

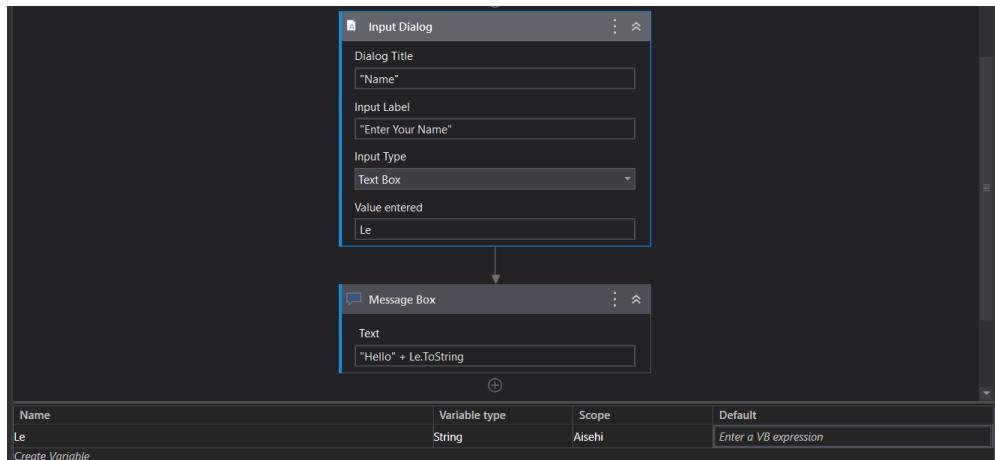
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8.	<p>A. Demonstrate the following events in UiPath:</p> <ul style="list-style-type: none"> i. Element triggering event ii. Image triggering event iii. System Triggering Event <p>B., Automate the following screen scraping methods using UiPath :</p> <ul style="list-style-type: none"> i. Full Test ii. Native iii. OCR <p>C. Install and automate any process using UiPath with the following plug-ins:</p> <ul style="list-style-type: none"> i. PDF Plugin . ii. Excel Plugin iii. Word Plugin 	
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Practical No : 1

A. Create a simple sequence based project.

1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name.
2. Click on New on Designer panel and Create Sequence.
3. Inside Sequence, Drag and Drop the Input dialog activity from the Activities panel. Create variable for Input dialog activity which will store the input given by the user.
4. Drag and drop the Message box activity from Activities panel below Input Dialog box activity and specify the Input Dialog activities variable inside it
5. Click Run or Press CTRL+F6.

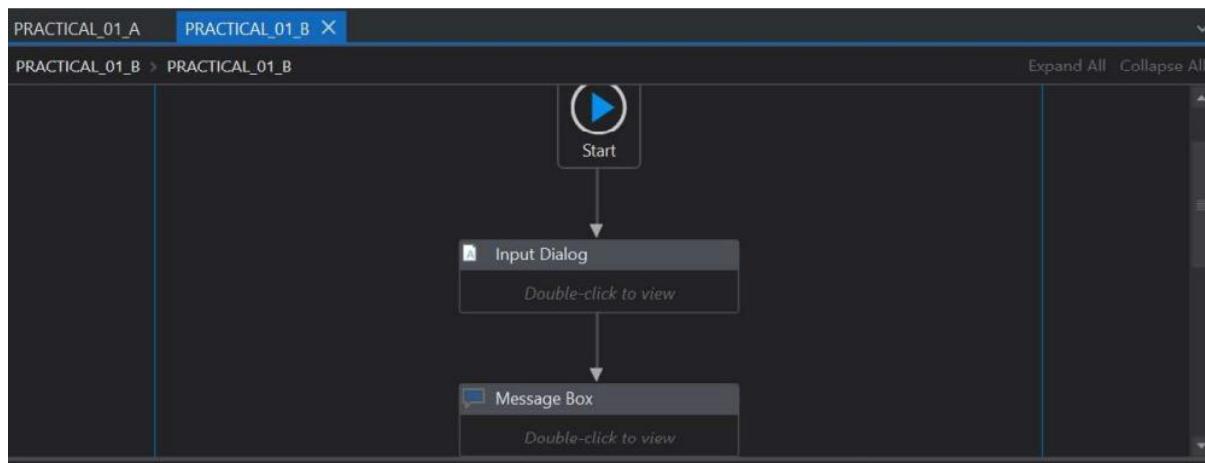


Output:



B. Create a flowchart-based project.

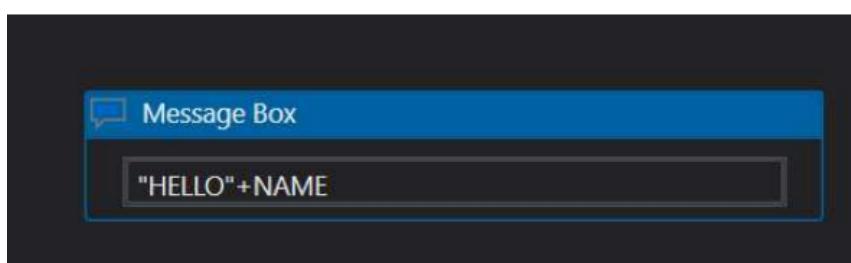
1. Click on Open main workflow. Drag and drop flowchart from activities panel.
2. Drag and drop input Dialog inside a flowchart
3. Drag and drop message box inside a flowchart.



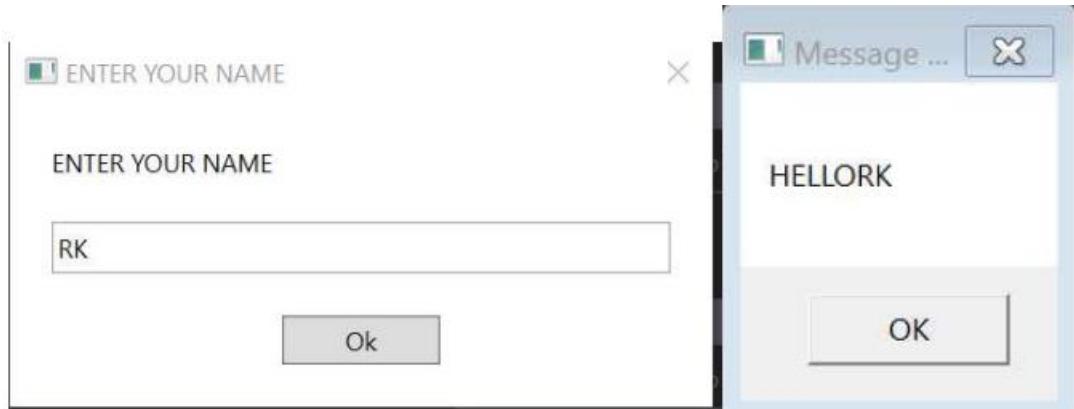
4. then Double click on input dailog and fill the details



6. then Double click on message box and fill the details



OUTPUT:-



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

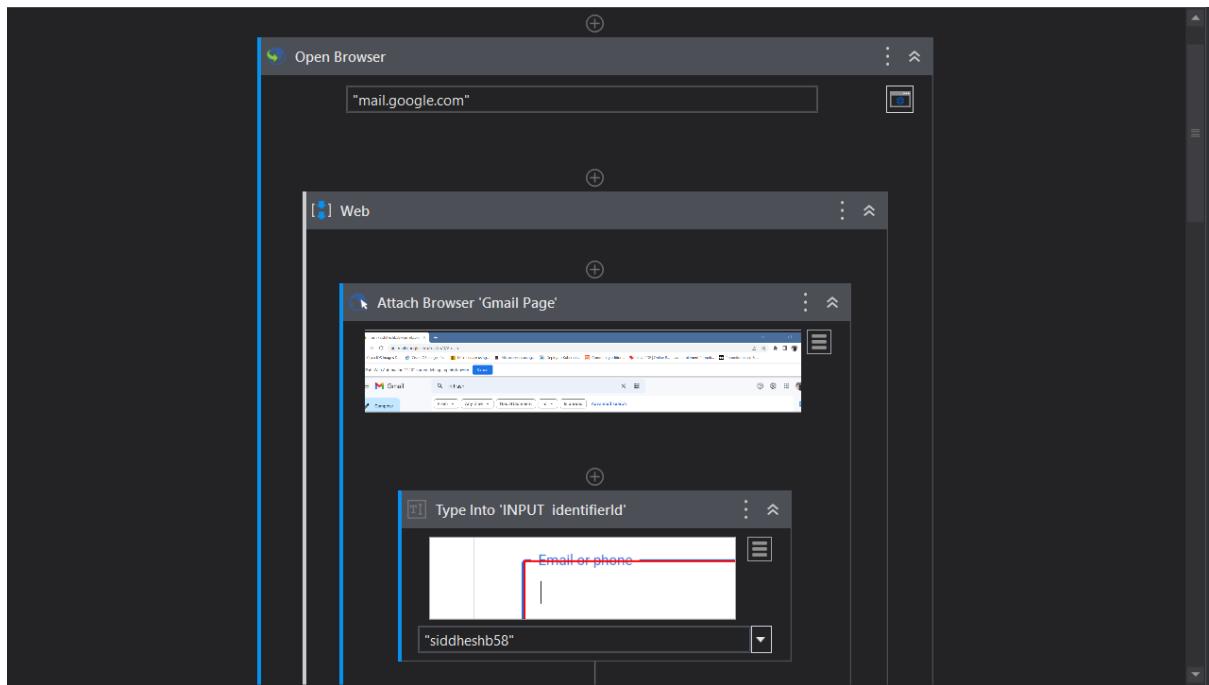
STEPS :-

1. Open Browser: Although we have already opened Gmail in the browser, we did not record that step. Here, we will note that step in the recorder using the Open Browser button in the recorder. A drop-down menu will appear. Again, choose Open Browser from the drop-down menu. It will ask to highlight the browser, highlight the already opened browser and click on the top of the browser.

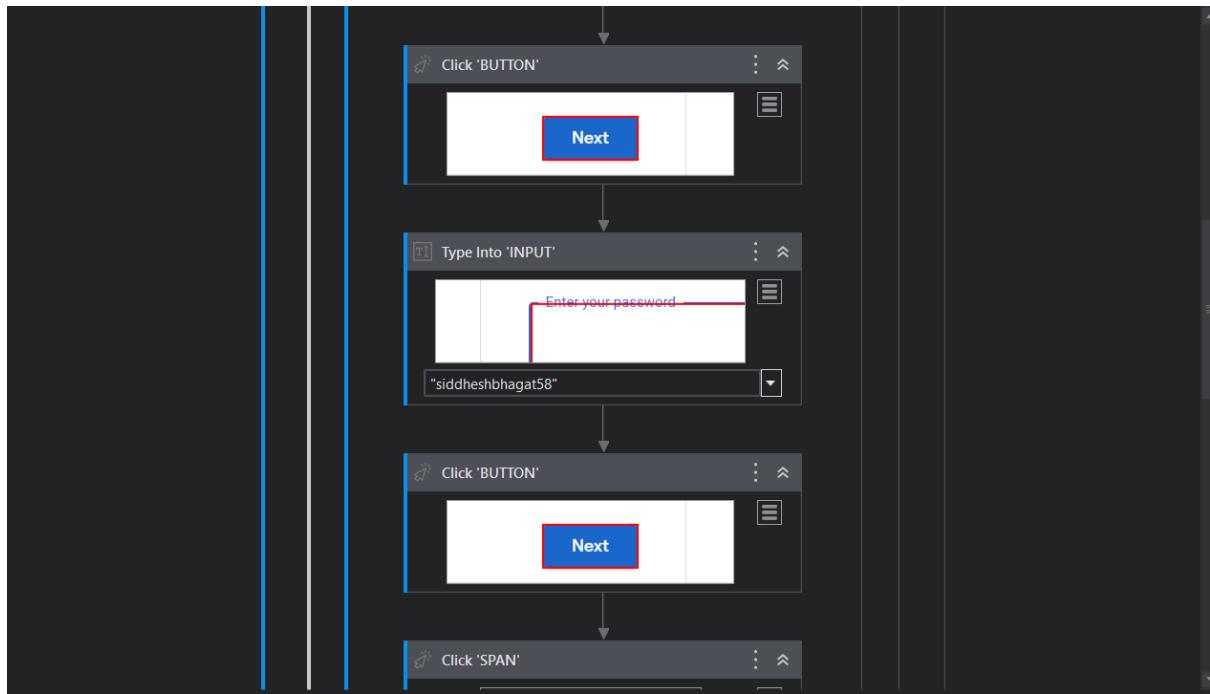
2. Go to gmail.com: You will be prompted to enter the URL of the website to navigate to. Type ‘gmail.com’ and press OK.

3. Sign In: Start recording by clicking on the Record icon of the recording panel. Go to the already open Gmail and click on the Email or Phone field. UiPath will pop up a prompt for typing the email

Type Email in the box provided by the UiPath recorder and press Enter. The Gmail textbox will automatically fill up with your typed content. Click on the NEXT button of the Gmail interface; it will also get recorded.



Type your password in the text field of the popup that appears. Then, click NEXT to log in to your account. Clicking on the NEXT button will also get recorded.

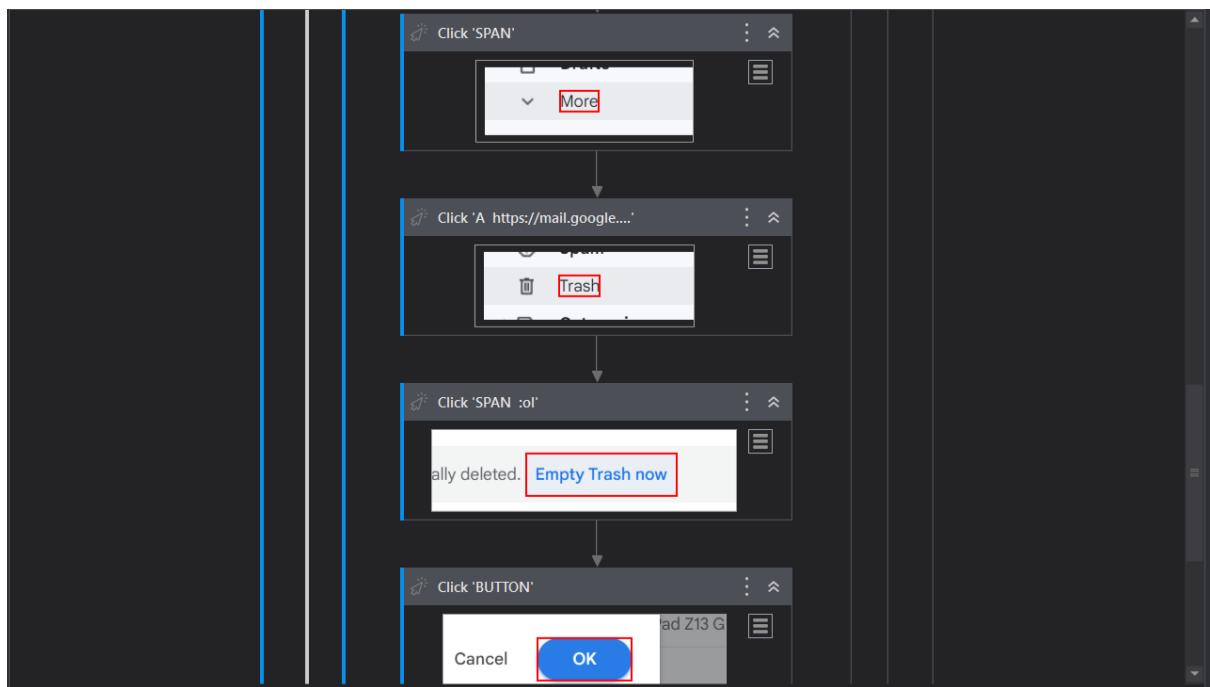


4. Locate Trash Folder: Click on More button and from its dropdown Click on Trash Option.

5. Click on Empty Trash now: Once you are done with clicking on the Trash action, You can see a link showing Empty Trash now. Hover mouse on this link and it will get highlighted, click on it to delete all the messages in the Trash folder.

6. Confirm: When you click on Empty Trash now, a confirmation dialog will appear asking your permission for the action. Just confirm your action by clicking on the OK button.

Now recording is complete, press Esc to get to the recording dialog. Click on the Save & Exit button



Output:

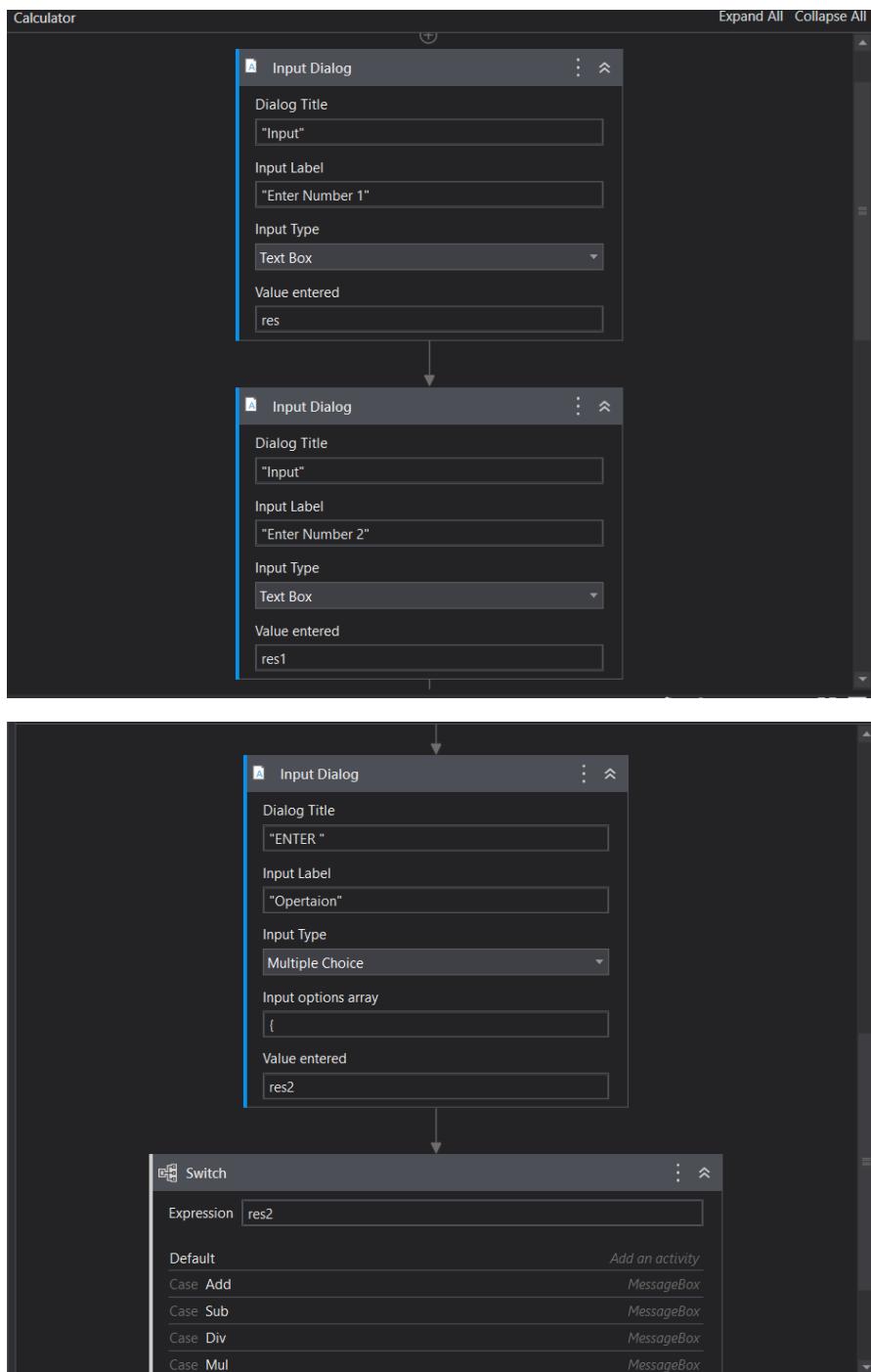
The screenshot shows the Gmail interface with the 'Trash' tab selected. The search bar at the top contains the query 'in:trash'. Below the search bar are several filter buttons: 'From', 'Any time', 'Has attachment', 'To', 'Is unread', and 'Advanced search'. A message states: 'Messages that have been in Trash more than 30 days will be automatically deleted.' Below this, it says 'No conversations in Trash.' On the left sidebar, under the 'Categories' section, the 'Trash' option is highlighted. The main content area displays a message: 'All messages have been deleted.' At the bottom of the sidebar, there is a link '[imap]/trash'. The status bar at the bottom right indicates '8.8 GB of 15 GB used'.

Practical No : 2

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

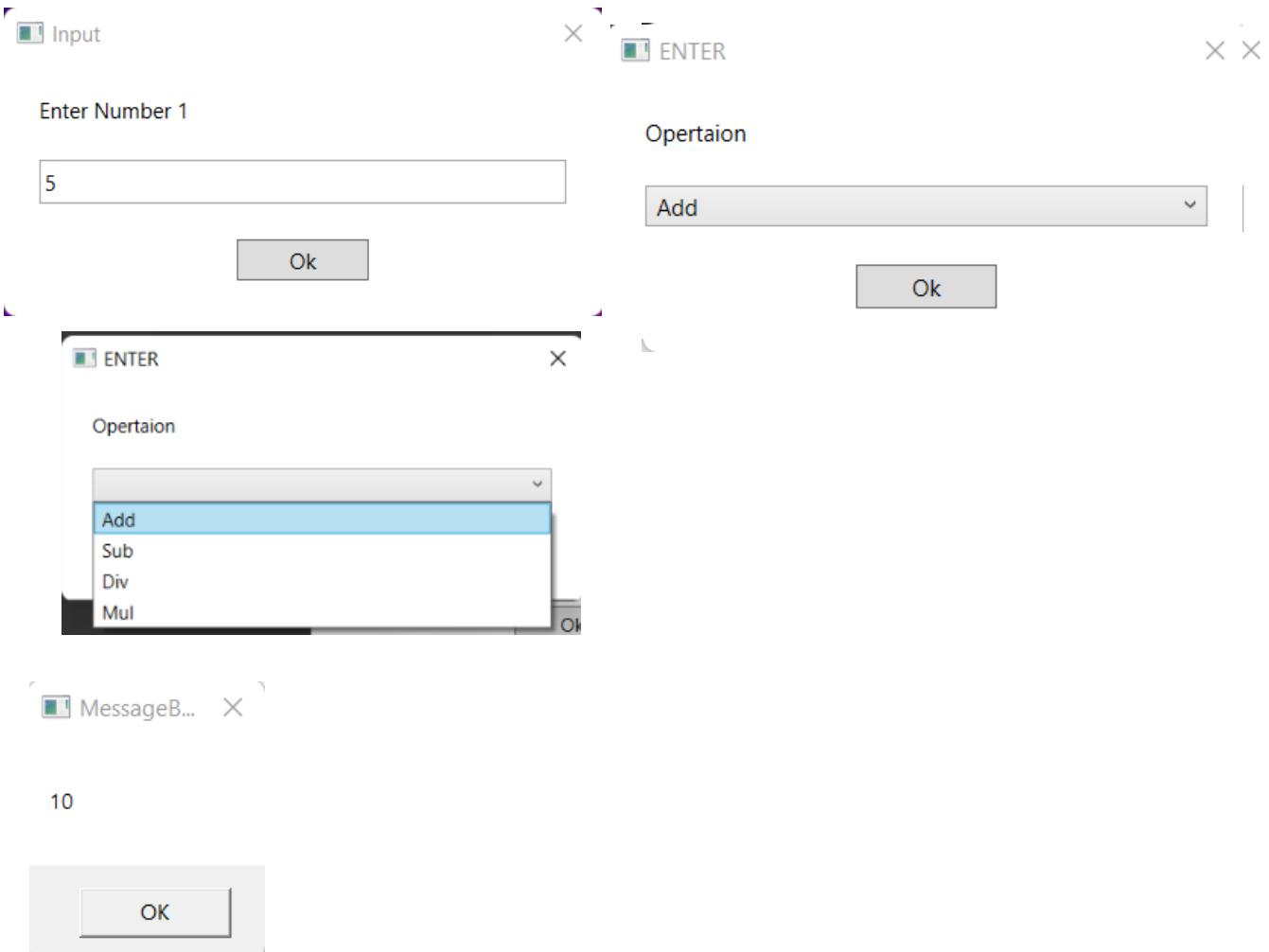
STEPS :-

1. Start with a Blank project in UiPath.
2. Add a Sequence activity to the Designer panel.
3. Now drag and Drop the Three Input Dialog activity inside the Sequence .
4. And create an integer type variable for all the Input Dialog activity “res” & “res1” & “res3” .
5. In third Input Dialog activity Select the Multiple Choice in Input Type section.
6. Add the Switch case activity



Name	Variable type	Scope	Default
res	Int32	Calculator	Enter a VB expression
res1	Int32	Calculator	Enter a VB expression
res2	String	Calculator	Enter a VB expression
Create Variable			

OUTPUT :-

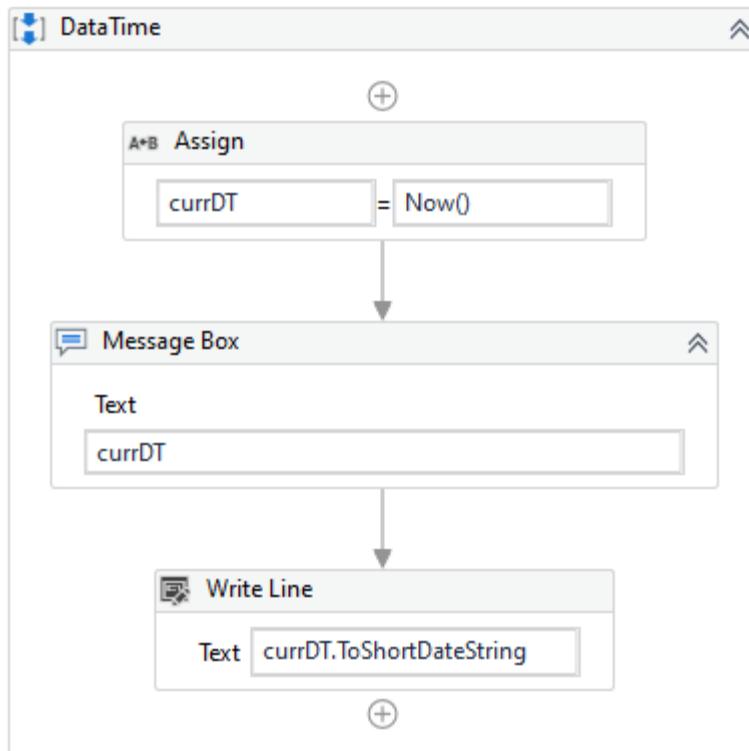


B. Create an automation UiPath project using different types of variables (number, datetime, Boolean, generic, array, data table)

Create the variable of currDT:-

Date Time :-

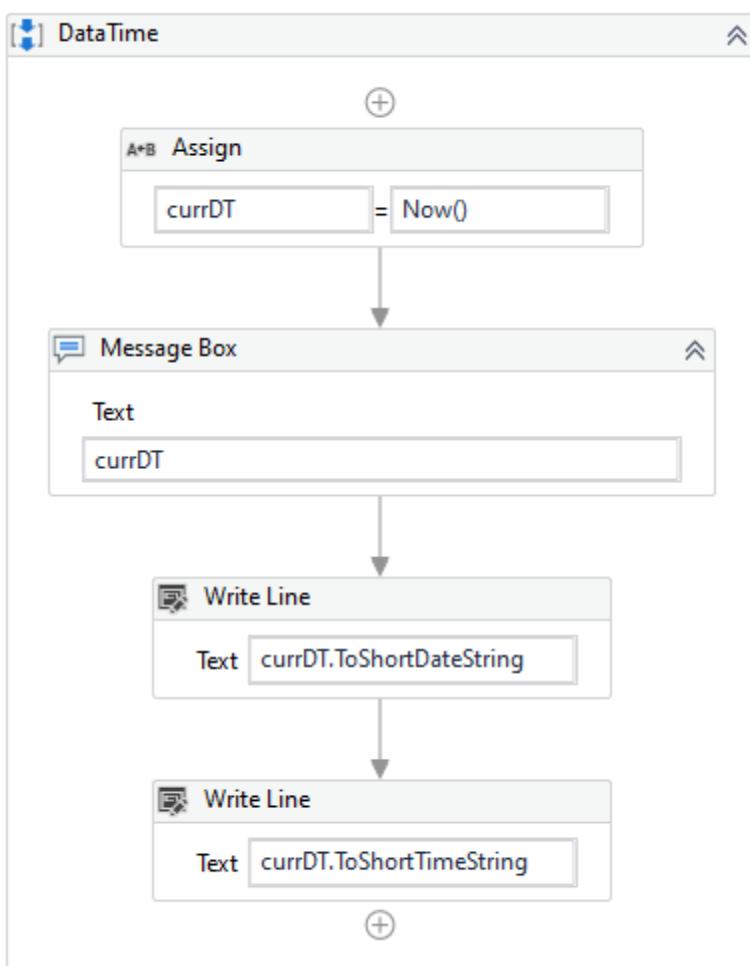
1. Drag and drop the assign activity and provide the variable you have created “currDT” and type Now() in .
2. Now drag and drop the message activity and type the variable .



Output:-

○ Practical execution started
○ 07/30/2022

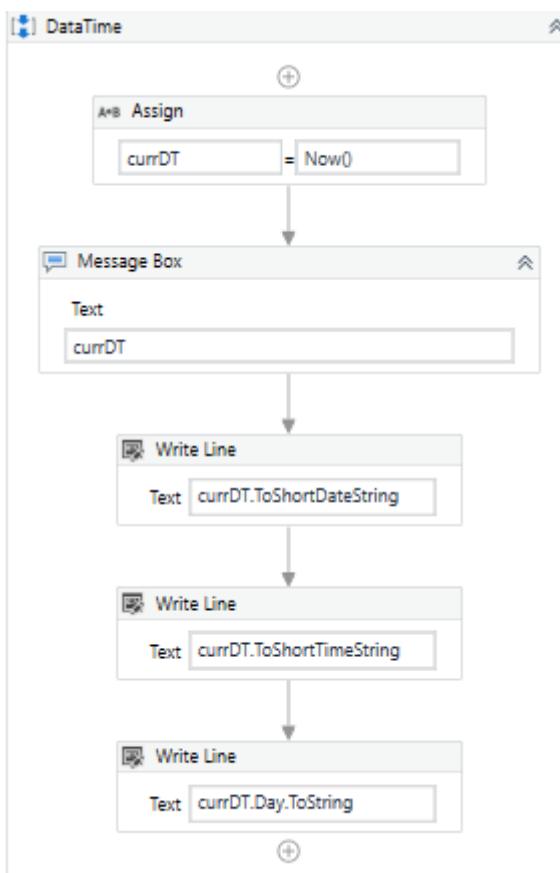
Short time:-



Output:-

③ 14:00

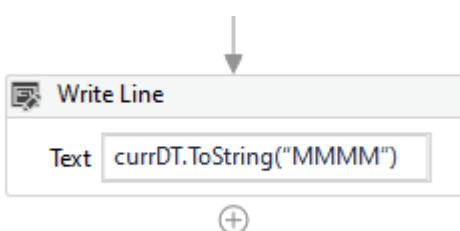
Day:-



Output:-

- ① 30
- ② Practical execution ended in: 00:00:02

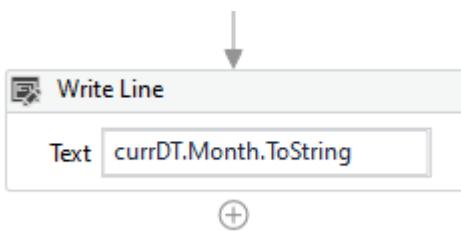
Month:-



Output:-

- ① July
- ② Practical execution ended in: 00:00:02

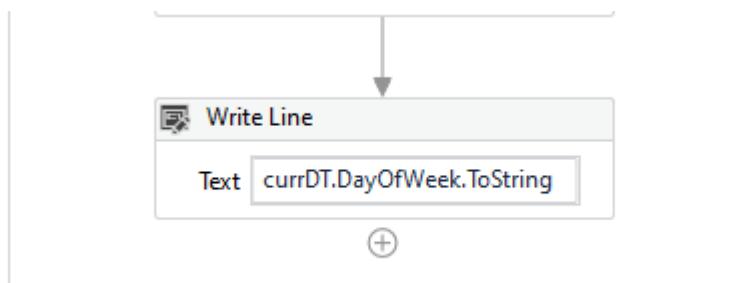
Current Month:-



Output:-

① 7
② Practical execution ended in: 00:00:02

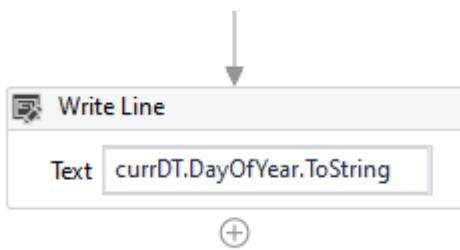
Day of week:-



Output:-

① Saturday
② Practical execution ended in: 00:00:02

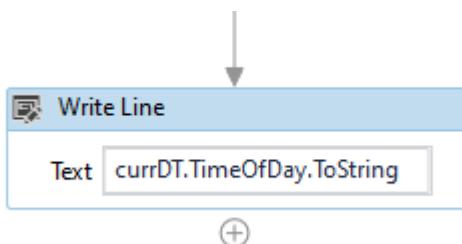
Day of year :-



Output:-

① 211
② Practical execution ended in: 00:00:02

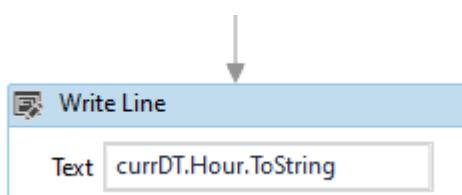
Time Of Day:-



Output:-

```
① 14:08:22.5124534
② Practical execution ended in: 00:00:01
```

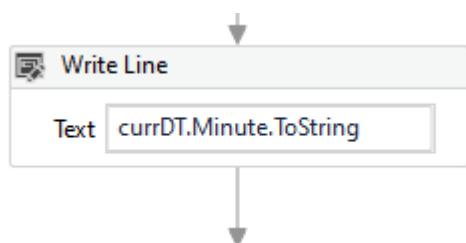
Hour:-



Output:-

```
① 14
② Practical execution ended in: 00:00:02
```

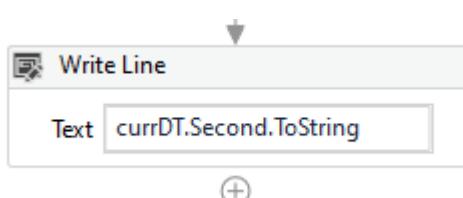
Minute:-



Output:-

```
① 11
```

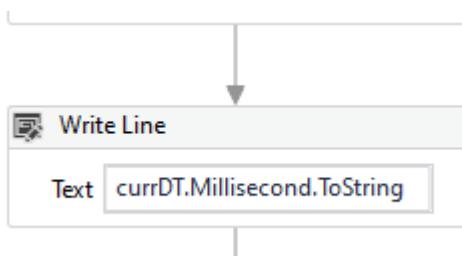
Second :-



Output:-

```
① 12
② Practical execution ended in: 00:00:02
```

Millisecond:-



Output:-

④ 493

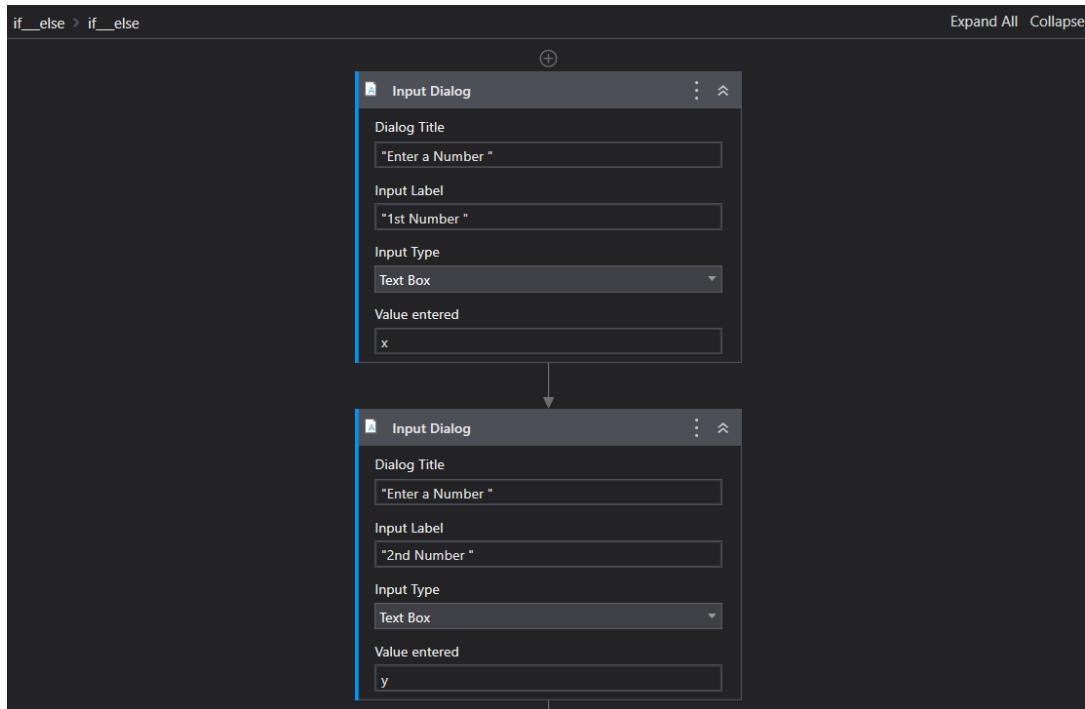
Practical No : 3

A. Create an automation UiPath Project using decision statements.

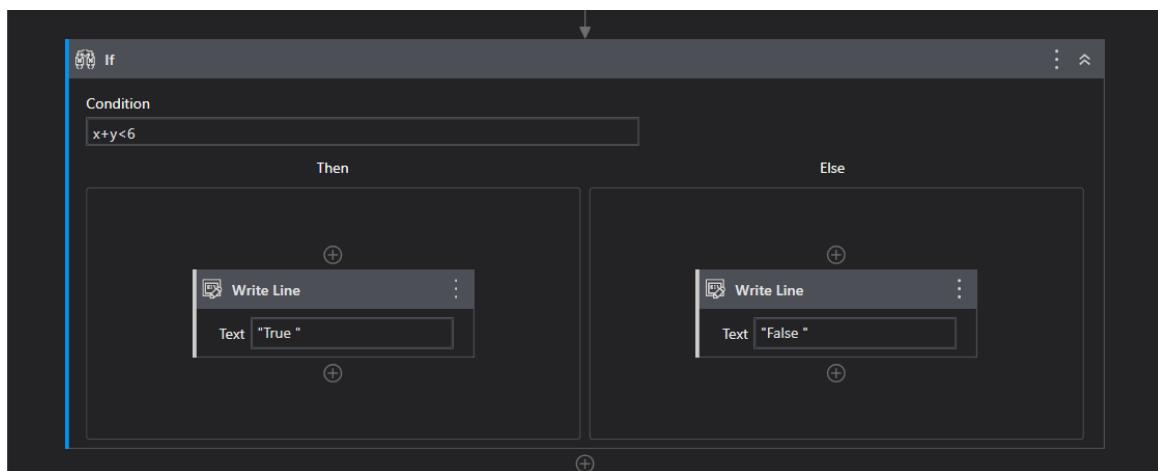
If & Else Statement :

STEPS :

1. Add a Sequence from the Activities panel.
2. Add two Input dialog activities. Create two integer variables, x and y.
3. In the Properties panel, change the label name and title name of both the Input dialog activities.
4. Now, specify these name of these two variables in the Result property of both the Input dialog activities.
5. Now add the If activity to the Designer panel:

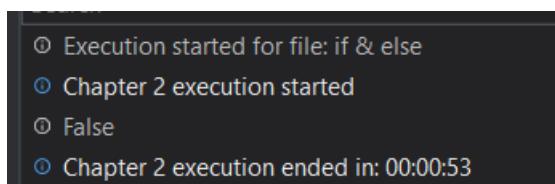
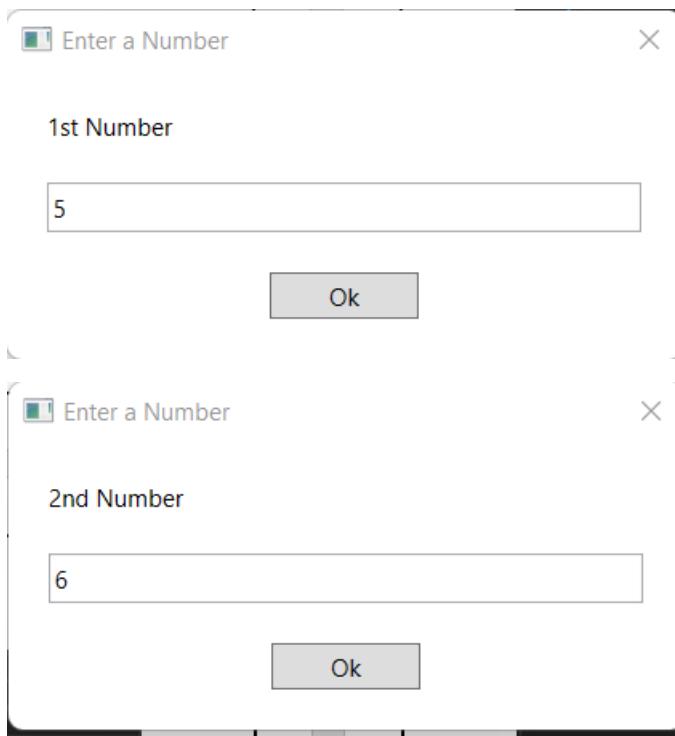


6. In the condition part, $x+y<6$ check whether it is true or false. Add two Write line activities and type "True" in one and "False" in the other:



Name	Variable type	Scope	Default
x	Int32	if__else	Enter a VB expression
y	Int32	if__else	Enter a VB expression
Create Variable			

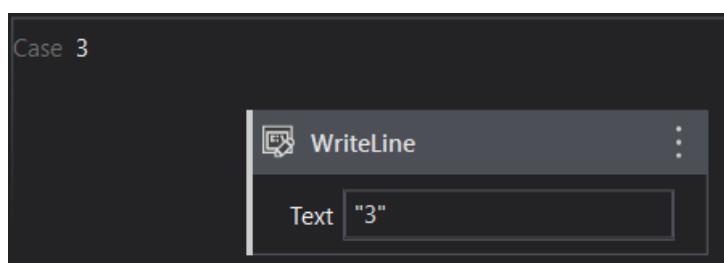
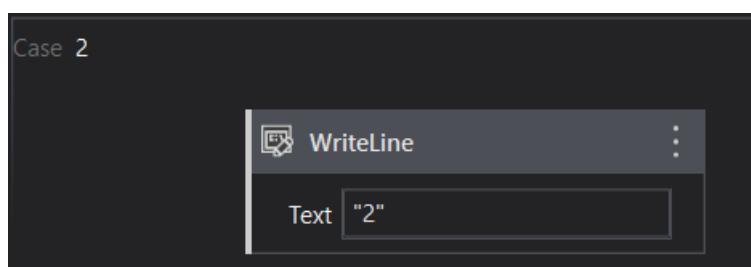
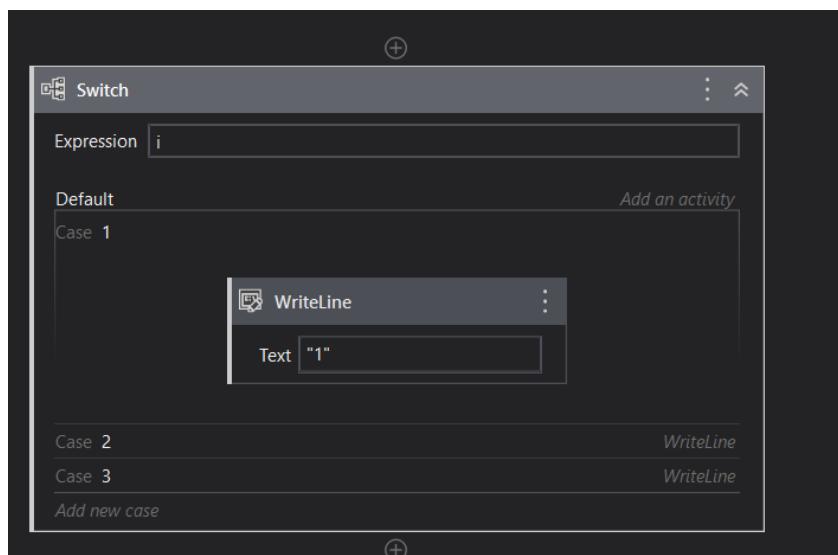
7. Click the Run button to check the output. If the condition holds true then it will show the true value; otherwise, it will show the false value



Switch statement :

STEPS :-

1. Add a Sequence activity.
2. Drag and Drop the Switch activity inside the Sequence activity
3. Now, create an integer type variable “i” .
4. In the Expression field, set i and in variable panel in default section set the default value = 2
5. Add a Write line activity to the Default section and type the 1
6. Now, create Case 1, add the one other Write line activity to it, and type 2
7. And Now, create Case 2 , add the one other Write line activity to it, and type 3
8. Click the Run button to check the output .



Name	Variable type	Scope	Default
i	Int32	switch	2

B. Create an automation UiPath Project using looping statements.

For Loop :-

1. Add a Sequence activity.
2. Drag and drop the for each activity inside the Sequence activity
3. Now, create an integer type variable “num” .
4. In the default value of the variable, put in ({1,2,3})
5. Add a Write line activity to the Designer Panel (this activity is used to display the results).
6. In the Text field of the Write line activity, type item.ToString to display the output:

The screenshot shows the UiPath Designer interface. A Sequence activity is open, displaying a For Each loop. The 'ForEach' input is set to 'item' and the 'In' variable is 'num'. Inside the loop, there is a single Write Line activity with its 'Text' field set to 'item.ToString'. Below the sequence, a variable table is shown with one entry: 'num' of type Int32[], scope 'for', and default value '{(1,2,3)}'. A 'Create Variable' link is also present.

Name	Variable type	Scope	Default
num	Int32[]	for	{(1,2,3)}
Create Variable			

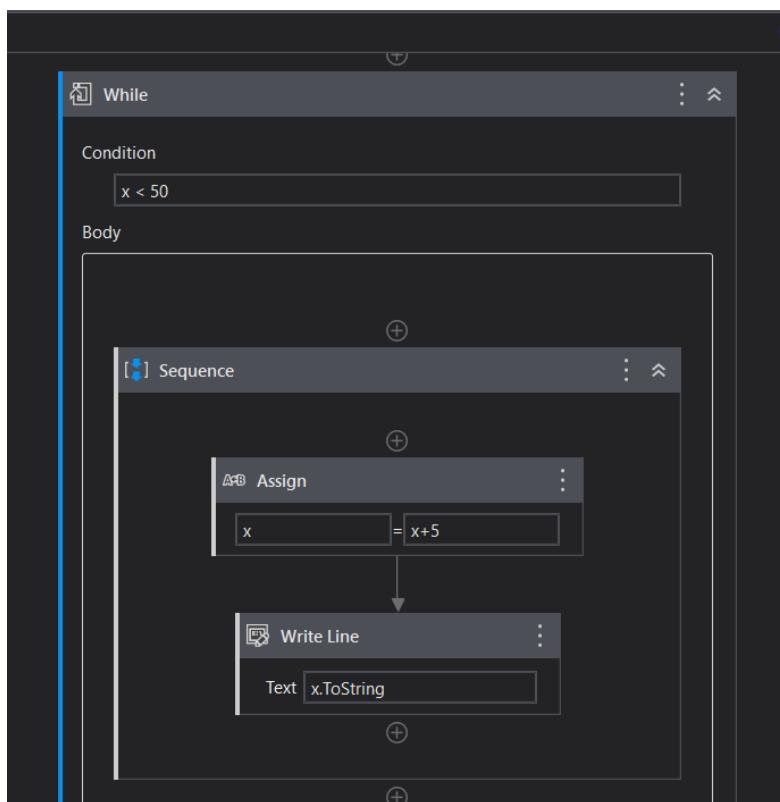
Output:-

```
① Execution started for file: for
① Chapter 2 execution started
① 1
① 2
① 3
① Chapter 2 execution ended in: 00:00:02
```

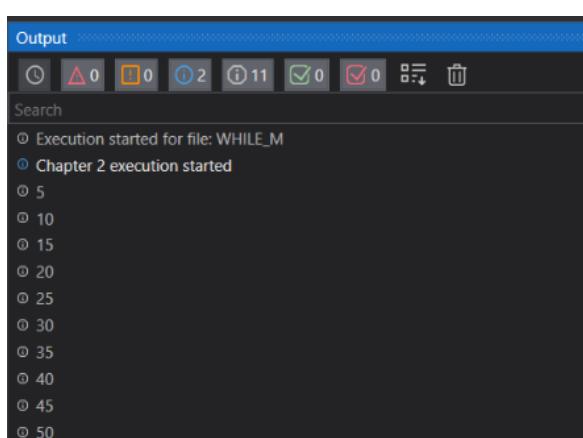
While Loop :-

STEPS :-

1. On a Blank project, add a Sequence activity
2. Now, create an integer type variable x . Set its default value to 5.
3. Next, add a While activity to the Sequence.
4. In the condition field, set $x < 50$.
5. Add an Assign activity to the body section of the While loop.
6. Now, go to the Properties panel of the Assign activity and type in the text field integer variable for value field integer $x+5$.
7. Drag and drop a Write line activity and specify the variable name x and apply `.ToString` method on this variable:



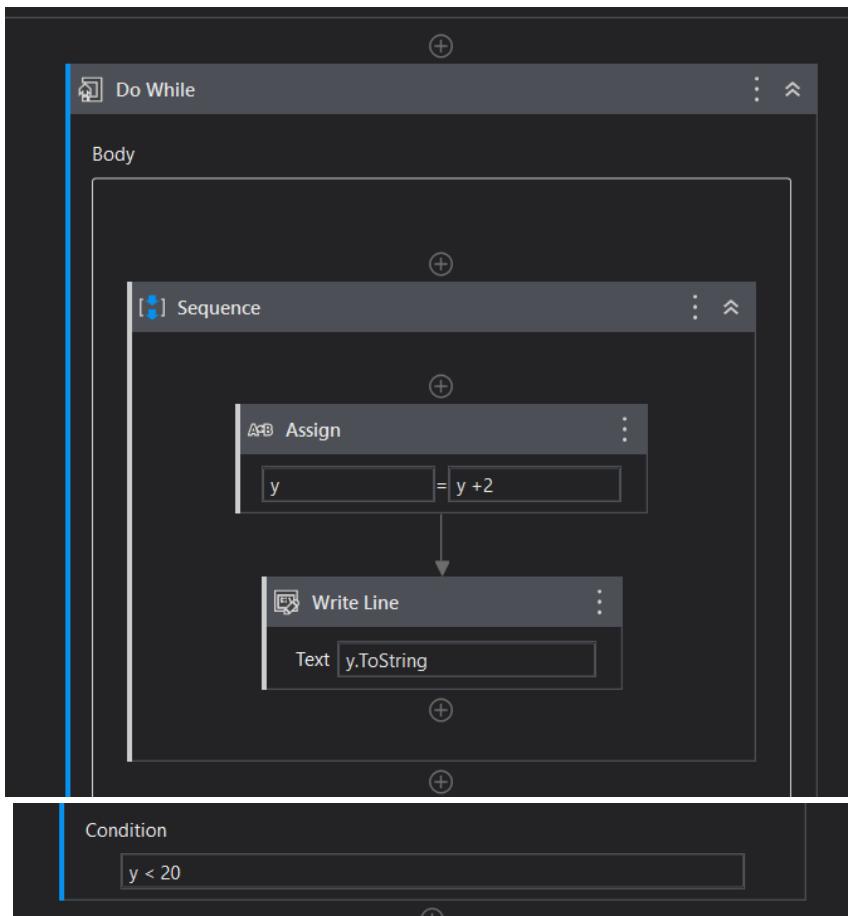
8. Now, click the Run button. The output will display in the Output panel, as shown in the following screenshot:



Do While Loop :-

STEPS :-

1. Add a Sequence to the Designer panel & Add a Do while activity from the Activities panel.
2. In the body section of the Do while activity, add an Assign activity.
3. Now, select the Assign activity. Go to the Properties panel and create an integer variable y. Set its default value to 2
4. Set $y+2$ in the value section of the Assign activity to increment the result each time by 2 until the loop is executed.
5. Add a Write line activity inside the Assign activity & Type $y.ToString$.
6. In the condition section, set the condition $y < 20$. The loop will continue until the condition holds true:



7. On clicking the Run button, the output displayed will be as follows:

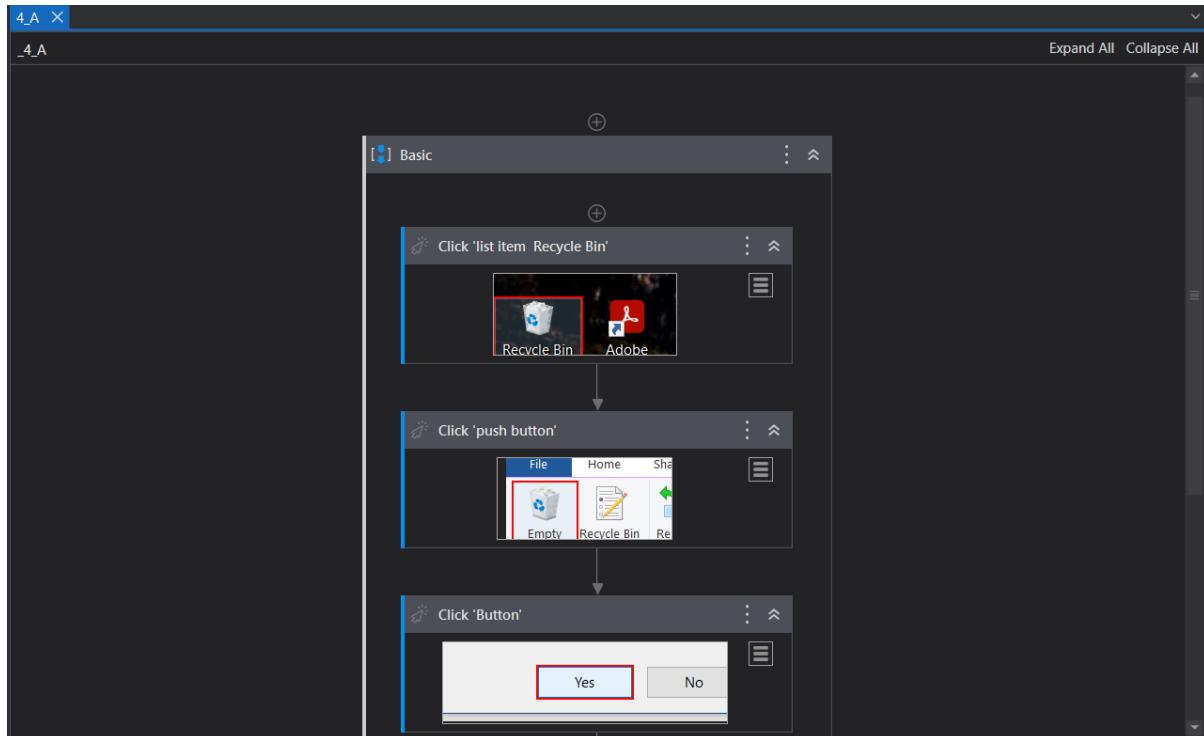
```
① Execution started for file: DO_WHILE_M
② Chapter 2 execution started
③ 2
④ 4
⑤ 6
⑥ 8
⑦ 10
⑧ 12
⑨ 14
⑩ 16
⑪ 18
⑫ 20
```

Practical No : 4

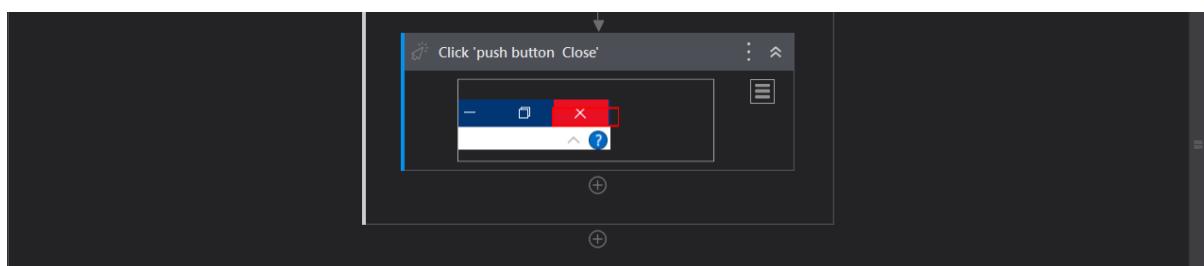
A. Automate any process using basic recording.

STEPS :-

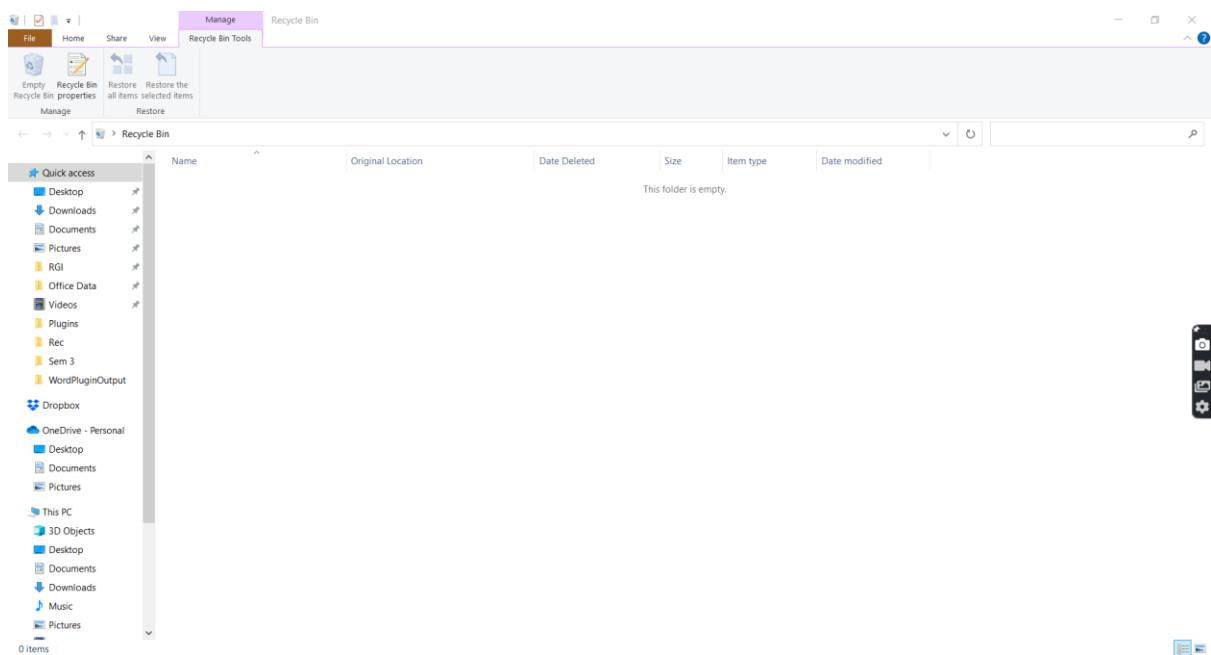
1. Firstly, Go to Recording option on the Designer Panel and from the dropdown list select Basic Recording option, which will result in the pop-up of recording panel. Press on Record button from recording panel.
2. Press *Windows+D* on keyboard, this step won't be recorded.
3. Click on Recycle bin application *Note: It will not open Notepad as we can click only once while recording, so we must Change the property of Click button activity to DoubleClick.*
4. Once the Recycle bin is opened; Hover mouse to Empty Recycle bin button which is located onto Panel. Click on it.
5. After clicking on it a pop-up will appear to confirm the process of emptying the recycle bin. Confirm it by clicking *Yes* button.



6. Now, Hover mouse to Close tab button and Close the Recycle bin.
7. Press *Esc* and Press on *Save & Exit Recording*.



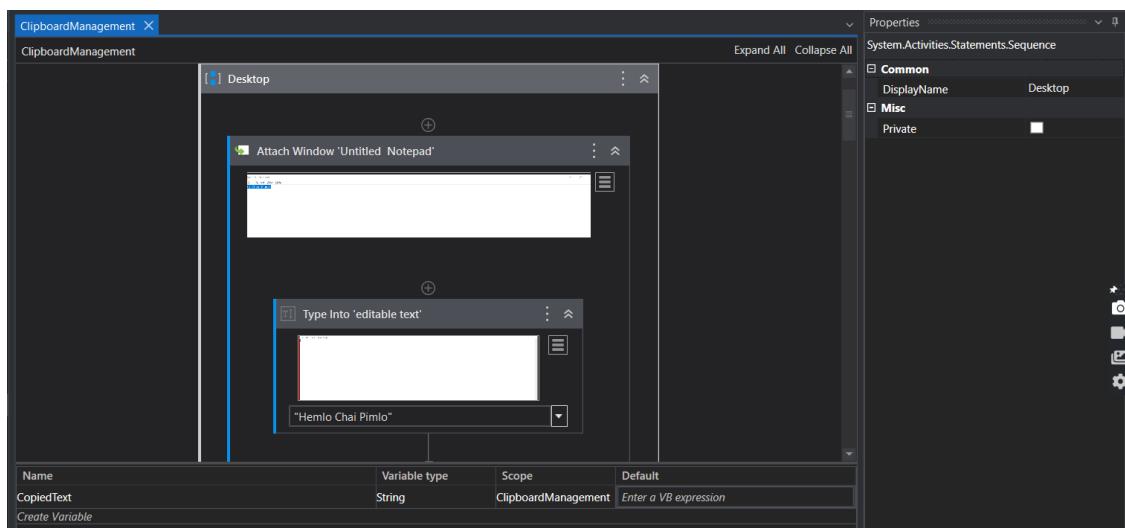
Output:



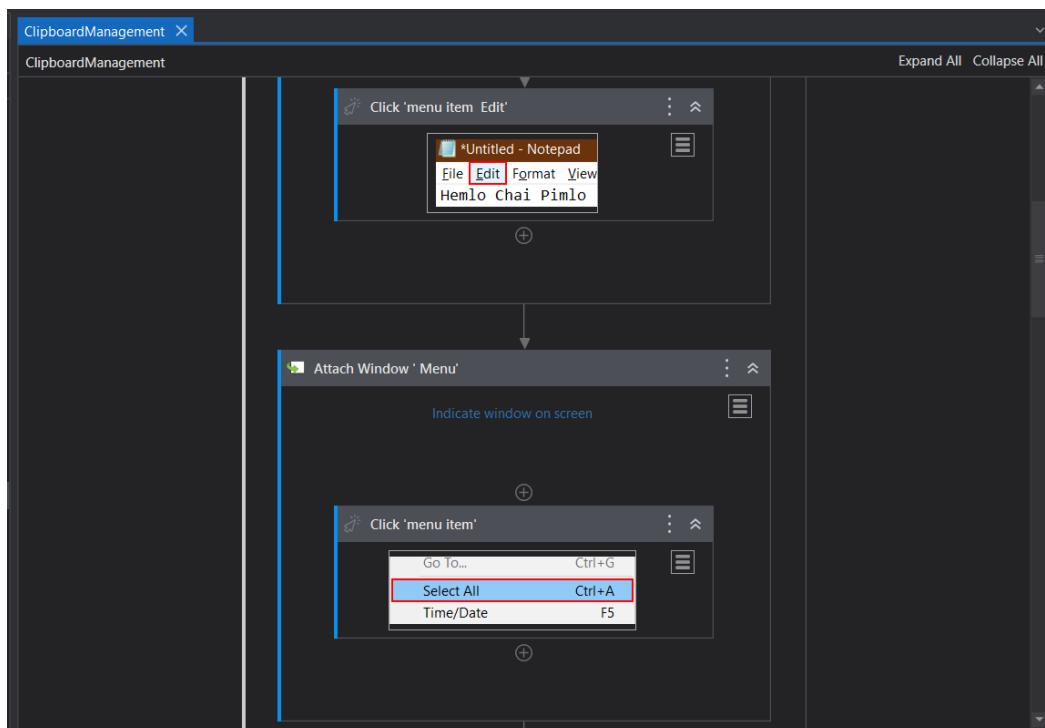
4 B: Automate any process using desktop recording.

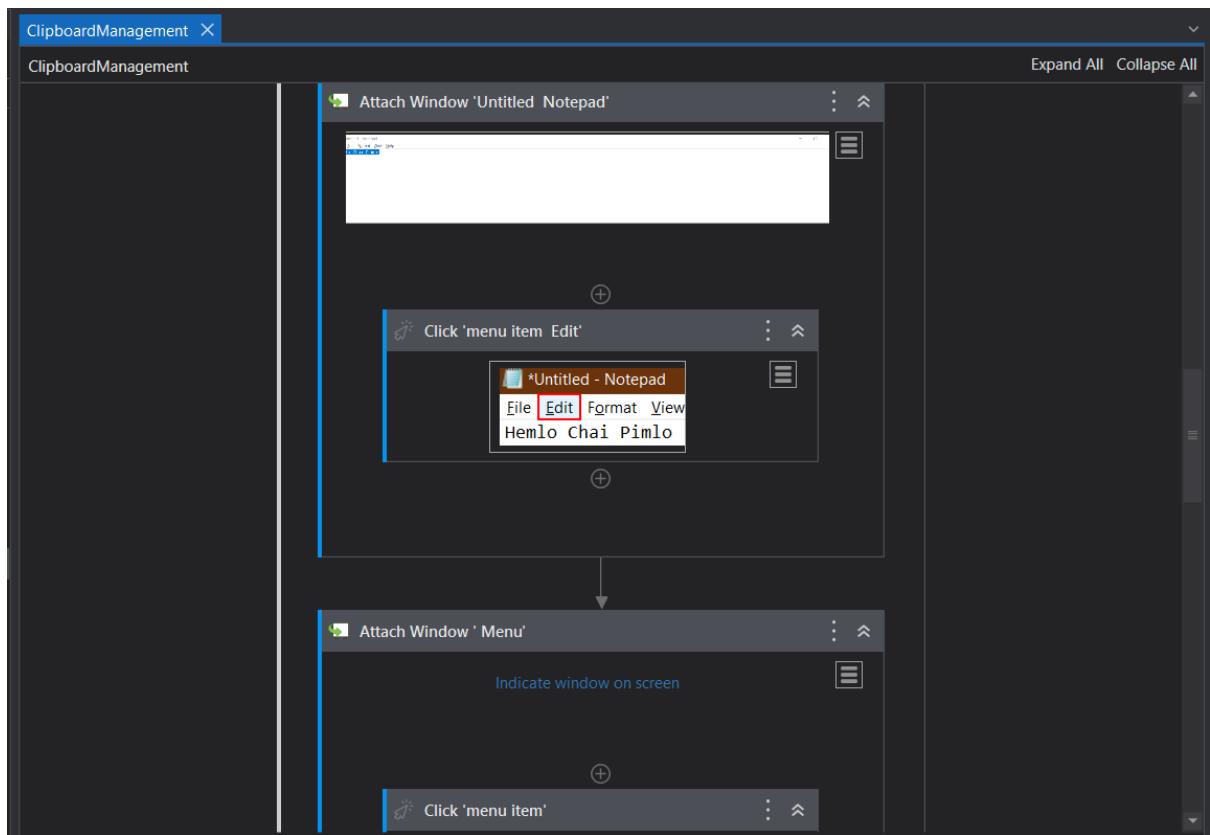
STEPS :-

1. Click on New and Add a Sequence. Give it a meaningful name.
2. Click on the Recording icon on the top of UiPath Studio. A drop-down menu will appear with the options, Basic, Desktop, Web, and Citrix, indicating the different types of recording. Select Desktop and click on Record.
3. Click on Notepad to open it. A Notepad window will pop up. Click on the text area of Notepad. Type into the dialog box and check the empty field. (Checking the empty field will erase all existing data in Notepad before writing any new data.) Press Enter. Data will be written on the Notepad text area.



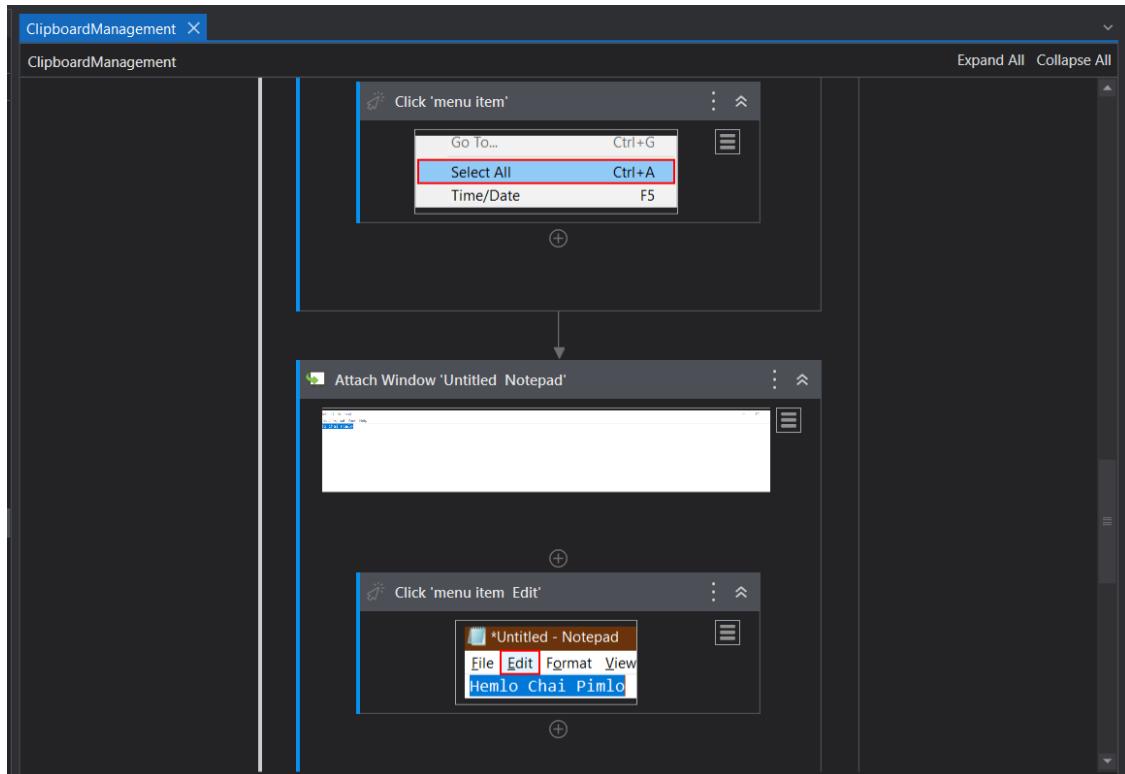
4. Click on the Edit button. Choose the Select all option from the drop-down list.



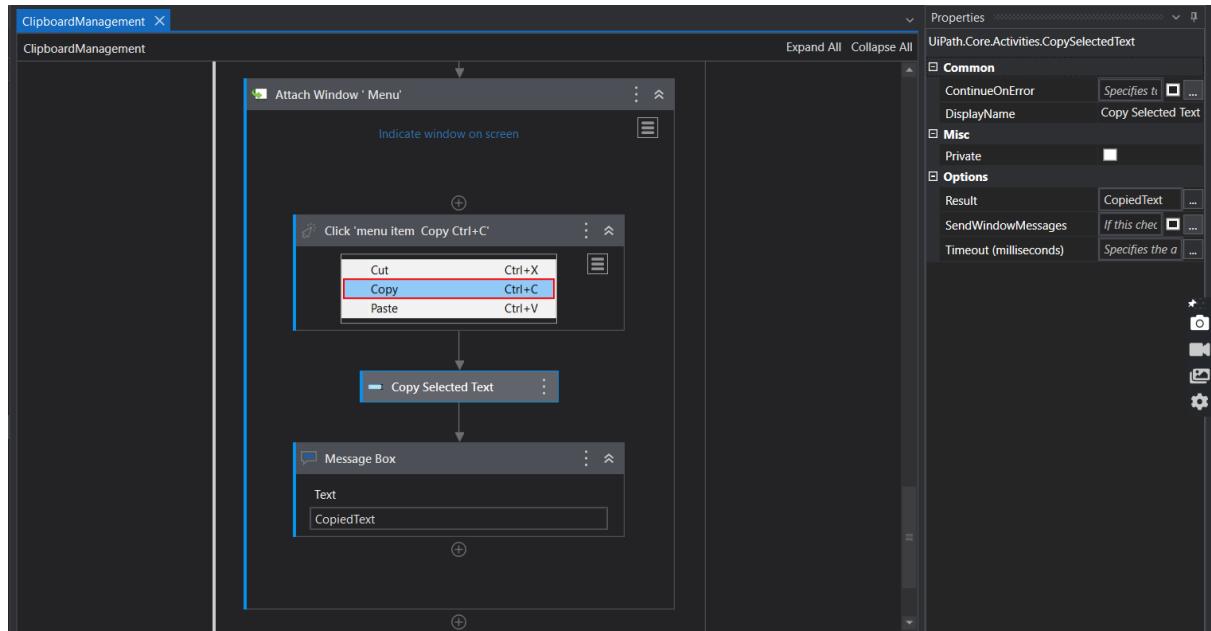


5. Once again, click on the Edit button. Giving you a drop-down box, Select the Copy option. This copied text is now stored in the clipboard.

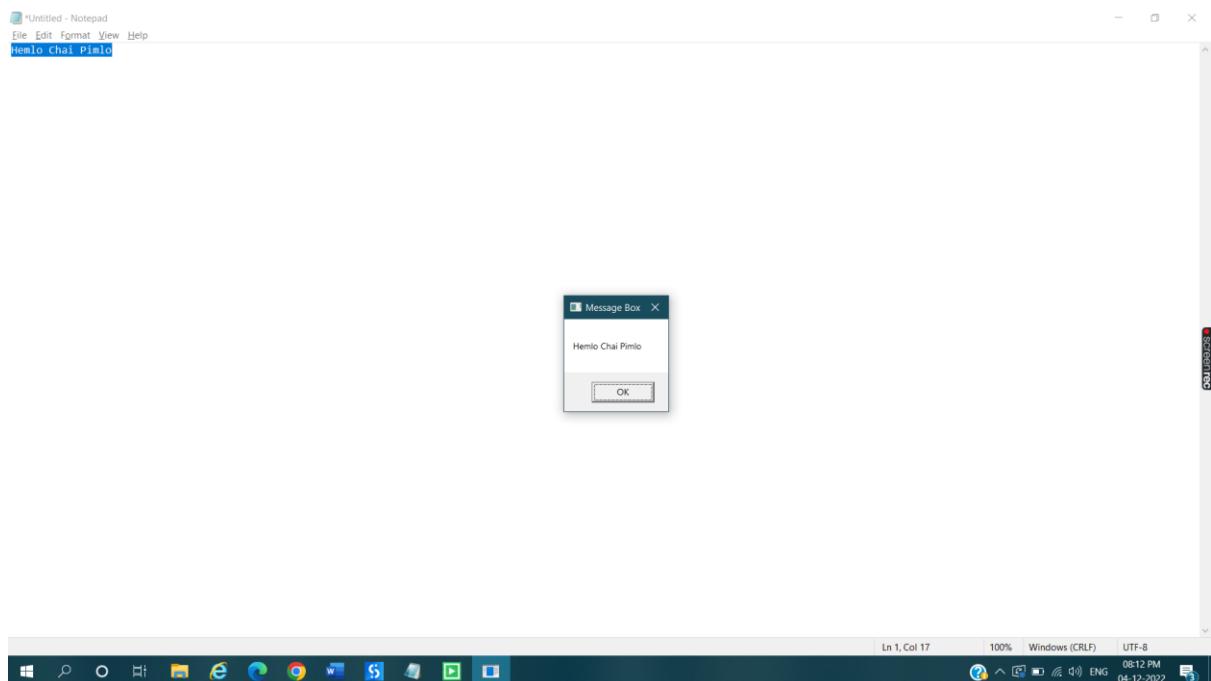
We can use the Get from clipboard, and Copy selected text activities to copy the text that is stored in the clipboard. We will use the Copy selected text activity.



6. Drag and Drop Copy Selected Text activity from activities panel below Click activity of Copy button. Create its variable of type String from the property panel.
7. Now, Drag and drop the Message box activity and specify variable of Copy Selected Text inside text property of Message box.



Output:



4 C: Automate any process using web recording.

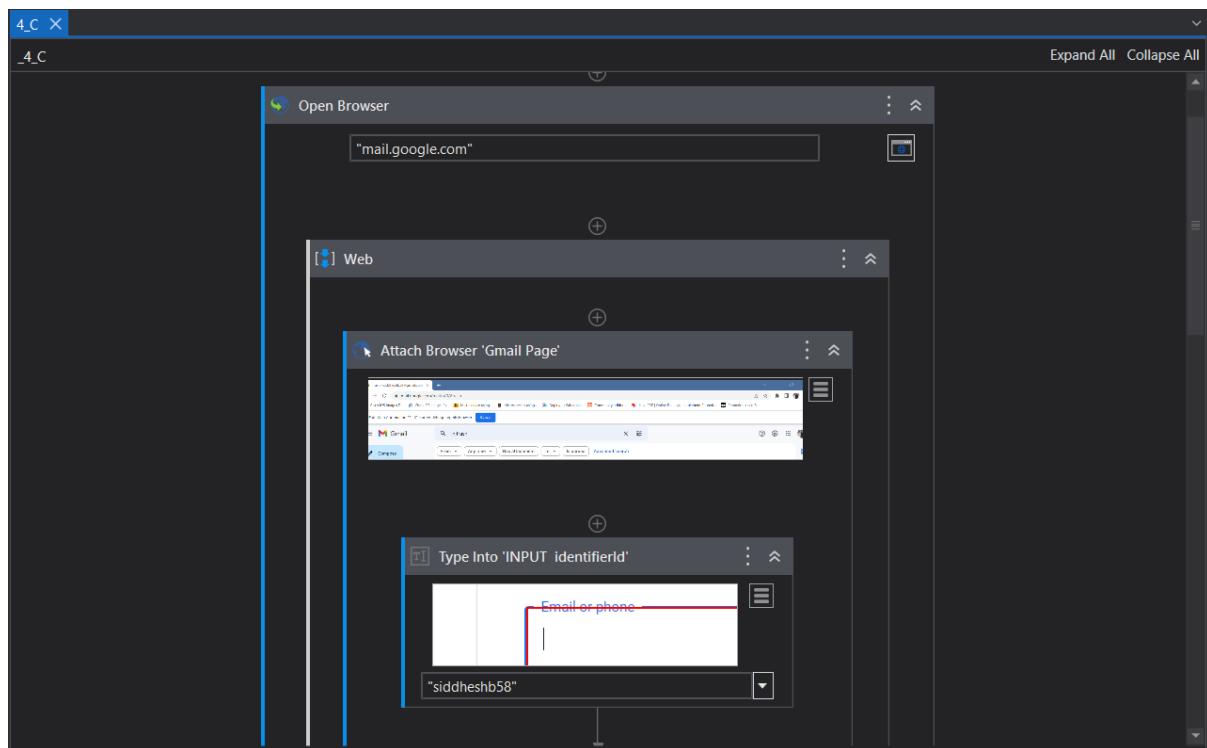
STEPS:-

1. Open Browser: Although we have already opened Gmail in the browser, we did not record that step. Here, we will note that step in the recorder using the Open Browser button in the recorder. A drop-down menu will appear. Again, choose Open Browser from the drop-down menu. It will ask to highlight the browser, highlight the already opened browser and click on the top of the browser.

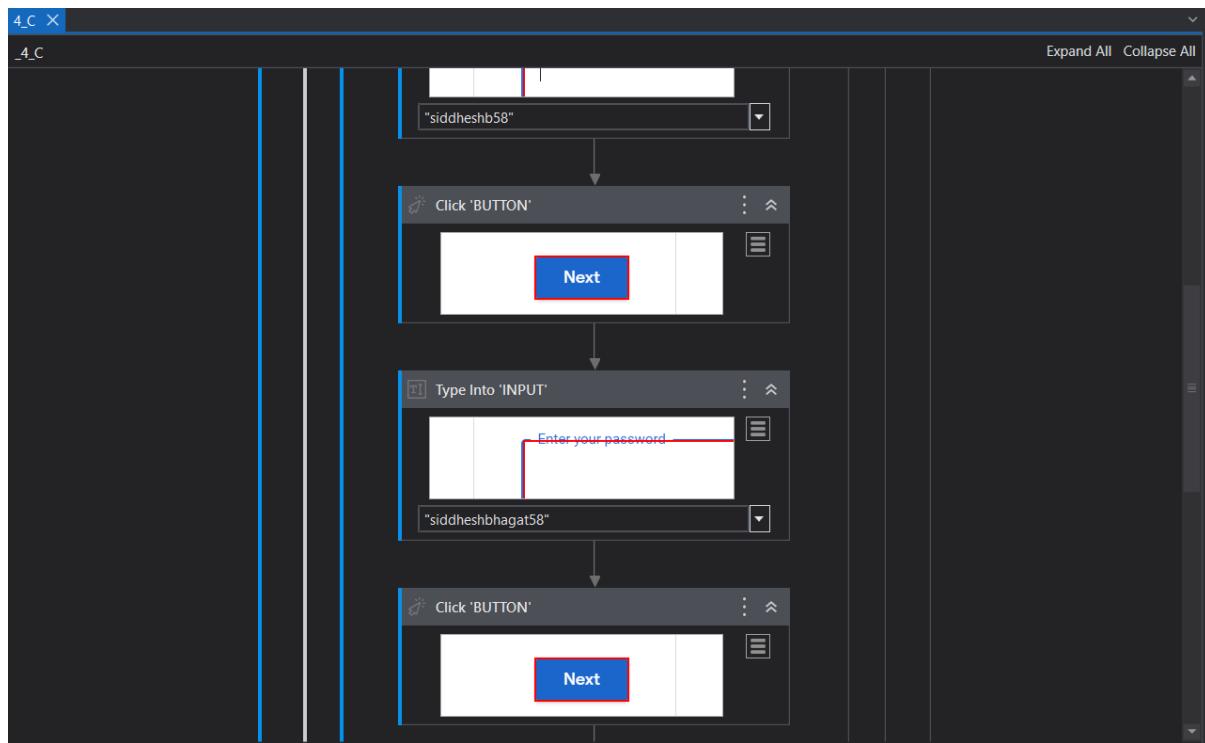
2. Go to gmail.com: You will be prompted to enter the URL of the website to navigate to. Type ‘gmail.com’ and press OK.

3. Sign In: Start recording by clicking on the Record icon of the recording panel. Go to the already open Gmail and click on the Email or Phone field. UiPath will pop up a prompt for typing the email

Type Email in the box provided by the UiPath recorder and press Enter. The Gmail textbox will automatically fill up with your typed content. Click on the NEXT button of the Gmail interface; it will also get recorded.



Type your password in the text field of the popup that appears. Then, click NEXT to log in to your account. Clicking on the NEXT button will also get recorded.

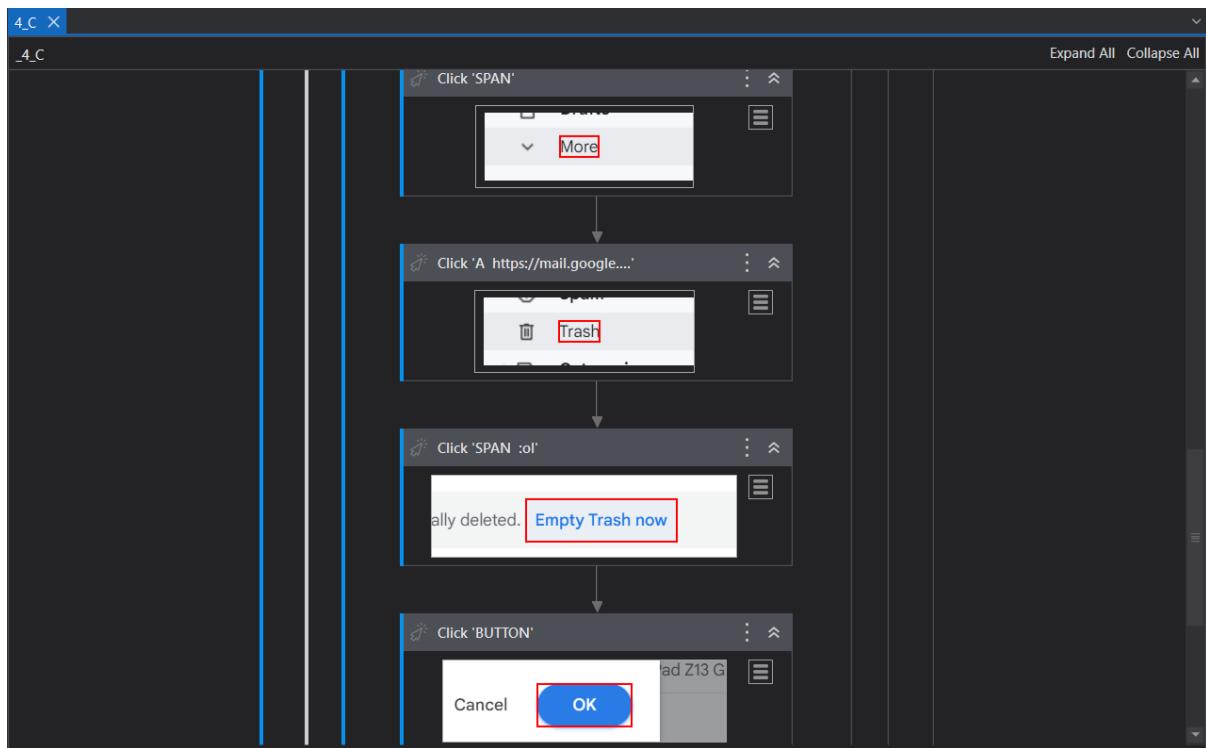


4. Locate Trash Folder: Click on More button and from its dropdown Click on Trash Option.

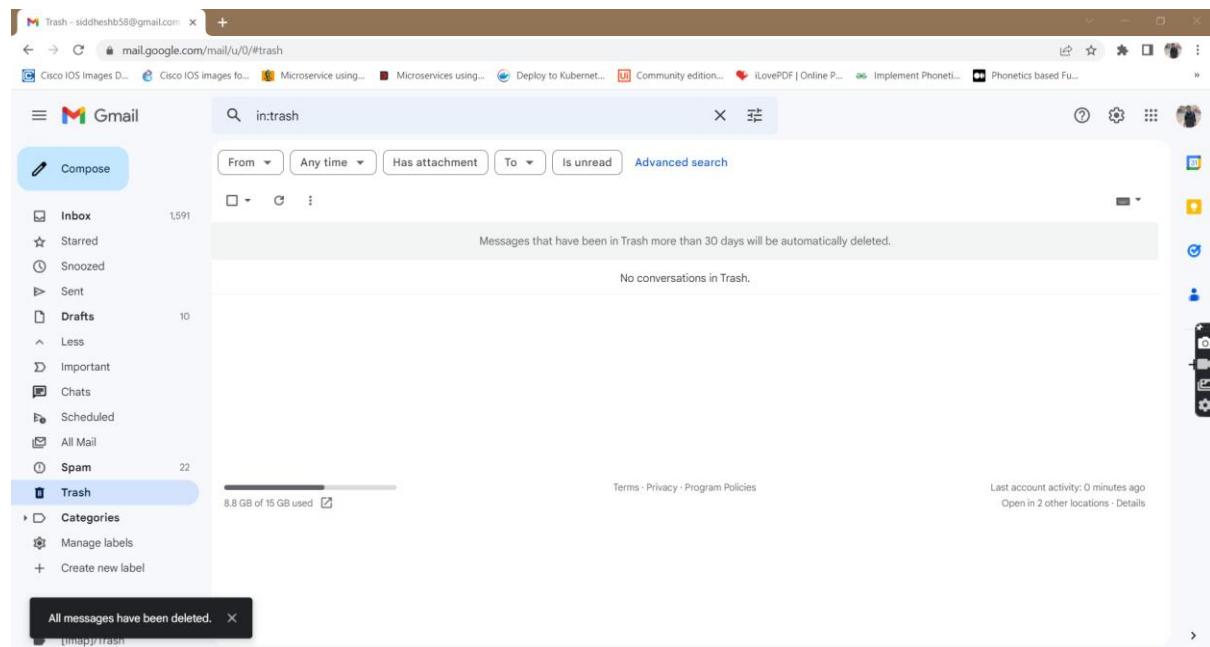
5. Click on Empty Trash now: Once you are done with clicking on the Trash action, You can see a link showing Empty Trash now. Hover mouse on this link and it will get highlighted, click on it to delete all the messages in the Trash folder.

6. Confirm: When you click on Empty Trash now, a confirmation dialog will appear asking your permission for the action. Just confirm your action by clicking on the OK button.

Now recording is complete, press Esc to get to the recording dialog. Click on the Save & Exit button.



Output:

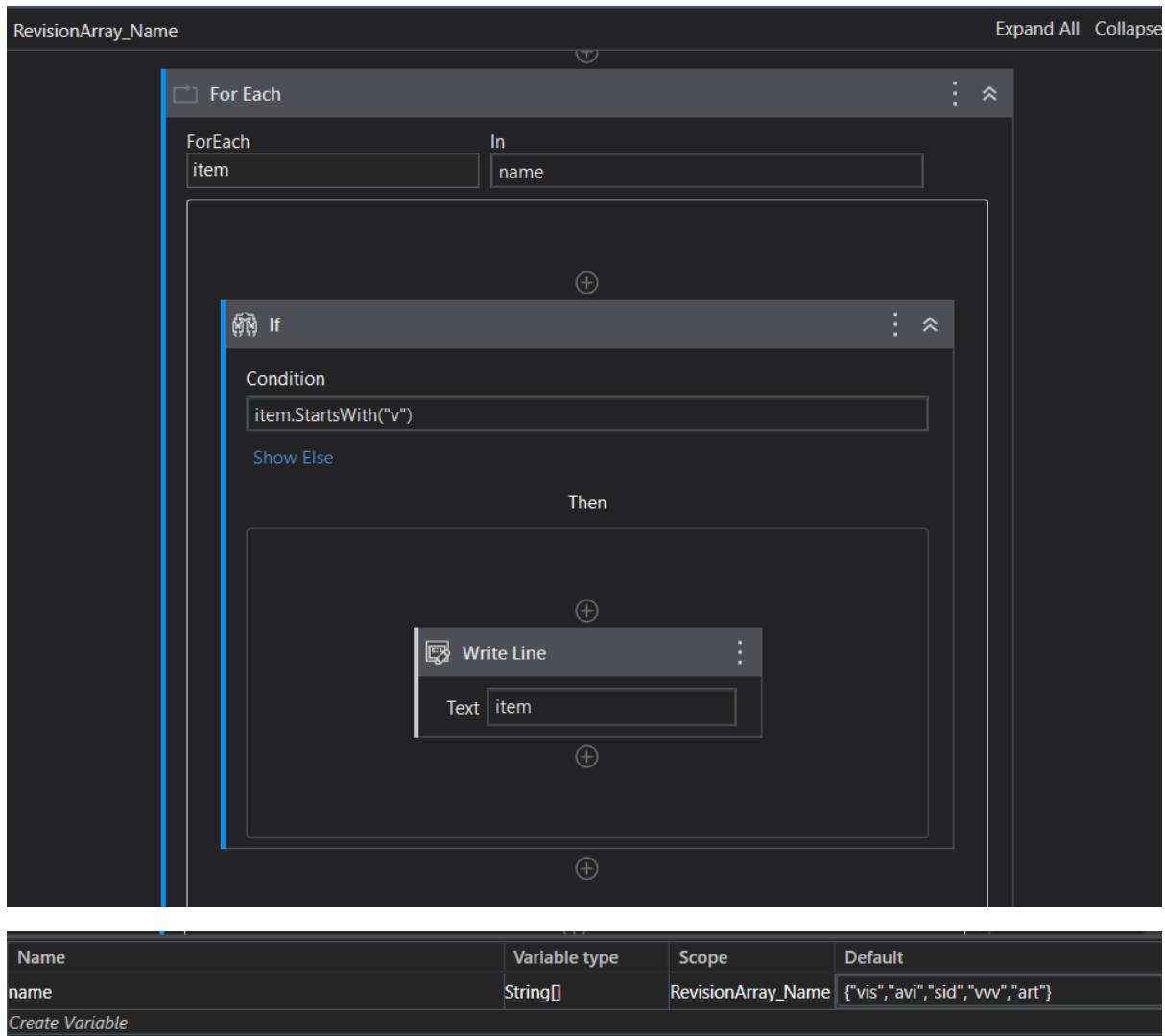


Practical No : 5

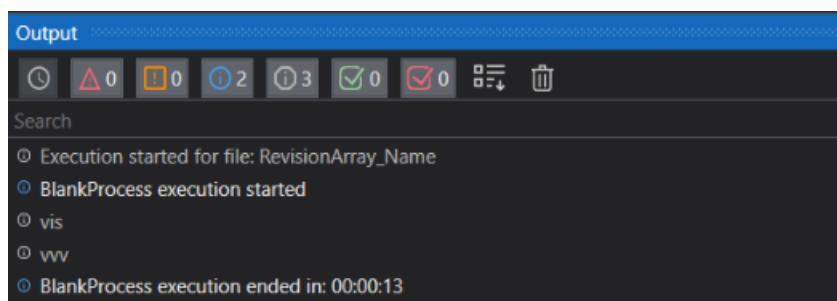
A. Consider an array of names. We have to find out how many of them start with the letter "v". Create an automation where the number of names starting with "v" is counted and the result is displayed.

STEPS :-

1. Drag and drop a Sequence activity inside the designer panel .
2. Create a variable. Give it a name (in our case, we will create an array of type string and name the variable as “name”). Set the variable type to Array of [T].
3. Also, initialize the array in the Default section of the variable by giving it a default values. For example, {“vis” , “avi” , “sid” , “vvv” , “art”} .
4. Drag and drop a For each activity inside the Sequence. Also, specify the array name in the expression box of the For each activity .
5. Drag and drop the If activity from the Activities panel and place it inside the For each activity . Specify the condition in the expression box of the If activity .
6. Now drag and drop the writeline acitivity and place In else condition of if activity & type item



7. Hit the Run button or press F5 and see the result.



The screenshot shows the 'Output' window of a software interface. The title bar says 'Output'. Below it is a toolbar with various icons: a magnifying glass, a red triangle with '0', an orange square with '0', a blue circle with '2', a grey circle with '3', a green checkmark with '0', a red checkmark with '0', a grid icon, and a trash bin icon. A search bar labeled 'Search' is present. The main area displays the following log entries:

- ① Execution started for file: RevisionArray_Name
- ② BlankProcess execution started
- ③ vis
- ④ vvv
- ⑤ BlankProcess execution ended in: 00:00:13

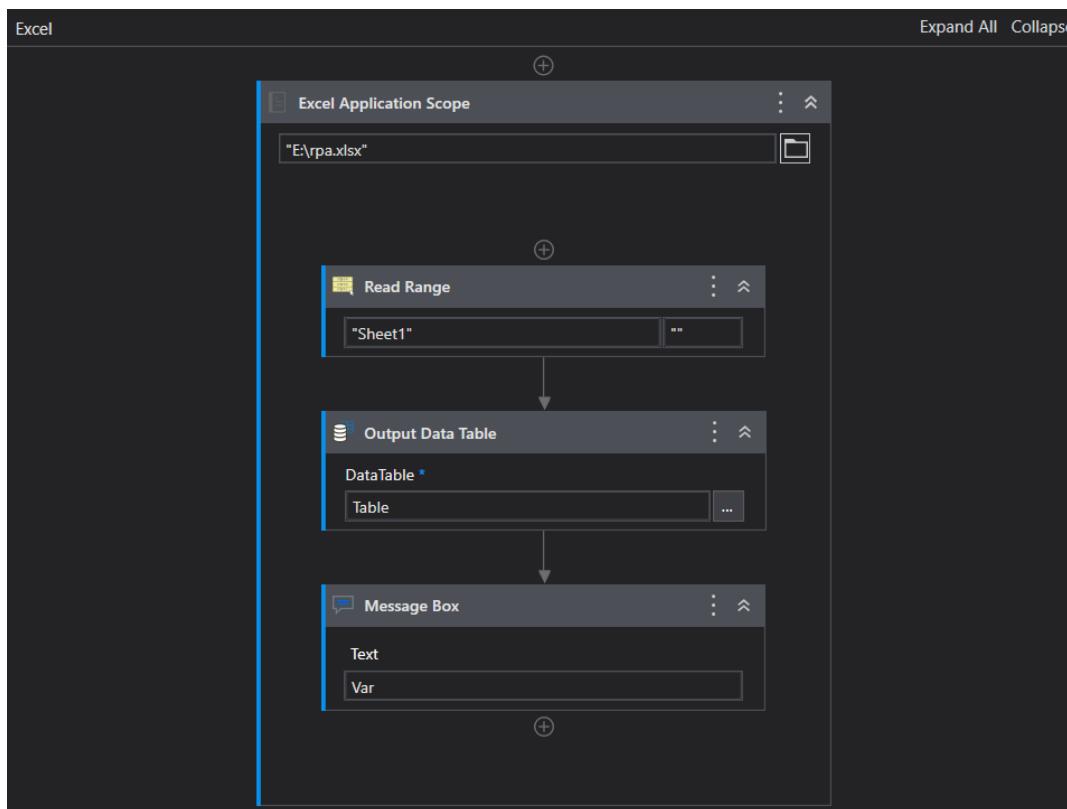
Practical No : 6

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

Read Range Operation:-

STEPS:-

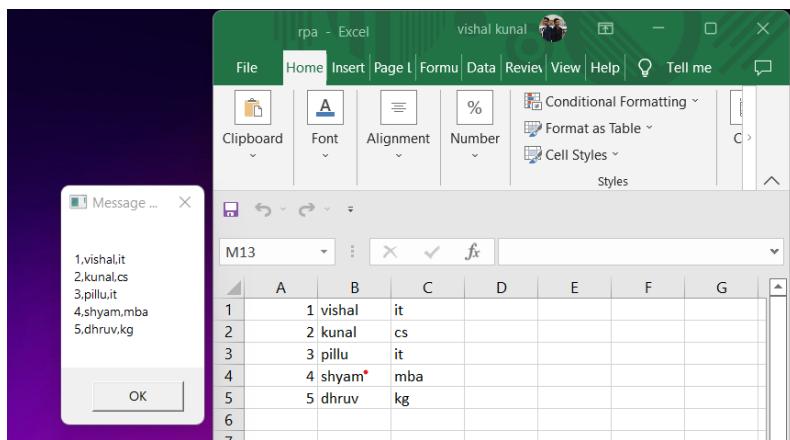
1. Drag and drop a Sequence activity on the main Designer panel. Also, drag and drop an Excel application scope .
2. You can either specify the Excel sheet path or manually select it.
3. Drag and Drop the read range activity & Specify the range value in the cell text box of the Read Cell activity.
4. Drag and drop an Output Data Table activity inside the Excel application scope activity. Now, we have to specify two properties of the Output Data Table activity: Data Table property and text property. The Data Table property of the Output Data Table activity is used to convert the data table into a string format & , let us create a variable of type string “var”



5. Drag and drop a Message box activity inside the Excel application scope activity. Also, specify the string variable's name that we created earlier inside the Message box activity:

Name	Variable type	Scope	Default
Table	DataTable	Excel	Enter a VB expression
Var	String	Excel	Enter a VB expression
Create Variable			

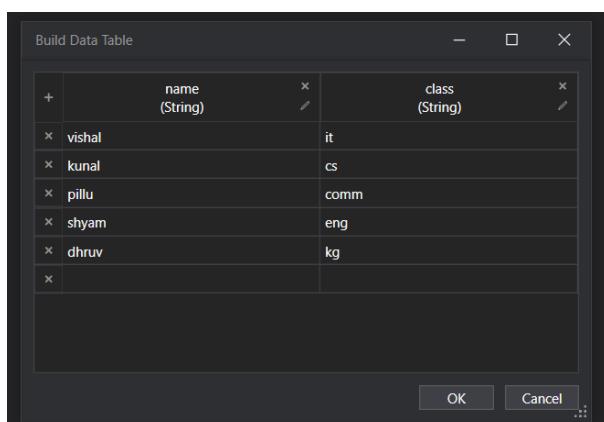
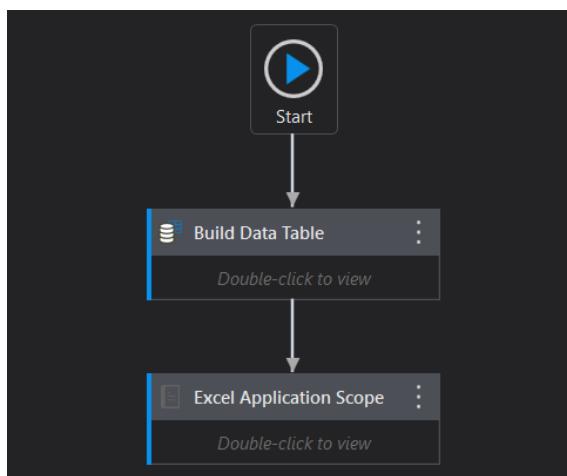
6. That's it. Press F5 to see the result. A window will pop up displaying your Excel file data.



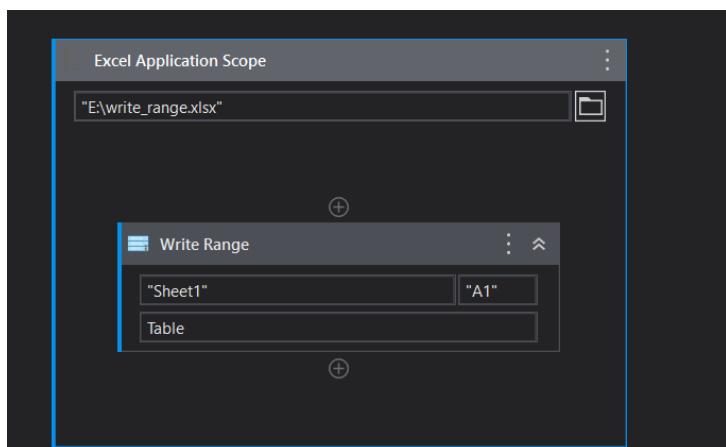
Write Range Operation :- create the data table variable for build data table

STEPS :-

1. Drag and drop a Flowchart activity on the main Designer panel.
2. Drag and drop a Build data table activity from the Activities panel. Double-click on this activity. A window will pop up. You will notice that two columns have been generated automatically. Delete these two columns. Add your column by clicking on the + icon and specify the column name. You can also select your preferred data type. You are free to add any number of columns:
3. Create a variable of type data table. Give it a meaningful name.

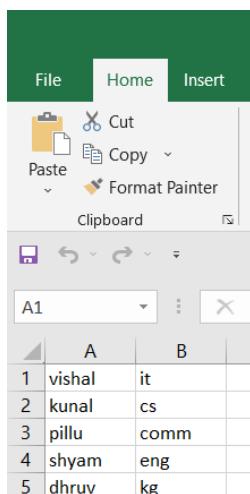


4. Drag and drop an Excel application scope inside the main Designer panel. You can either specify the Excel sheet path or manually select it. Connect this activity to the Build Data Table activity. Inside the Excel application scope activity, just drag and drop the Write Range activity:
5. Specify the data table variable name that we created earlier and set it as a Data table property inside the Write Range activity. We can also specify the range. In this case, we have assigned it as an empty string:



Name	Variable type	Scope	Default
Table	DataTable	WriteRange_M	Enter a VB expression
Create Variable			

6. That's it. Hit the Run button or press F5 to see the result.



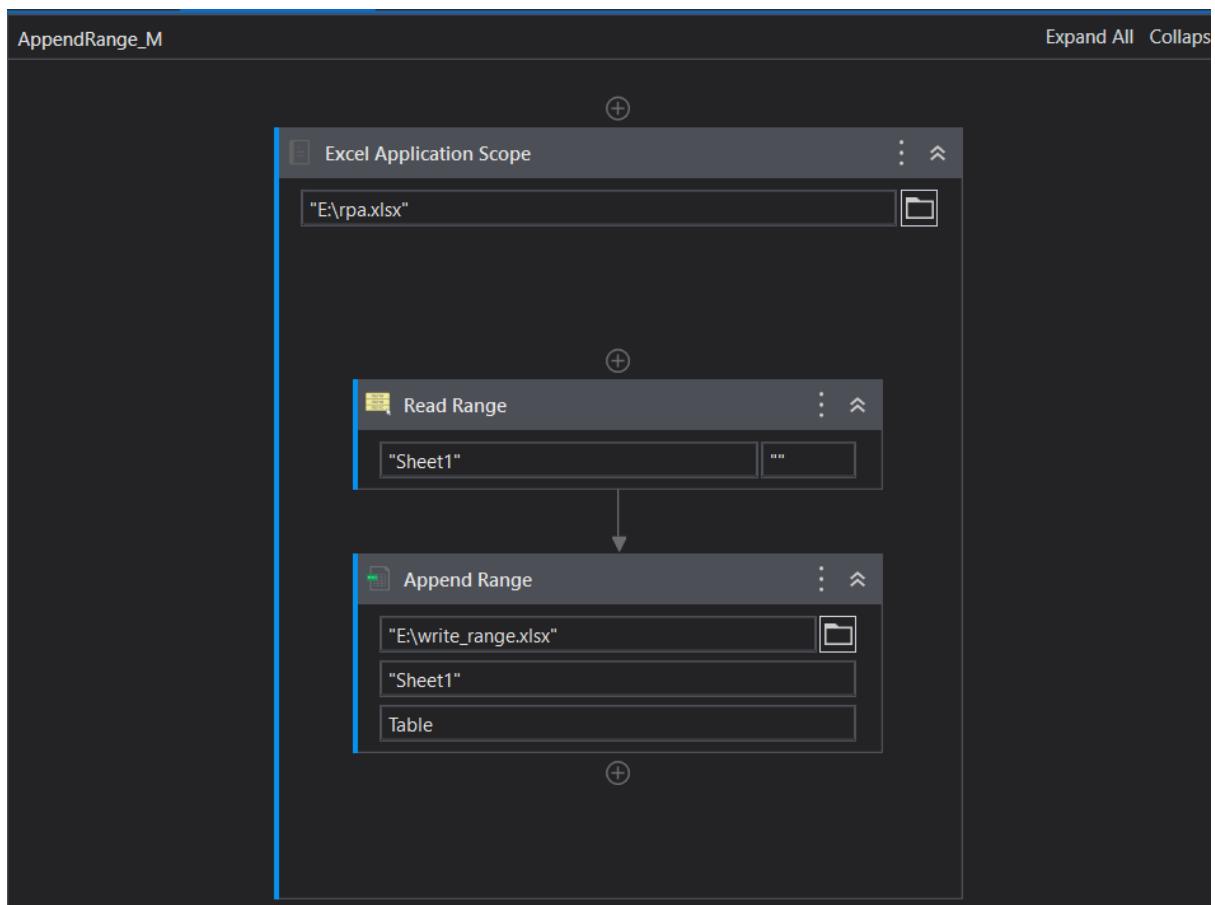
AppendRange Operation :- create the data table variable for the read range – Table

STEPS :-

1. Drag and drop the Sequence activity on the main Designer window. Also, drag and drop the Excel application scope

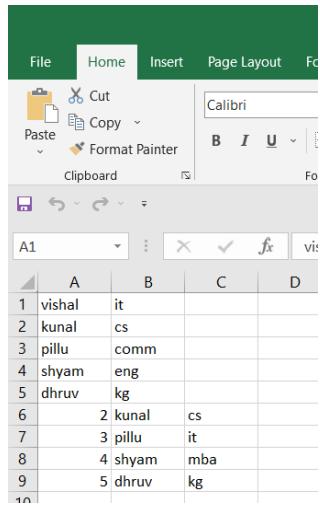
	A	B	C
1	1	vishal	it
2	2	kunal	cs
3	3	pillu	it
4	4	shyam	mba
5	5	dhruv	kg

2. Drag and drop the Read Range activity inside the Excel application scope activity. The Read Range activity produces a data table. We have to receive this data table in order to consume it. Create a data table variable and specify it in the Output property of the Read Range activity:
3. Drag and drop the Append Range activity inside the Excel application scope activity. Specify the Excel file path in the Append Range activity & Also, specify the data table.



Name	Variable type	Scope	Default
Table	DataTable	Do	Enter a VB expression
Create Variable			

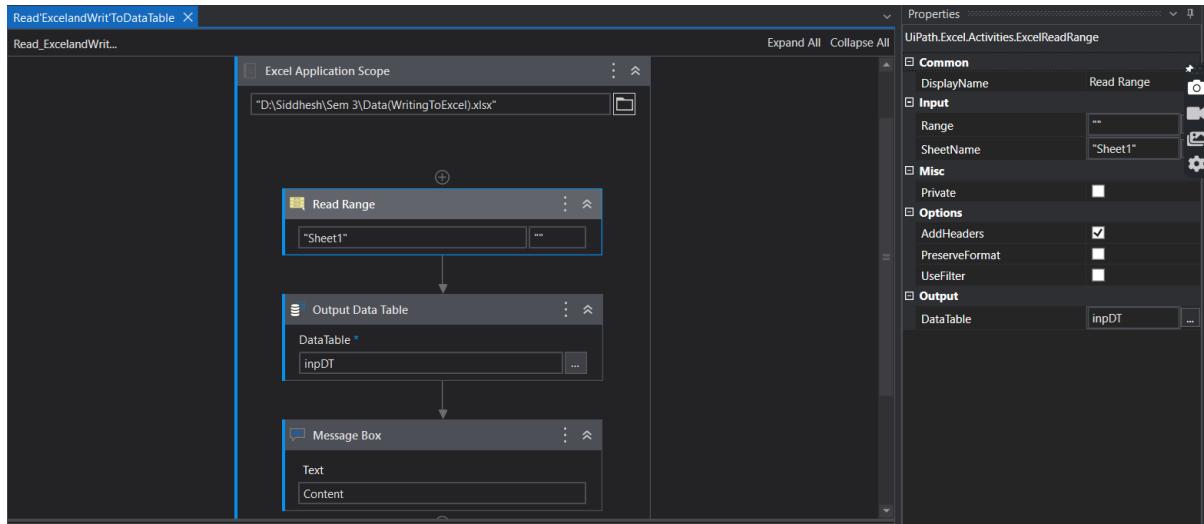
4. Also, specify the data table



A screenshot of Microsoft Excel showing a data table in a spreadsheet. The table has columns A, B, C, and D. The data is as follows:

	A	B	C	D
1	vishal	it		
2	kunal	cs		
3	pillu	comm		
4	shyam	eng		
5	dhruv	kg		
6	2	kunal	cs	
7	3	pillu	it	
8	4	shyam	mba	
9	5	dhruv	kg	
10				

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

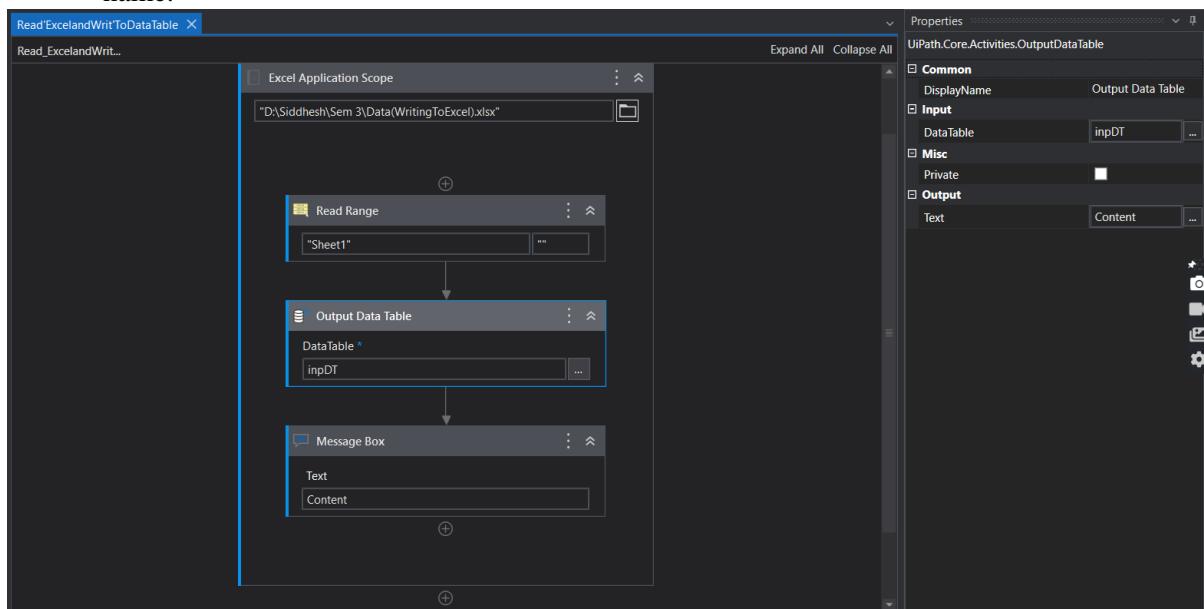


1. Create a new sequence and give it a meaningful name.
2. Drag and drop the Excel Application Scope activity inside the sequence.
3. Double-click on the Excel application scope. You must specify the path of your workbook/Excel file. Drag and drop the Read Range activity from the Activities panel inside the Excel application scope.

The Read Range activity will read the entire Excel sheet. We also have the option of specifying our range. Create a variable of type data table and specify it in the Output property of the Read Range activity. This variable will receive the data table produced by the Read Range activity.

4. Drag and drop the Output Data Table activity inside the Excel application scope activity. Now, we must specify two properties of the Output Data Table activity: the Data Table property and the text property. The Data Table property of the Output Data Table activity is used to convert the Data Table into string format.

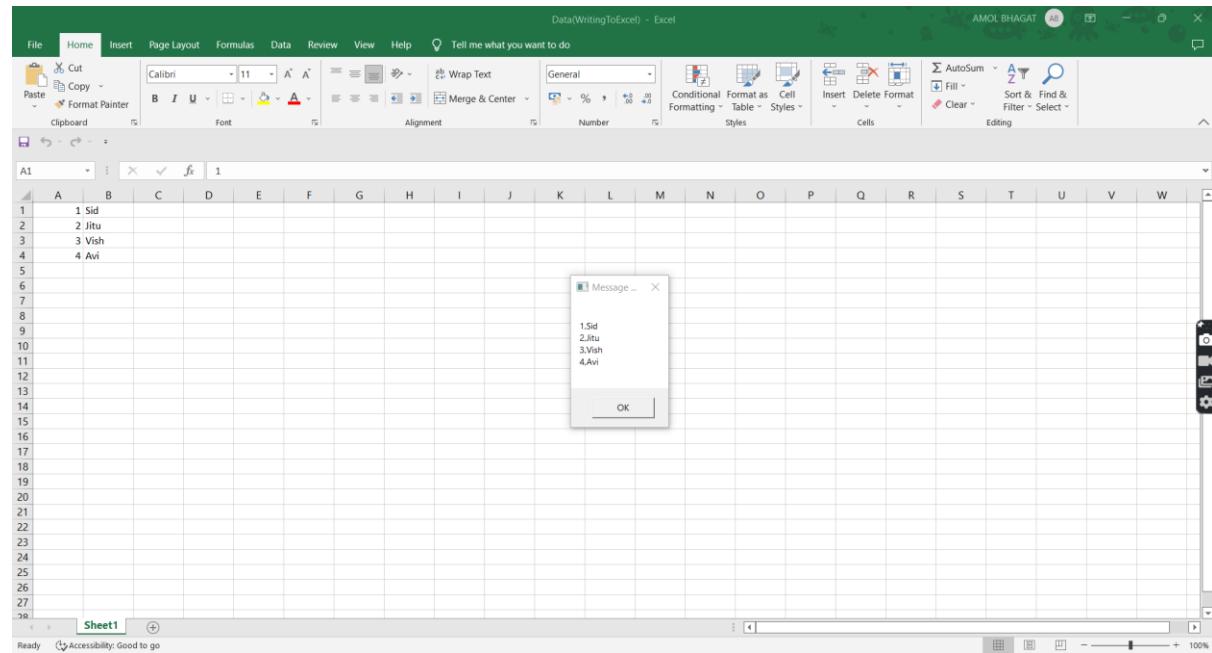
The text property is used to supply its value in a string format. We have to receive this value in order to consume it. For this, let us create a variable of type string. Give it a meaningful name.



Name	Variable type	Scope	Default
inpDT	DataTable	Do	Enter a VB expression
Content	String	Do	Enter a VB expression
Create Variable			

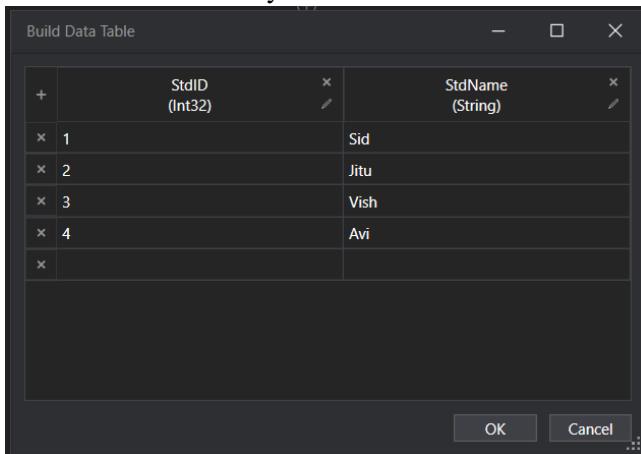
5. Drag and drop a Message box activity inside the Excel application scope activity. Also, specify the string variable's name that we created earlier inside the Message box activity.
6. Press *F5* to see the result. A window displaying the Excel file data will pop up.

OUTPUT :-

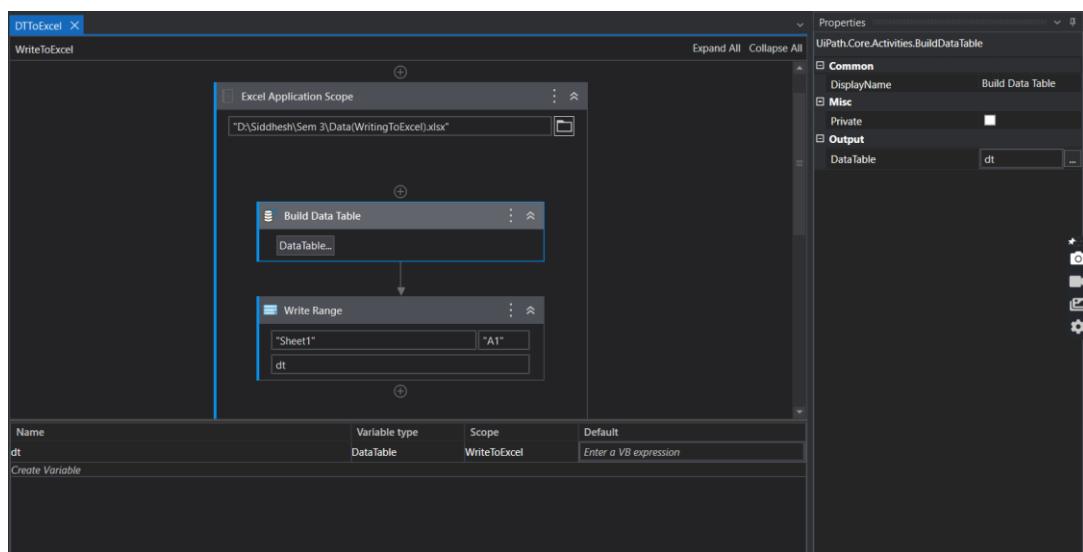


Automate the process of writing a datatable data into an excel file

1. Add a sequence into project and give it a name.
2. Drag and drop an Excel Application Scope activity and inside it Drag and drop a Build data table activity from the Activities panel. Double-click on this activity. A window will pop up. Two columns have been generated automatically; delete these two columns. Add your column by clicking on the + icon and specify the column name. You can also select your preferred data type. You are free to add any number of columns



3. Create a variable of type Data Table. Give it a meaningful name. Specify this data table's name in the Data Table property of the Build data table activity. We must supply this variable in order to get the data table that we have built.
4. Drag and drop the Write Range activity. Specify the data table variable name that we created earlier. We can also specify the range. In this case, we have assigned it as an empty string
5. Hit the Run button or press F5 to see the result



OUTPUT :-

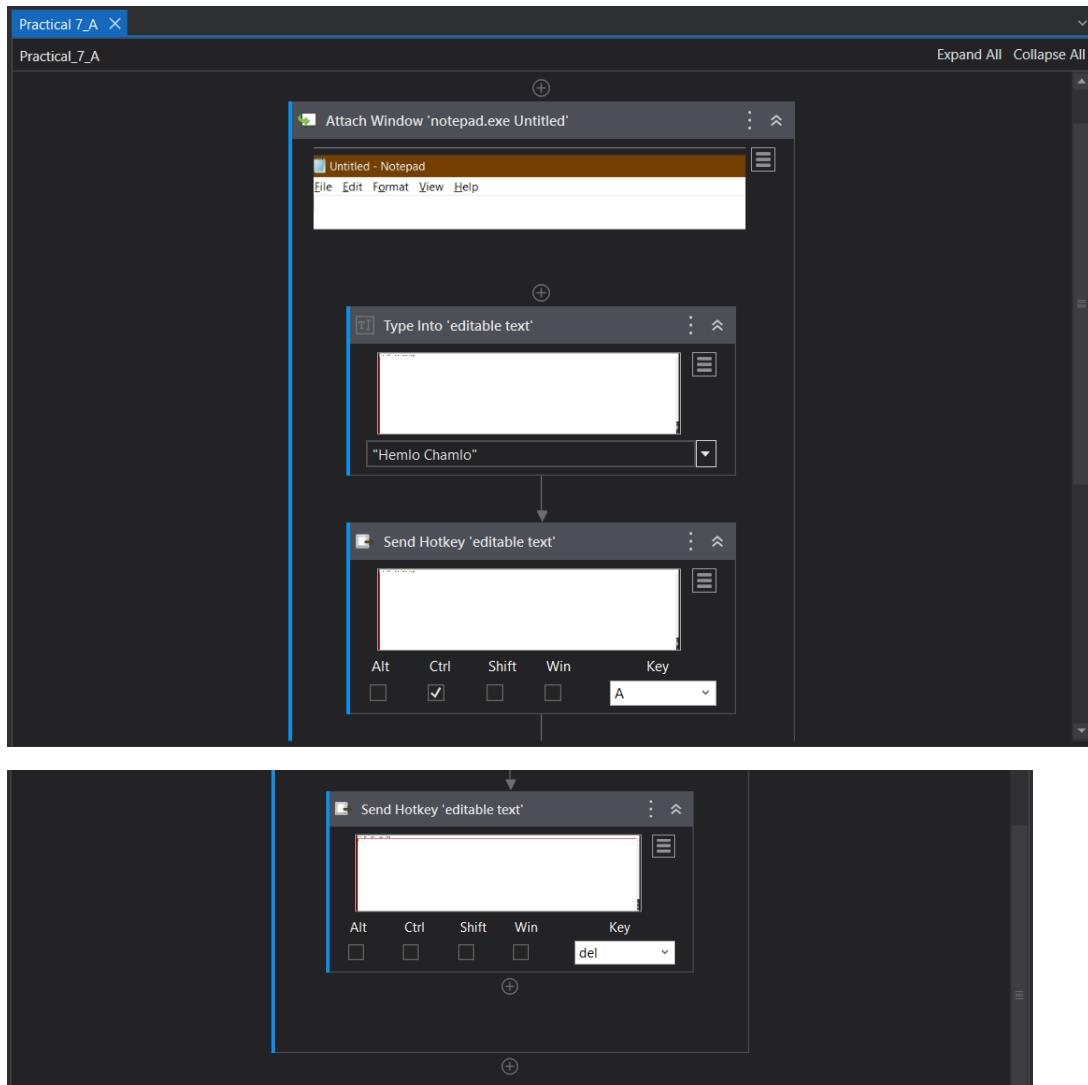
A1		
A	B	C
1	1 Sid	
2	2 Jitu	
3	3 Vish	
4	4 Avi	
5		

Practical No :- 07

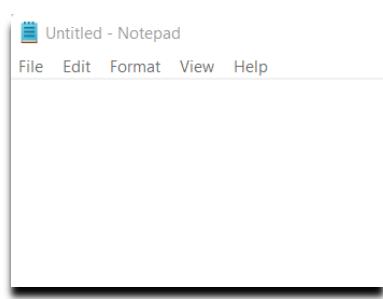
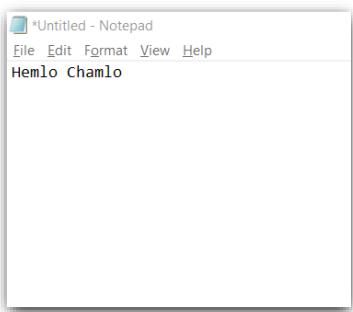
A: Implement the attach window activity.

Here, we are going to attach a Notepad window and then write some text into:

1. Create a blank project and give it a meaningful name. Add a Sequence to it.
2. Open Notepad; Drag and drop attach window activity inside sequence and click on indicate on screen option of it and indicate the Notepad screen.
3. Then, Drag and drop the Type into activity below Attach window activity. Indicate the screen where you want to type; a type into pop-up will appear, type your text inside it and check the empty field box and Press Enter.
Your Text will get typed into Notepad.
4. Now, Drag and drop the send hotkey activity and give keys as *CTRL* and *A*.
5. Again, Drag and drop the send hotkey activity and give keys as *CTRL* and *DELETE*.
6. Click Run and You will see your activities performing on Notepad window.



Output:

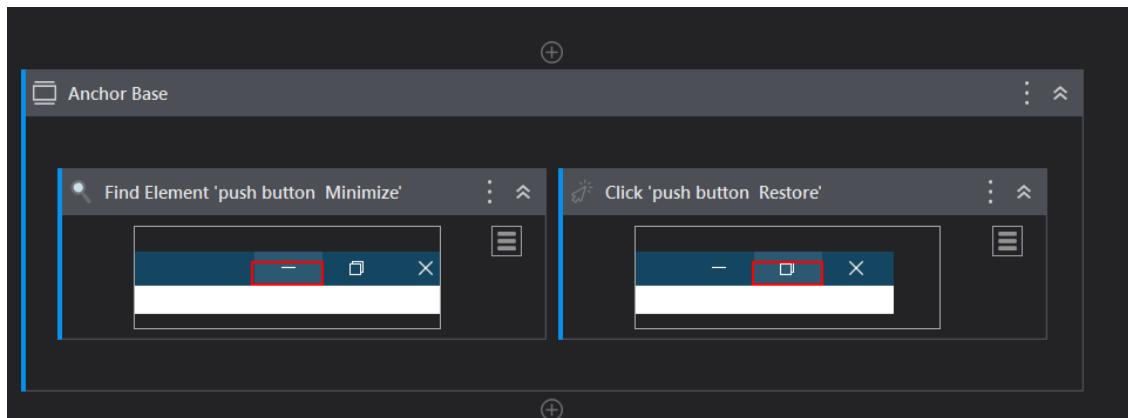


B: Find different controls using UiPath.

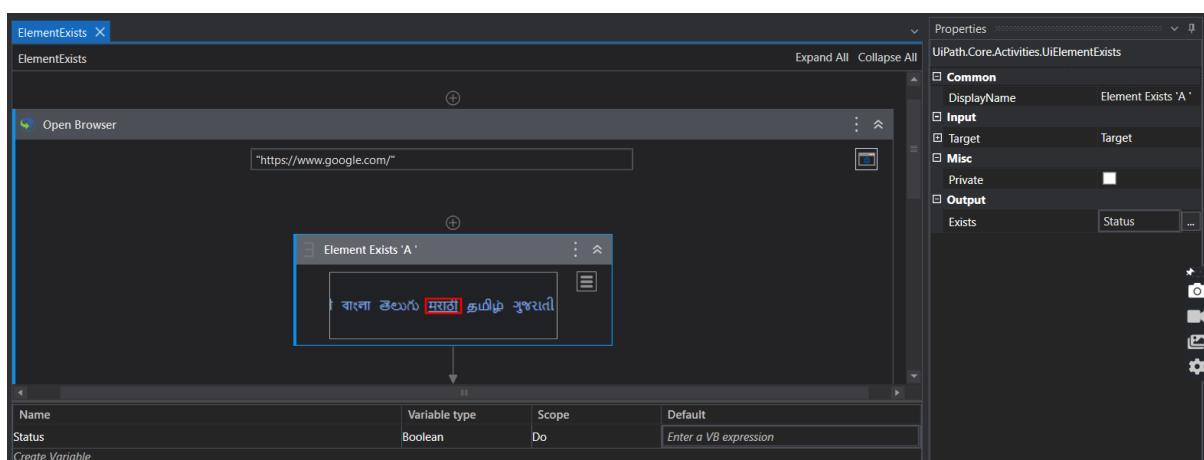
1. Anchor Base

1. Add a sequence to a project.
2. Drag and drop an Anchor base control from the Activities panel inside the sequence.
3. There are two activities that we must supply to the Anchor base control: Anchor and action activities.
4. Drag and drop the Anchor base activity (for example; Find Element activity) in the Anchor field and Action activity (for example; Click activity) in the Drop Action Activity Here field of the Anchor base control.

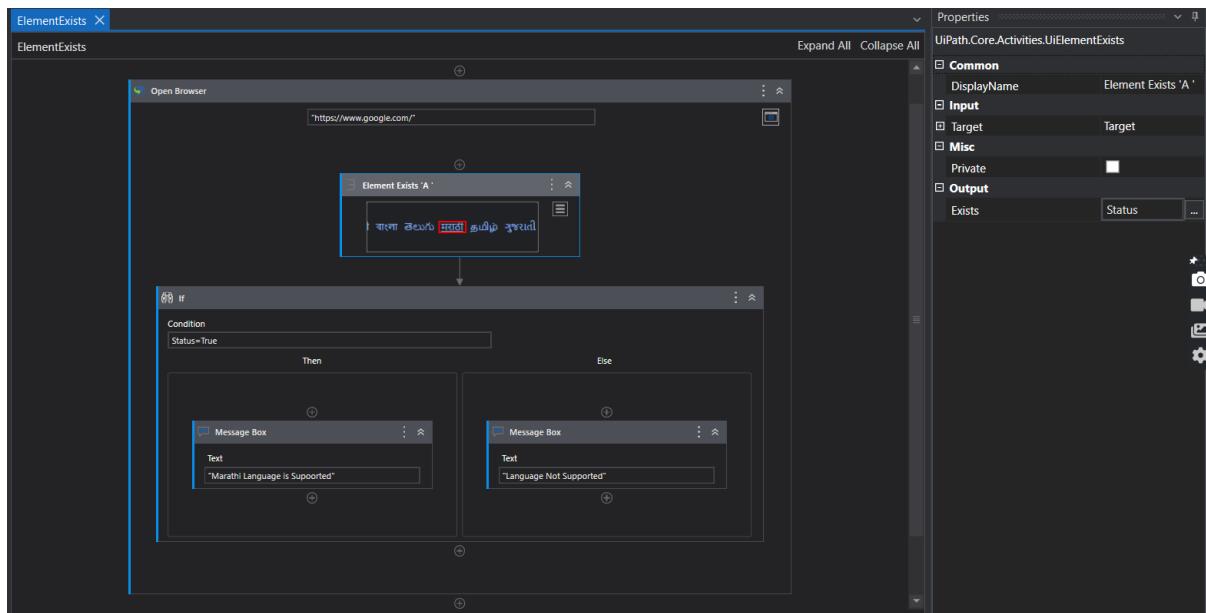
OUTPUT :-



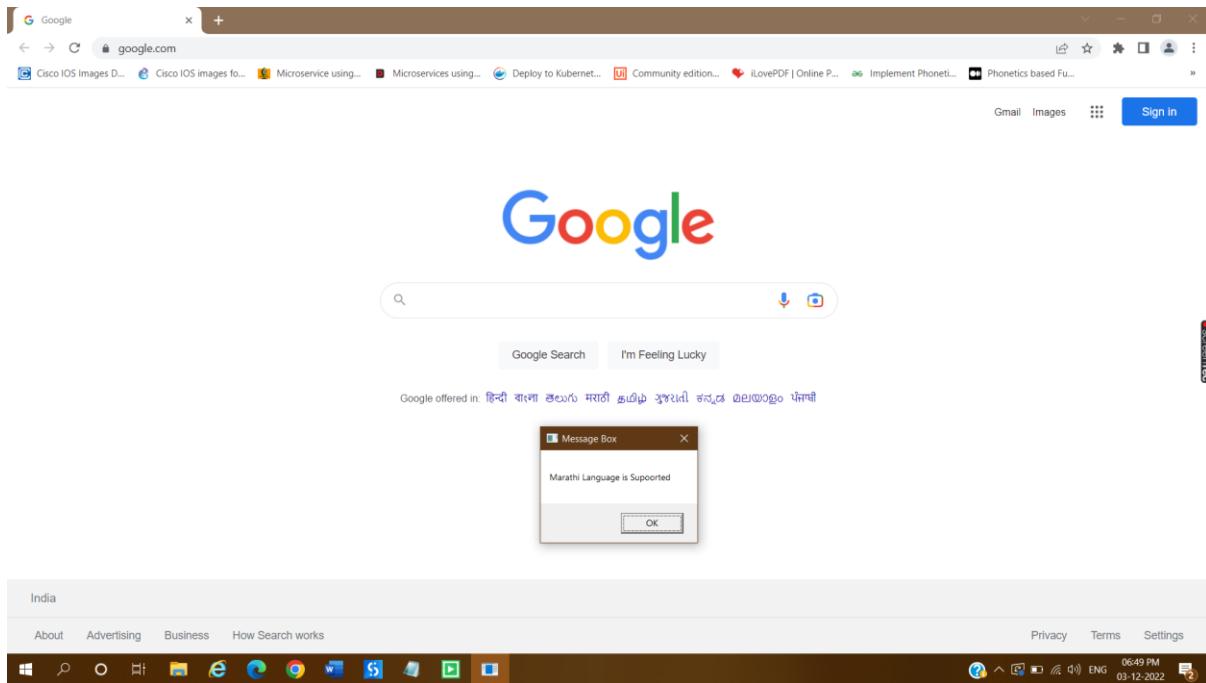
2. Element Exists :- Here, we are going to check the element of language on the *Google.co.in* website:



1. Add a sequence to the project and give it a meaningful name.
2. Drag and drop the Open browser activity and specify the web url inside it.
3. Drag and drop the Element Exists activity and Indicate the language element. Create variable for the Element Exists activity (by default makes **Boolean variable**).
4. Drag and drop the If loop activity below Element Exists activity. Give condition to it as '**VARIABLE = TRUE**' and inside *Then* part of If loop drag and drop Message box activity.
5. If the condition is TRUE i.e. if element gets found then it will print "Language is Supported" and if the condition is FALSE i.e. if element does not found then it will print "Language is not supported".



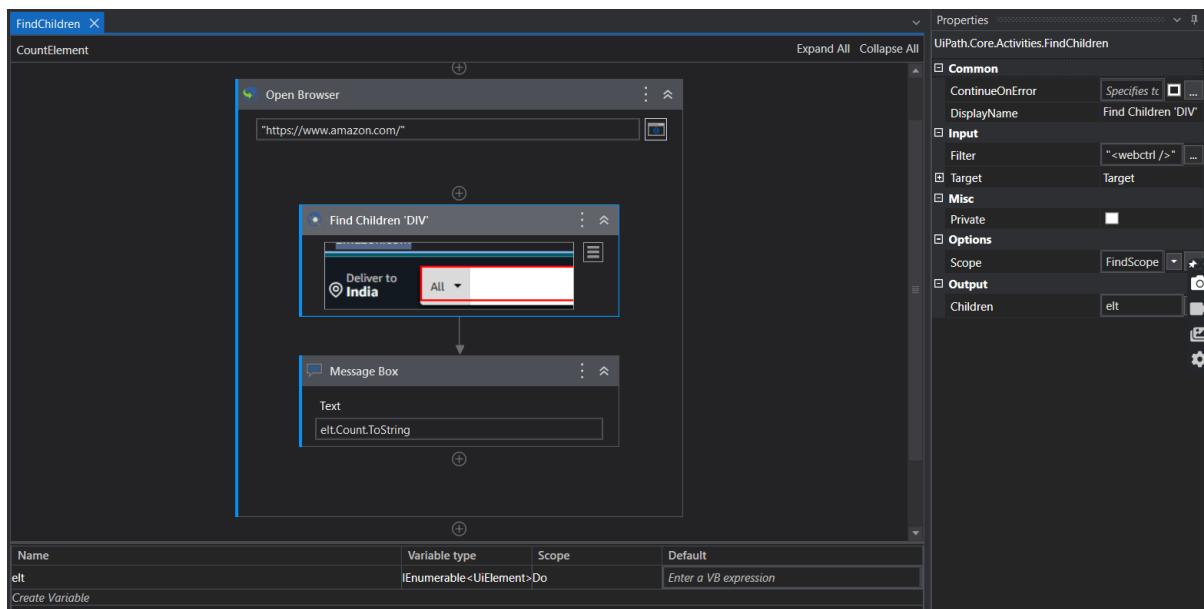
OUTPUT :-



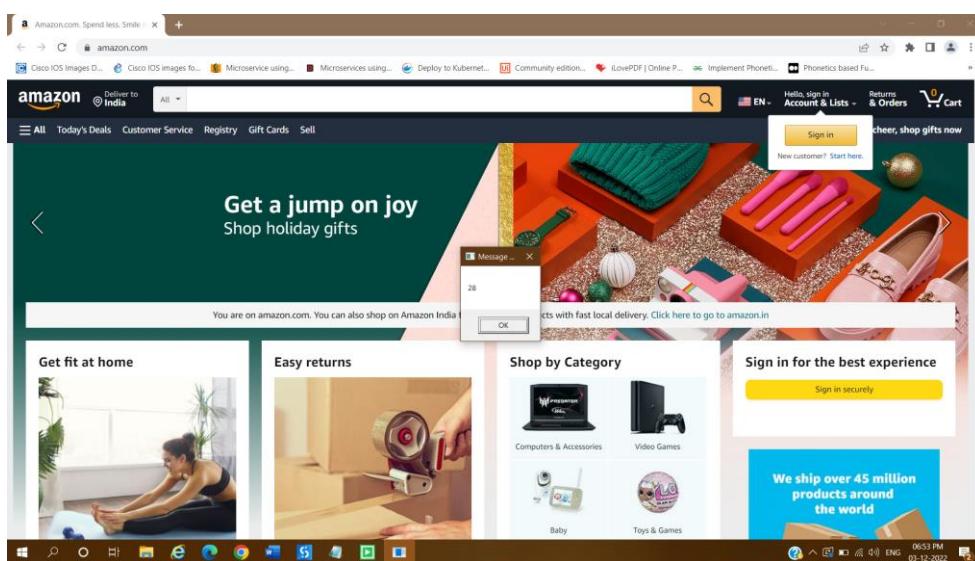
3. Find Children

Here, we used **Amazon.com's** category section to understand the working of the Find children activity.

1. Add a sequence and give it a meaningful name.
2. Drag and drop the Open browser activity and specify Amazon's url inside it.
3. Drag and drop the Find children activity. Indicate the element (In this case, category section of Amazon site) and create variable for the Find children activity (**Bydefault it will create variable of type UiElement**).
4. Drag and drop the Message box. Specify the variable we created earlier and we will count it by specifying '**VARIABLE.count**'.
5. Click run or Press **CTRL+F6**.



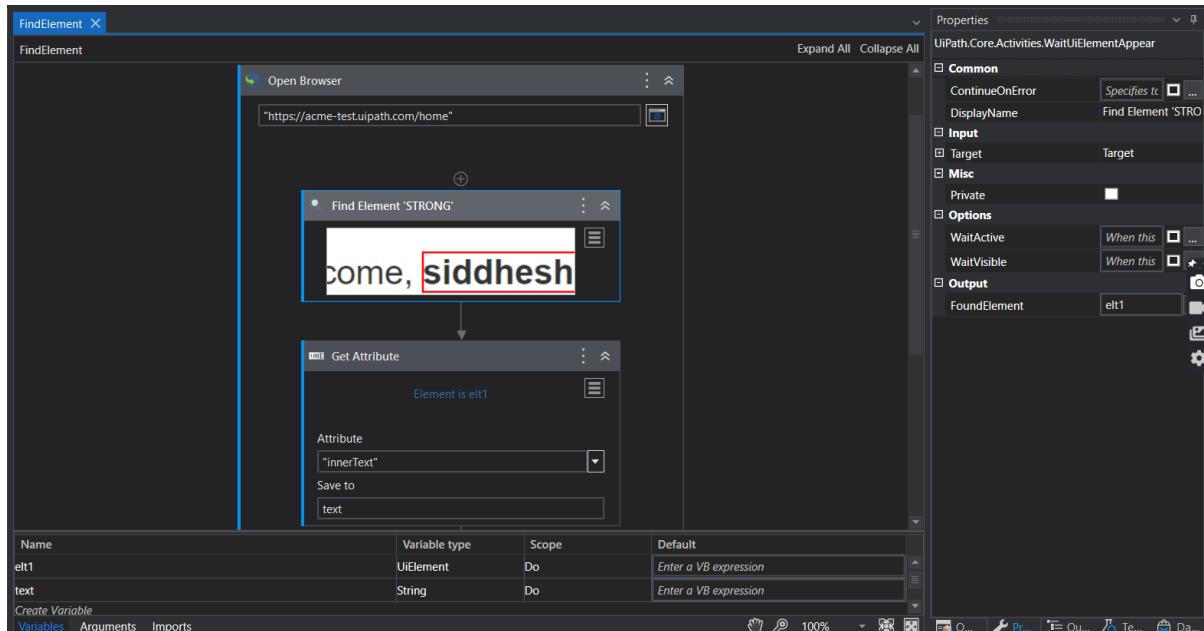
OUTPUT:-



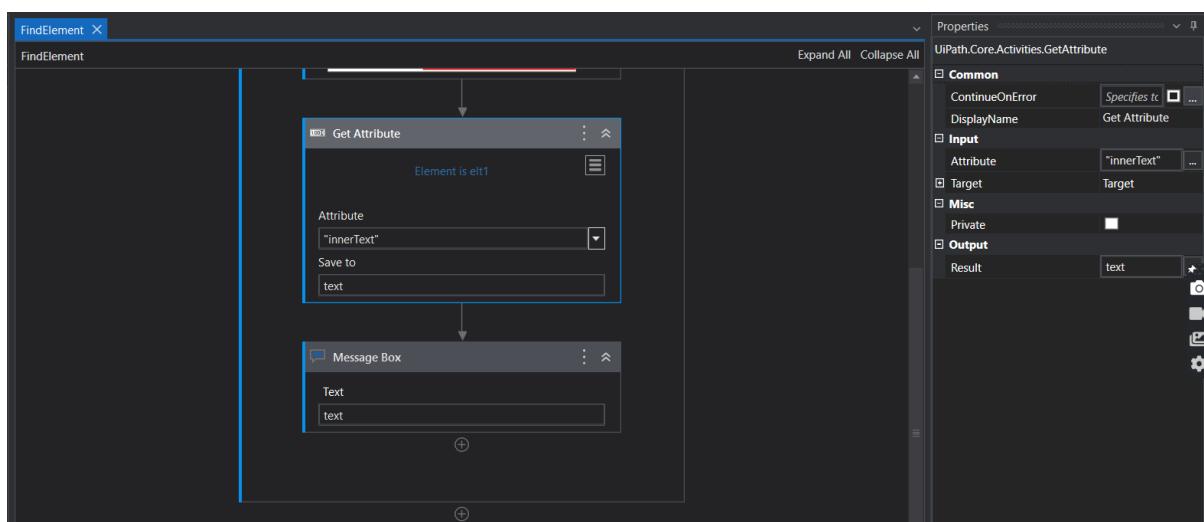
4. Find Element

Here, we have used “**acme-test.uipath.com**” website to understand the working of the Find element activity.

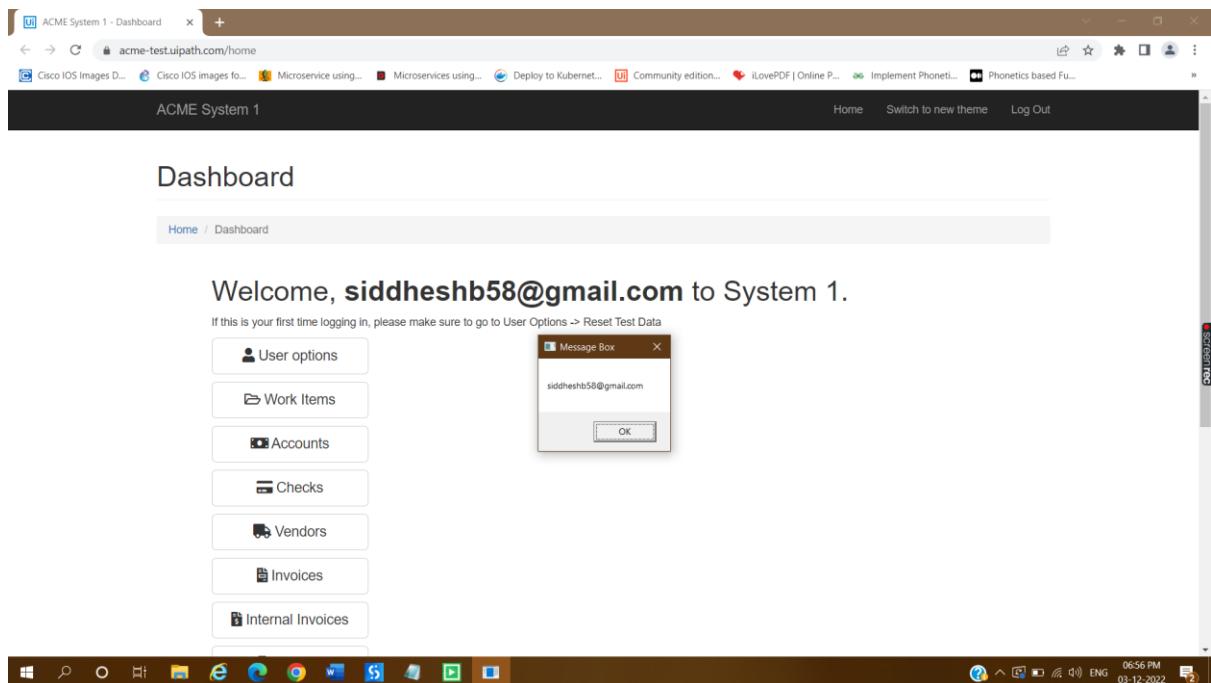
1. Drag and drop the Open browser activity inside a sequence.
2. Specify the URL inside the Open browser activity.
3. Drag and drop the Find Element activity inside the open browser activity. Indicate the element which we want to find and create a variable for the Find Element activity (**By default it will create variable of type UiElement**).



4. Drag and drop the Get Attribute activity below the Find element activity which will read the innerText of the element which we indicated. Select the attribute as innerText and save its result into String variable.
5. Next, Drag and drop the Message box and specify the variable in which we have save the innerText of the element.
6. Click RUN



OUTPUT :-

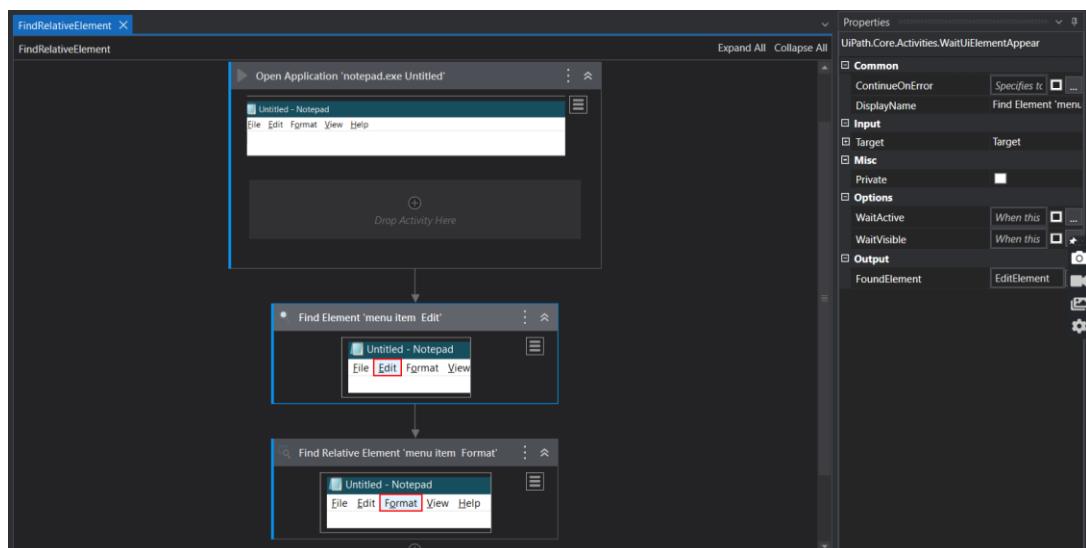


5. Find Relative Element

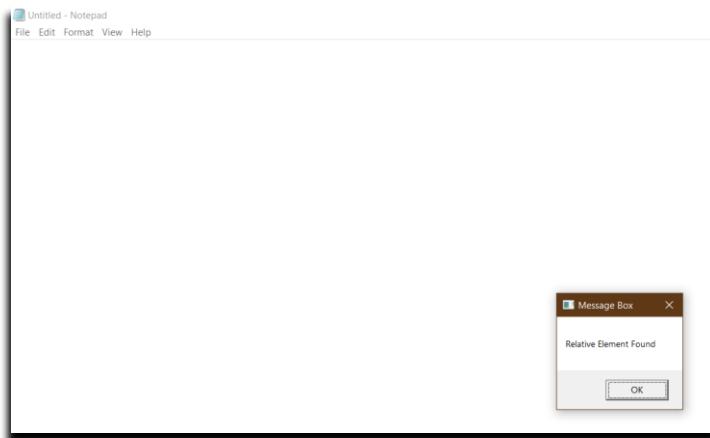
This control is similar to the Find element control. The only difference is that it uses the relative fixed UI element to recognize the UI element properly.

Here, we have used Notepad window to understand the working of the Find Relative element.

1. Drag and drop the Open application activity inside a sequence and indicate the Notepad window to it.
2. Drag and drop the Find element activity below the open application activity and indicate the element on which we want to work.
3. Then, Drag and drop the Find Relative element activity and indicate the element which is beside the element which we indicated in the Find element activity earlier.
4. Drag and drop the Message box and type “Relative Element Found” inside its Text property.
5. Click Run.



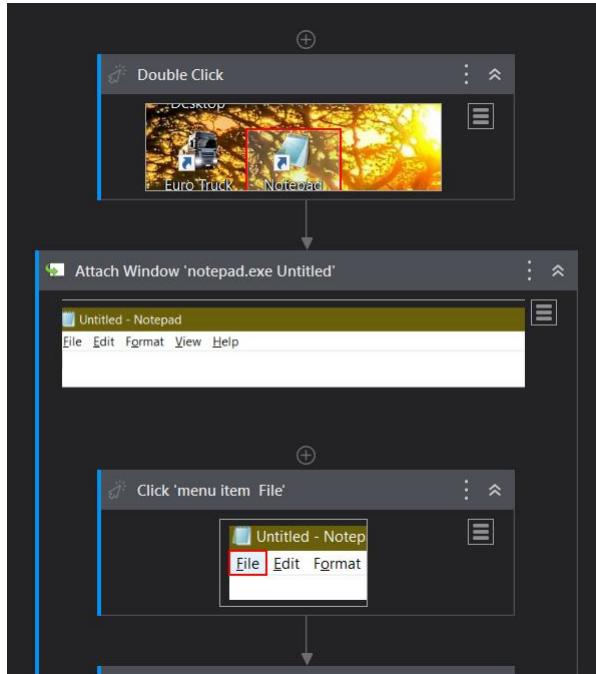
OUTPUT :-



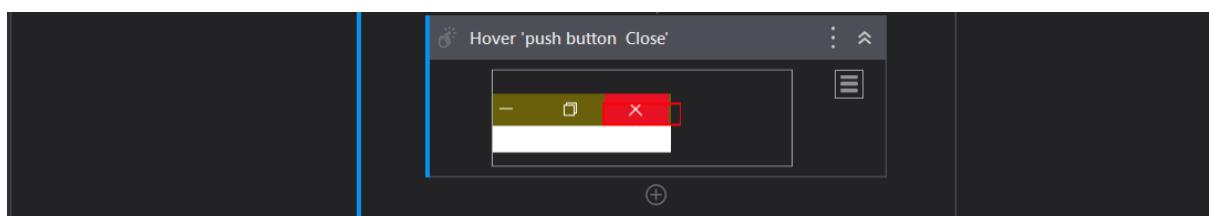
C: Demonstrate the following activities in UiPath

i. Mouse - Click, Double Click & Hover

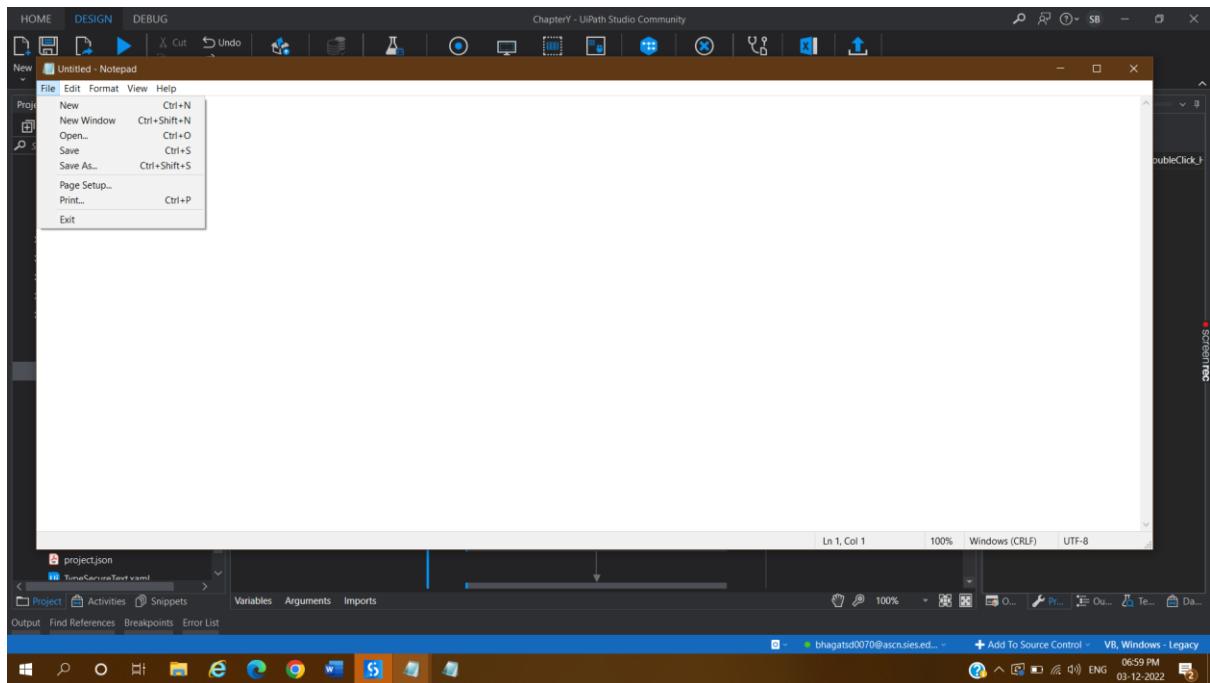
1. Add a sequence and give it a meaningful name.
2. Drag and drop the Double Click activity and indicate the Notepad application icon on the desktop. This will open the Notepad.
3. Drag and drop the Attach window activity and indicate the Notepad window to it.
4. Inside Attach window, Drag and drop the Click activity and indicate the 'File' button which is located inside Notepad.



5. Next, we will Drag and drop the Hover activity and indicate the element on which we want to hover our cursor.

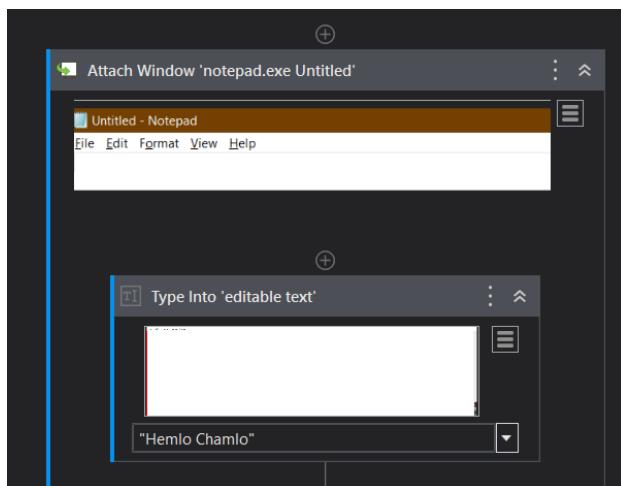


OUTPUT:-

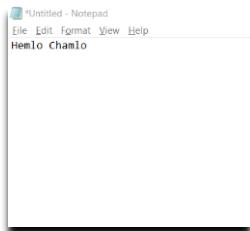


ii. Type Into

1. Drag and drop the Attach window activity inside a sequence. Indicate the window of Notepad to work on it.
2. Drag and drop the Type into activity and indicate the notepad screen.
3. Type your desired text in *DOUBLE QUOTES* inside value property of type into.
4. Click on Run.



OUTPUT:-



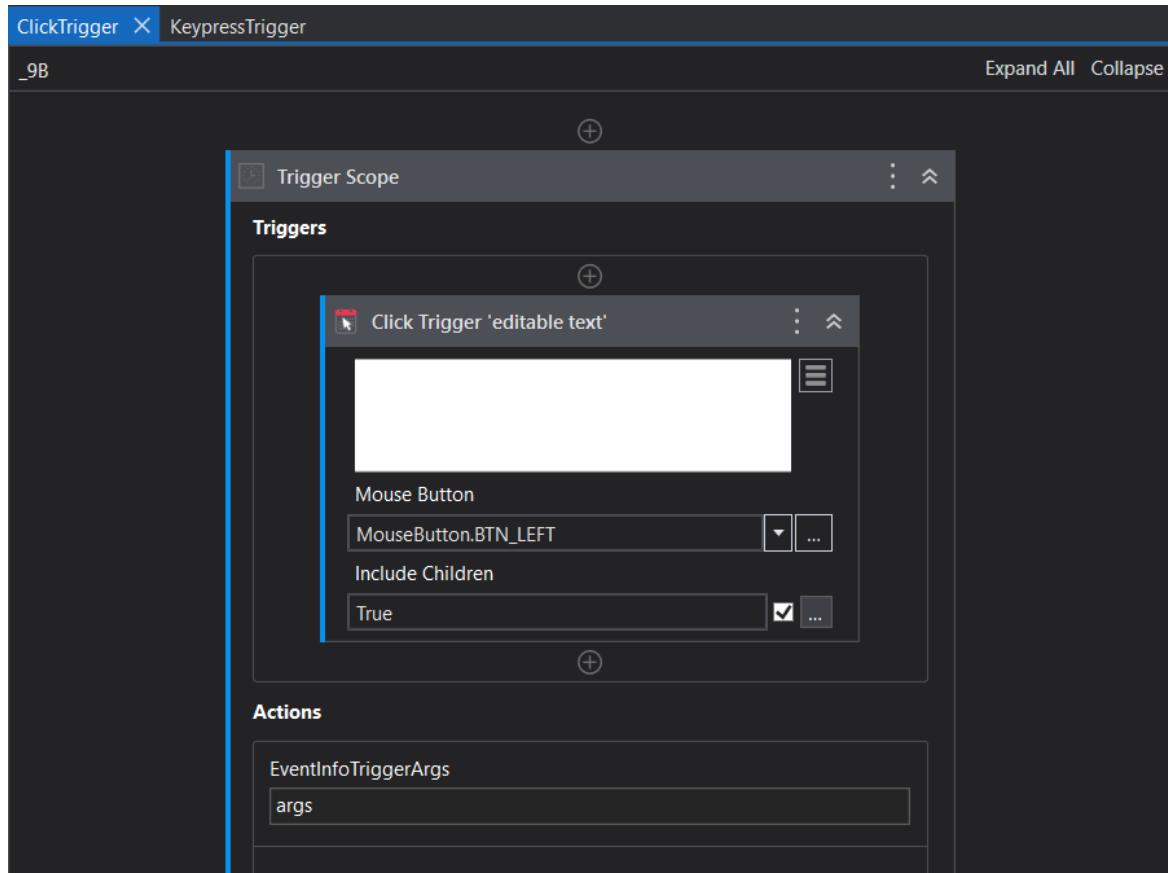
Practical No : 8

A. Demonstrate the following events in UiPath:

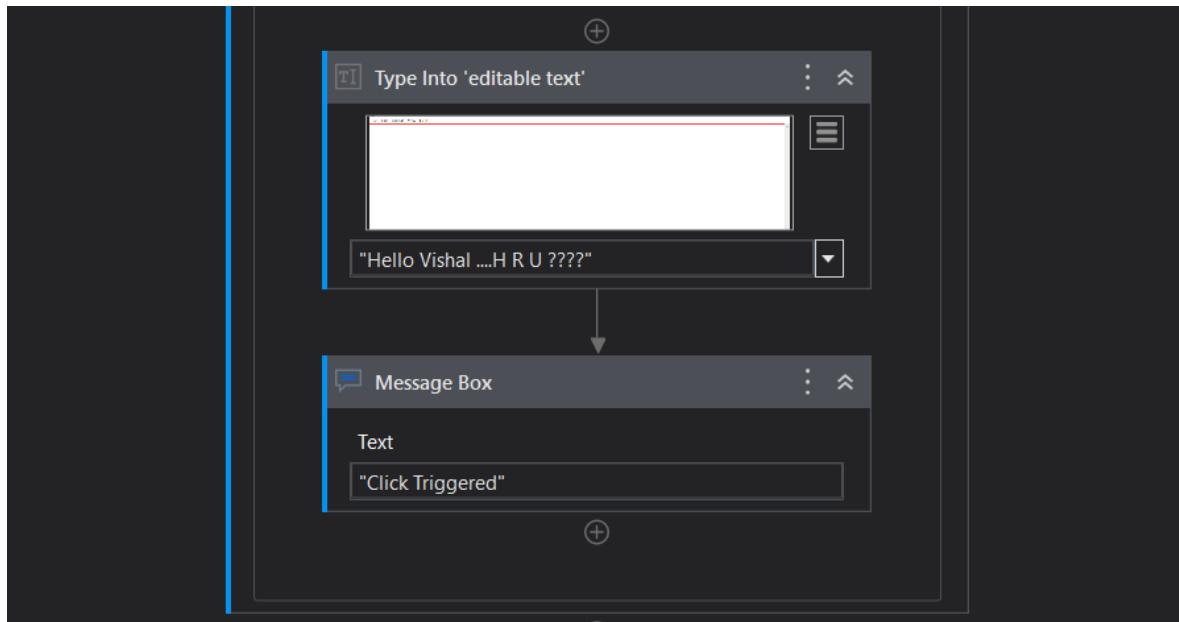
i. Element triggering event

Click Trigger :-

1. Add a sequence and give it a meaningful name.
2. Drag and Drop the Trigger scop from the activity panel .
3. Add the Click Trigger inside the Trigger scope .



4. Add the Type Into inside the Action Section and click on the Indicate on Screen option and indicate the notepad file to type the text .
5. Drag and drop message box below the type into
6. Now run the project and see the output .

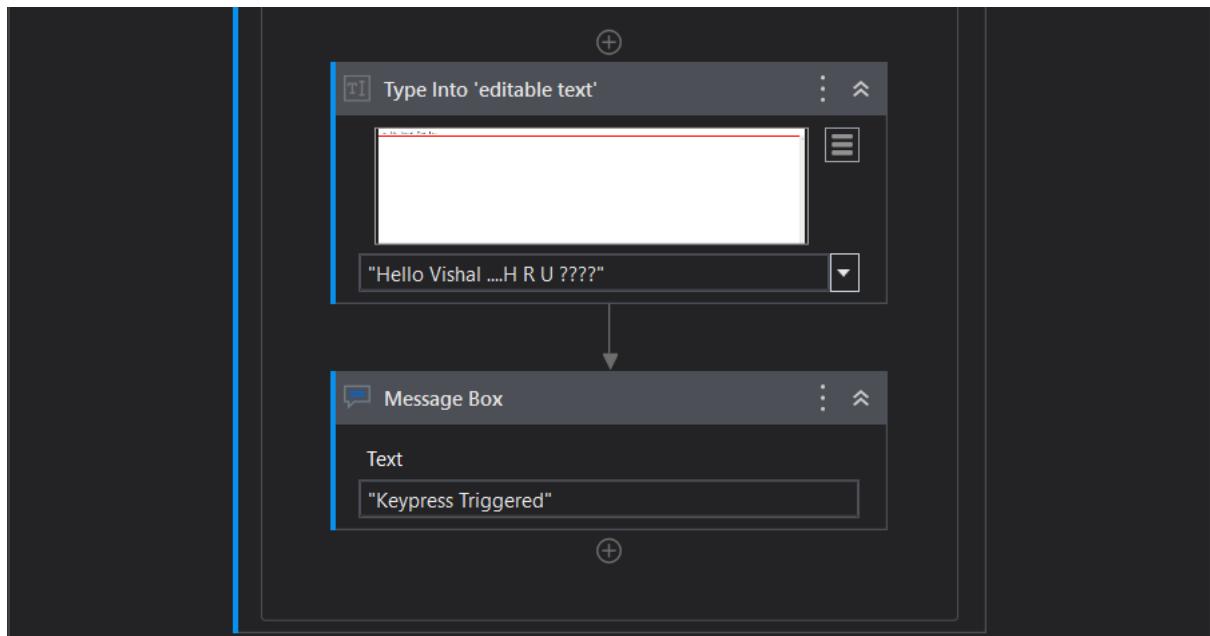


KeyPress Trigger :-

1. Drag and Drop the Trigger scop from the activity panel
2. Add the key press trigger and click on the Indicate on Screen option and indicate the notepad file to type the text & mark on ctrl and select enter

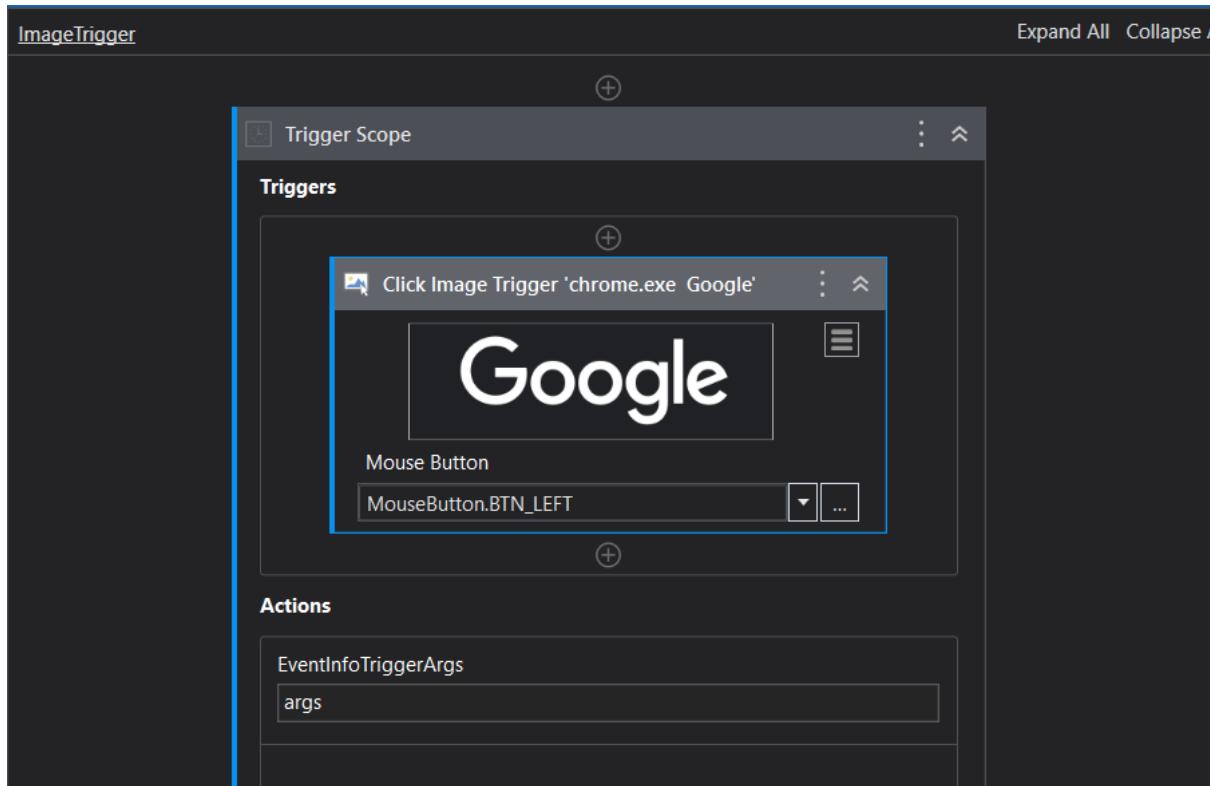
The screenshot shows a configuration screen for a 'KeypressTrigger'. At the top, there is a title bar with the text "KeypressTrigger" and two buttons: "Expand All" and "Collapse". Below the title bar is a "Trigger Scope" section with a plus sign icon and a title "Trigger Scope". Inside this section is a "Triggers" section with a plus sign icon and a title "Key Press Trigger 'editable text'". This trigger section contains a text input field and several checkboxes: Alt, Ctrl, Shift, Win, and Key. The "Ctrl" checkbox is checked. Below these checkboxes is a dropdown menu labeled "enter". There is also a section labeled "Include Children" with a checkbox labeled "True". At the bottom of this trigger section is a plus sign icon. Below the trigger scope section is an "Actions" section with a plus sign icon and a title "EventInfoTriggerArgs". Inside this section is a parameter named "args".

3. Add the Type Into inside the Action Section and click on the Indicate on Screen option and indicate the notepad file to type the text .
4. Drag and drop message box below the type into
5. Now run the project and see the output .

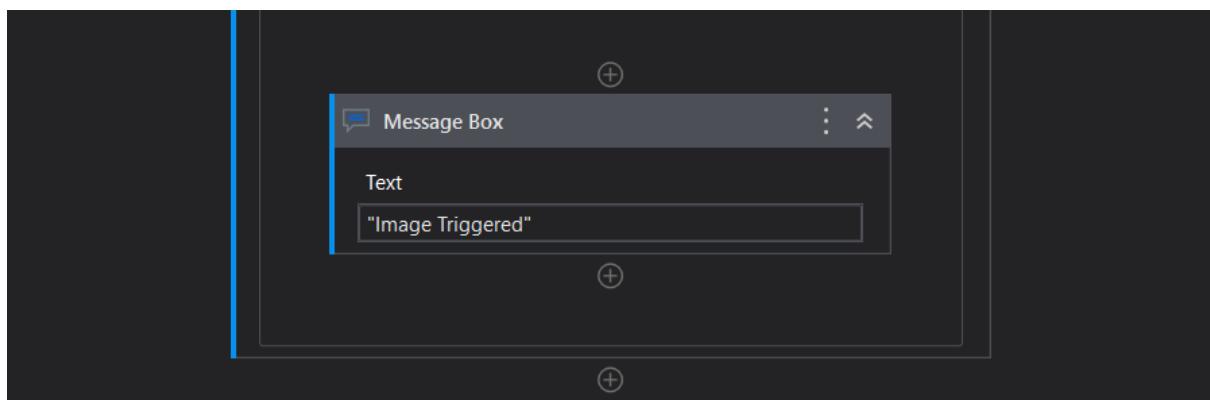


ii. Image triggering event

1. Drag and Drop the Trigger scop from the activity panel
2. Add the Click Image trigger and click on the Indicate on Screen option and indicate the www.google.com logo and select the MouseButton.BTN_LEFT from the drop down list



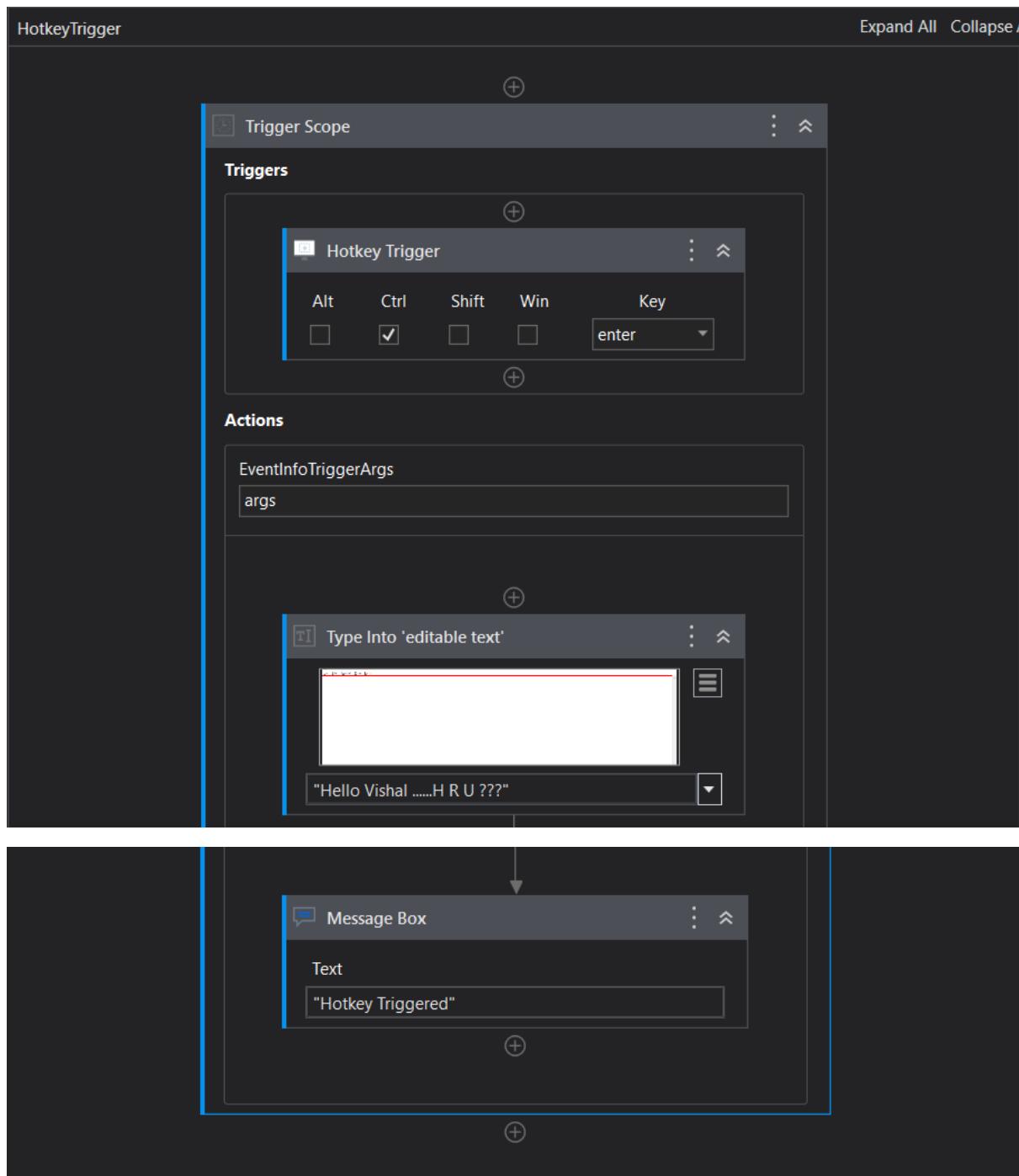
3. Drag and drop message box below the type into.
4. Now run the project and see the output .



iii. System Triggering Event

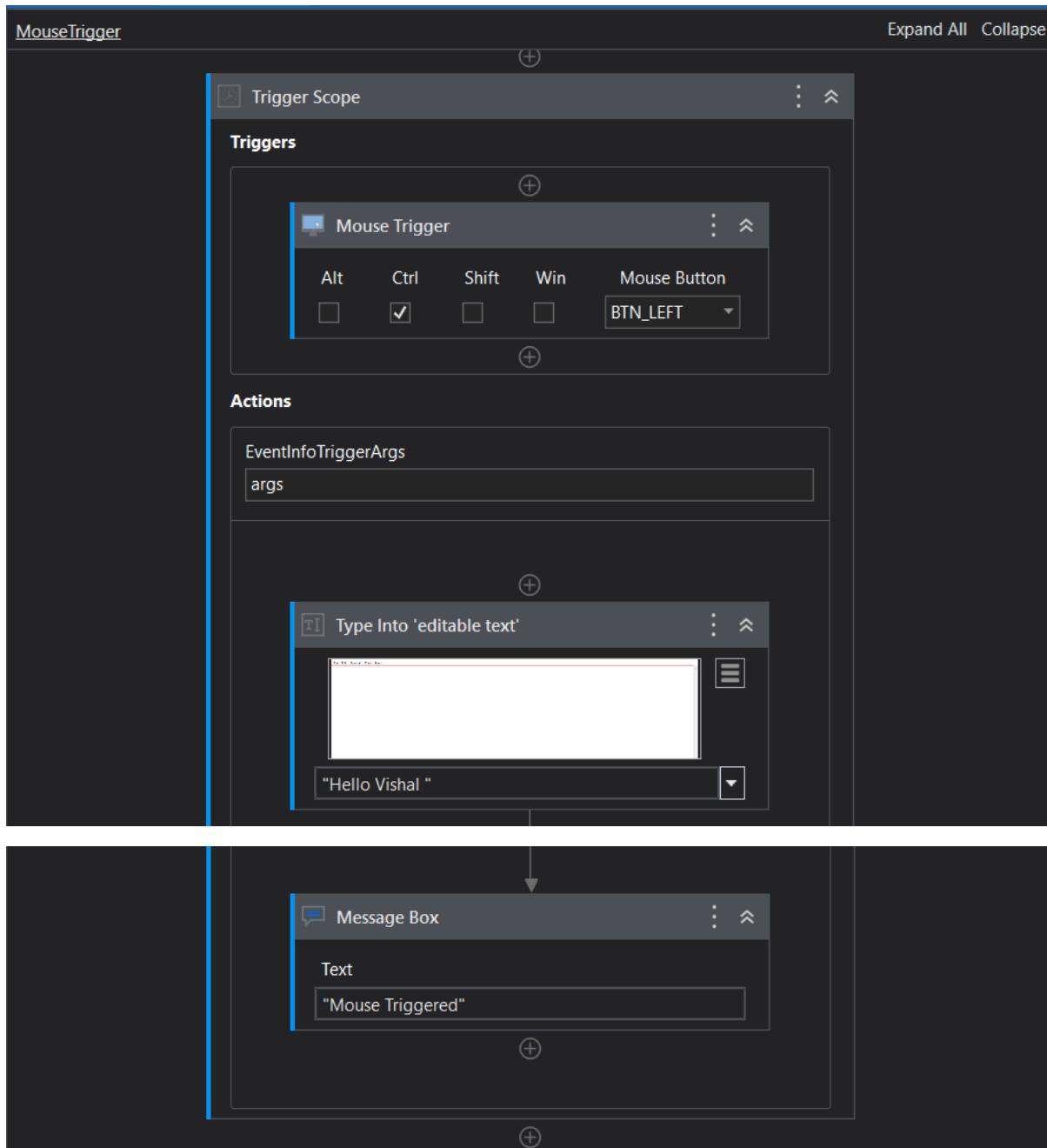
Hotkey Trigger

1. Drag and Drop the Trigger scop from the activity panel
2. Add the Hotkey Trigger inside the Trigger scope and mark on **ctrl** and select **enter** from the drop down list .
3. Add the Type Into inside the Action Section and click on the Indicate on Screen option and indicate the notepad file to type the text .
4. Drag and drop message box below the type into .
5. Now run the project and see the output .



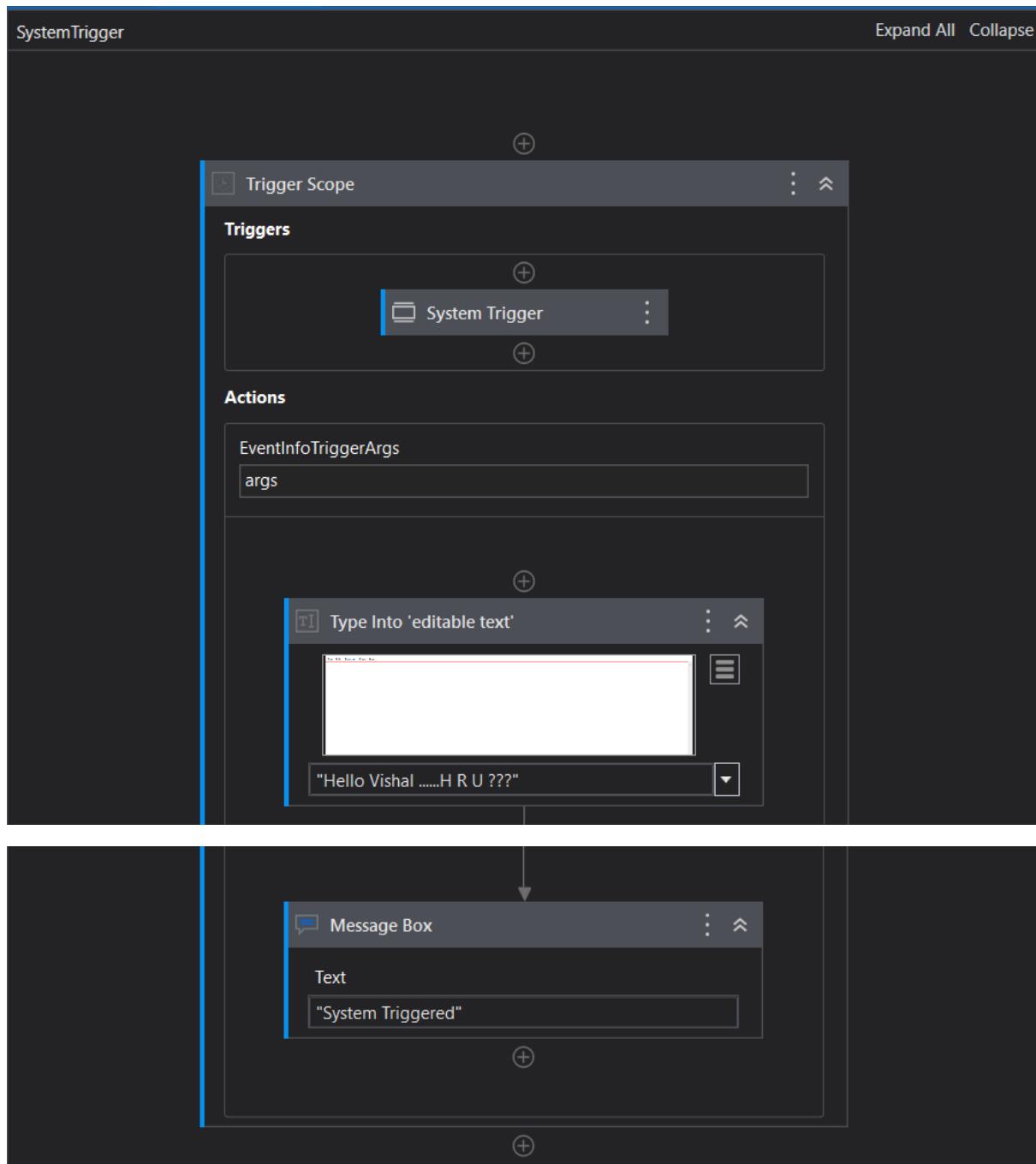
Mouse Trigger :

1. Drag and Drop the Trigger scop from the activity panel .
2. Add the **Mouse Trigger** inside the Trigger scope and mark on **ctrl** and select **BTN_LEFT** from the drop down list .
3. Add the Type Into inside the Action Section and click on the Indicate on Screen option and indicate the notepad file to type the text .
4. Drag and drop message box below the type into
5. Now run the project and see the output .



System Trigger :-

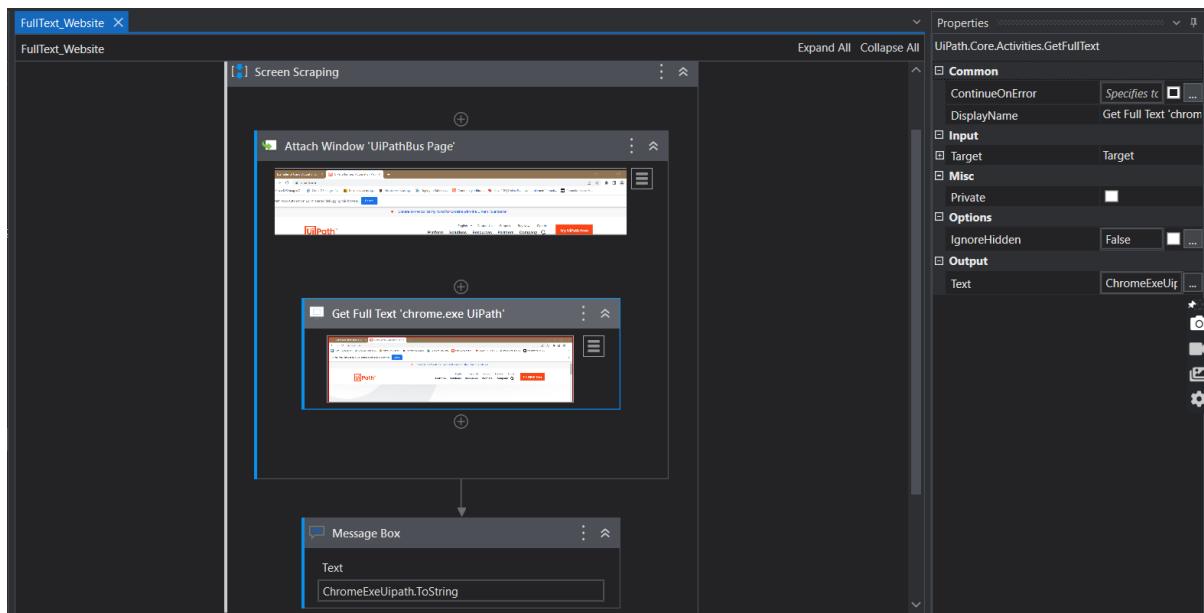
1. Drag and Drop the Trigger scop from the activity panel .
2. Add the **System Trigger** inside the Trigger scope .
3. Add the Type Into inside the Action Section and click on the Indicate on Screen option and indicate the notepad file to type the text .
4. Drag and drop message box below the type into
5. Now run the project and see the output .



B: Automate the following screen scraping methods using UiPath

1.Full Text

1. Add a sequence and give it a meaningful name.
2. Log on to the UiPath website by logging in to www.uipath.com in your browser.
3. Click on the Screen Scraping icon and locate the area from which you want to extract the information. Just choose an area on the UiPath website. A window will pop-up which would have extracted the text of the region which we specified. Click on Finish.
4. An activity called the Get Full Text would have been generated with the default String variable.
5. Just specify this variable inside the Message box activity.
6. Click on Run. A Message box will appear with the extracted information.

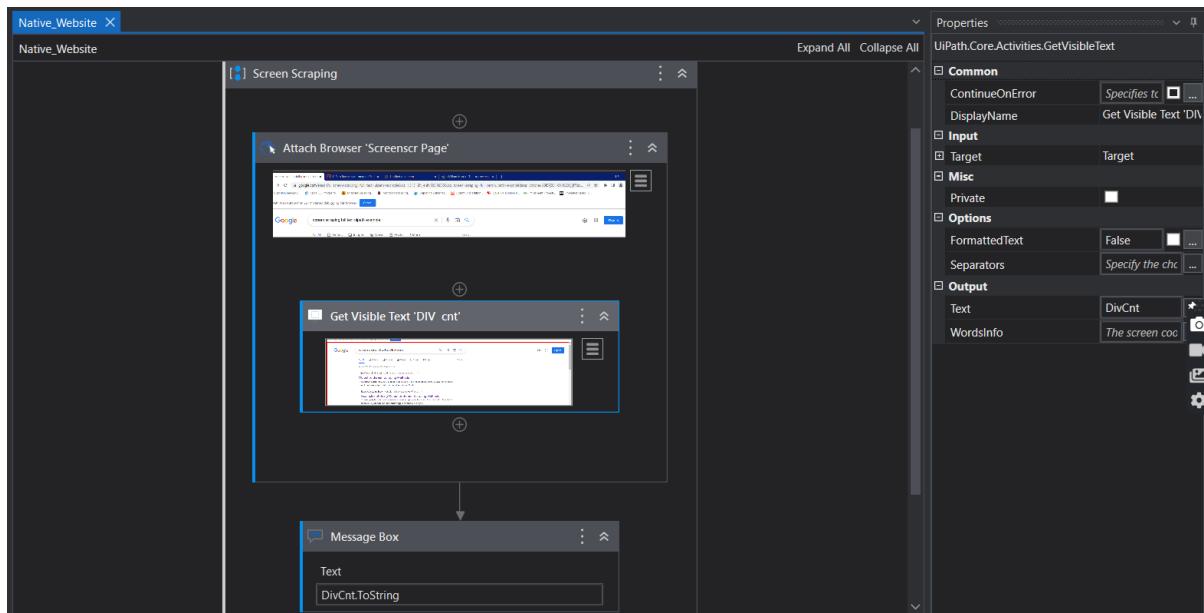


Output:

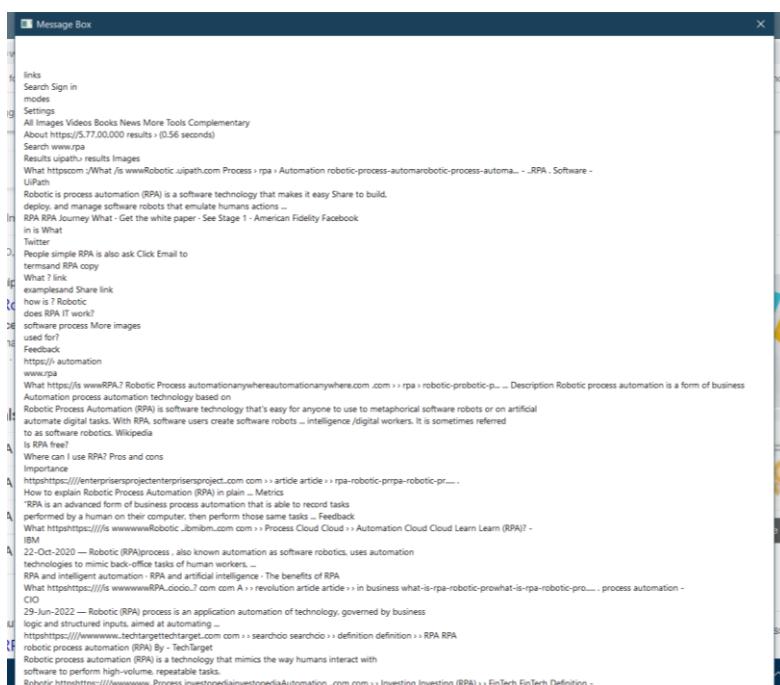


2. Native

1. Add a sequence and give it a meaningful name.
2. **Go to any random search on Google.com.**
3. Click on the Screen Scraping icon and locate the area from which you want to extract the information. A window will pop-up which would have extracted the text of the region which we specified. Click on Finish.
4. An activity called the Get Visible Text would have been generated with the default String variable.
5. Just specify this variable inside the Message box activity.
6. Click on Run. A Message box will appear with the extracted information.



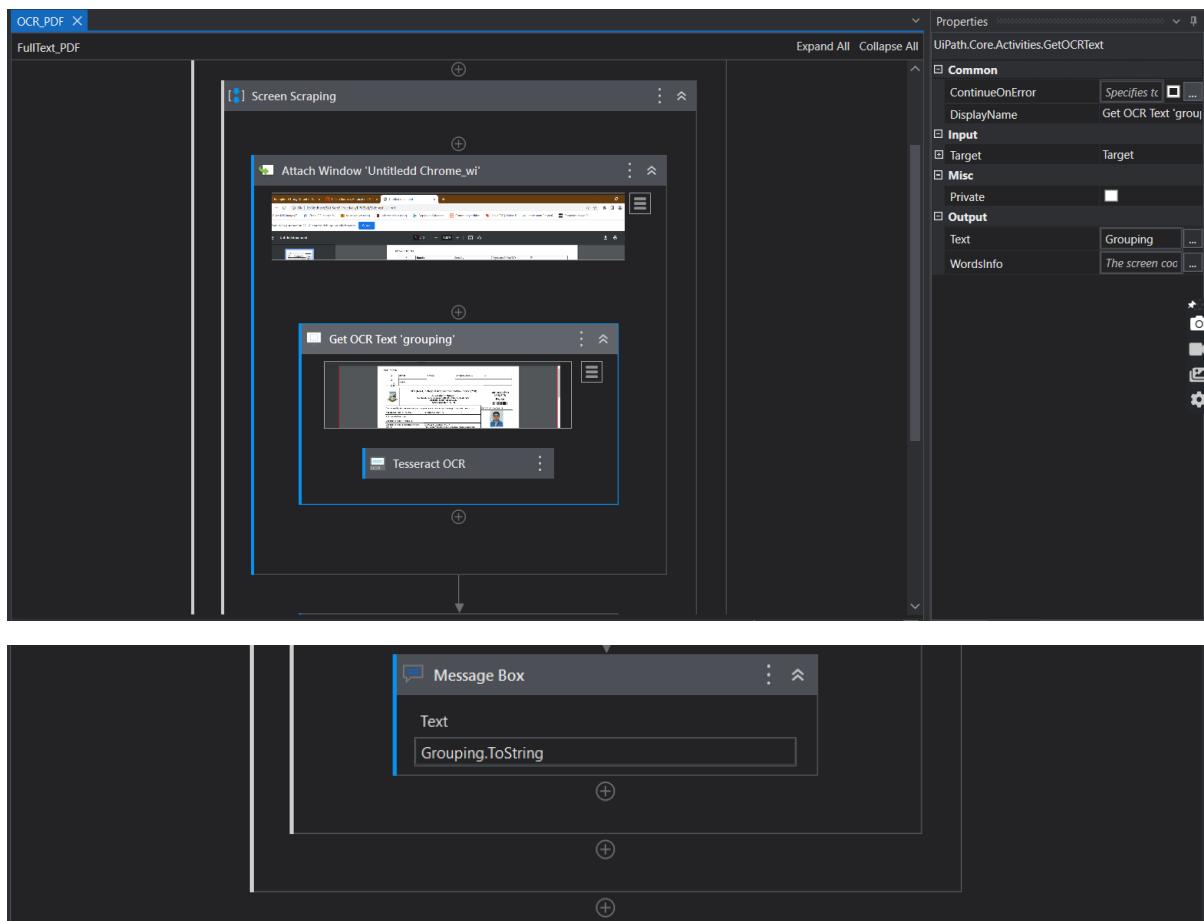
Output:



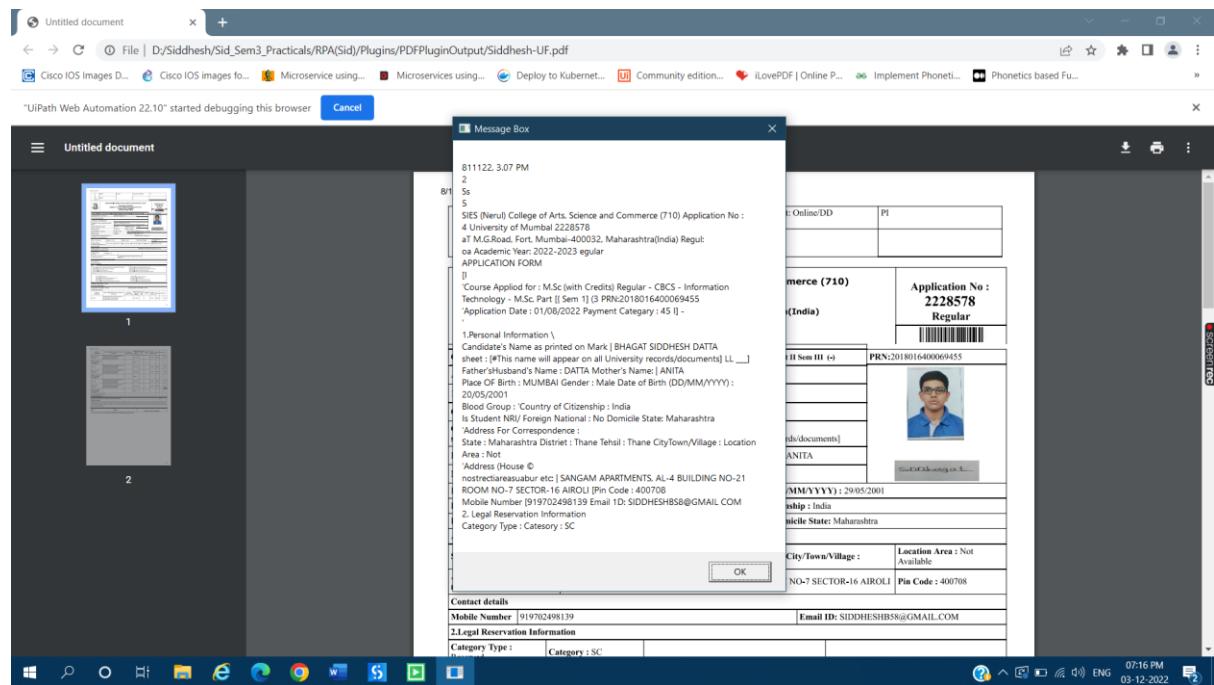
3. OCR on PDF

Here, we are going to perform **OCR** screen scraping on PDF Document.

1. Add a sequence and give it a meaningful name.
2. **Open any PDF Document.**
3. Click on the Screen Scraping icon and locate the area from which you want to extract the information. A window will pop-up which would have extracted the text of the region which we specified. Select the desired OCR Engine and Click on Finish.
4. An activity called the Get OCR Text would have been generated with the default String variable and also with the OCR Engine which we have selected during Screen scraping.
5. Just specify this variable inside the Message box activity.
6. Click on Run. A Message box will appear with the extracted information.



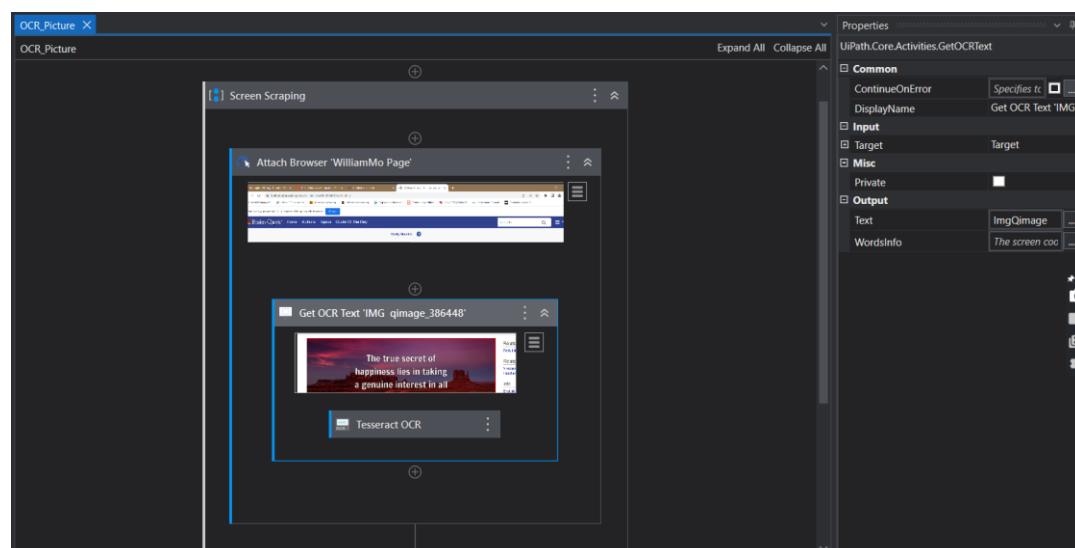
Output:

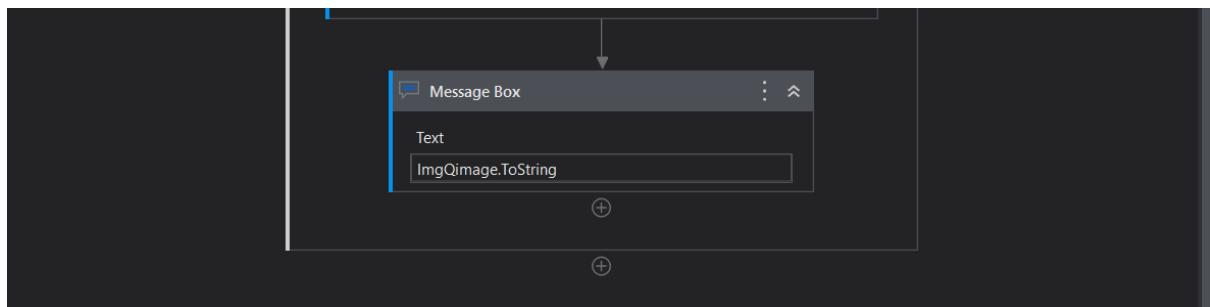


4.OCR on Picture

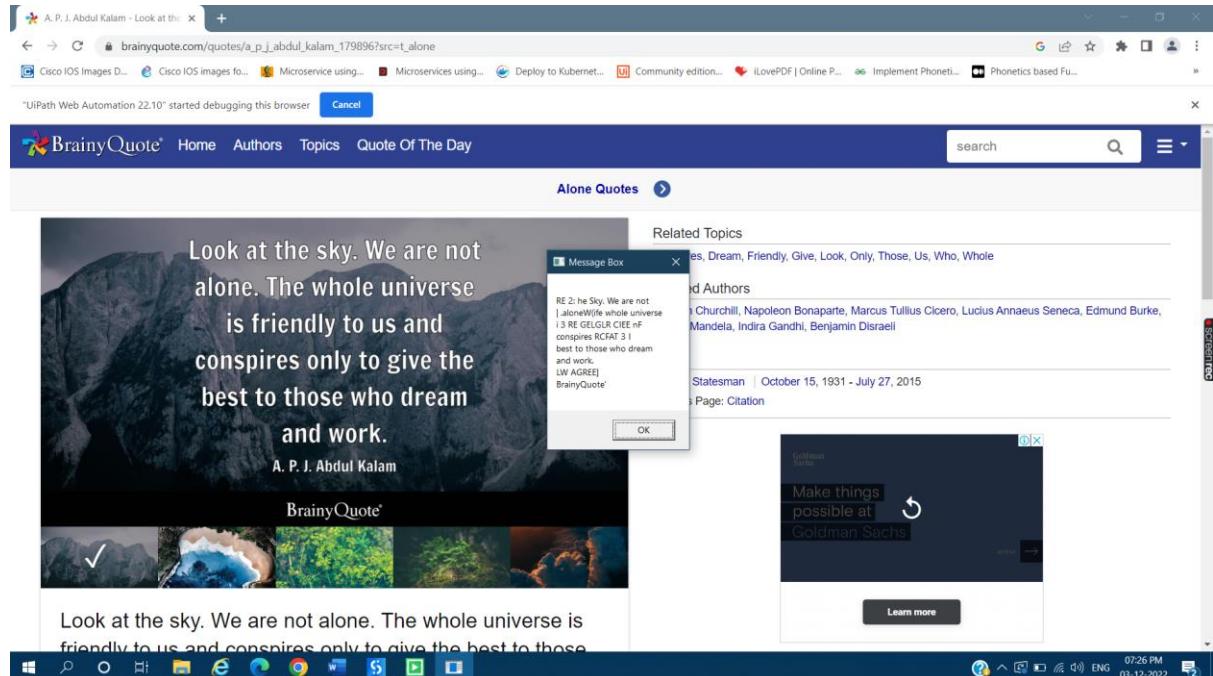
Here, we are going to do OCR Screen scraping on picture to get the information from the picture:

1. Add a sequence and give it a meaningful name.
2. Open any Picture on website or anywhere.
3. Click on the Screen Scraping icon and locate the picture from which you want to extract the information. A window will pop-up which would have extracted the text of the region which we specified. Select the desired OCR Engine and Click on Finish.
4. An activity called the Get OCR Text would have been generated with the default String variable and also with the OCR Engine which we have selected during Screen scraping.
5. Just specify this variable inside the Message box activity.
6. Click on Run. A Message box will appear with the extracted information.





Output:



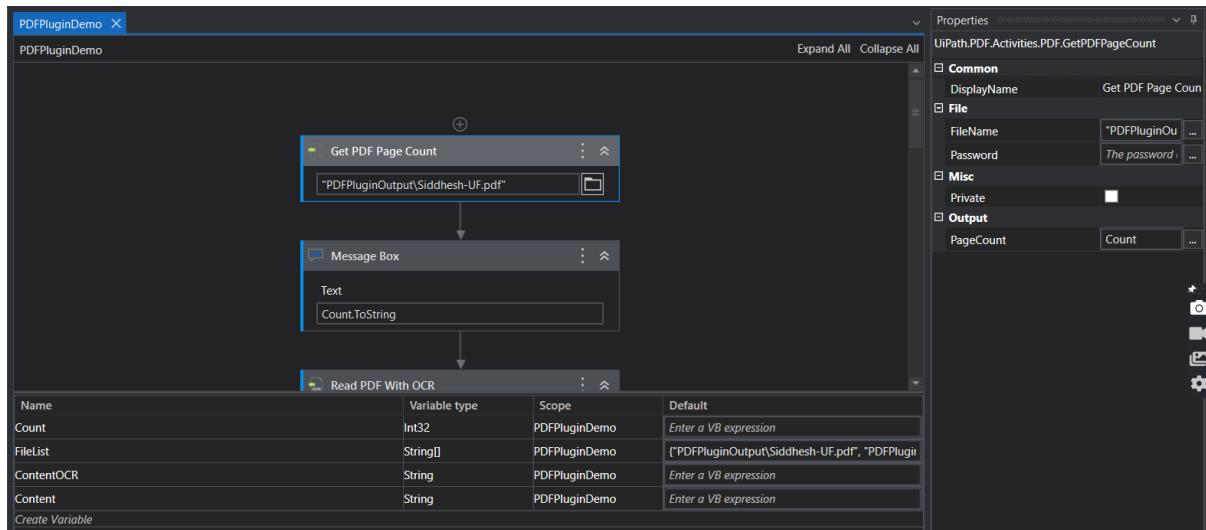
C. Install and automate any process using UiPath with the following plug-ins:

i. PDF Plugin

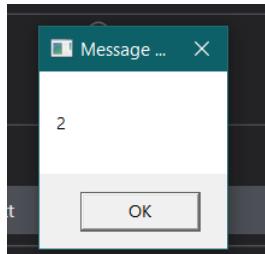
Following are the activities related to PDF Plugin:

I. Get PDF Page Count

1. Drag and drop the Get PDF Page Count activity and specify the file path of the PDF. Create its variable which by default made up of *Integer* type.
2. Specify this variable inside the Message box activity.
3. Click Run and you will get the number of pages of the specified PDF Document.

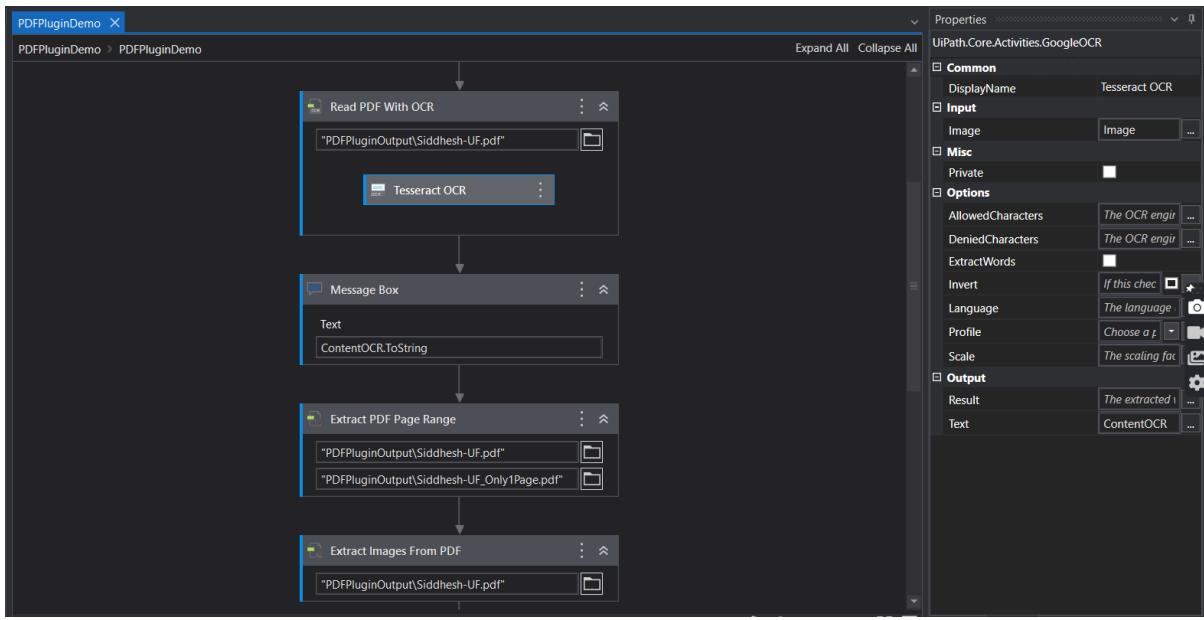


OUTPUT:-



II. Read PDF With OCR

1. Drag and drop the Read PDF With OCR activity and specify the path of the PDF file.
 2. Drag and drop the OCR Engine of type **Tesseract OCR** inside the Read PDF With OCR activity.
 3. Create the variable for the Tesseract OCR activity for the Text property of it.
 4. Specify this variable inside the Message box activity.
1. Click Run and you will get all the data present inside specified PDF File in the Message box.

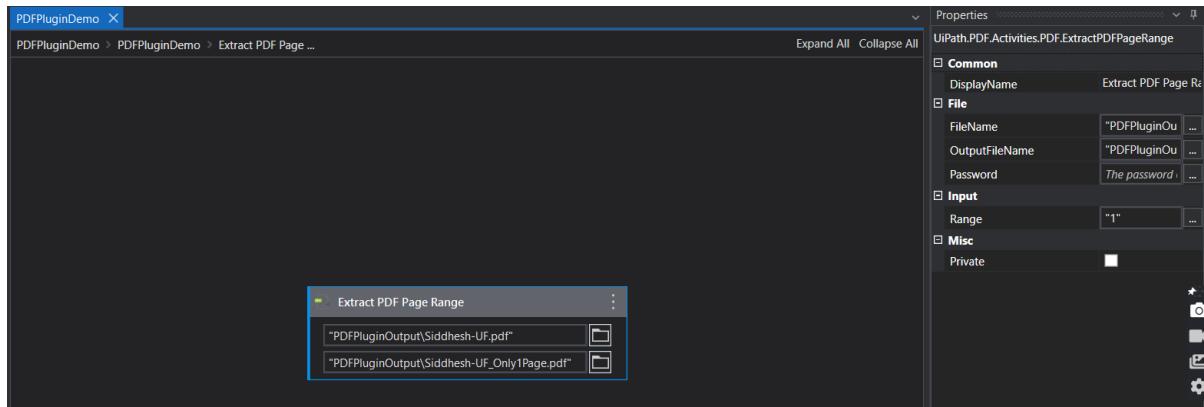


OUTPUT:-



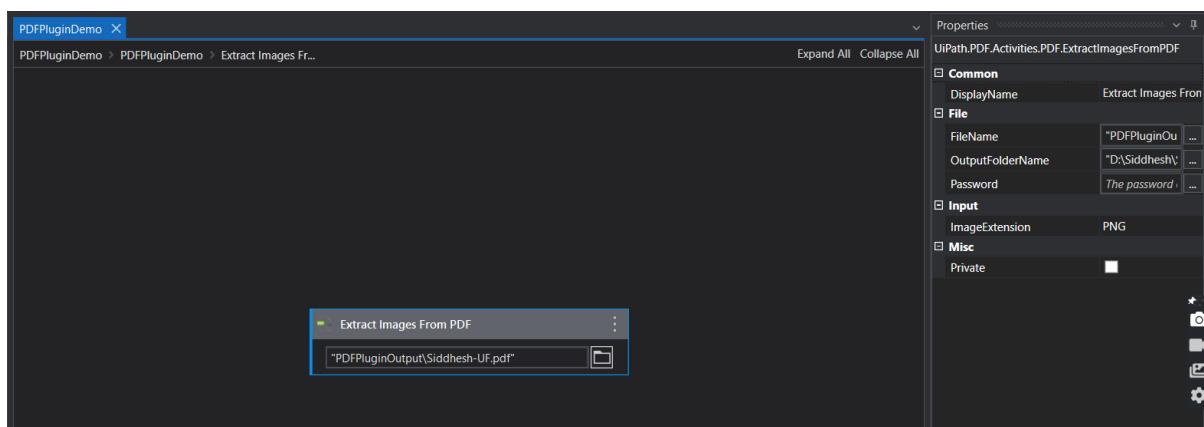
III. Extract PDF Page Range

1. Drag and drop the Extract PDF Page Range activity and specify the file path of PDF Document inside **FileName** property.
2. Now, we will give the name to our Extracted PDF Page range file with its path inside **OutputFileName** property. We will also specify the Range of pages we want in the Range property.
3. Click Run and you will find your specified range of pages PDF in specified Path.



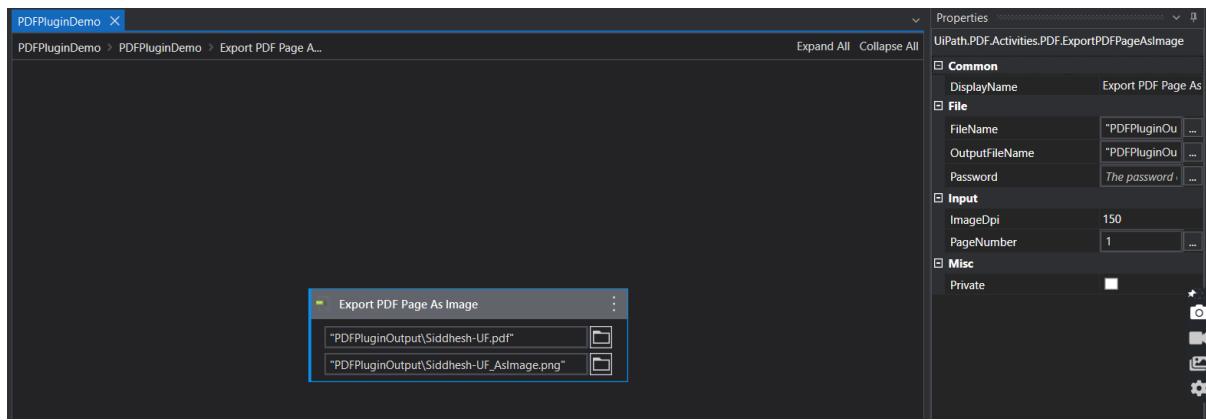
IV. Extract Images From PDF

1. Drag and drop the Extract Images from PDF activity and specify path of the PDF File inside **FileName** property.
2. Next, specify path for the **OutputFolderName** inside property panel. In this path your extracted images from PDF will get generated.
3. Click Run and you will find extracted images from PDF inside your specified path.



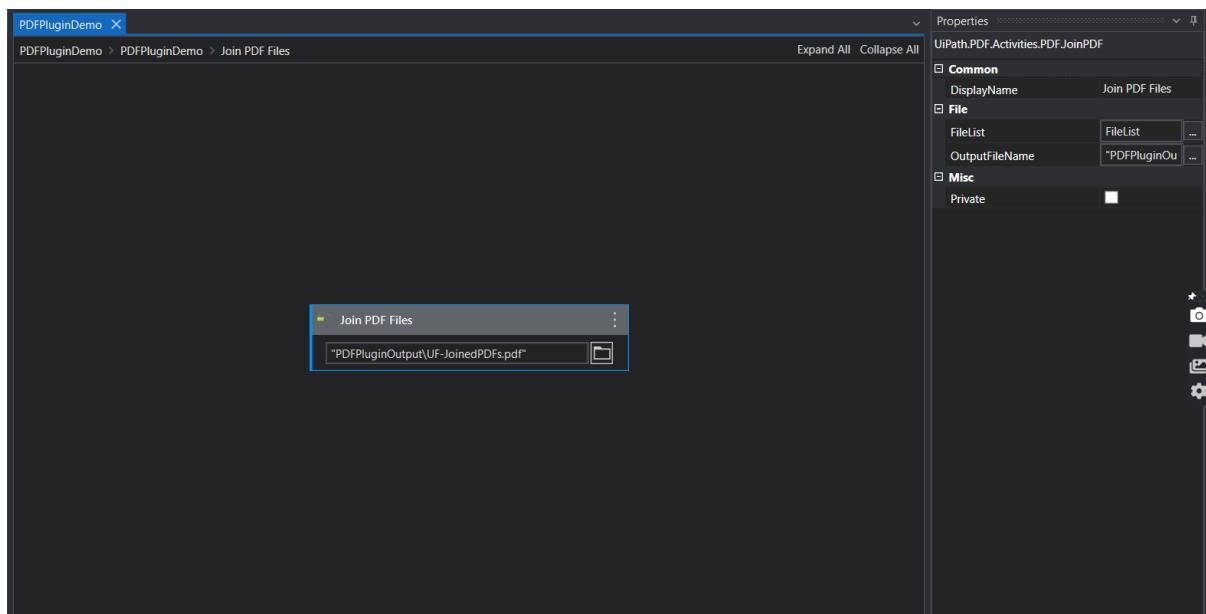
V. Export PDF Page As Image

1. Drag and drop the Export PDF Page As Image activity and specify path of the file inside **FileName** property.
2. Specify path and name of the image inside **OutputFileName** property.
3. Specify the number of page which we want as Image inside **PageNumber** property.
4. Click Run and you will find image of PDF page you specified earlier.



VI. Join PDF Files

1. Drag and drop the Join PDF Files activity inside a sequence.
2. Create a variable of type **String [] Array** which will contain paths of two or more pdf files with their filenames and specify this variable inside **FileList** property.
3. Specify path and name for the Joined PDF File inside **OutputFileName** property.
4. Click Run and you will find the Joined PDF File inside specified path earlier.



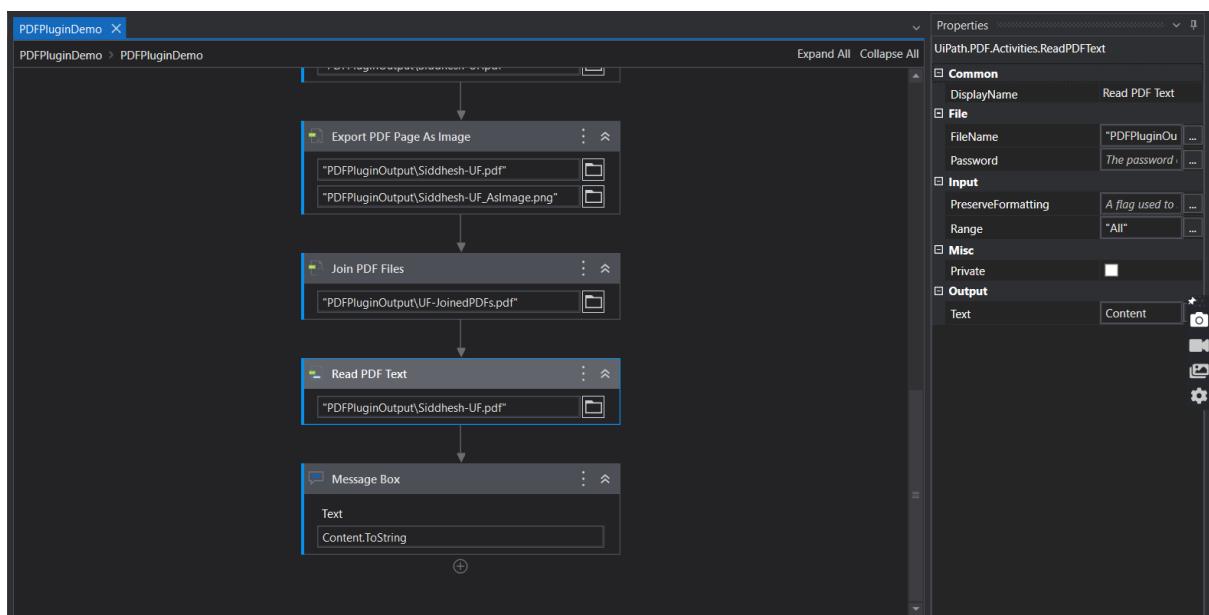
OUTPUT:-

This PC > PERSONAL (D:) > Siddhesh > Sid_Sem3_Practicals > RPA(Sid) > Plugins > PDFPluginOutput				
	Name	Date modified	Type	Size
7	OutputImg	24-11-2022 09:00 PM	File folder	
	Avinash-UF	01-08-2022 03:05 PM	Microsoft Edge PD...	640 KB
	Siddhesh-UF	22-11-2022 10:01 PM	Microsoft Edge PD...	725 KB
	Siddhesh-UF_Aslimage	24-11-2022 09:04 PM	PNG File	243 KB
	Siddhesh-UF_Only1Page	24-11-2022 09:00 PM	Microsoft Edge PD...	440 KB
	UF-JoinedPDFs	24-11-2022 09:12 PM	Microsoft Edge PD...	1,364 KB

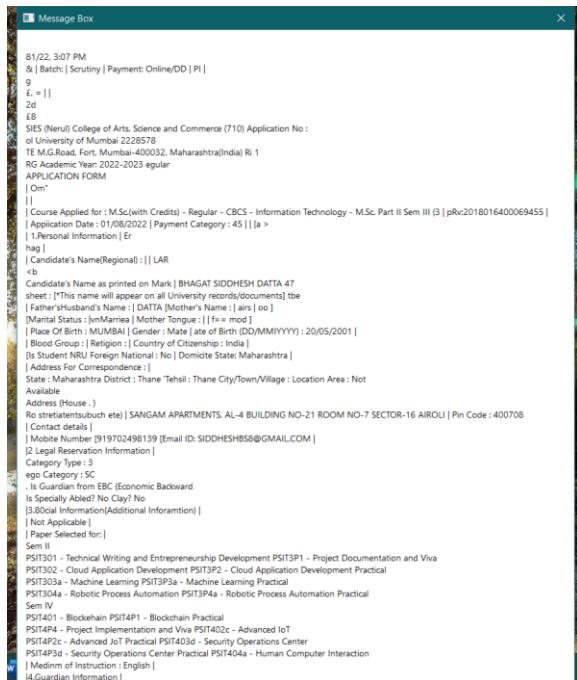


VII. Read PDF Text

1. Drag and drop the Read PDF Text activity and specify the path of the PDF file.
2. Create the variable for the Text property of it.
3. Specify this variable inside the Message box activity.
4. Click Run and you will get all the data present inside specified PDF File in the Message box.



Output:



ii. Excel Plugin

Note: While we are working with Excel Plugin related activities, we must specify all its activities inside **Excel Application Scope** with path of the Excel Document on which we want to perform automation or else they will give error.

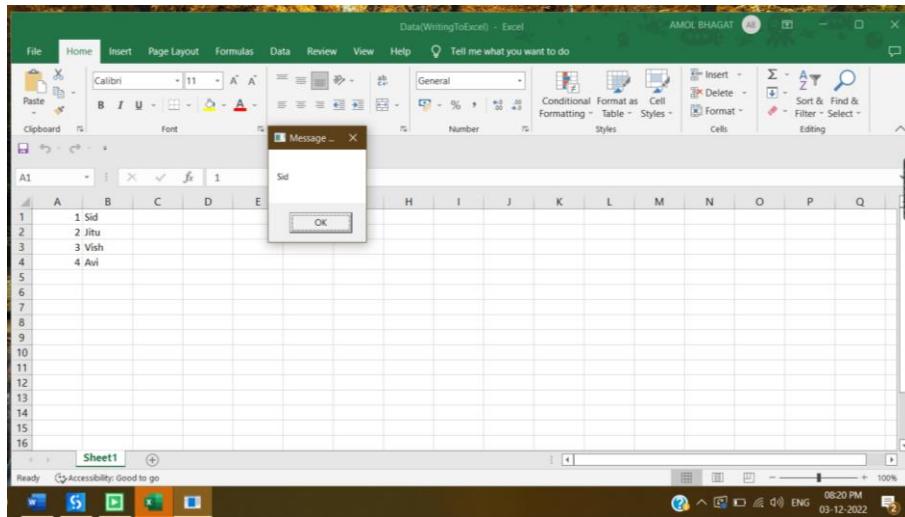
Following are the activities related to Excel Plugin:

I. Read Cell

1. Drag and drop the Read cell activity and specify the SheetName and Cell value inside property panel. Create its variable which will be By default of type String.
2. Specify this variable inside the Message box activity.
3. Click Run and you will get the value of specified cell inside the Message box.

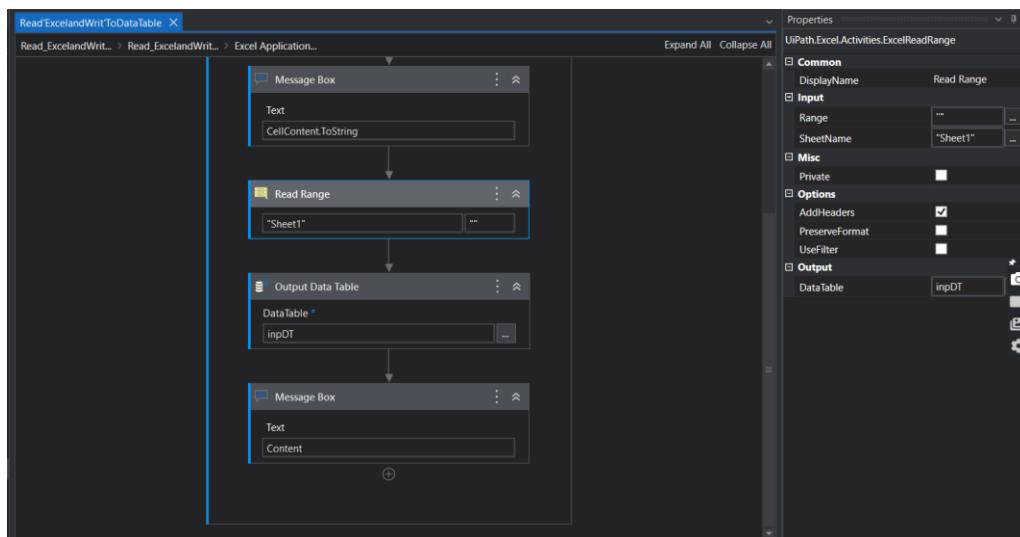
Name	Variable type	Scope	Default
inptDT	DataTable	Do	Enter a VB expression
Content	String	Do	Enter a VB expression
CellContent	String	Do	Enter a VB expression
Create Variable			

OUTPUT:-

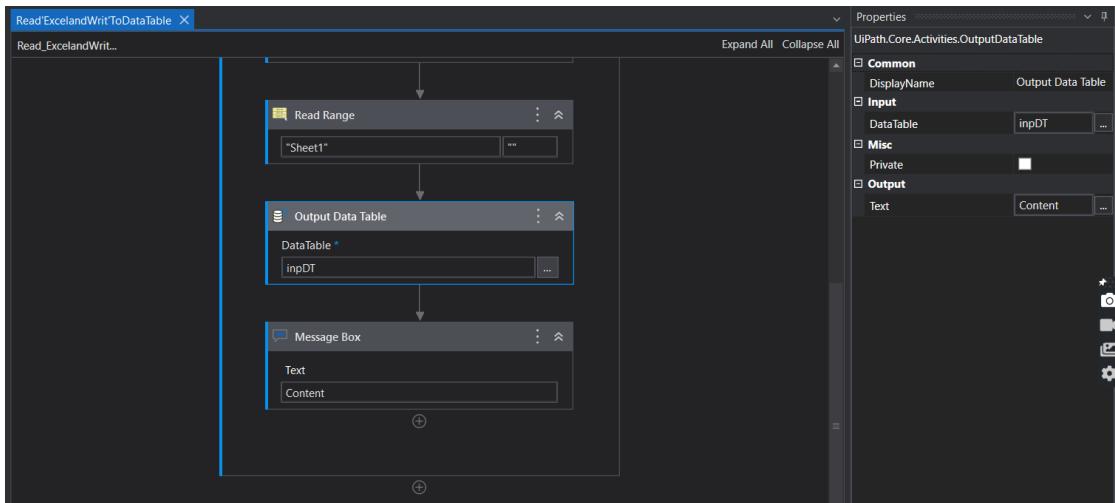


II. Read Range

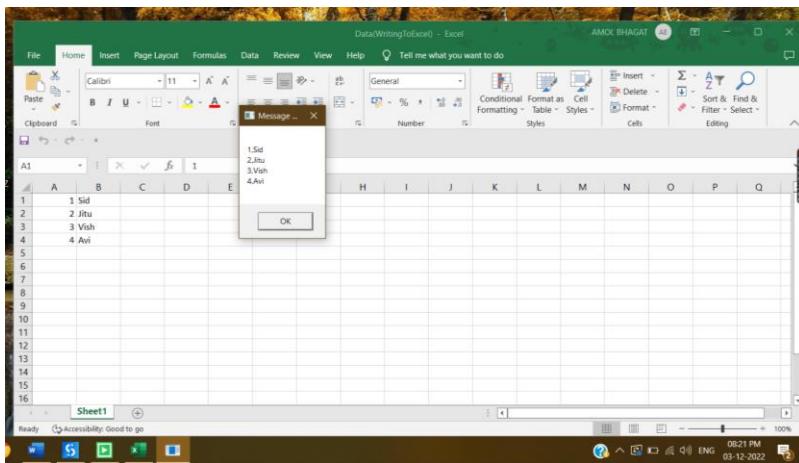
1. Drag and drop the Read Range activity. Specify the SheetName and Range inside property panel. To read all the data we will keep the Range properties value empty with the **Double Quotes**. Create the variable for it which will be by default of type **DataTable**.



2. Now, Drag and drop the **Output Data Table** activity. Specify the variable of Read Range activity inside **Input** property of Output Data Table. Now, Create the variable for Text property inside Output to convert the DataTable data into string.
3. Specify the Output variable inside the Message box activity.
4. Click Run and you will see data of specified excel file gets read and appears on the Message Box.



OUTPUT:-



III. Write Cell

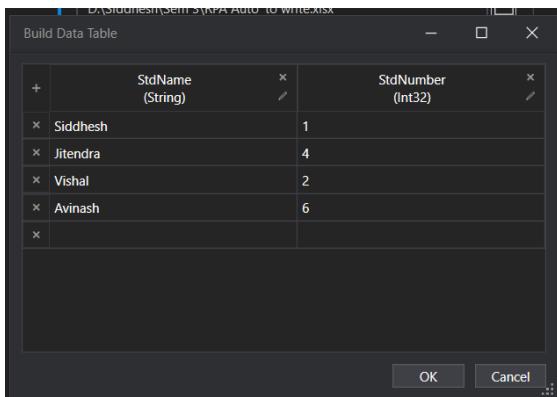
1. Drag and drop the Write Cell activity. Specify the SheetName, Call Value i.e. on which cell you want to write and Value i.e. the desirable String inside property panel.
2. Click Run and you will see data gets written on specified excel document and on specified cell.

OUTPUT:-

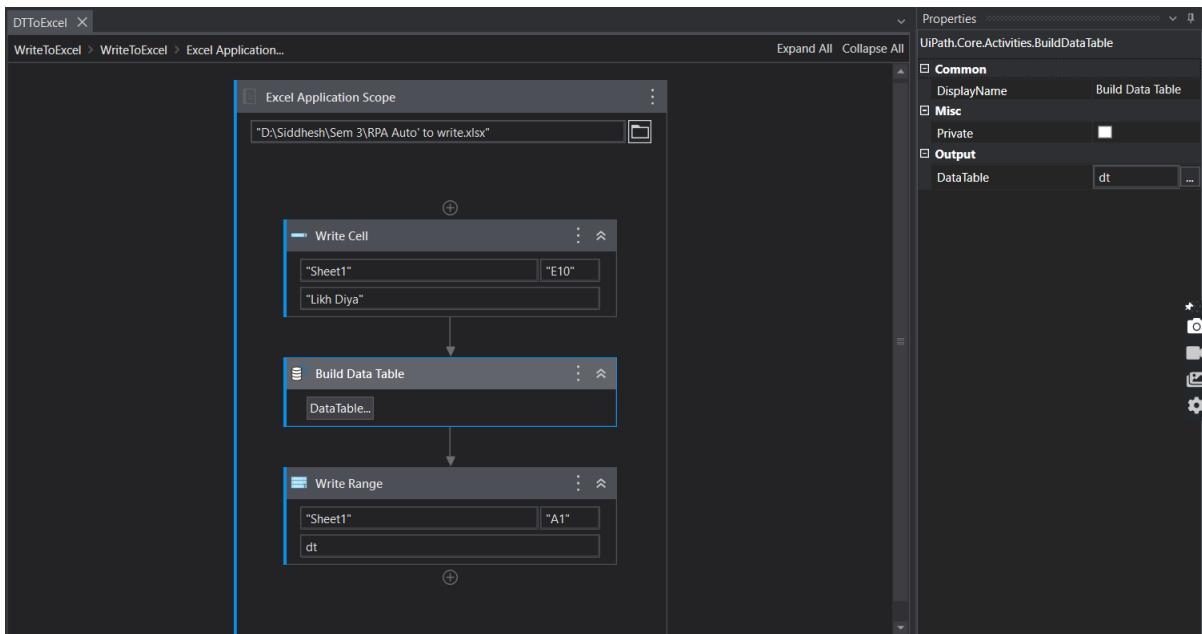


IV. Write Range

1. Drag and drop the Build Data Table activity and write some content inside it. Create its variable which will be by default of type **DataTable**.



2. Drag and drop the Write Range activity. Specify the SheetName, Cell Range and variable of **DataTable** of Build Data Table inside property panel.
3. Click Run and you will see data of data table gets written on specified excel document.



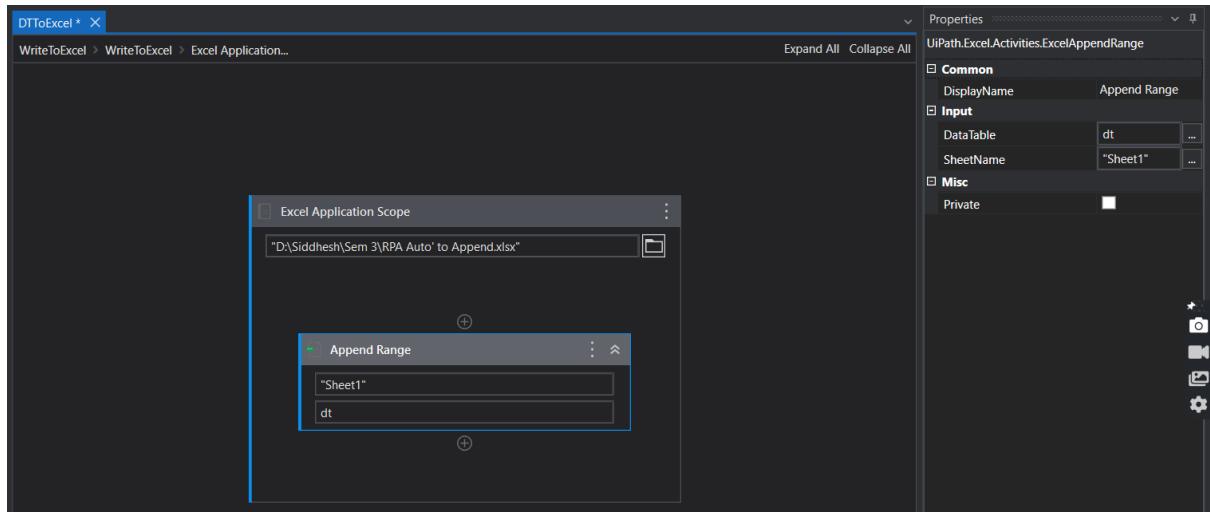
OUTPUT:-

	A	B	C	D	E
1	Siddhesh	1			
2	Jitendra	4			
3	Vishal	2			
4	Avinash	6			
5					
6					
7					
8					

V. Append Range

1. Drag and drop the Excel Application Scope activity and specify path of the excel file.
2. Drag and drop the Append Range activity inside Excel Application Scope.

3. We will use the Data Table from the previous Write Range activity and Append it to the Excel File specified inside this Excel Application Scope.
4. Specify the SheetName and variable of DataTable inside property panel,
5. Click Run and you will see the data of DataTable gets appended to the specified excel document path in the Excel Application Scope.



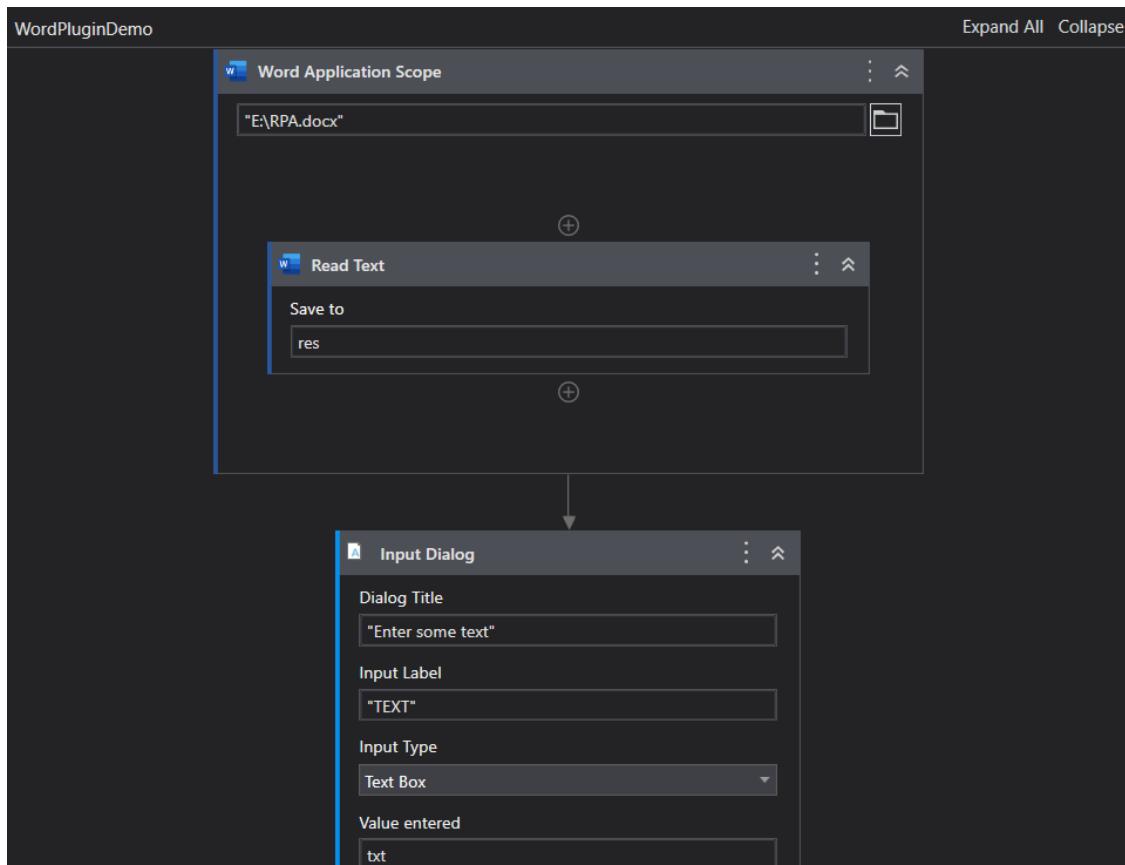
OUTPUT:-

A screenshot of Microsoft Excel showing a table with data. The table has columns A and B. The data is as follows:

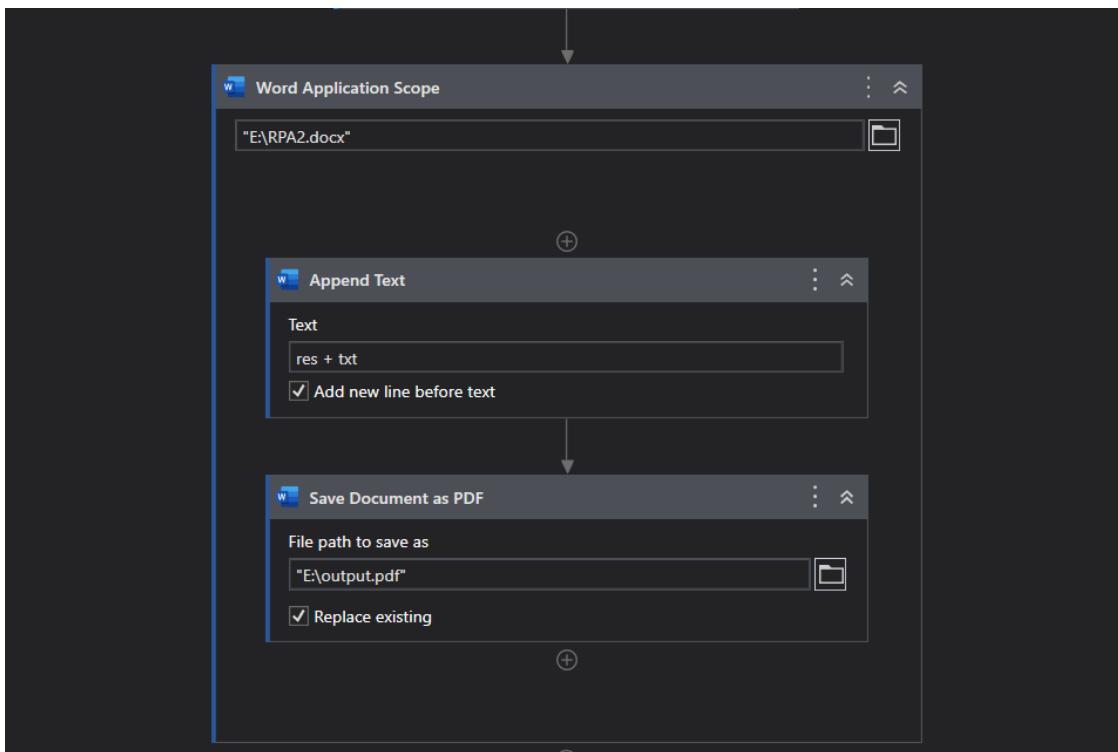
	A	B
1	Siddhesh	1
2	Jitendra	4
3	Vishal	2
4	Avinash	6
5		
6		
7		

iii. Word Plugin

1. Drag and Drop the Word Application Scope and provide the path of word document .
2. Create the variable of string type “res” .
3. Add the Read Text Word Activity and provide the variable name here .
4. Now Add the Input Dialog box activity outside the word application scope and fillout the field & select the Text Box from the Input type section .
5. Create the Variable of string type in the property section of Input Dialog box “txt”

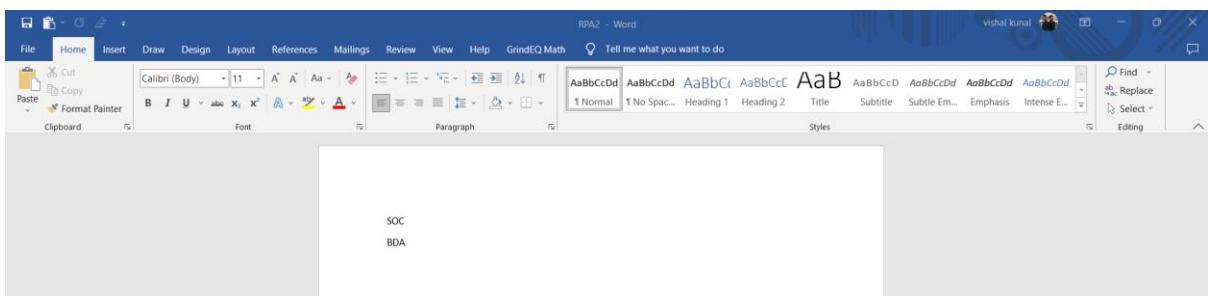
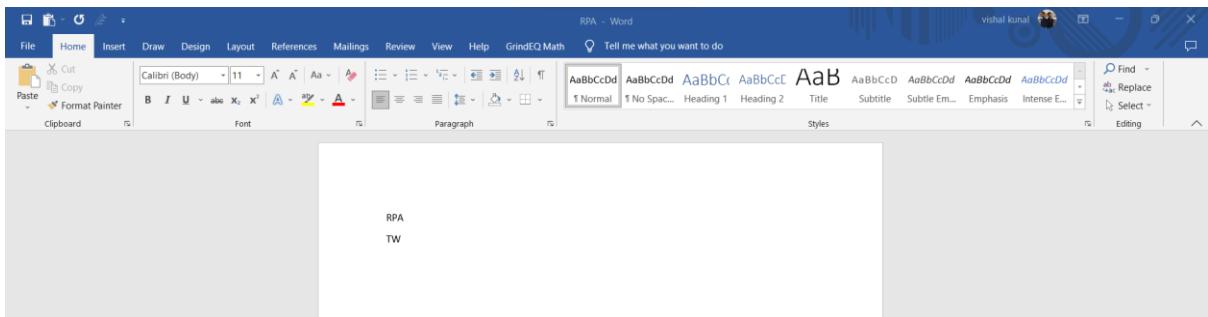


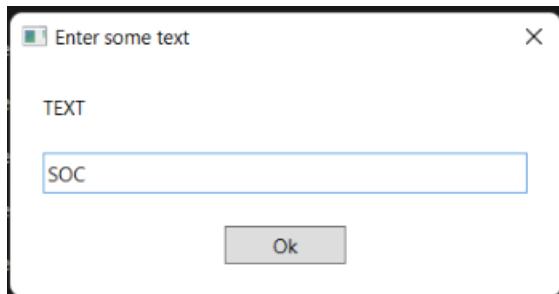
6. Now Drag and Drop the another Word Application Scope below the Input Dialog box activity and provide the path of word document to save the content of first word document .
7. Add the Append Text Activity and type both the variable “ res + txt ” mark on the below check box .
8. Add the Save document as PDF activity and provide the path for saving the output also mark the below check box
9. Run the project to see the output .



Name	Variable type	Scope	Default
txt	String	WordPluginDemo	Enter a VB expression
res	String	WordPluginDemo	Enter a VB expression
<i>Create Variable</i>			

OUTPUT :-





Sanet.st_Learning_R * Practical List.pdf output.pdf

File | E:/output.pdf

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1 of 1

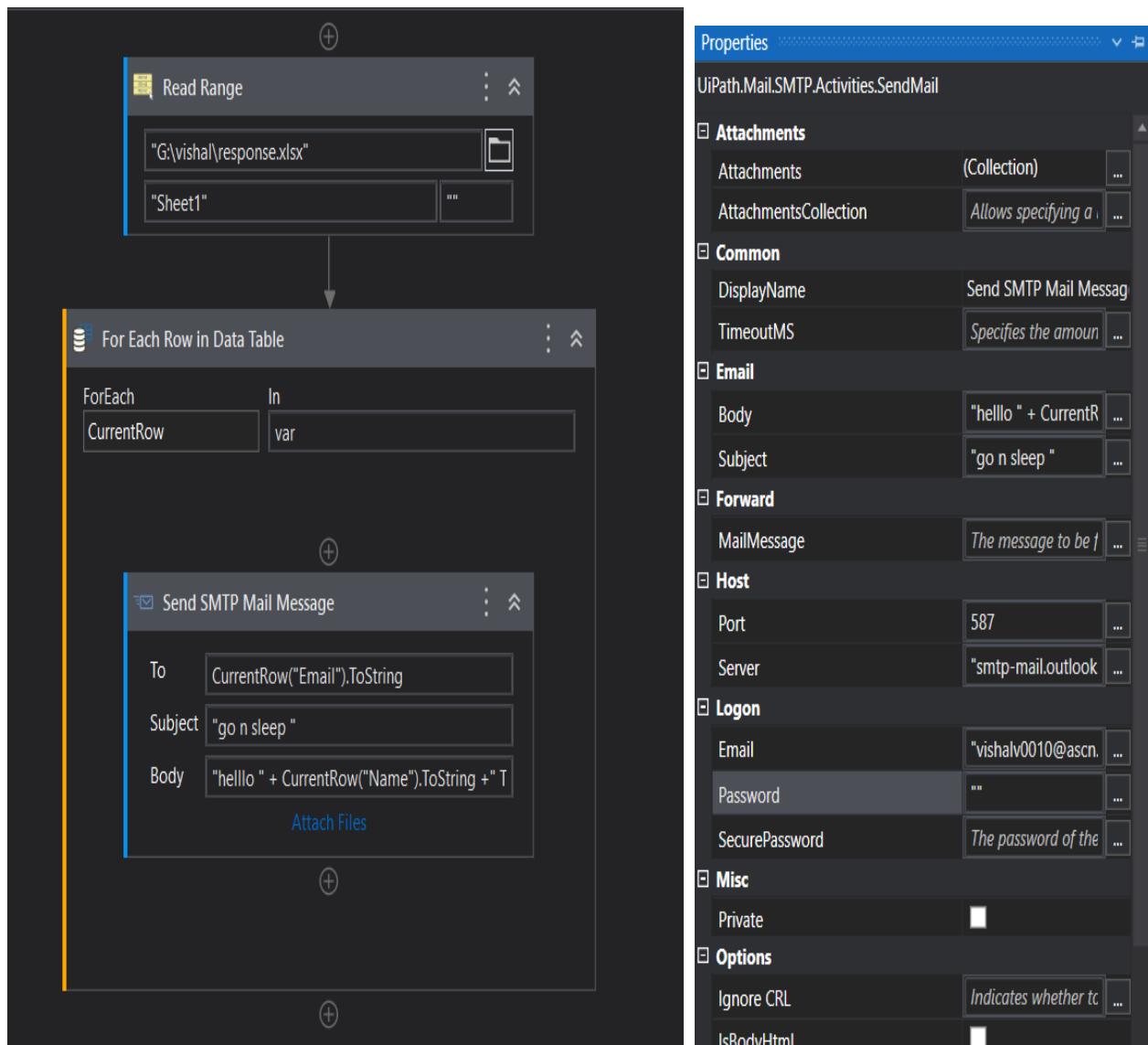
SOC
BDA
RPA
TW
SOC

Practical No : 9

A. Automate the process of send mail event (on any email).

STEPS :-

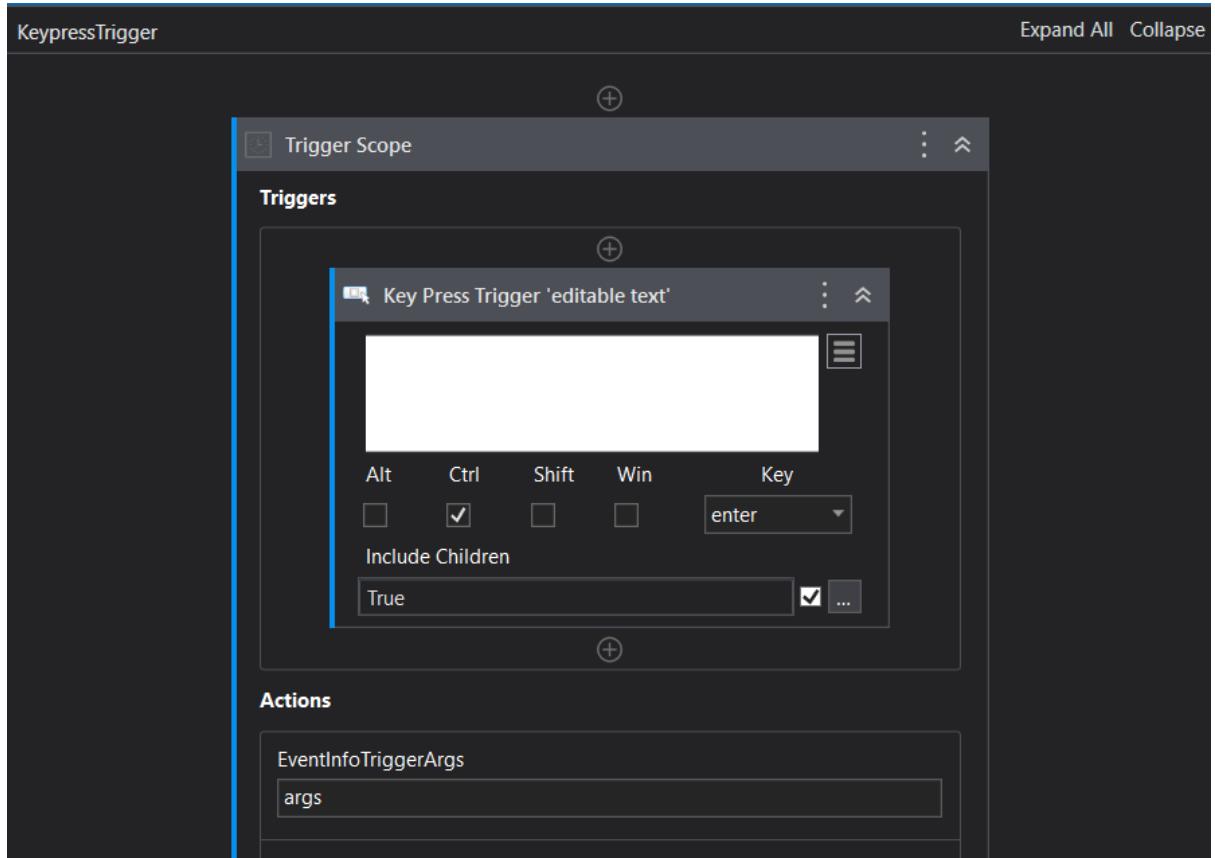
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.
2. Drag and Drop the read range activity and give the path to read the excel file
3. Create the variable of for the datatable “var” .
4. Now drag and drop the for each row in data table activity below the read range activity and provide the variable name you have created .
5. Add Send SMTP Mail Message Activity enter the recipient email, subject and body of the email to be sent.
6. Enter smtp port number in port attribute of Host and the hostname in server field. Enter the email and password of the sender in the Logon email and password.
7. Run the project and see the output .



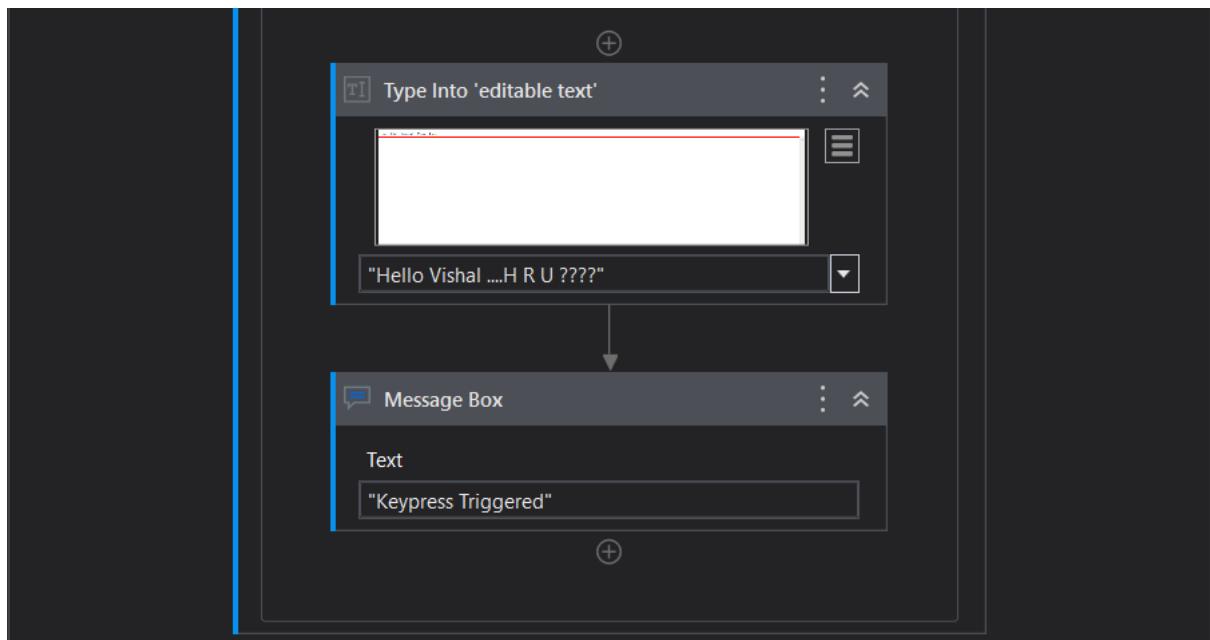
Name	Variable type	Scope	Default
var	DataTable	9A	Enter a VB expression
Create Variable			

B. Automate the process of launching an assistant bot on a keyboard event.

1. Drag and Drop the Trigger scop from the activity panel .
2. Add the **Key Press Trigger** inside the Trigger scope and mark on **ctrl** and select **ENTER** from the drop down list .



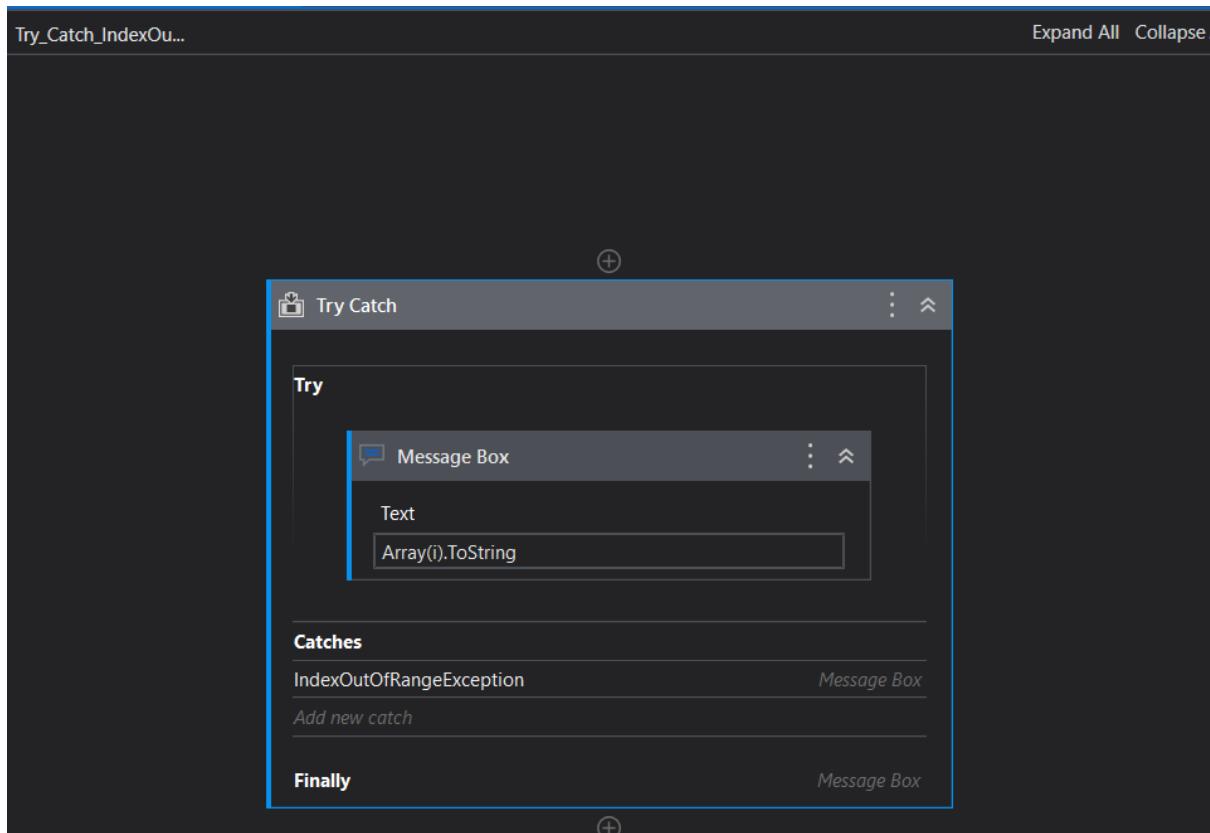
3. Add the Type Into inside the Action Section and click on the Indicate on Screen option and indicate the notepad file to type the text .
4. Drag and drop message box below the type into
5. Now run the project and see the output .



C. Demonstrate the Exception handing in UiPath.

STEPS :-

1. Create new project: Open UiPath and create new project by clicking on “Process” option at the right side of the window. And open a sequence
2. Create a two Variable name array of array type in32 and “i” of integer
3. Select Activity Try Catch from Activities and Insert sequence in it.
4. Now drag and drop the message box inside the try catch activity and type the array variable you have created .



5. Select the IndexOutOfRangeException in the catch block
6. Add a WriteLine Activity in the Catch Block and in Finally section
7. Run the project and see the output .

The screenshot displays three parts of the UiPath interface. On the left, the 'Catches' section of the Try Catch activity shows an 'IndexOutOfRangeException' catch block with a 'Message Box' activity displaying 'exception.ToString'. In the center, the 'Finally' section shows a 'Message Box' activity with the text 'Exception Handle'. At the bottom, a table lists variables: 'Array' (Int32[]) with scope 'Try Catch' and default '{}'; and 'i' (Int32) with scope 'Try Catch' and default '-1'. A 'Create Variable' button is also visible.

Name	Variable type	Scope	Default
Array	Int32[]	Try Catch	{}
i	Int32	Try Catch	-1

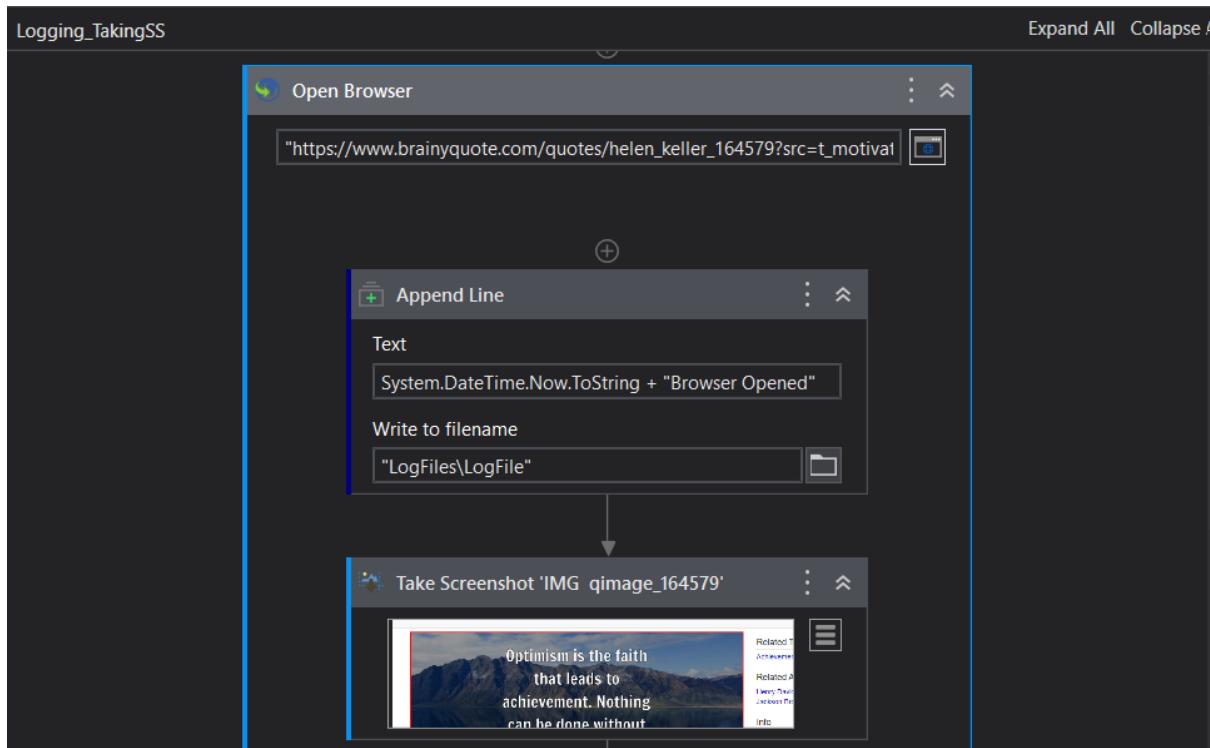
Output :-



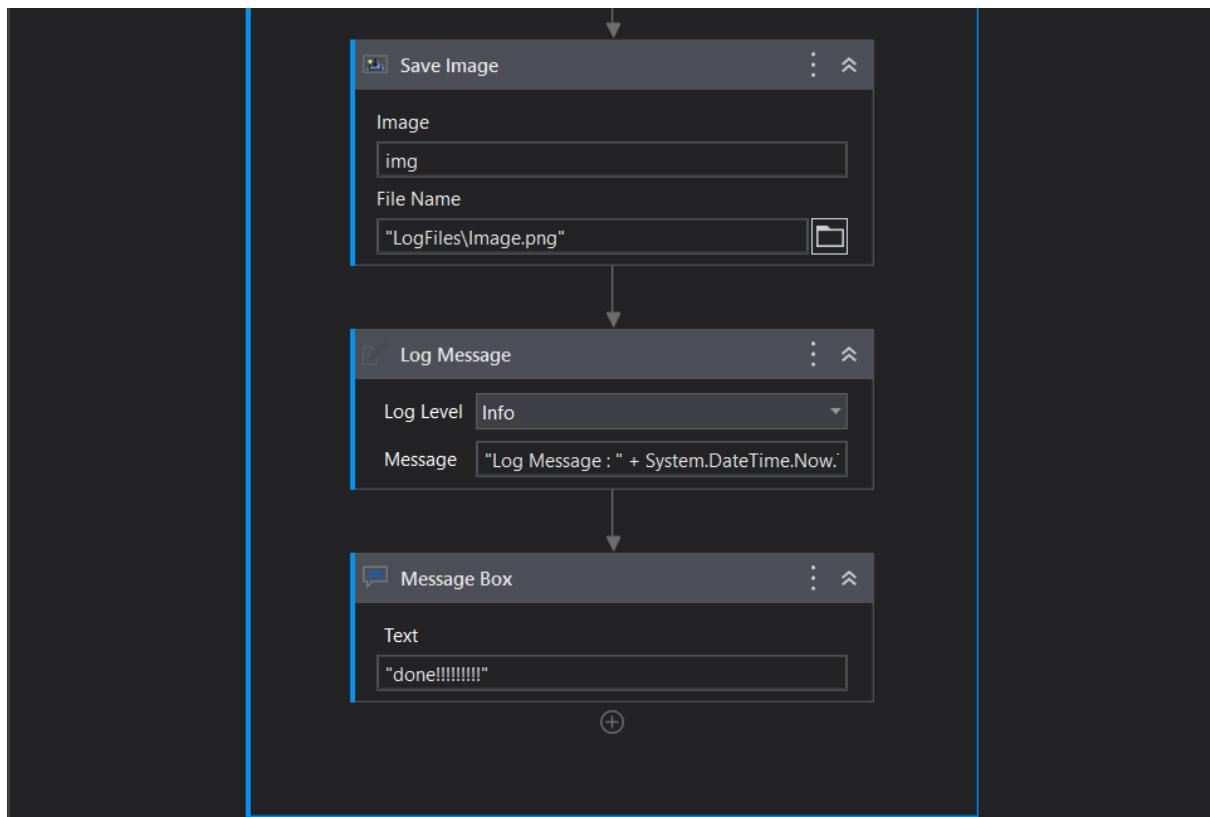
Practical No : 10

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

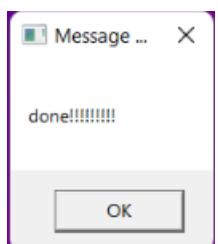
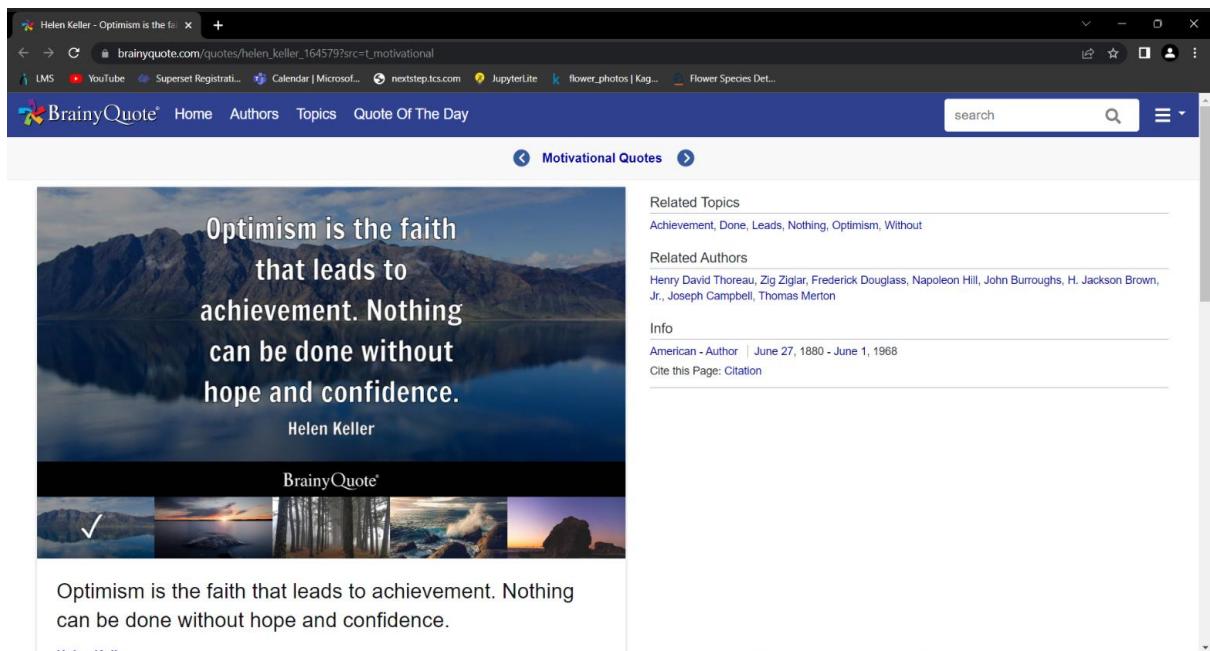
1. Select the sequence and give meaningful name
2. Drag and Drop the open browser inside the sequence activity and insert the URL .
3. Add the Append Line and provide the text you need print .
4. Drag and drop the Take Screenshot Activity and click on indicate on screen and indicate the photo you want capture .
5. Also create the variable for Take Screenshot Activity in the property section of take screenshot . "img"



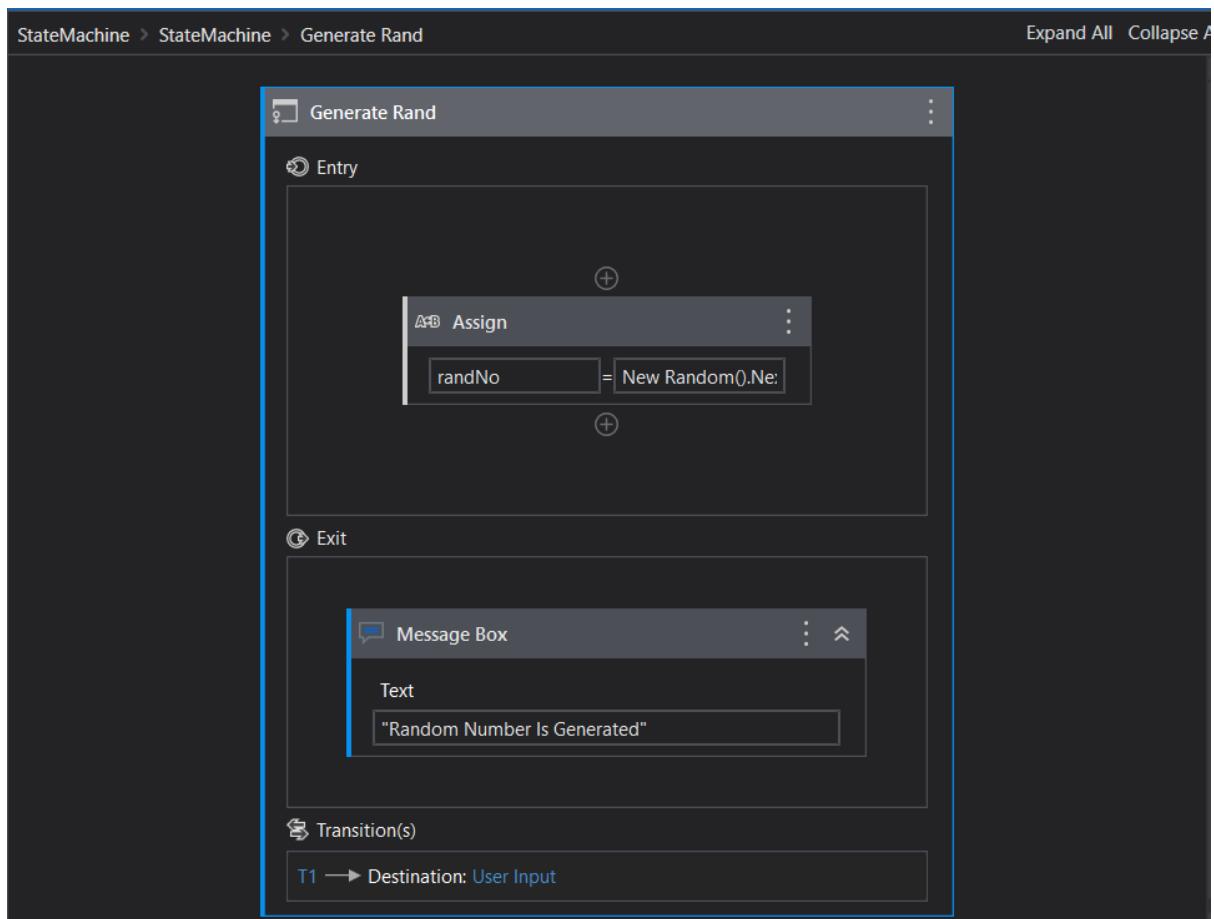
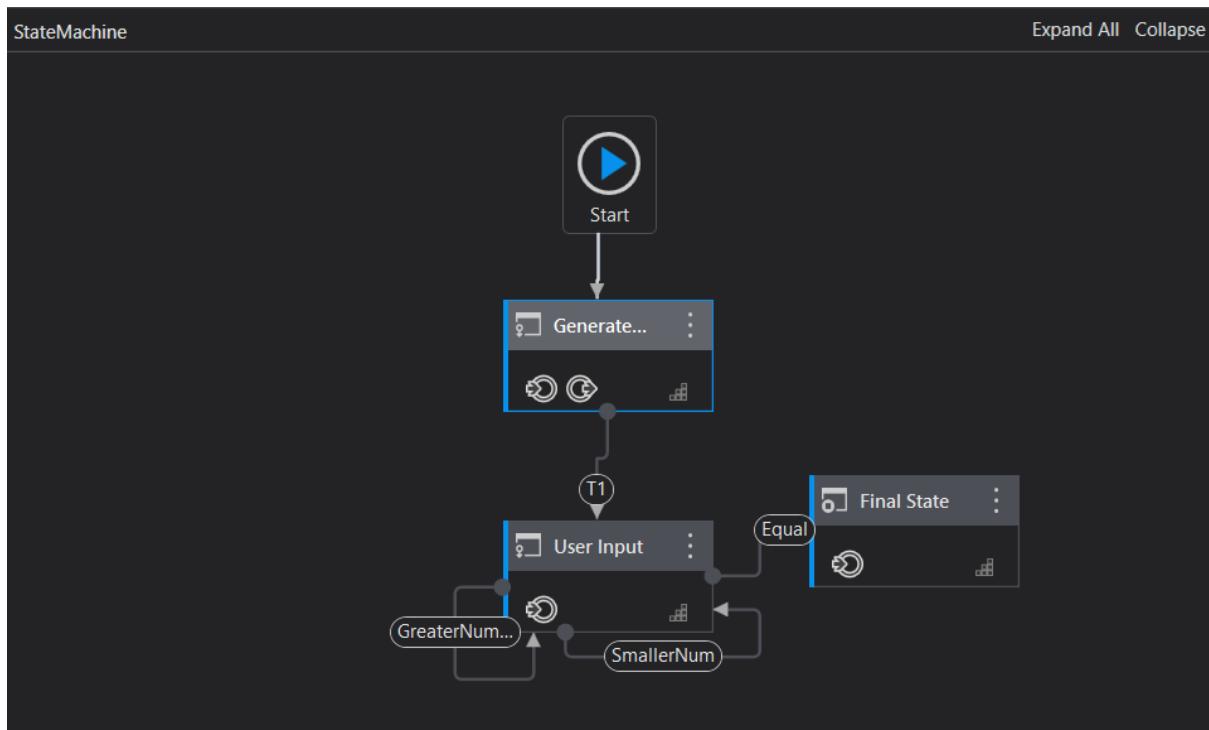
6. Add the save image activity and provide the variable name created for the take screenshot activity and also give the path for image to save .
7. Now Drag and Drop the log message activity .
8. Add message activity to display the output .

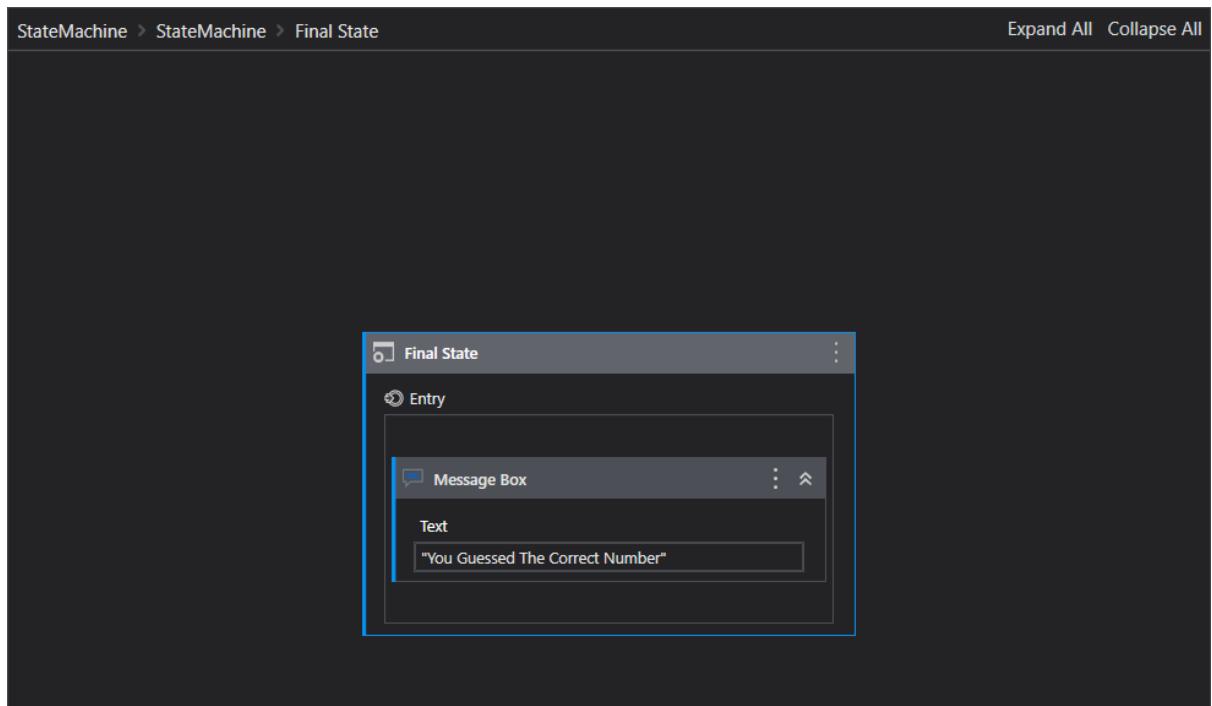
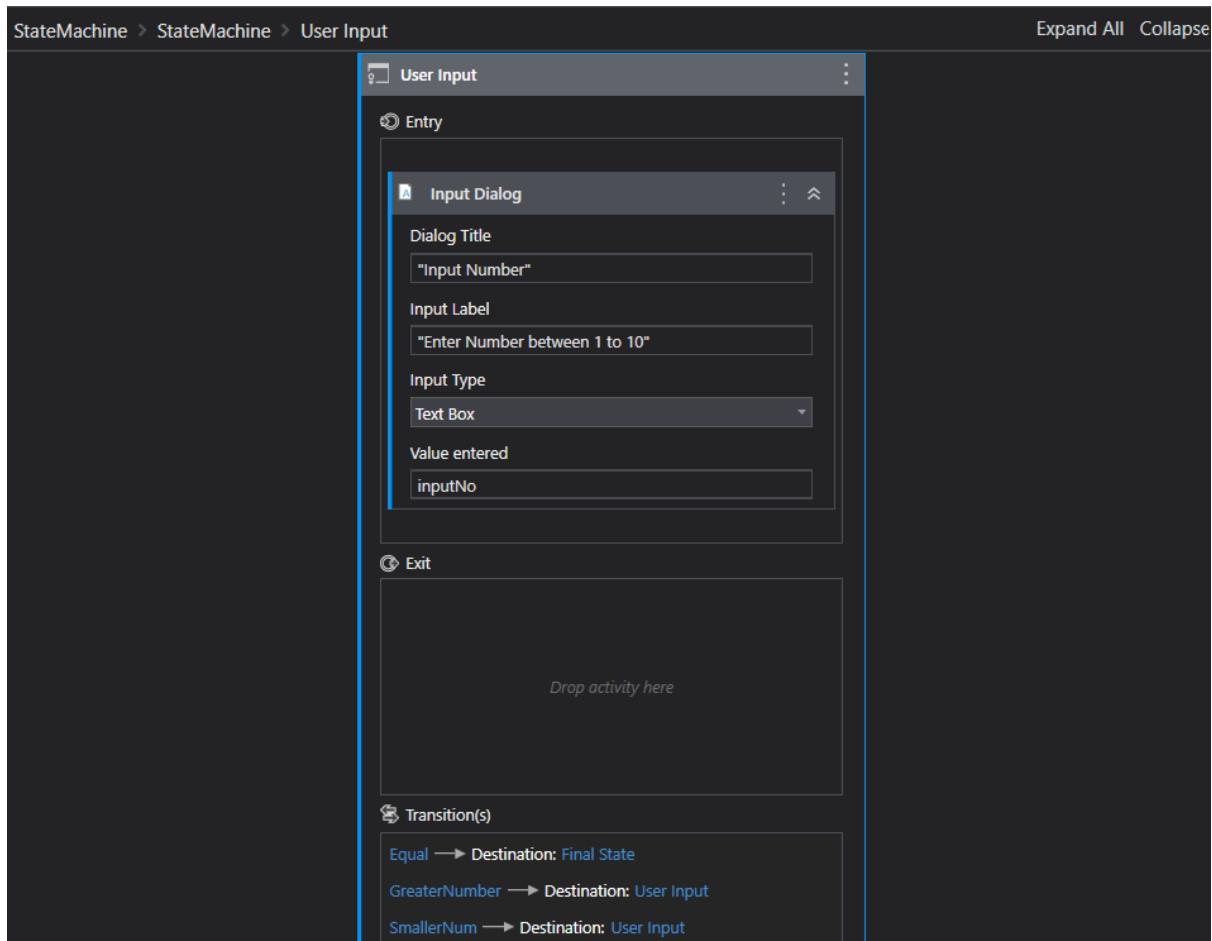


Output :-



B. Automate any process using State Machine in UiPath.





Name	Variable type	Scope	Default
randNo	Int32	StateMachine	Enter a VB expression
inputNo	Int32	StateMachine	Enter a VB expression
Create Variable			

