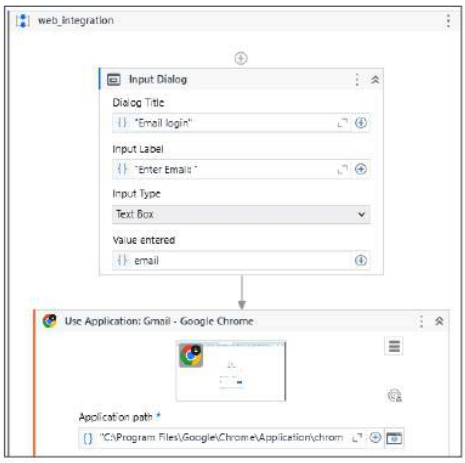
iv. Web Integration

Steps: -

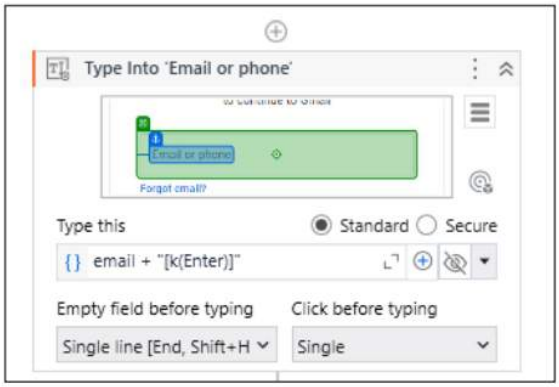
Step 1: Select sequence activity

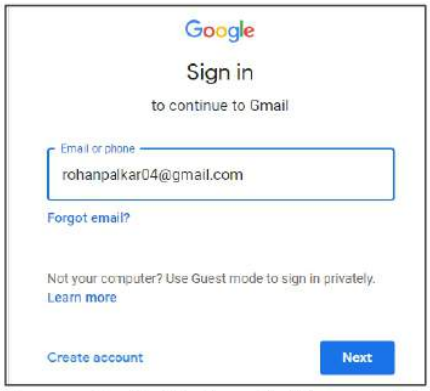
Step 2: Drag and drop Input dialog activity inside the Sequence. Write the appropriate message on the Label of the Input dialog. Create a variable and specify the variable in the Result property of the Input dialog box.

Step 3: Drag and drop "Use Browser/ Application" inside the sequence workflow. Indicate the screen you want to include in the workflow.

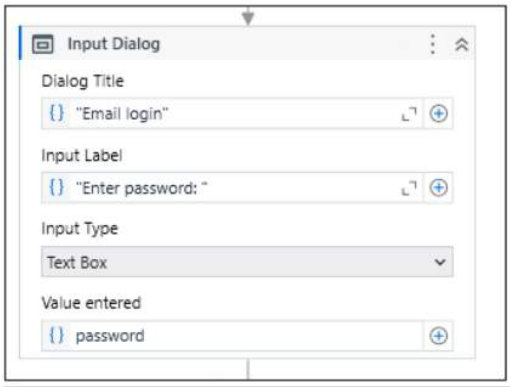


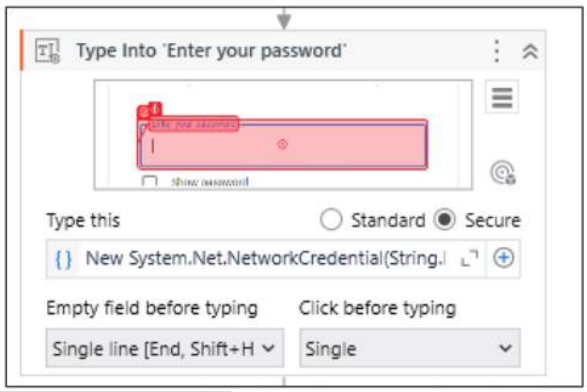
Step 5: Drag and "Type Into" Activity inside the sequence workflow. Indicate the Element you want to click on and Click on Save & Close.

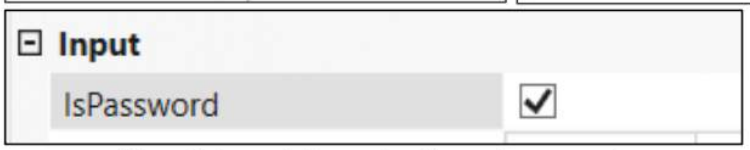




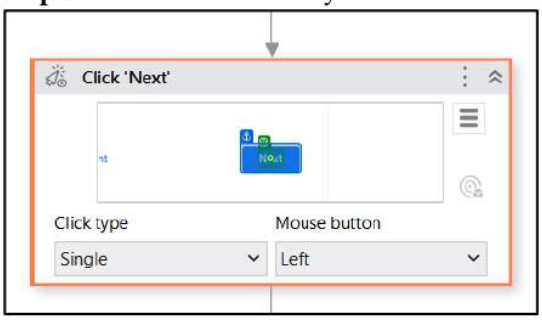
Step 6: Check the IsPassword property. Select the Secure Radio Button. Set the variable as Secure String using the code – "**new System.Net.NetworkCredential(String.Empty, password).SecurePassword**".





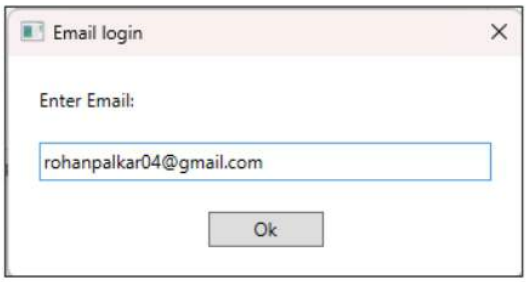


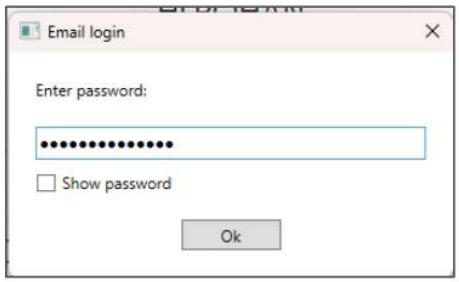
Step 7: Add "Click" Activity and Indicate the "Next" button.

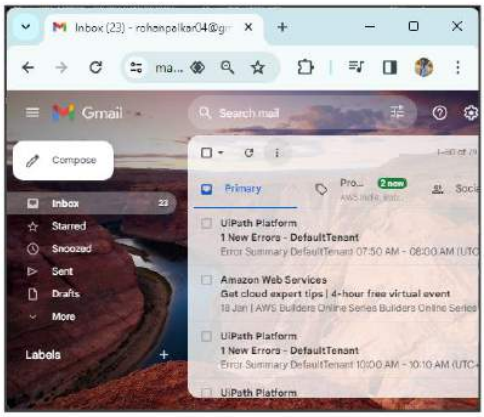


Step 8: Click the Run button and see the result.

Output:







v. Excel Plugin

Steps: -

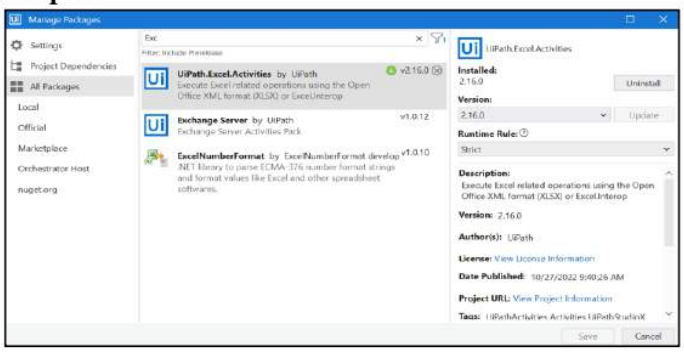
Step 1: Open UiPath Studio.In the Ribbon Panel go to the Manage Package.

Step 2: Select All Packages.A list of activities package will appear.

Step 3: Search Excel, UiPath.Excel.Activities will appear. Click on install.

Step 4: Excel Plugin is installed.

Output:



- **Read Cell**

Steps: -

Step 1: Drag and drop the Sequence Activity.

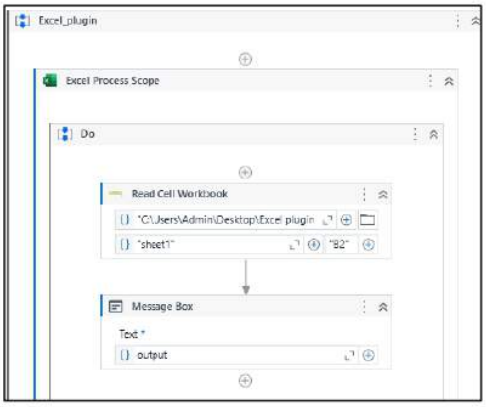
Step 2: Drag and drop Excel Process Scope Activity in the Sequence Activity.

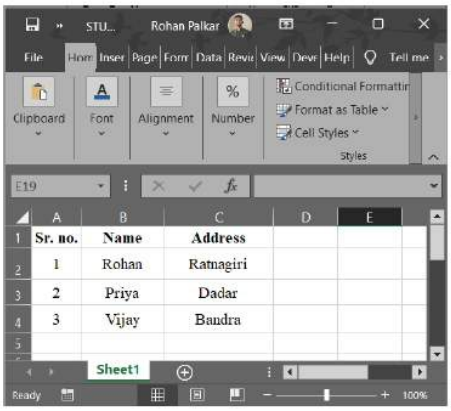
Step 3: In Excel Process Scope drag and drop the Read Cell Workbook Activity.

Step 4: Create an excel file with some data and save it. Give a desired path of excel file in the Read Cell Workbook. Also give the "sheet name" (Sheet1) and assign the cell you want to read("b2"). Create a variable cellvalue by pressing ctrl+k. In the output filed of Rad cell Activity write created variable: cellvalue

Step 5: Add Message Box Activity and connect it to Read Cell Workbook. In the Text field, type variable "cellvalue" created in Step 5.

Step 6: Run.





vi. Word Plugin

A) Read text

Steps: -

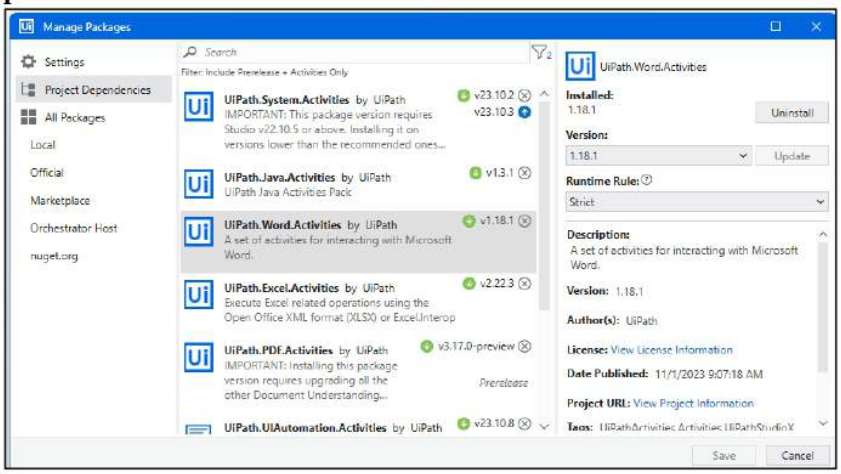
Step 1: Open UiPath Studio.In the Ribbon Panel go to the Manage Package.

Step 2: Select All Packages.A list of activities package will appear.

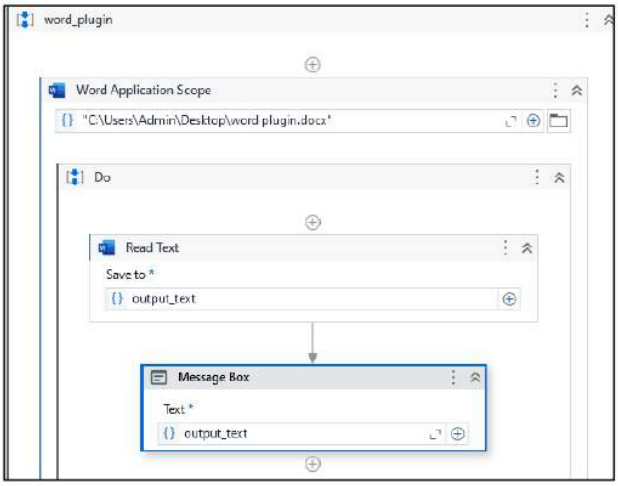
Step 3: Search word, UiPath.Word.Activities will appear. Click on install.

Step 4: Mail Plugin is installed.

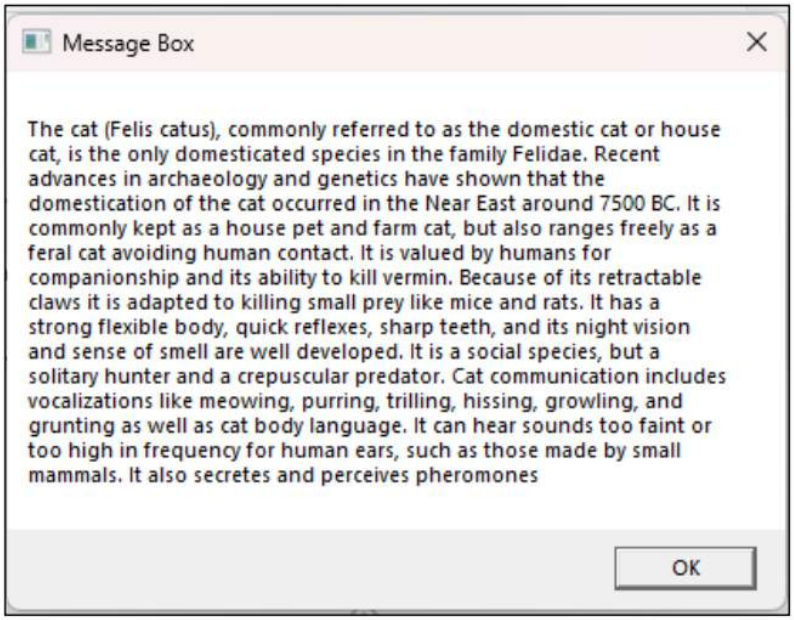
Output:



Example:

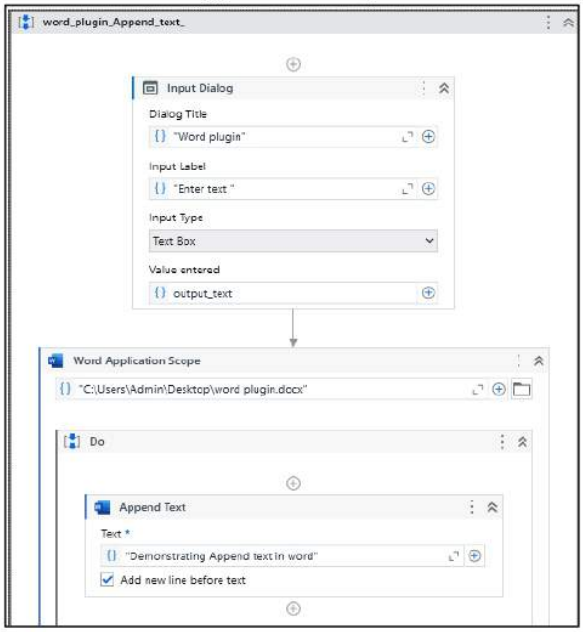


Name	Variable type	Scope	Default
output_text	String	Do	*Enter a VB express*



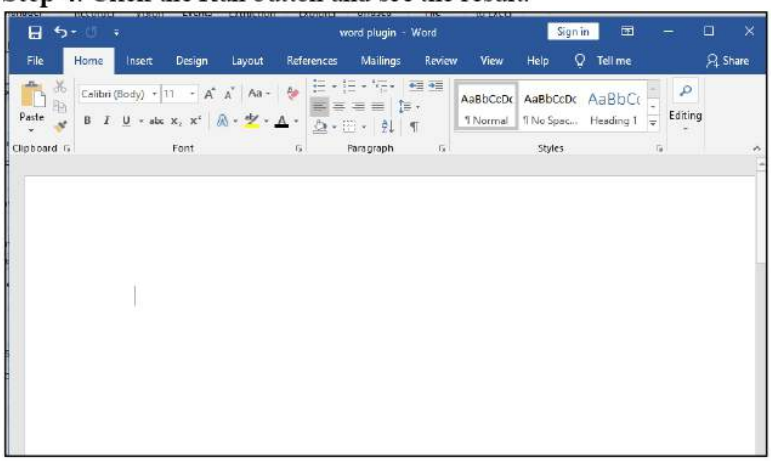
B) Append Text

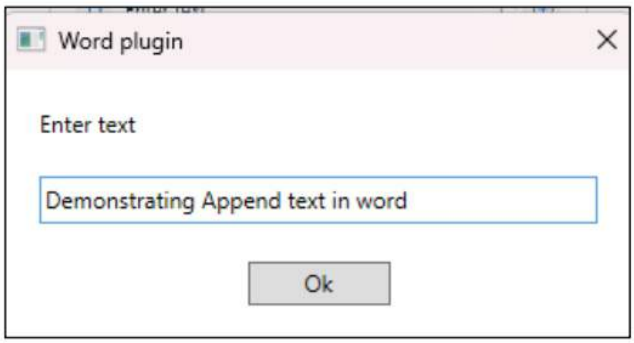
Step 1: : Search for "Input dialog" in the Search panel of the Activities panel. Drag and drop Input dialog activity inside the Sequence. Write the appropriate message on the Label of the Input dialog. Create variables and specify the variables in the Result property of the Input dialog box.
Step 2: Search for "Word Application Scope" in the Search panel of the Activities panel. Drag and drop the activity inside the Sequence. Enter the Target File location.
Step 3: Search for "Append Text" in the Search panel of the Activities panel. Drag and drop the activity inside the Word Application Scope and enter the output variable.

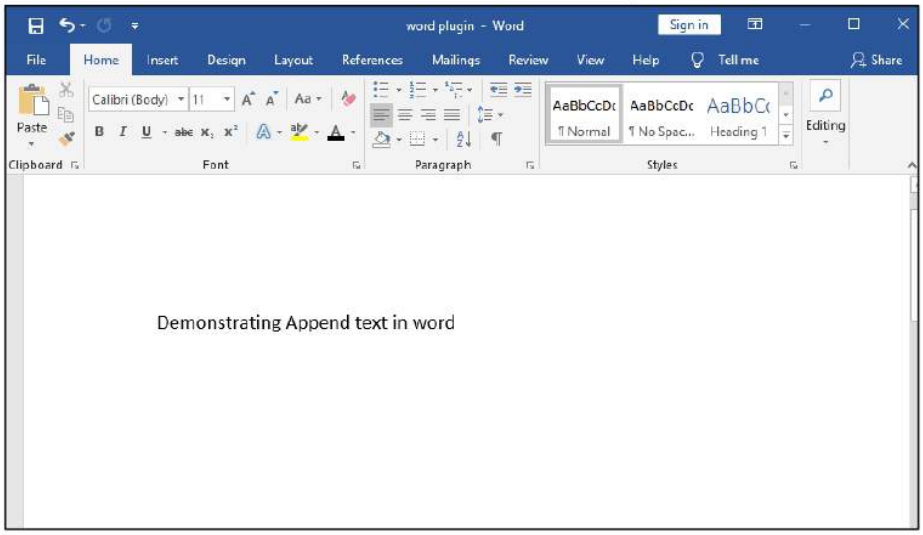


Name	Variable type	Scope	Default
output_text	String	word_plugin_A	Enter a VB expression

Step 4: Click the Run button and see the result.




Word plugin
Enter text
Demonstrating Append text in word
Ok


word plugin - Word
Sign in
File
Home
Insert
Design
Layout
References
Mailings
Review
View
Help
Tell me
Share
Paste
Clipboard
Calibri (Body)
11
Font
Paragraph
Normal
No Spac...
Heading 1
Styles
Editing
Demonstrating Append text in word

vii. Credential Plugin

Steps: -

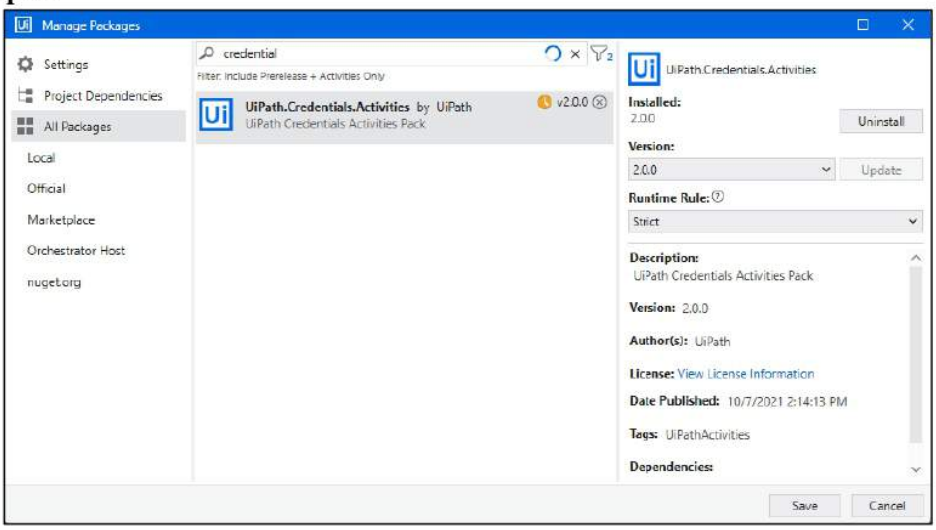
Step 1: Open UiPath Studio.In the Ribbon Panel go to the Manage Package.

Step 2: Select All Packages.A list of activities package will appear.

Step 3: Search Credentials, UiPath.Credentials.Activities will appear. Click on install.

Step 4: Credentials Plugin is installed.

Output:

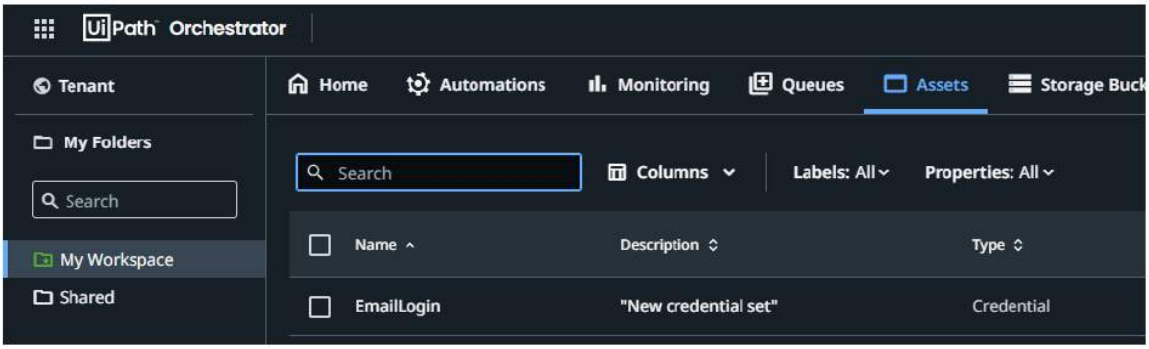


[a] Set Credential

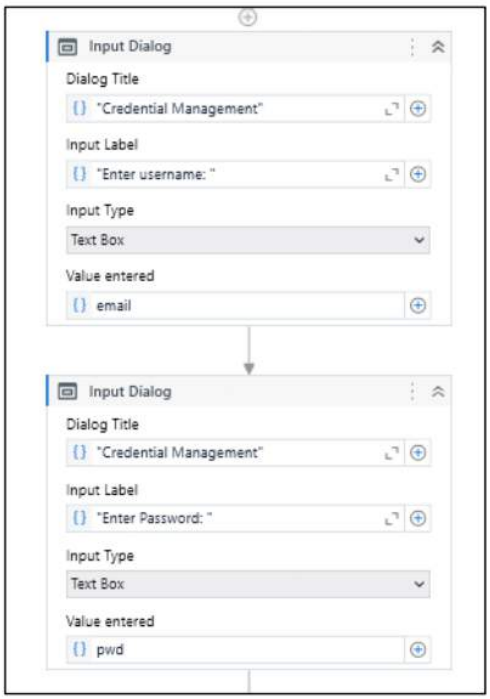
Step 1: Drag and drop "Sequence" in the Activity.

Step 2: Create a new Credential in Orchestrator.

(https://cloud.uipath.com/uomydvuvoo/DefaultTenant/orchestrator)

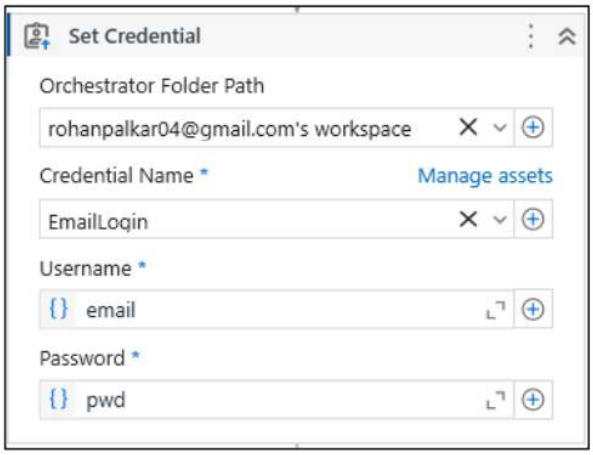


Step 3: Drag and drop two Input dialog boxes inside the Sequence. Set one input Dialog box for the username and with output variable as "email" and the other input Dialog box for the Password with the output variable as "pwd" and isPassword Property checked.



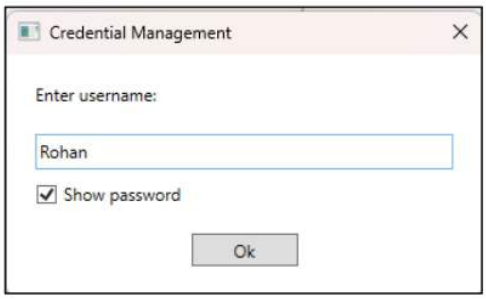
Name	Variable type	Scope	Default
email	String	set_credential	*Enter a VB expression*
pwd	String	set_credential	*Enter a VB expression*

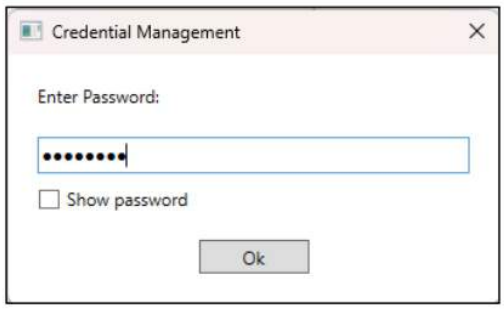
Step 4: Drag and drop the "Set Credential" activity inside the Sequence. Select the Orchestrator Folder Path and the Credential name. Enter the Username and Password Variables.

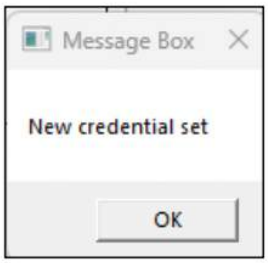


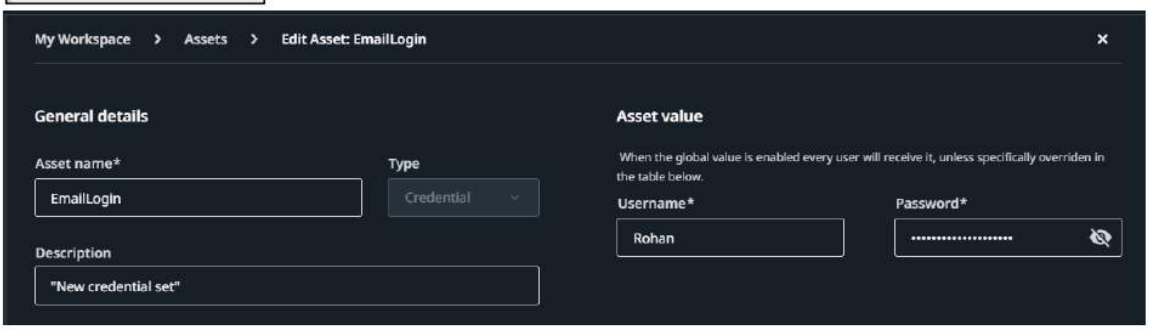
Step 5: Drag and drop "Message Box" activity inside the body and enter the output statement.

Step 6: Click the Run button and see the result.


Credential Management
Enter username:
Rohan
Show password
Ok


Credential Management
Enter Password:
Show password
Ok

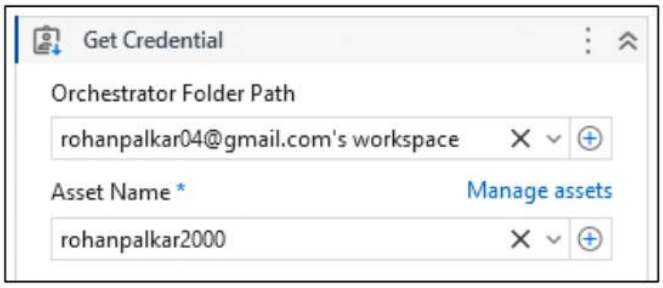

Message Box
New credential set
OK

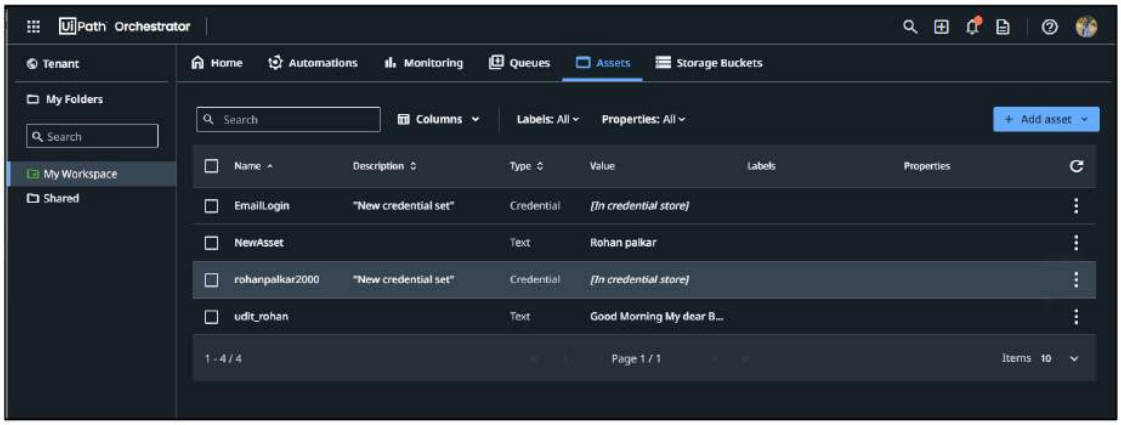

My Workspace > Assets > Edit Asset: EmailLogin
General details
Asset name*
EmailLogin
Type
Credential
Description
"New credential set"
Asset value
When the global value is enabled every user will receive it, unless specifically overriden in the table below.
Username*
Rohan
Password*

[b] Get Credential:

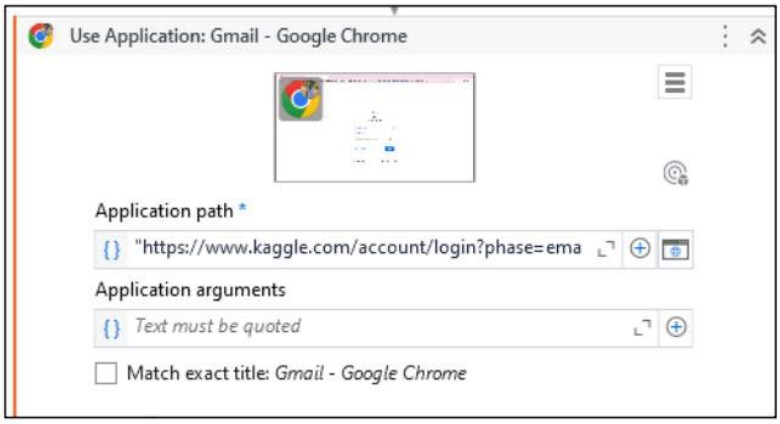
Step 1: Drag and drop "Sequence" in the Activity

Step 3: Drag and drop "Get Credential" activity inside the Sequence. Select the Orchestrator Folder Path and the Credential name. Create new variables for username and password and map the Username and Password Outputs.



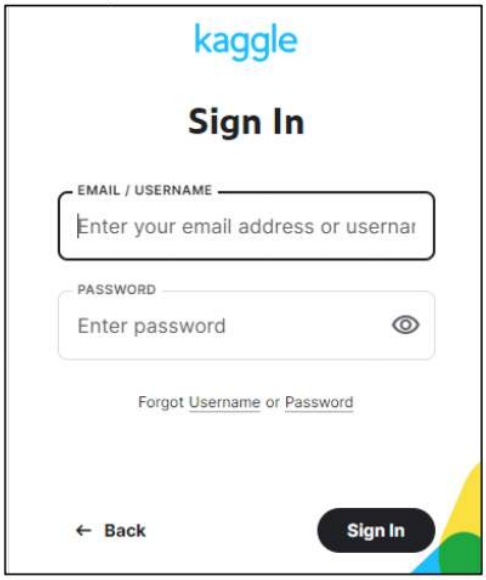


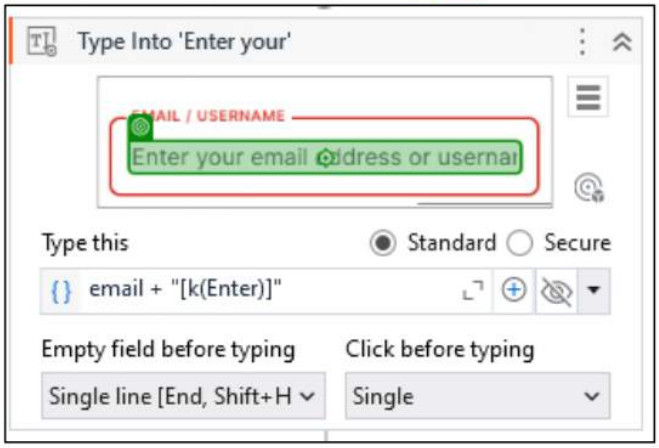
Step 4: Search for "Use Browser/ Application" Activity in the Activities Panel and drag it inside the sequence workflow. Indicate the screen you want to include in the workflow.



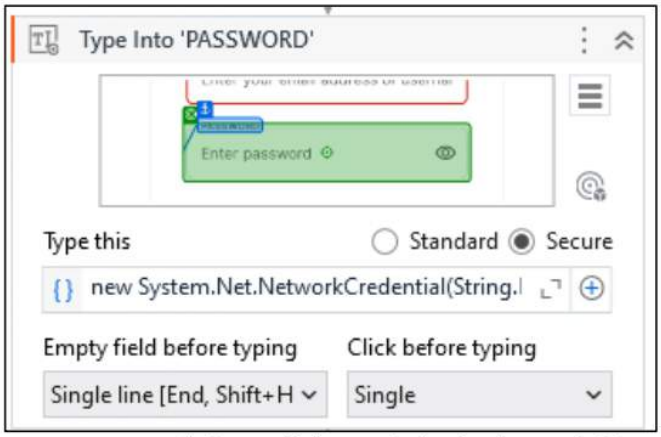
Name	Variable type	Scope	Default
email	String	Get_credentia	Enter a VB expression
password	SecureString	Get_credentia	Enter a VB expression

Step 5: drag and drop "Type Into" Activity inside the sequence workflow. Indicate the Element you want to click on and Click on Save & Close.

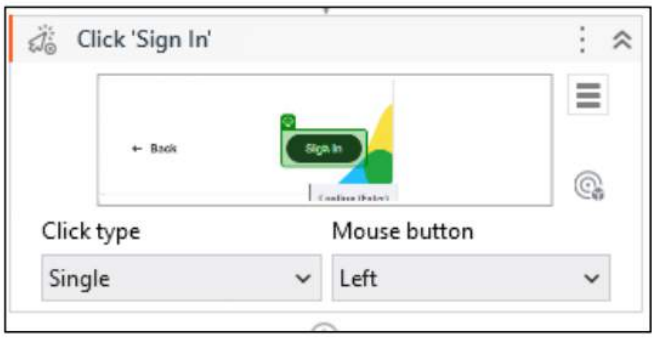




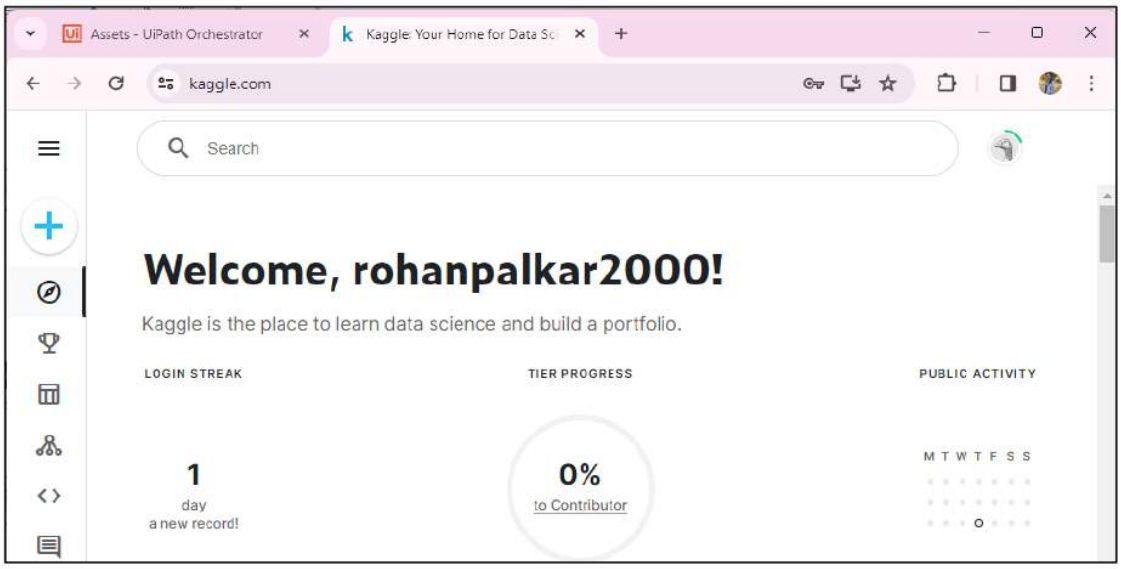
Step 10: Select the Secure Radio Button. Set the variable as Secure String using the code – "new System.Net.NetworkCredential(String.Empty, password).SecurePassword".



Step 11: Search for "Click" Activity in the Activities Panel and drag it inside the sequence. Indicate the "Sign in" button.



Step 12: Click the Run Button and see the results.

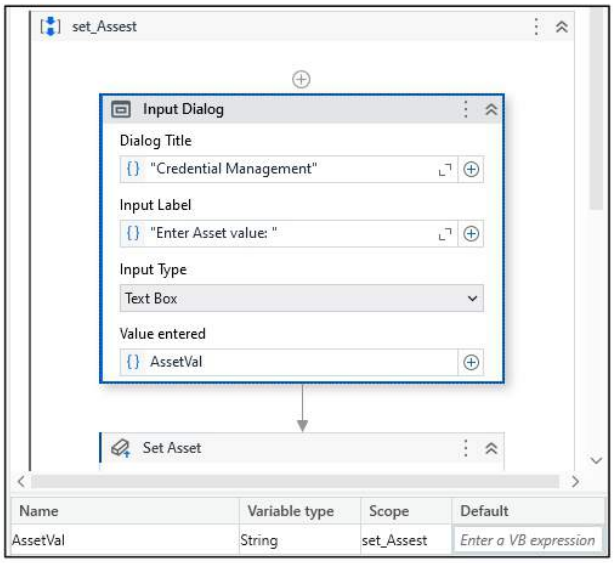


[c] Set Asset:

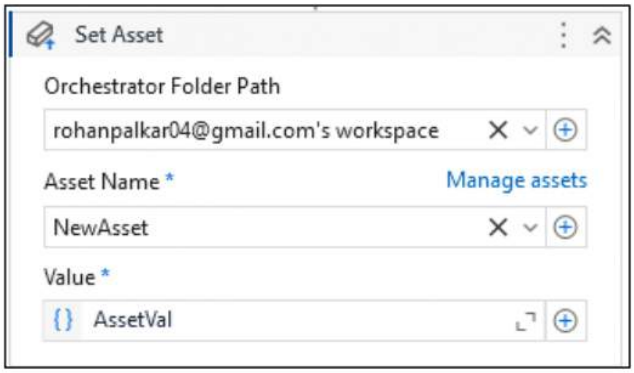
Step 2: Drag and drop "Sequence" Activity .

Step 3: Create a new Asset in Orchestrator.

Step 4: Add "Input Dialog Box" inside the Sequence. Create a new variable to store Asset Value.

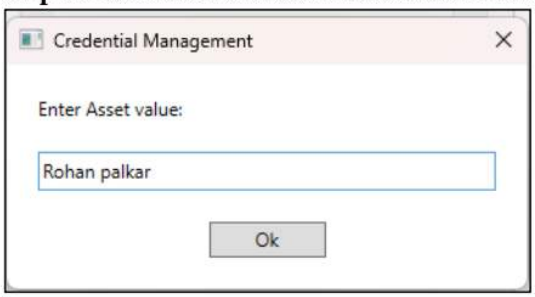


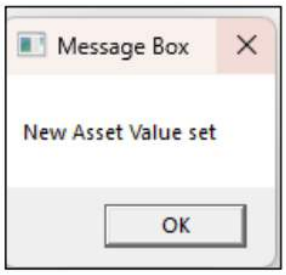
Step 5: Drag and drop "Set Asset" activity inside the Sequence. Select the Orchestrator Folder Path and the Asset name. Enter the Asset Value Variable.

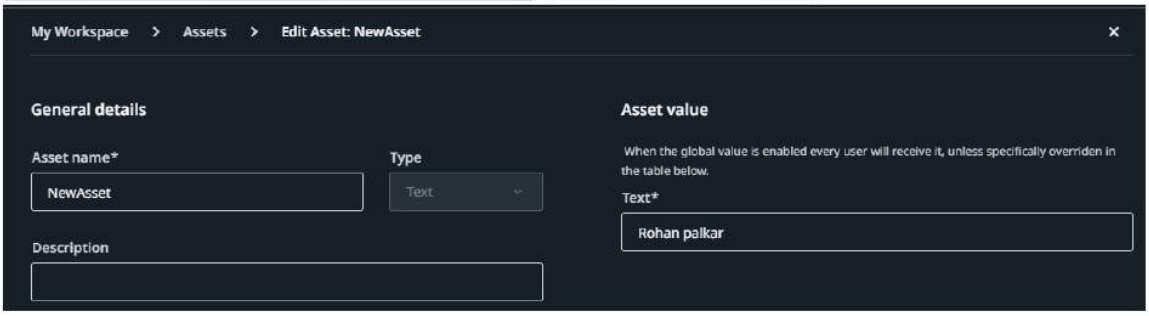


Step 6: Drag and drop "Message Box" activity inside the body and enter the output statement.

Step 7: Click the Run button and see the result.





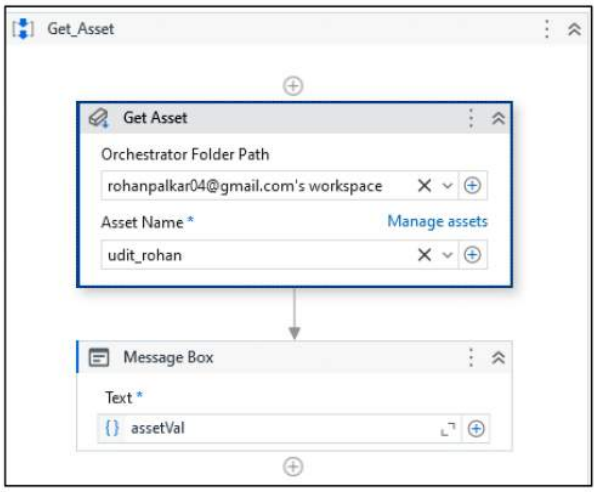


[d] Get Asset

Step 1: Drag and drop "Sequence" Activity.

Step 3: Drag and drop "Get Asset" activity inside the Sequence. Select the Orchestrator Folder Path and the Asset name. Create new variables for Asset Value and map Get Asset Output.

Step 4: Drag and drop "Message Box" activity inside the body and enter the output variable.



Name	Variable type	Scope	Default
assetVal	String	Get_Asset	Enter a VB expre:
Create Variable			

Step 7: Click the Run button and see the result.

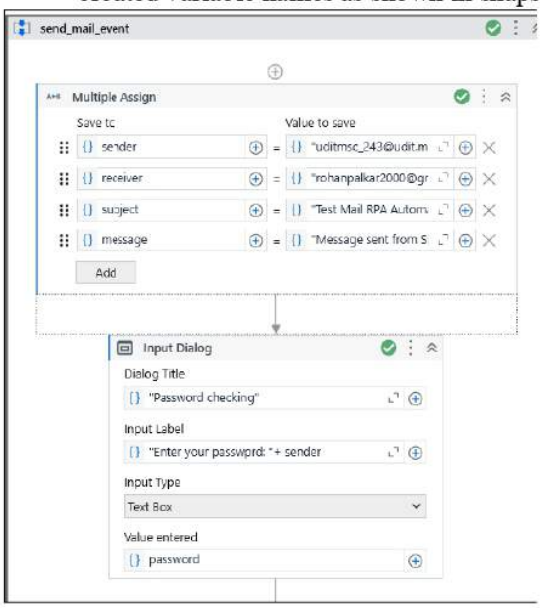
PRACTICAL NO. 9

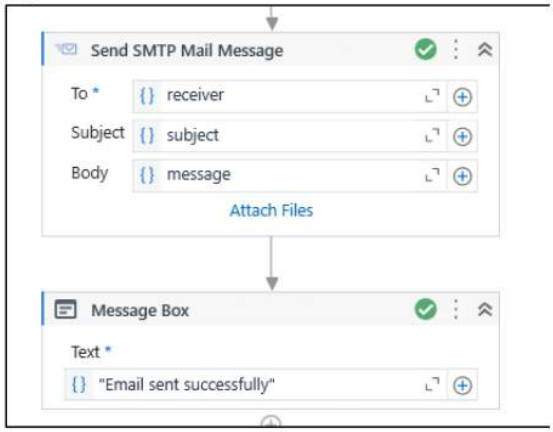
A. Aim: Automate the process of Send Mail Event.

Steps: -

Step 3: Drag and drop a sequence activity.

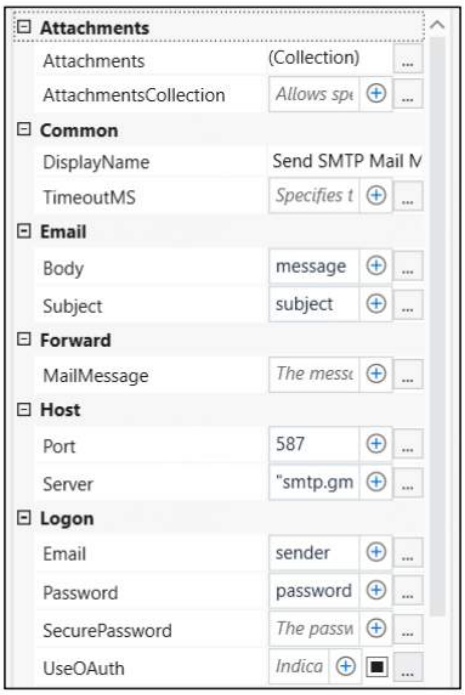
Step 4: Create five variables: - sender, receiver, password, subject, body.
Step 5: Add Multiple Assign activity under sequence activity.
Step 6: Then assign value to variables as shown in the snapshot.
Step 7: Add Input Dialog activity below multiple assign activity to get the password of sender's email from user.
Step 8: Take send SMTP Mail Message activity and in text boxes enter the previously created variable names as shown in snapshot.

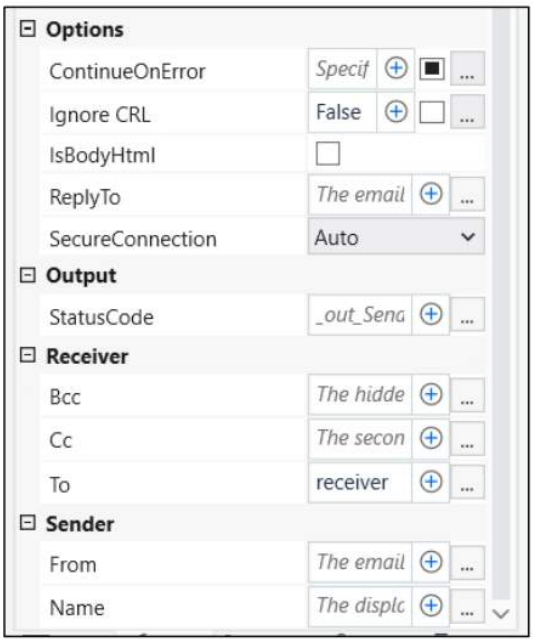




Name	Variable type	Scope	Default
receiver	String	send_mail_ever	Enter a VB expression
subject	String	send_mail_ever	Enter a VB expression
message	String	send_mail_ever	Enter a VB expression
sender	String	send_mail_ever	"uditmsc_243@udit.mu.ac.in
pwd	SecureString	send_mail_ever	Enter a VB expression
password	String	send_mail_ever	Enter a VB expression

Step 9: Then in properties panel of SMTP Mail Message activity fill the text boxes of Email, Host, Logon and Receiver as shown in following snapshot.

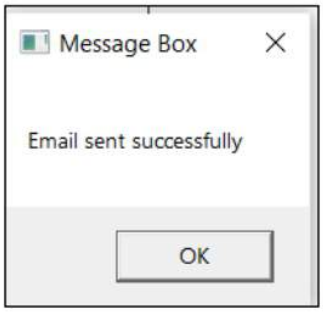




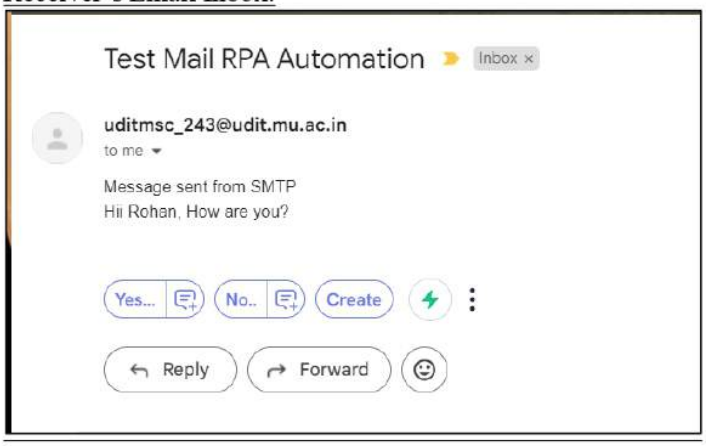
Step 10: At last drag and drop Message Box activity to check the mail is sent.
Step 11: Debug file.

Output:

Enter the password of sender's email:



Receiver's Email Inbox:



B. Aim: Automate the process of launching an assistant bot on keyboard event Hot Key

Steps: -

Steps: -

Step 1: Open UiPath Studio.

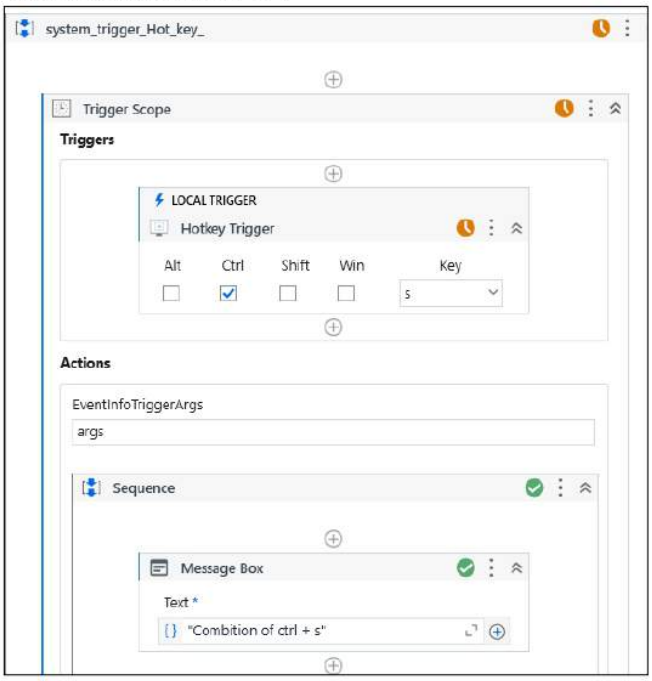
Step 2: Start a BlankProcess. Give the BlankProcess a name.

Step 3: Drag and drop a Sequence Activity.

Step 4: Add Trigger Scope Activity. In the Trigger Action drag and drop a Hotkey Trigger.

Step 5: Select ctrl + s.

Step 6: For Actions drag and drop the Message Box Activity. In the text field type "Combination of ctrl + s".



Step 7: Run. (After run click ctrl+s)

Output:

C. Aim: Demonstrate the Exception Handling in UiPath Studio.

Steps: -

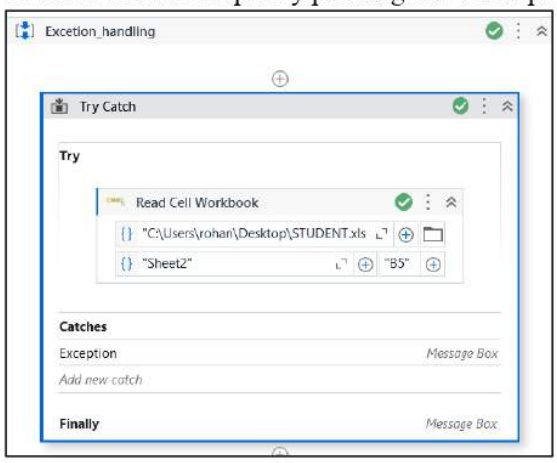
Step 1: Open UiPath Studio.

Step 2: Start a BlankProcess. Give the BlankProcess a name

Step 3: Drag and drop Sequence Activity.

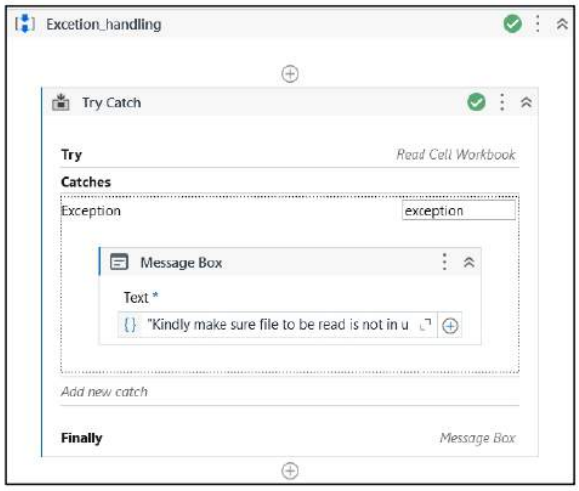
Step 4: Now drag and drop Try Catch Activity from the Activity Panel in the Sequence Activity.

Step 5: In Try Action take a Read Cell Workbook Activity. Create an excel file and save it. Give a desired path of excel file and assign sheet name "Sheet1". Also assign cell value("B6"). Create a variable output by pressing ctrl + k in property panel.

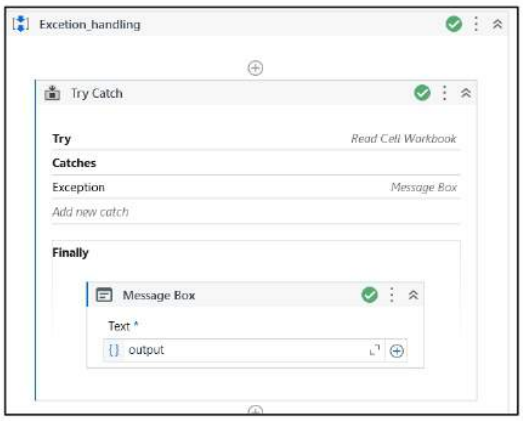


Step 6: In Catches Action select System.Exception from the list of exceptions.

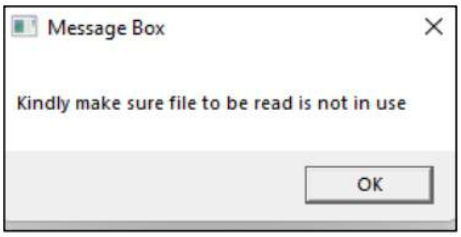
Step 7: Drag and drop Message Box in Catch Action and in the text field type "Kindly make sure file to be read is not in use".



Step 8: In Finally Action drag and drop the Message Box Activity. In the text field type the variable output created in Step 5.


Excetion_handling
Try Catch
Try
Read Cell Workbook
Catches
Exception
Message Box
Add new catch
Finally
Message Box
Text *
output

Message ...
Rohan
OK


Message Box
Kindly make sure file to be read is not in use
OK

Message...
OK

PRACTICAL NO. 10

A. Aim: Automate the process of logging and taking screenshots in UiPath Studio.

Steps: -

Step 1: Open UiPath Studio.

Step 2: Start a BlankProcess. Give the BlankProcess a name

Step 3: Drag and drop Sequence Activity.

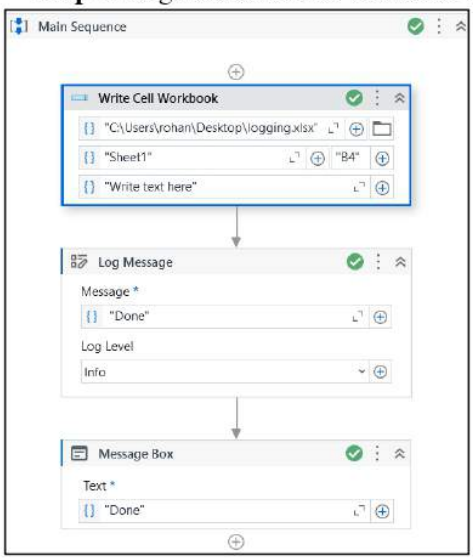
Step 4: Now drag and drop Write Cell Workbook Activity from the Activity Panel in the Sequence Activity.

Step 5: Create an excel file and save it. Give a desired path of excel file and assign sheet name. Also assign cell value("B4"). In the text property type anything you want.

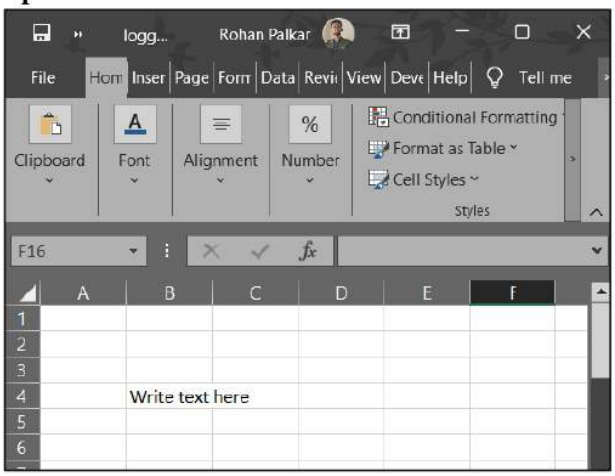
Step 6: Take a Log Message Activity in the Sequence Activity and connect it with the Write Cell Workbook Activity. In the log level select "Info" from the drop-down list and in Text field type "Done".

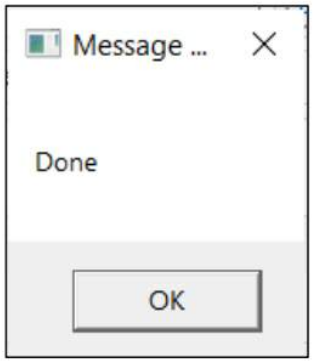
Step 7: Run.

Step 8: Logs details can be viewed in Open Logs in Debug option of Ribbon Panel.



Output:





B. Aim: Automate any process of using State Machine

Steps: -

Step 1: Open UiPath Studio.

Step 2: Start a BlankProcess. Give the BlankProcess a name

Step 3: Drag and drop Flowchart Activity.

Step 4: There are two activities specific to State Machines. They are State and Final State

Step 5: The State activity consists of three sections Entry, Exit, and Transitions, while the Final State only contains Entry.

Step 6: State activity: Transitions contain three sections Trigger, Condition, and Action.

Step 7: Connect three state activity along with final activity.

Step 8: Name the three states activity as IDLE, COOLING, HEATING.

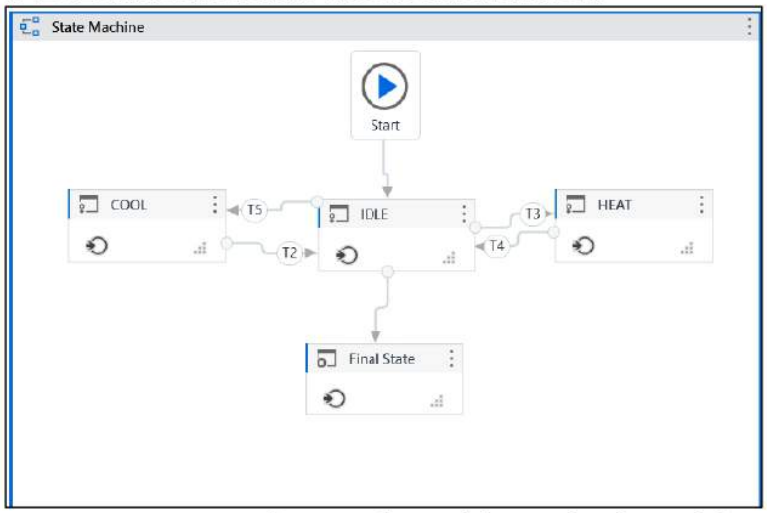
Step 9: Name the final activity as Power Off.

Step 10: Connect IDLE to COOLING and vice versa. A transition TI from IDLE to COOLING is named as DT< CT and transition T2 from COOLING to IDLE is named as Reached.

Step 11: Connect IDLE to HEATING and vice versa. A transition T3 from IDLE to HEATING is named as DT > CT and transition T4 from HEATING to IDLE is named as Reached.

Step 12: Connect IDLE to Power Off. A transition T5 from IDLE to Power Off is named as Exit.

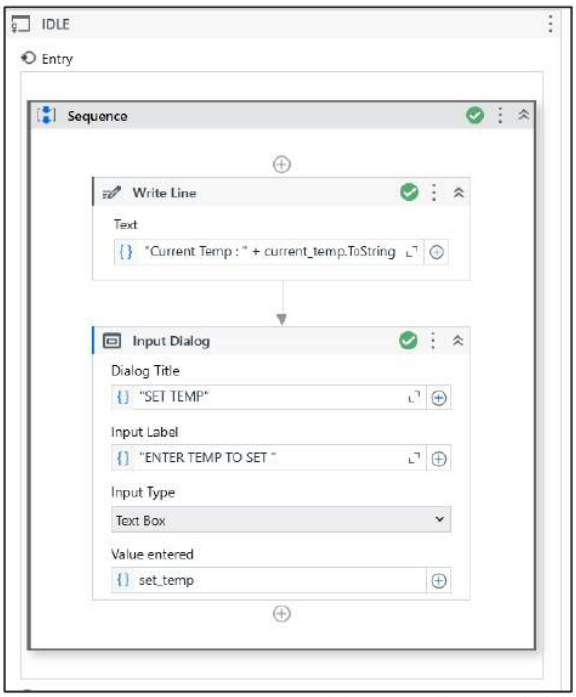
Step 13: Create a variables of type integer(Int32) as Current_Temp and Desrired_Temp. Set the default value as 24 for Current_Temp and save it. Create another variable of type Boolean as IDLE and set the defaukt value as True and save it.



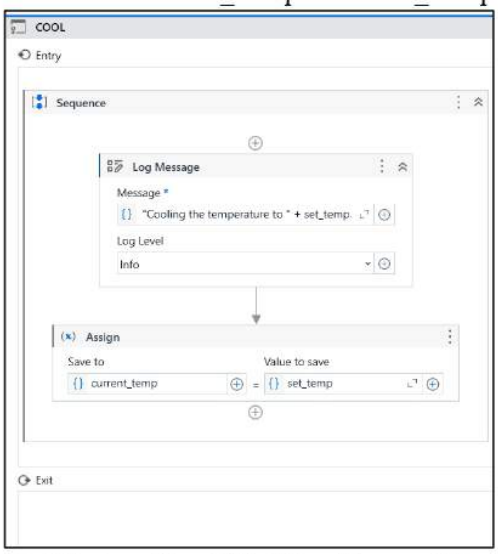
Step 14: In IDLE state for Entry drag and drop WriteLine Activity. In the text field type "Current_Temp is " + Current_Temp.ToString + "Degree Celsius" .

Step 15: Connect an Input Dialog Box Activity to the WriteLine Activity. Give a dialog title, for Input Lable type "Enter Desired Temperature, 0 to exit". Type Desired_Temp for value entered field.

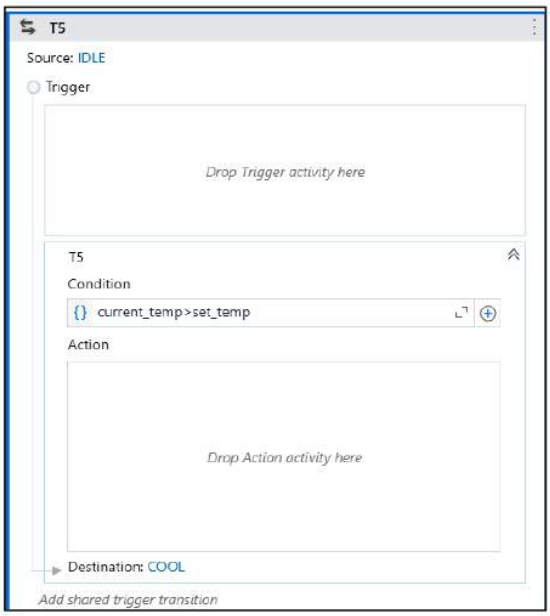
Step 16: Now take If Activity under Input Dialog Box. Set the condition as Desired_temp<1 and drag and drop Assign Activity in the then part. Set IDLE = False for Assign Activity. Drag and drop Multiple Assign Activity for else part. Assign first value as Desired_Temp = if(Desired_Temp<15,15,Desired_Temp). Assign second value as Desired_Temp = if(Desired_Temp>30,30,Desired_Temp).

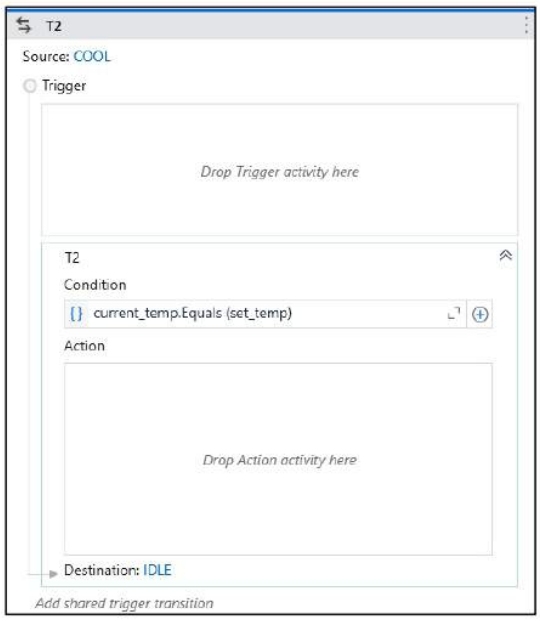


Step 17: In COOLING state for Entry drag and drop WriteLine Activity. In the text field type "Cooling your Space". Connect an Assign Activity to the WriteLine Activity. Set the value as Current_Temp = Desired_Temp field.

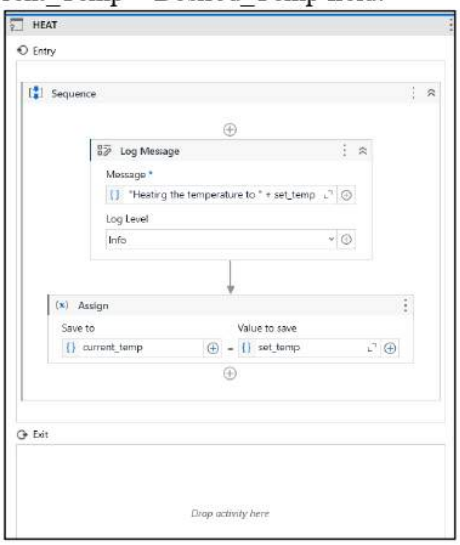


Step 18: The transition DT<CT set the condition as Desired_Temp<Current_Temp. Also for transition Reached set the condition as Current_Temp.Equals(Desired_Temp).

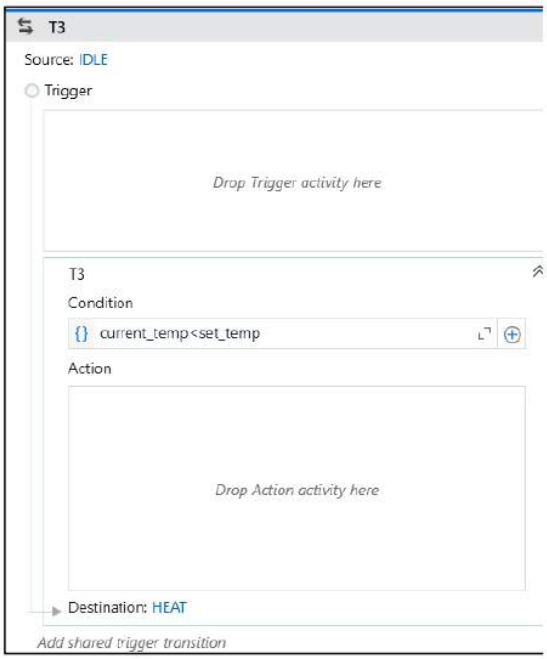


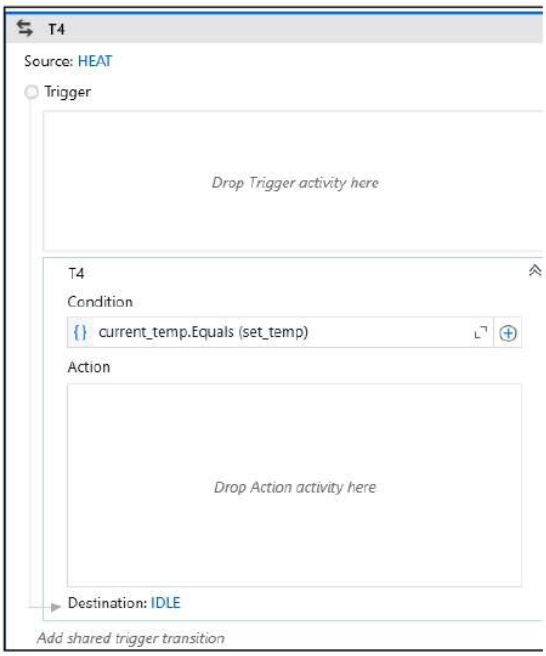


Step 19: In HEATING state for Entry drag and drop WriteLine Activity. In the text field type "Heating your Space". Connect an Assign Activity to the WriteLine Activity. Set the value as Current_Temp = Desired_Temp field.

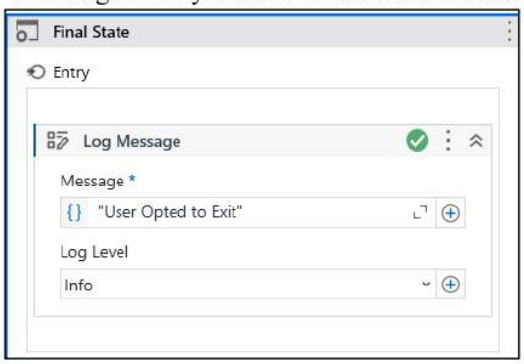


Step 20: The transition DT>CT set the condition as Desired_Temp>Current_Temp. Also for transition Reached set the condition as Current_Temp.Equals(Desired_Temp).

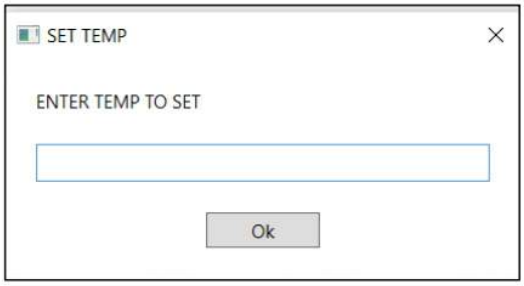


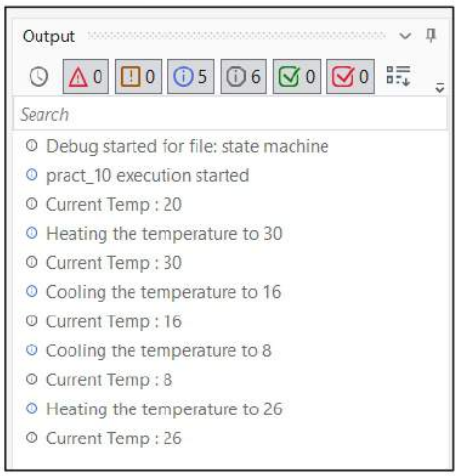


Step 21: For the transition Exit set condition IDLE.Equals(False).
Step 22: In Power Off state for Entry drag and drop WriteLine Activity. In the text field type "Shutting Down your AC". Hit the Run Button.



Output





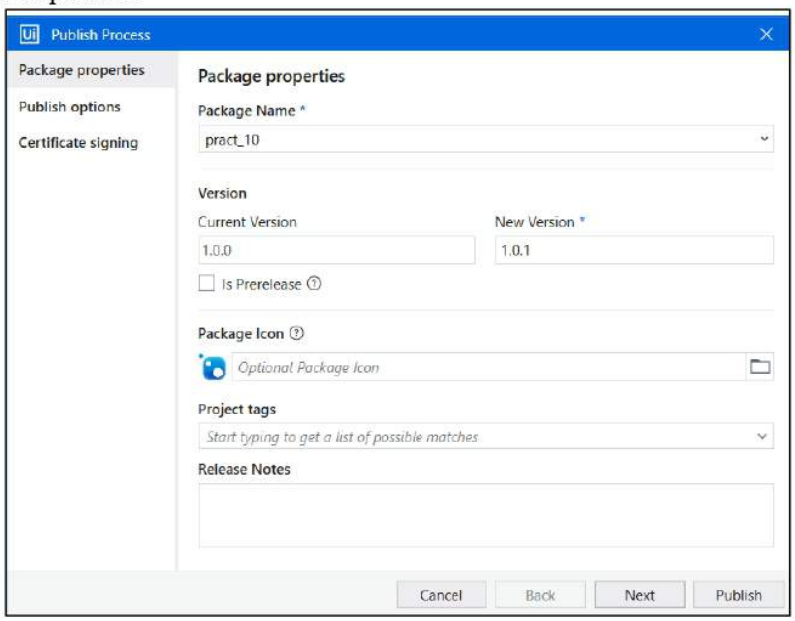
C. Aim: Demonstrate the use of publish utility.

Steps: -

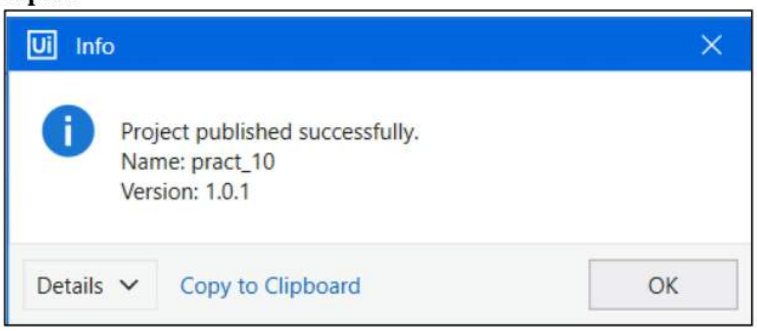
Step 1: First, open UiPath Studio, create a new project, and give it an appropriate name.

Step 2: Go to the Design in the Ribbon and click on the Publish button.

Step 3: A dialog box will appear rename your project, get updates to the new version, etc. Then click on publish.



Step 4: Now check whether the project has been published successfully or not.

Step 5: If the workflow has been published successfully, then a dialog box will appear containing all the necessary data required to run that workflow from Orchestrator.

Output: