

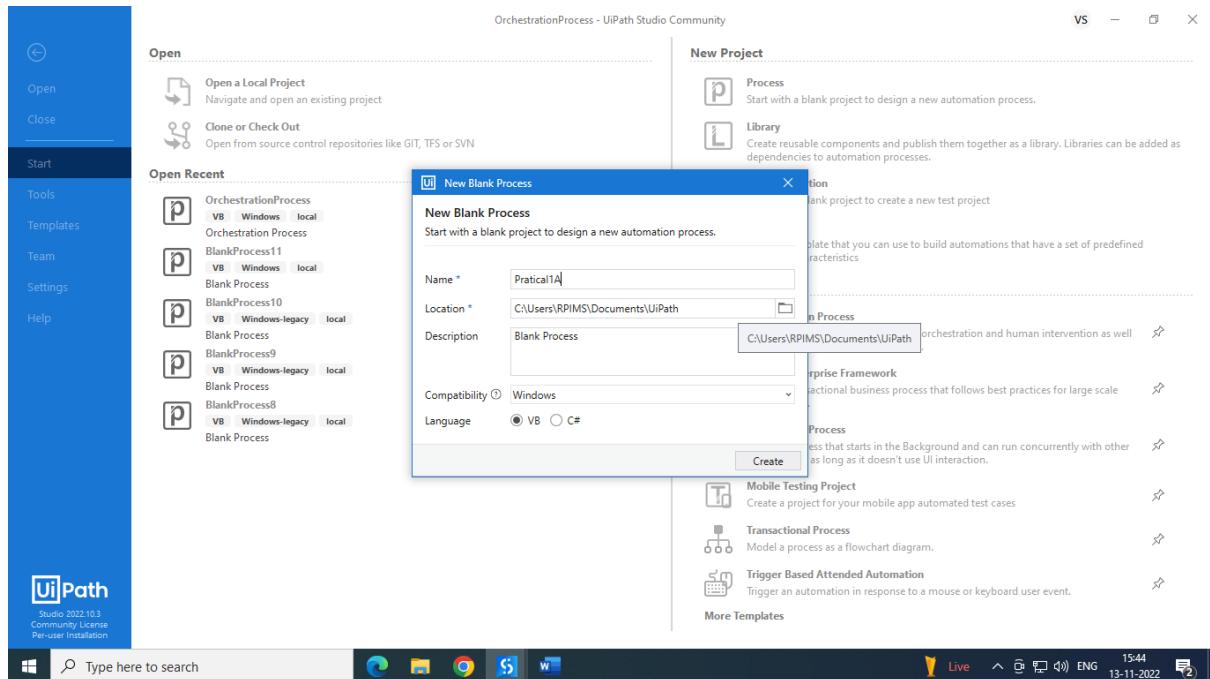
## Practical 1

### RPA Basics: Sequences and Flowcharts

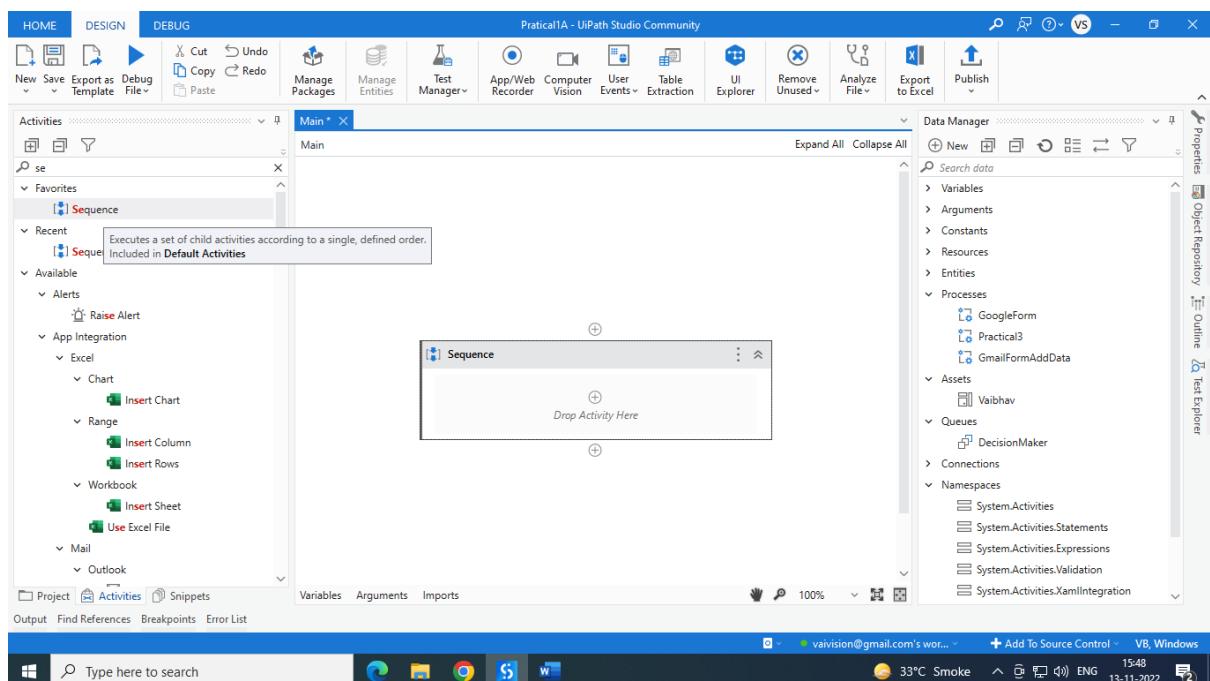
#### A. Create a simple sequence-based project.

Add two Numbers

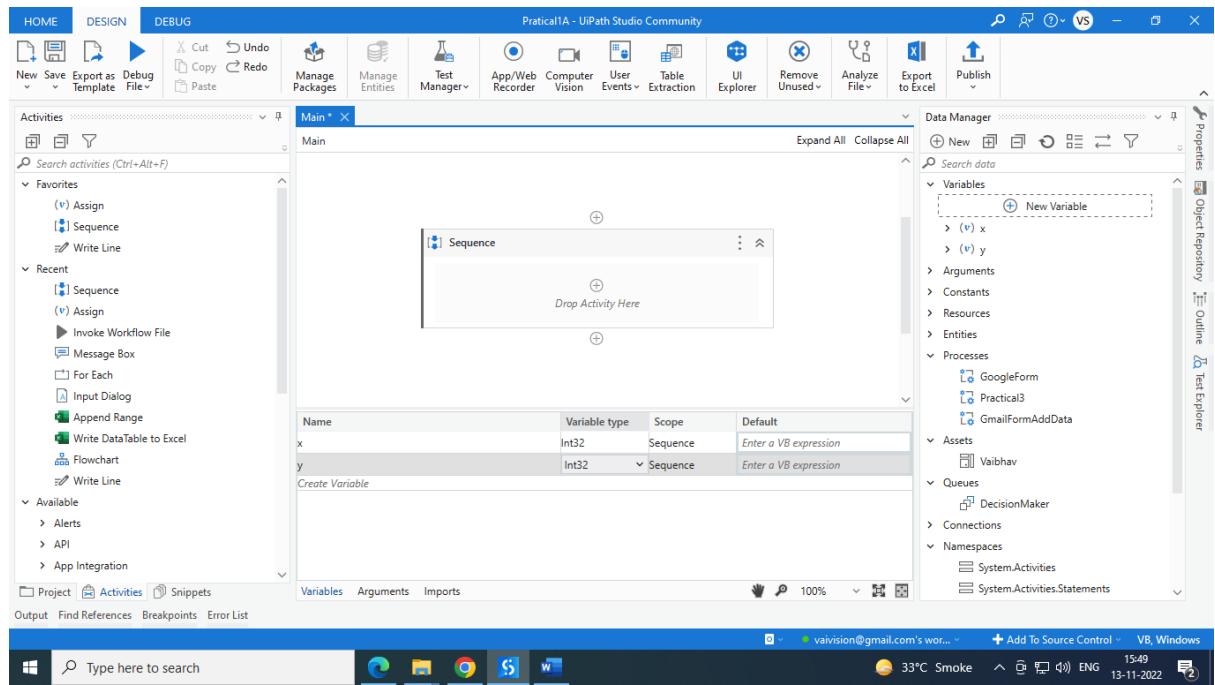
1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Practical1A.



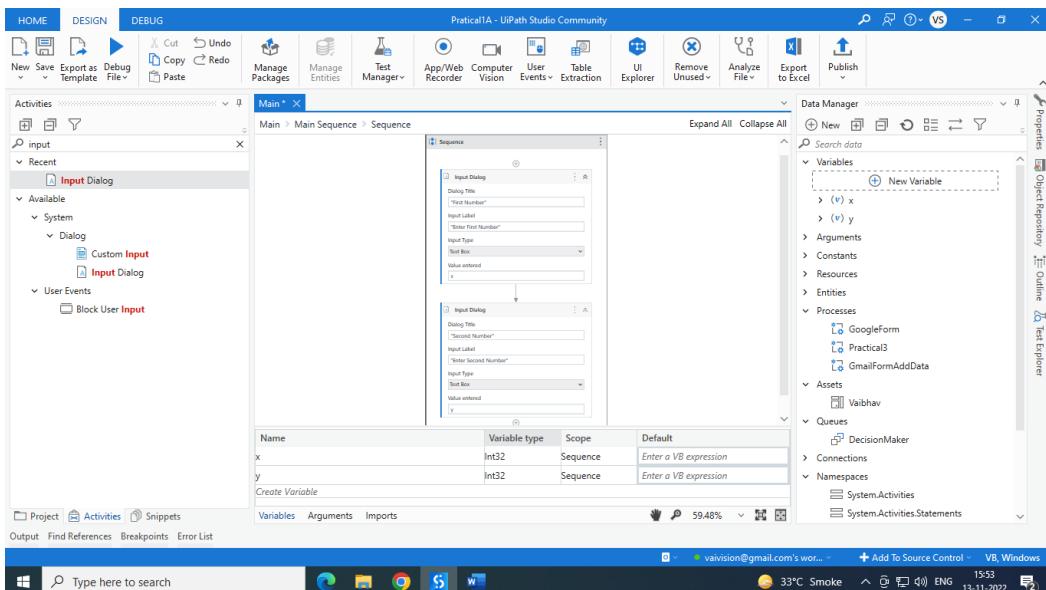
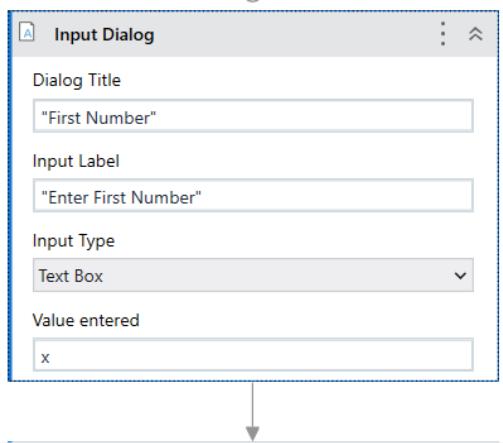
2. Open Main.xaml from Project tab. On the Designer panel, double click a Sequence activity from the Activities panel.



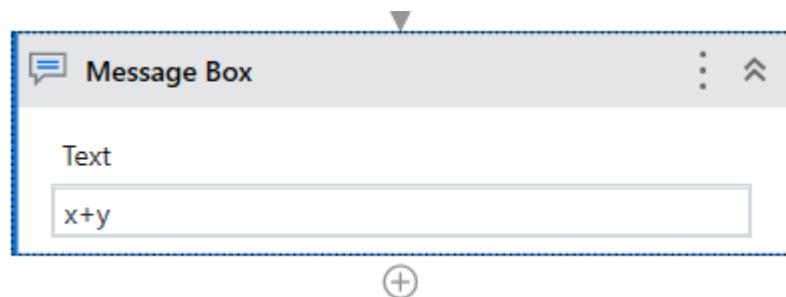
3. Select Variable tab from bottom of page. Create variable x and y and select variable data type as int32 and save.



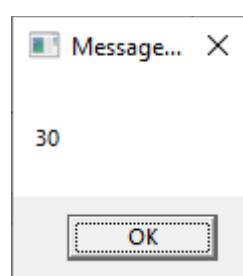
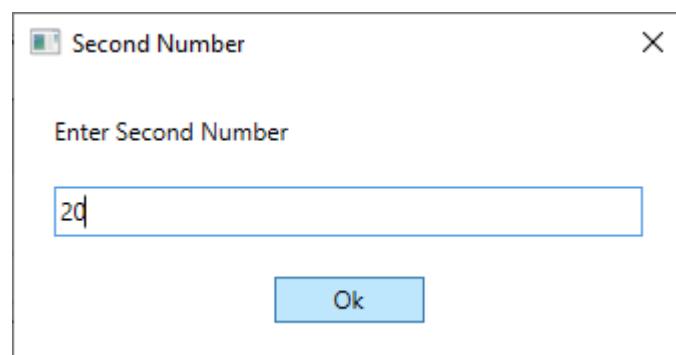
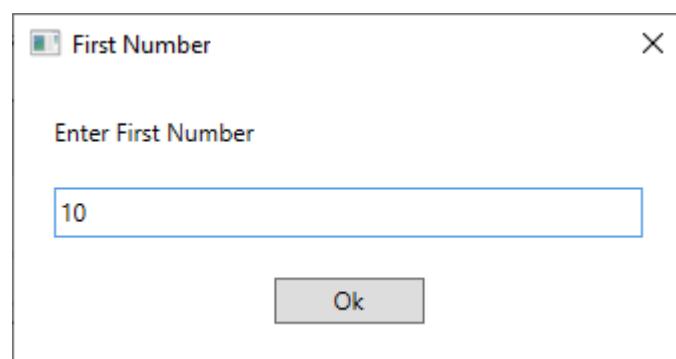
4. Select and drag input dialog from activities. Fill all data labels. Add entered value x and y variable respectively. As below.



5. Select and drag Messagebox from activity menu. Write  $x+y$  and save.



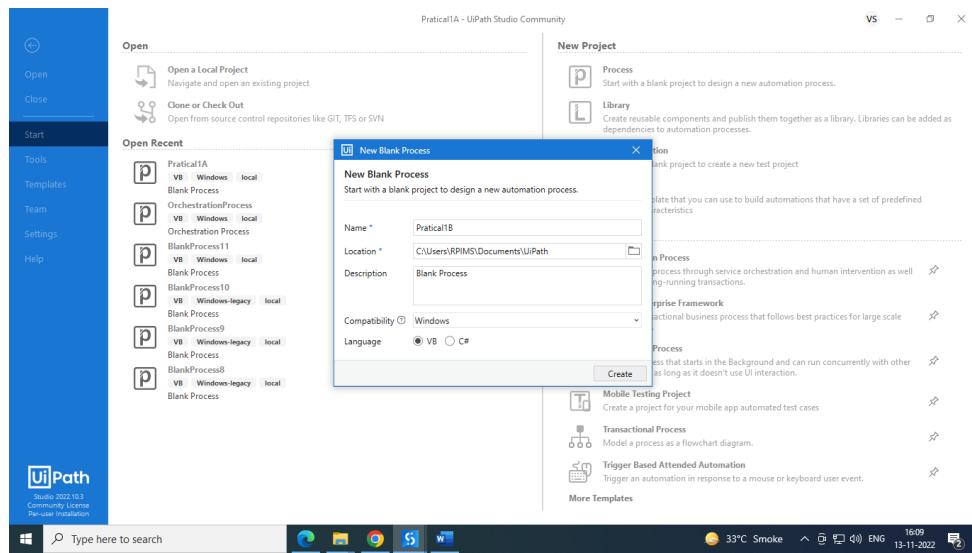
6. Run project and check.



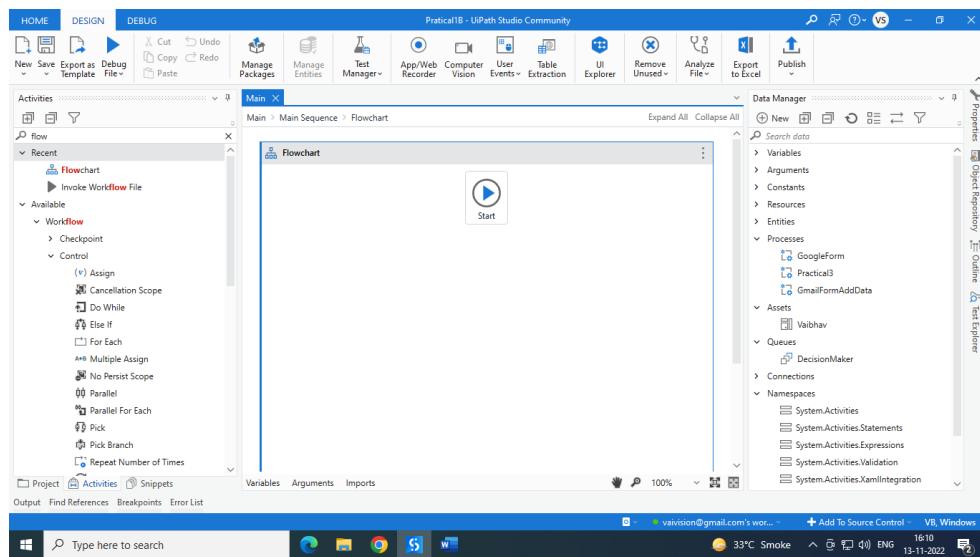
## B. Create a simple flowchart-based project.

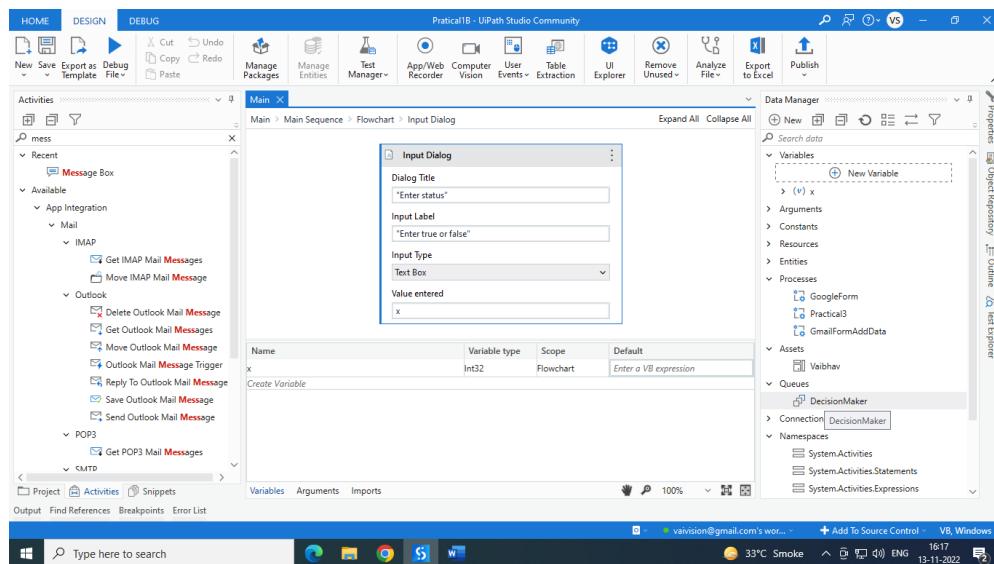
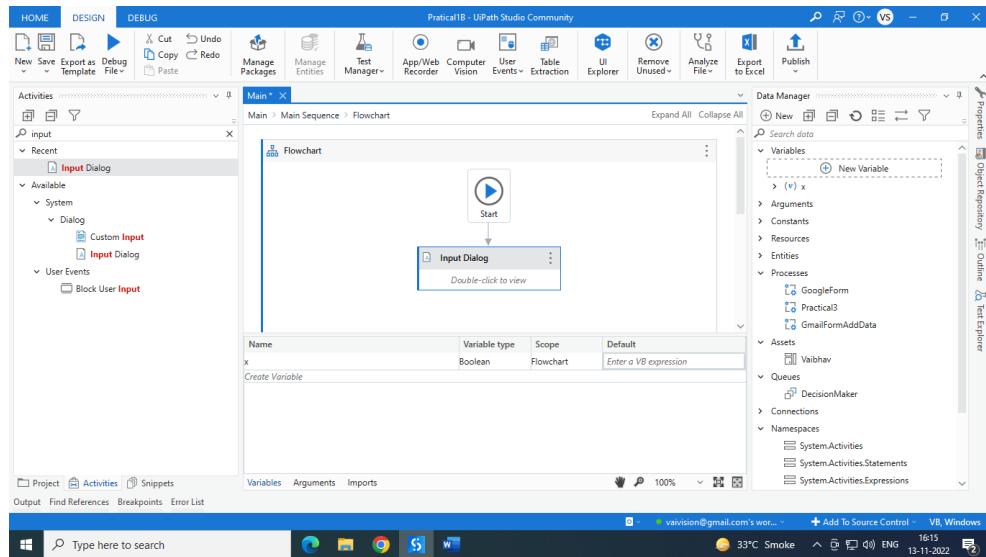
Create project to show ODD and even using flowchart.

1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Practical1B.

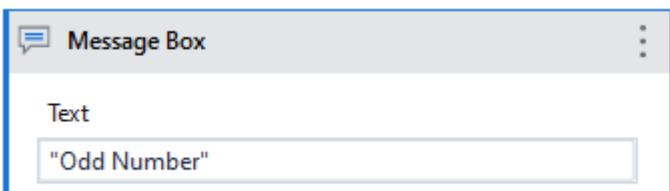
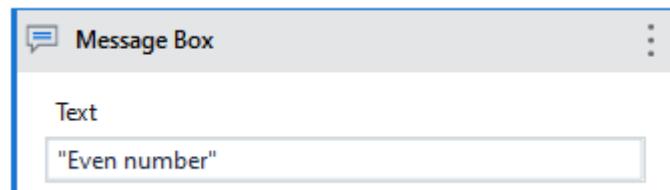
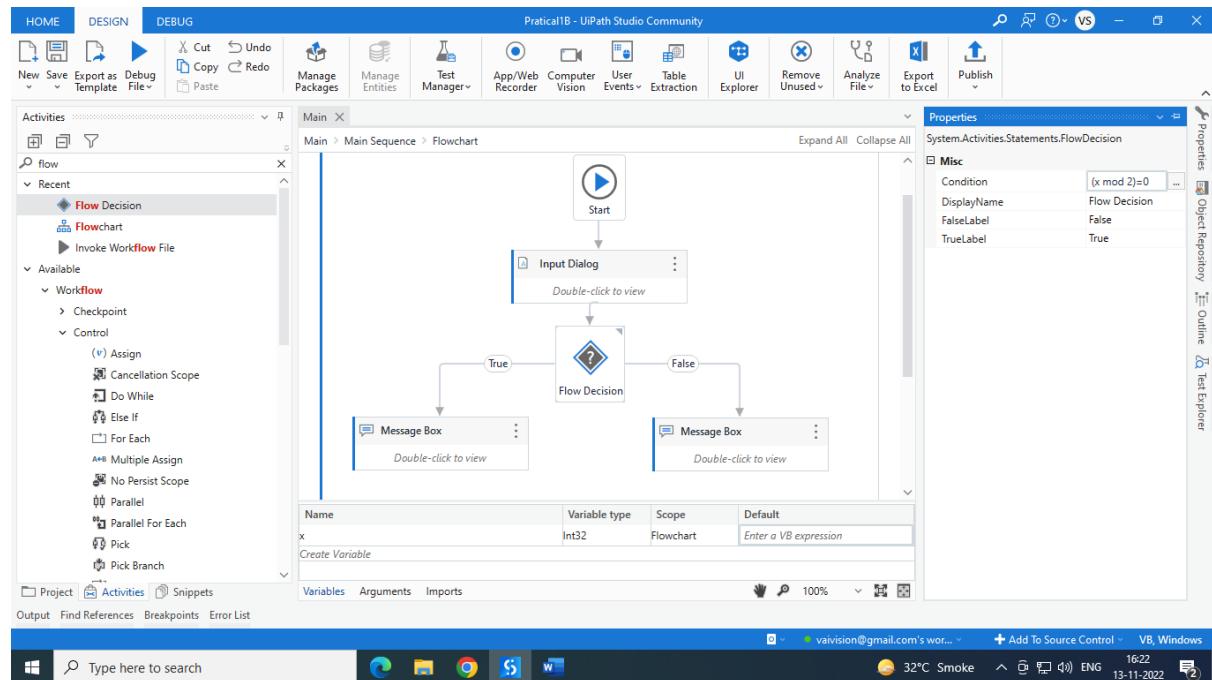


2. Open Main.xaml from Project tab. On the Designer panel, double click a flowchart activity from the Activities panel.

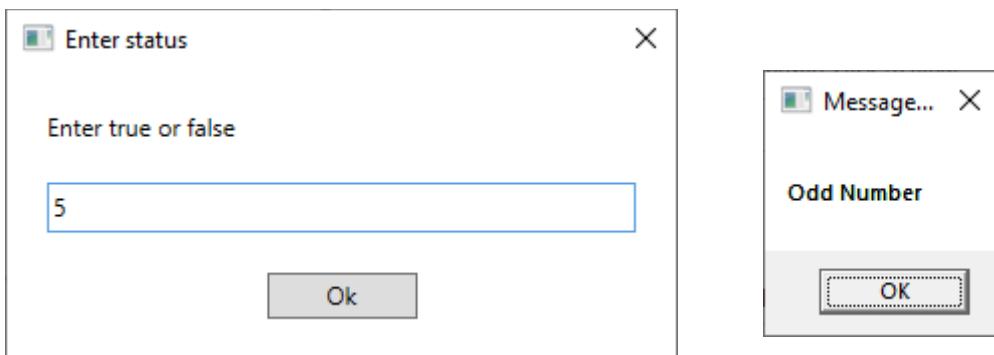




3. Add next activity flow decision. Set condition like  $(x \bmod 2=0)$  in properties selection.
4. Add two more message box and connect with true and false flow. And give even number is its true. Give odd number if its false.

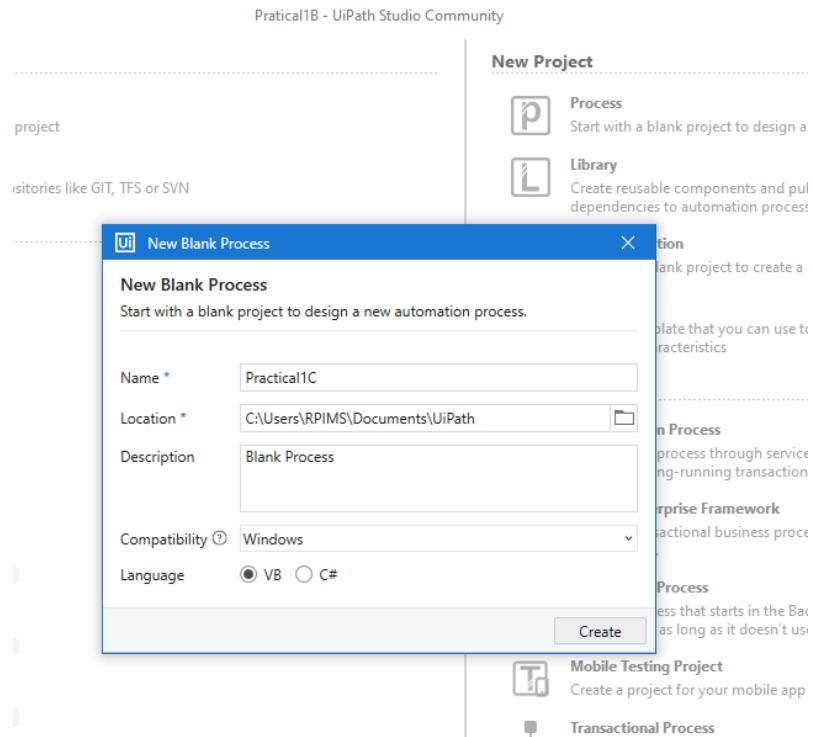


Output:

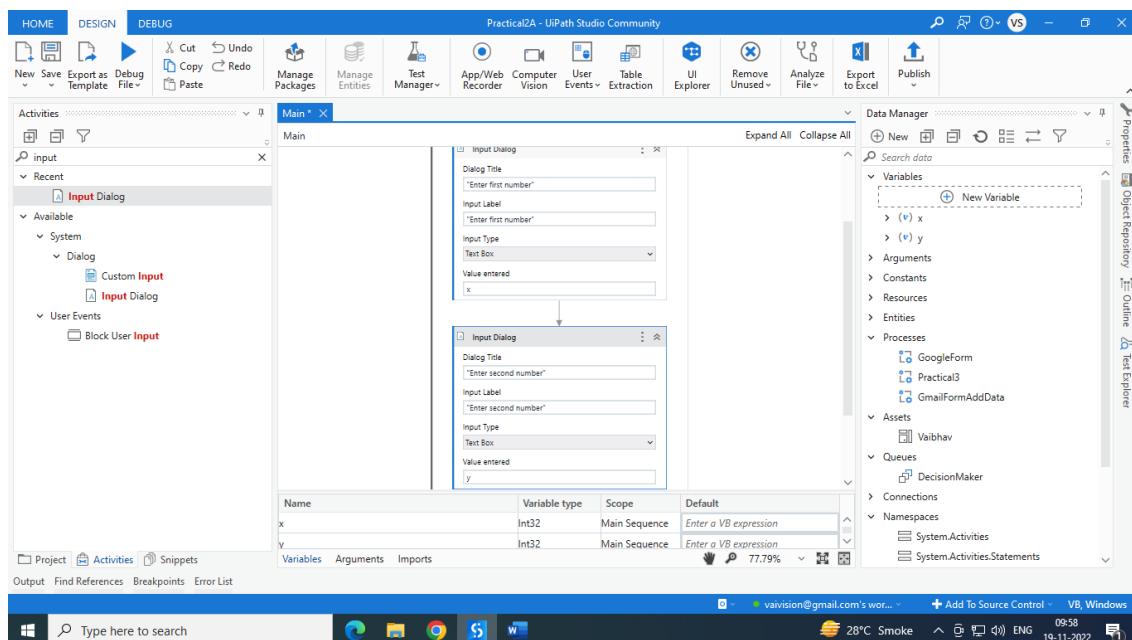


### C. Automate UiPath Number Calculation (Subtraction, Multiplication, Division of numbers).

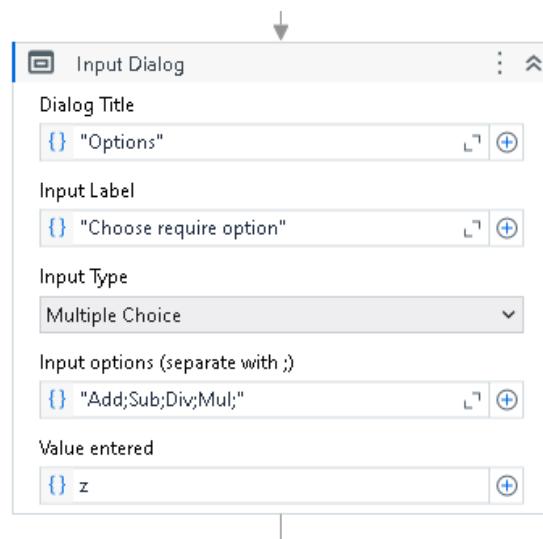
1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name



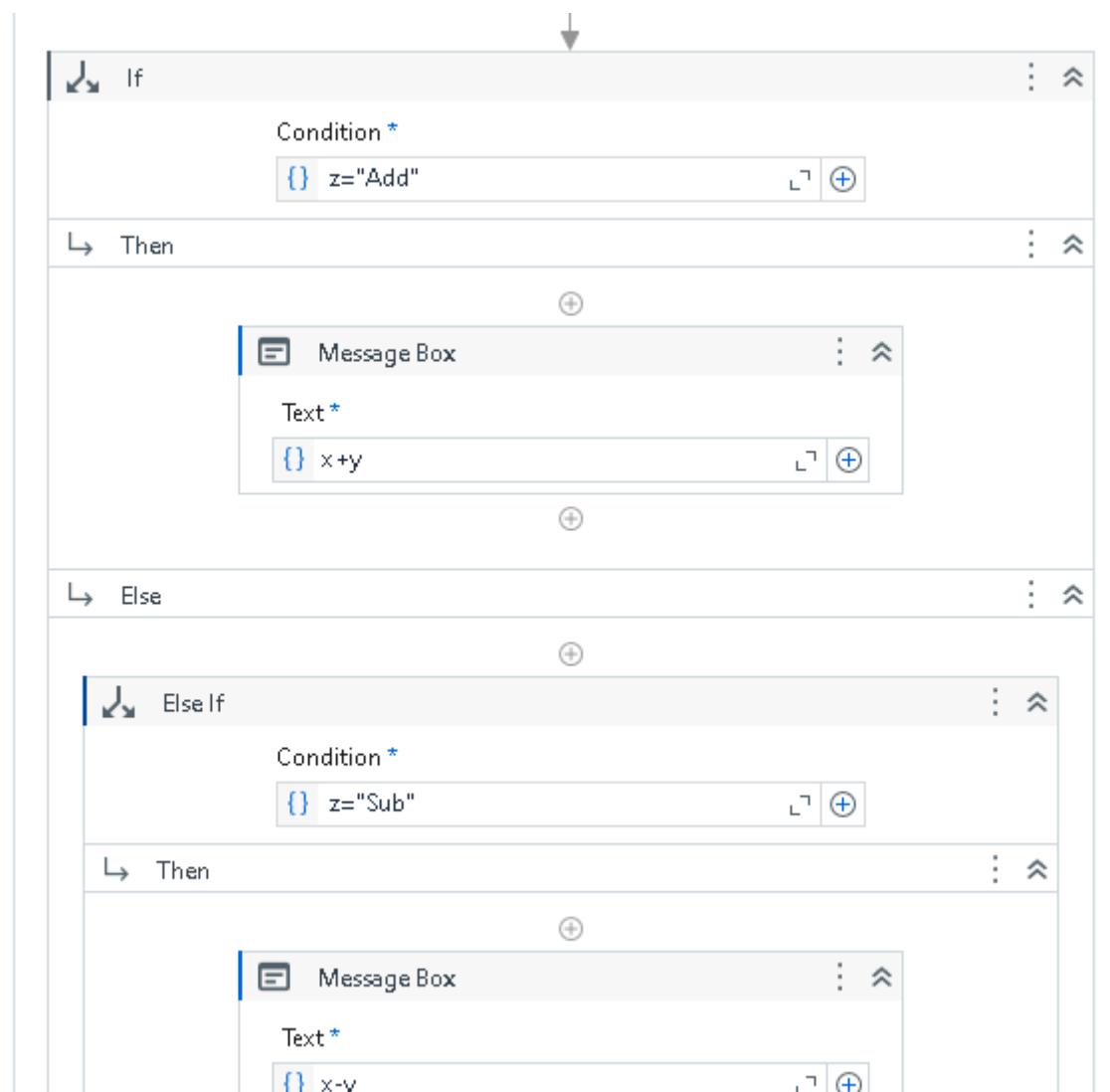
2. Add sequence on page then Select 2 input dialog for two number from activity panel and create variable x and y with int32 datatype.



3. Select another Input dialog for selecting operation like addition, subtraction, division and multiplication, which data stored in Z variable which is string datatype.



4. Select if activity from activity window, then add 1 message box from activity for addition.



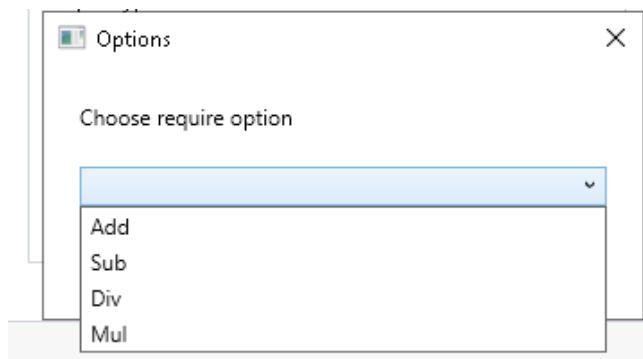
5. And add subtraction, division and multiplication in Else-if activity.



Output:

Two message boxes are shown side-by-side:

- Left Message Box:** Title: "Enter first number". Content: "Enter first number". Input field contains "10". Button: "Ok".
- Right Message Box:** Title: "Enter second number". Content: "Enter second number". Input field contains "5". Button: "Ok".



When we choose addition then it will show below message box.



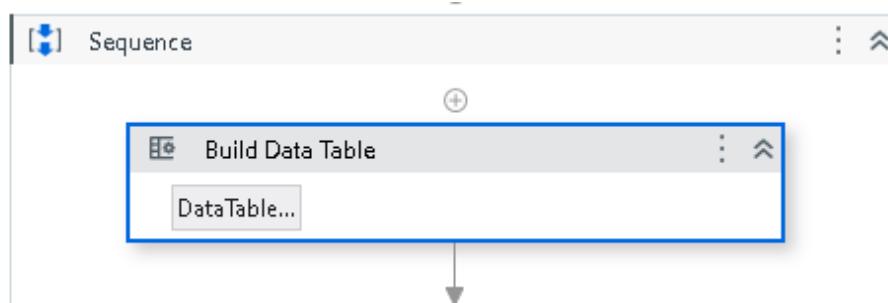
D. Create an automation UiPath project using different types of variables (number, datetime, Boolean, generic, array, data table).

- Follow steps as above to create project. Also give appropriate name.

Create variable as below.

Name	Variable type	Scope	Default
x	Int32	Main Sequence	5
y	String	Main Sequence	"Welcome o SN College"
z	Int32[]	Main Sequence	{5,6,7}
p	Boolean	Main Sequence	True
r	DataTable	Main Sequence	Enter a VB expression

- Create data table from Build Data table. As per blow screenshot.



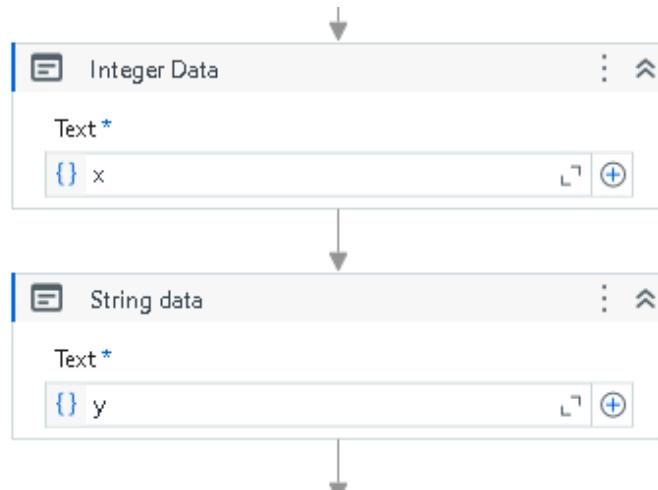
- Click on data table and create data like

**Build Data Table**

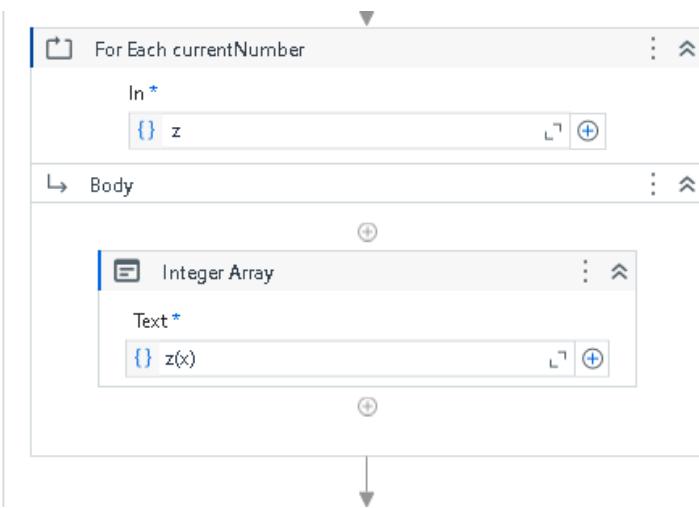
	RollNo (Int32)	Name (String)
x 1		Shivam
x 2		yukta
x 3		Esha
x 4		Anjali
x 5		Prathamesh
x		

OK Cancel

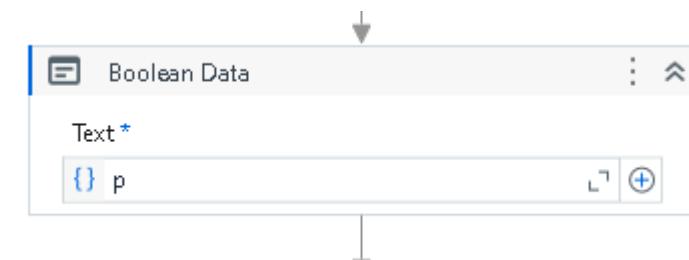
4. Also add message box to show Integer and string data.



5. Add for each activity for Integer array to display array data.

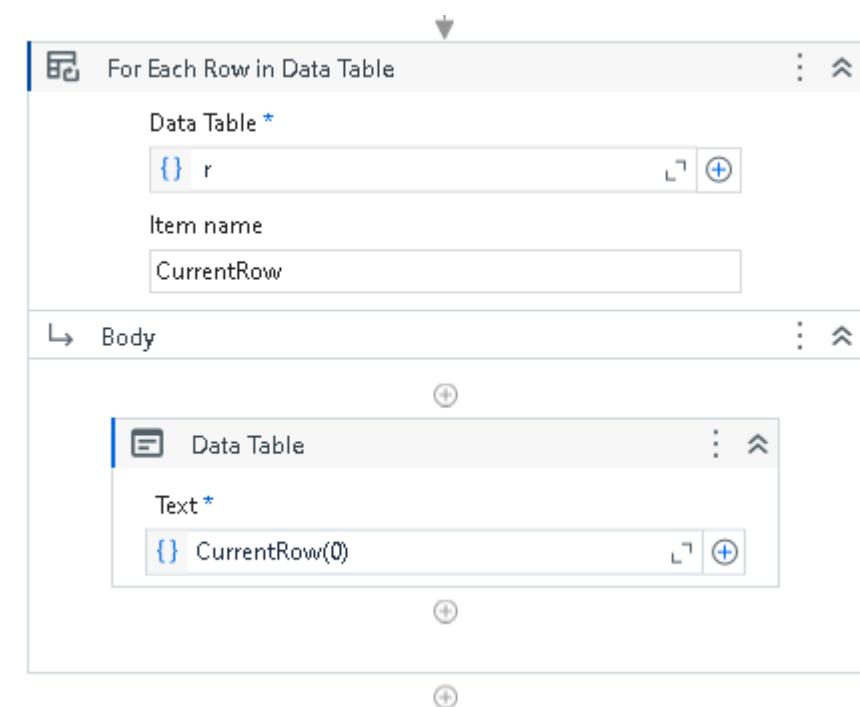


6. For Boolean data add message box out side of for each.

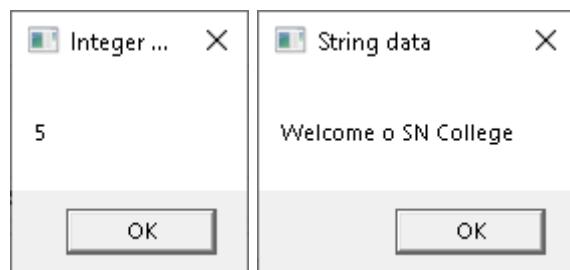


7. Add for each table to fetch data from data table.

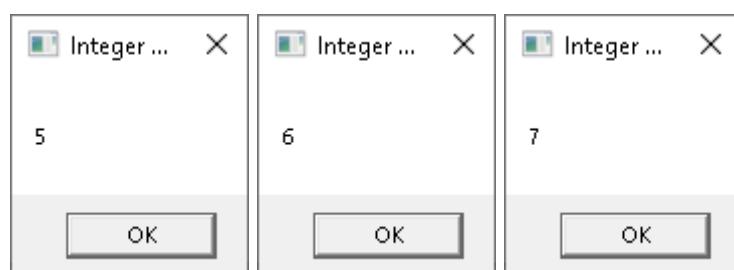
Instead of CurrentRow(0) write CurrentRow.Item(0).ToString & CurrentRow.Item(1).ToString.



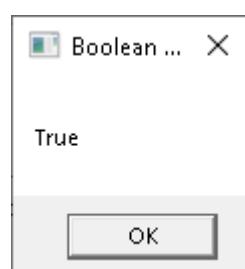
Output:



Integer Array:



Boolean Data:



**Datatable Data:**

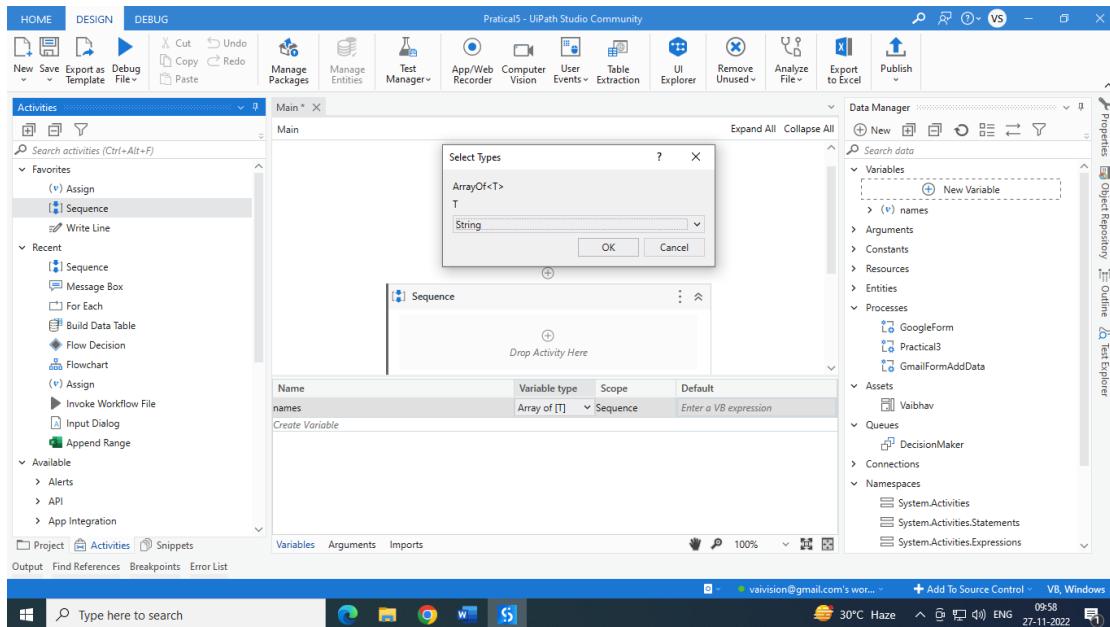
 Data Table X 1Shivam  <input type="button" value="OK"/>	 Data Table X 2yukta  <input type="button" value="OK"/>	 Data Table X 3Esha  <input type="button" value="OK"/>
 Data Table X 4Anjali  <input type="button" value="OK"/>	 Data Table X 5Prathamesh  <input type="button" value="OK"/>	

## Practical 2

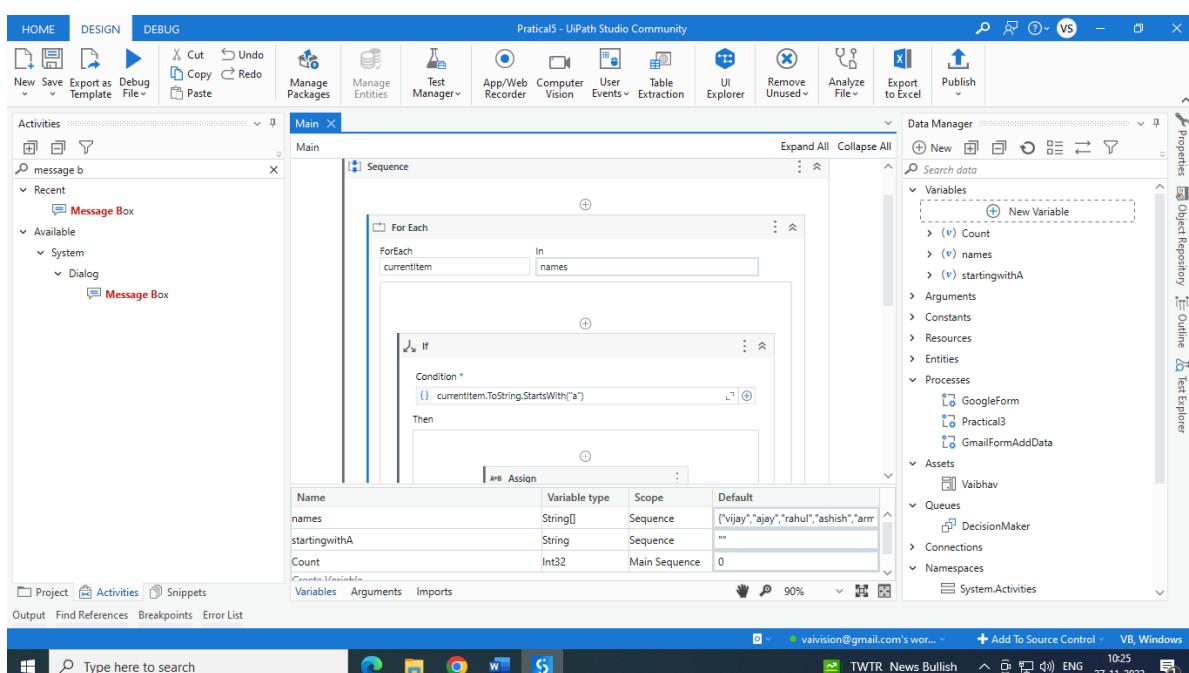
### Decision making and looping

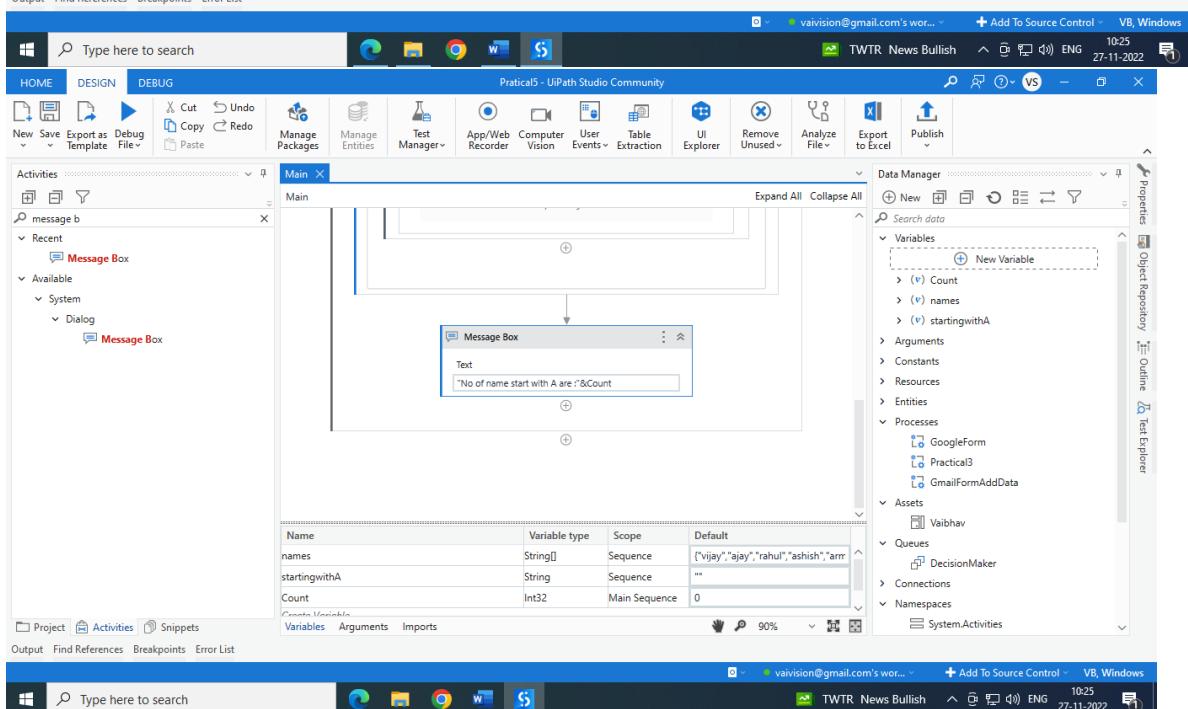
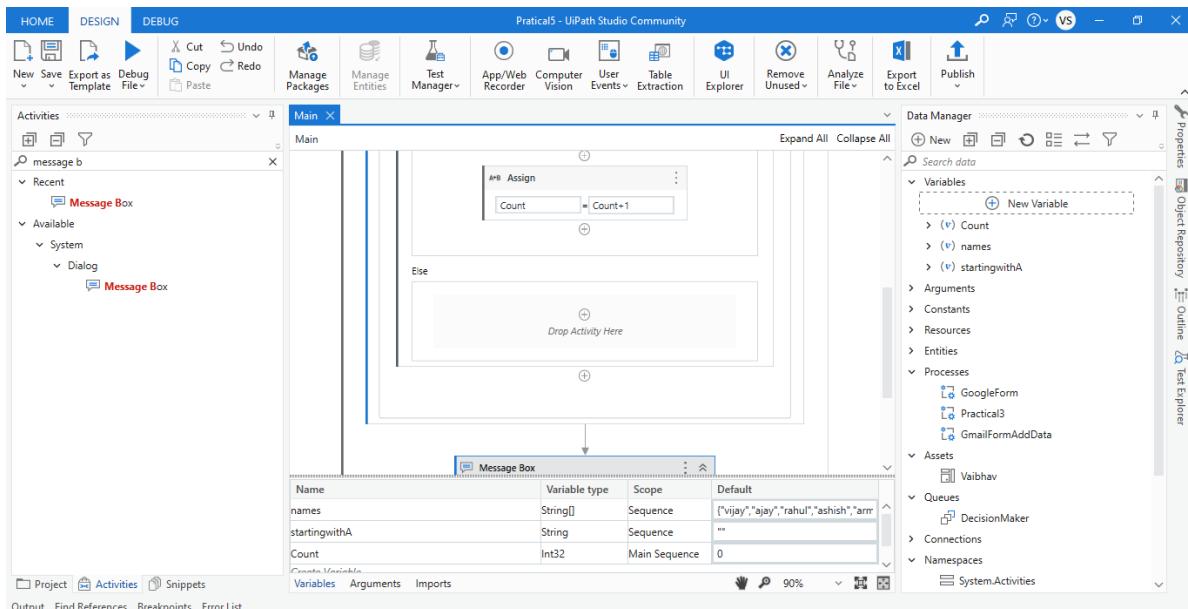
- A. Consider an array of names. We have to find out how many of them start with the letter "a". Create an automation where the number of names starting with "a" is counted and the result is displayed.

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Add sequence in project from activity panel. Create variable "names". Variable type Array of [T] String.  
Default values {"vijay", "ajay", "rahul", "ashish", "arman", "akash", "vipul"}.

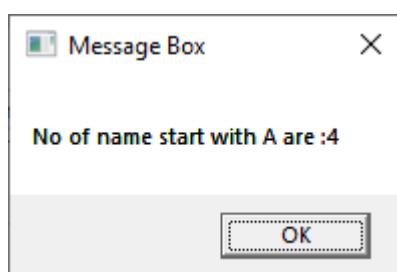


3. Add "for each" from activities panel. In = names  
Add if inside "for each". Add condition like currentItem.ToString.StartsWith("a").



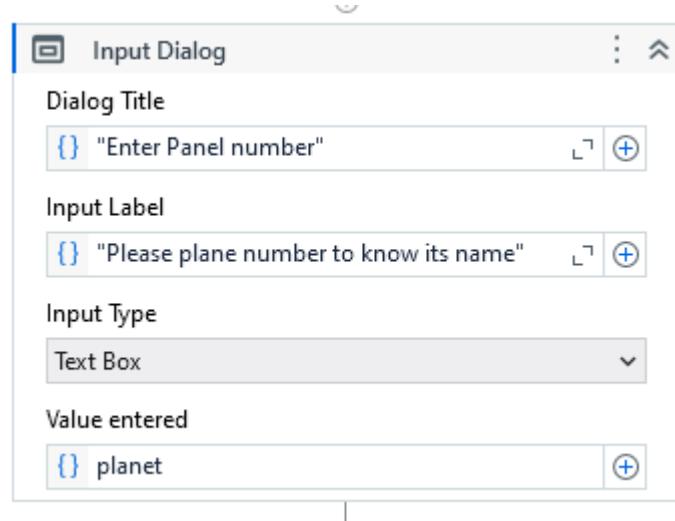


**Output:**



B. Demonstrate switch statement with an example.

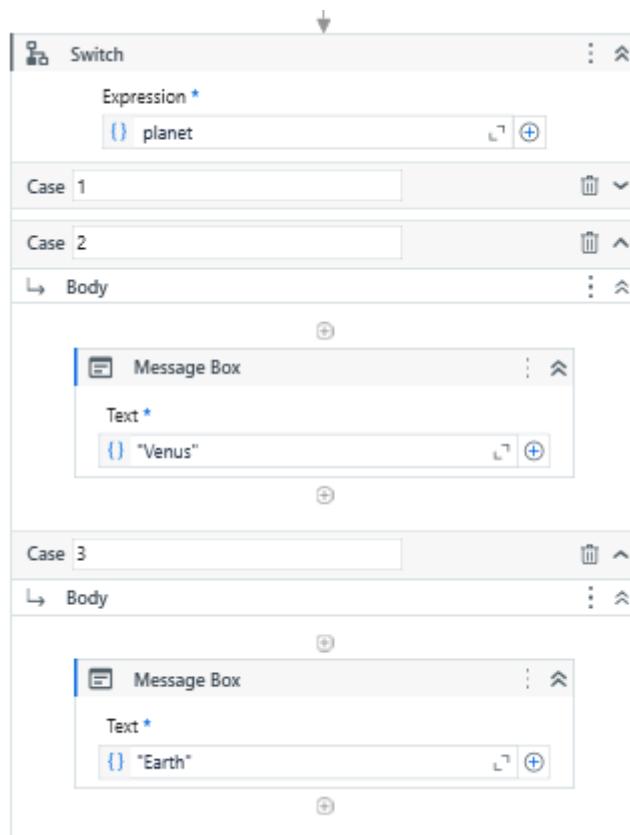
1. Open UI path and create new project with appropriate name and choose language type VB.
2. Select Classic Input dialog box from the activity window and drop into sequence also fill below details.



3. Create planet as a variable as below.

Name	Variable type	Scope	Default
planet	String	Main Sequence	Enter a VB expression
<i>Create Variable</i>			

4. Select switch activity from activity window and drop into sequence and add cases according to below text input. Choose message box activity to display message.



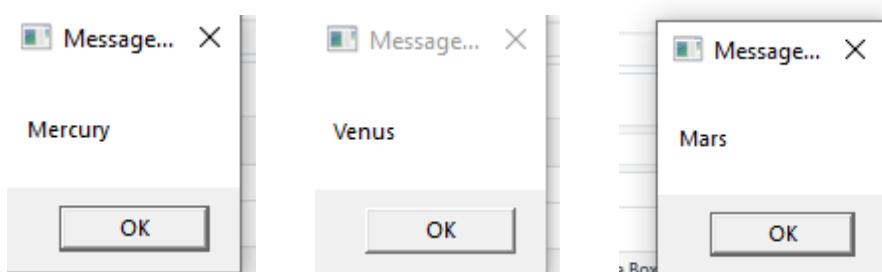
The screenshot shows a RPA configuration interface with three cases listed vertically:

- Case 4:** Contains a single step: **Message Box**. The **Text** field contains the value **{}** "Mars".
- Case 5:** Contains a single step: **Message Box**. The **Text** field contains the value **{}** "Jupiter".
- Case 6:** Contains a single step: **Message Box**. The **Text** field contains the value **{}** "Saturn".

The screenshot shows a RPA configuration interface with four entries:

- Case 7:** Contains a single step: **Message Box**. The **Text** field contains the value **{}** "Uranus".
- Case 8:** Contains a single step: **Message Box**. The **Text** field contains the value **{}** "Neptune".
- Add case**: A button to add a new case.
- Default:** Contains a single step: **Message Box**. The **Text** field contains the value **{}** "Your are looking into diffrent universe".

Output:

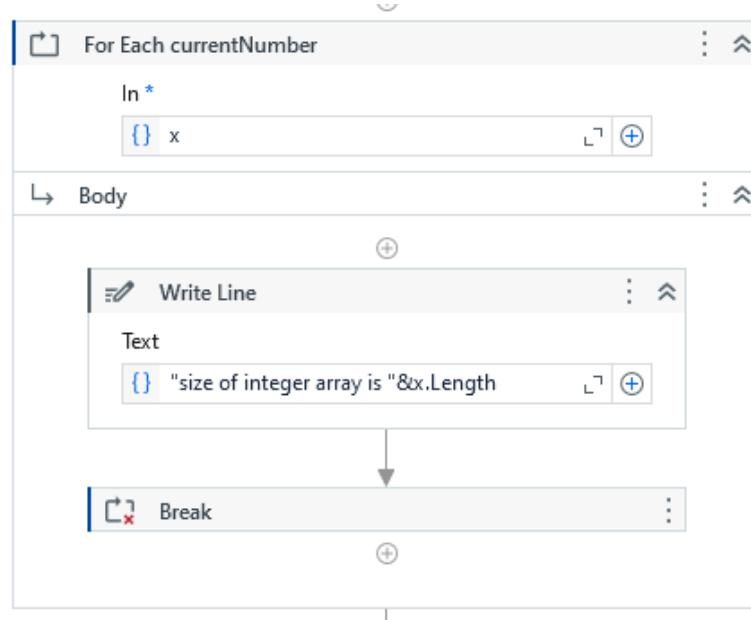


C. Create an automation To Print numbers from 1 to 10 with break after the writeline activity inside for each activity

1. Open UI path and create new project with appropriate name and choose language type VB. Create variable x and give value as below.

Name	Variable type	Scope	Default
x	Int32[]	Main Sequence	{1,2,3,4,5,6,7,8,9,10}
<i>Create Variable</i>			

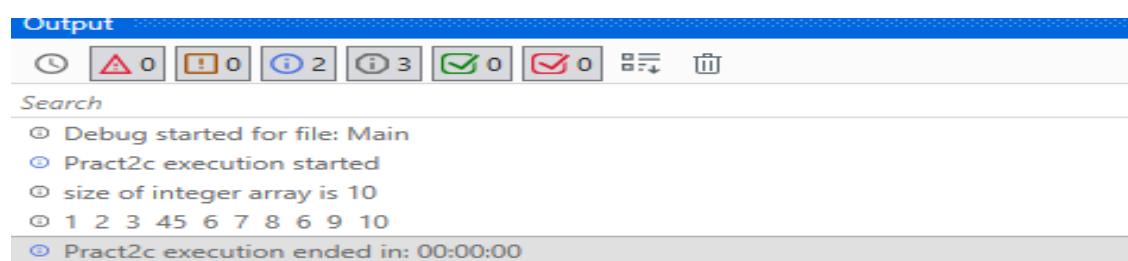
2. Select For each activity from the activity window and drop into sequence also fill below details.
3. Select write Line activity from the activity window and drop into sequence and give “size of integer array” as text input.
4. Select Break activity from the activity window and drop into sequence to break the loop.



5. Select Write Line activity from the activity window and drop into sequence to display output as string.



Output:

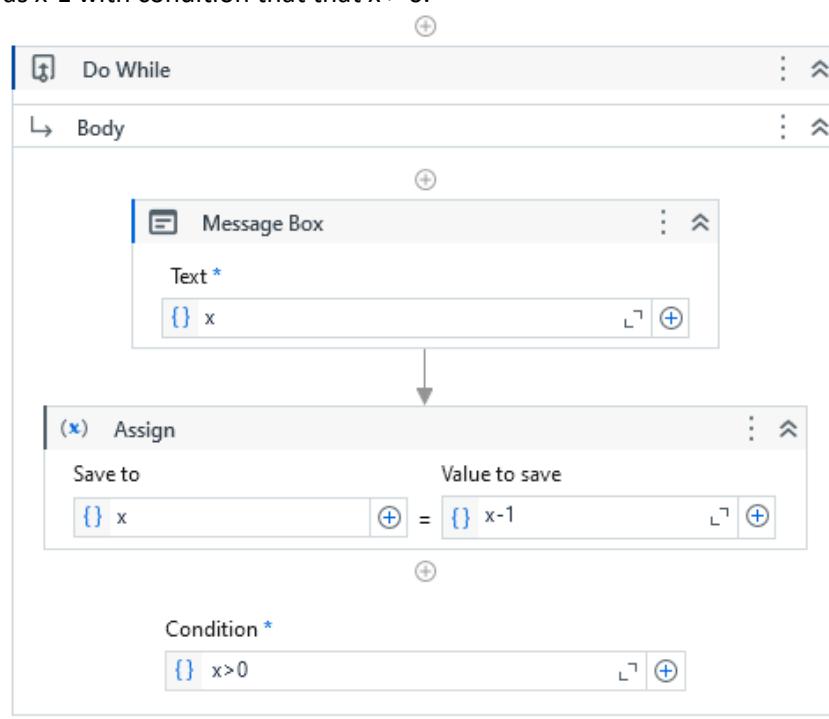


D. Create an automation using Do..While Activity to print numbers from 5 to 1.

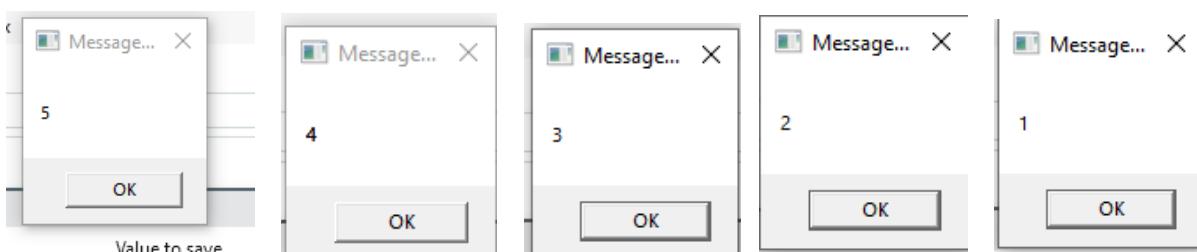
1. Open UI path and create new project with appropriate name and choose language type VB. Create variable x and give value as below.

Name	Variable type	Scope	Default
x	Int32	Main Sequence	5
<i>Create Variable</i>			

2. Select Do While activity from the activity window and drop into sequence also fill below details. Select message box activity and give x variable as input.
3. Select Assign activity from the activity window and drop into sequence and give value to save as  $x-1$  with condition that that  $x > 0$ .



Output:



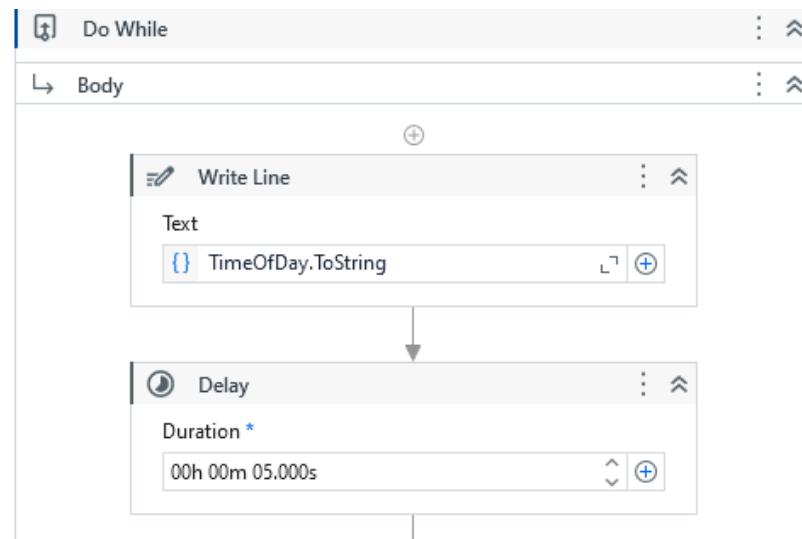
E. Create an automation using Delay Activity between two writeline activities to separate their execution by 5 seconds.

1. Open UI path and create new project with appropriate name and choose language type VB.  
Create variable x and give value as below.

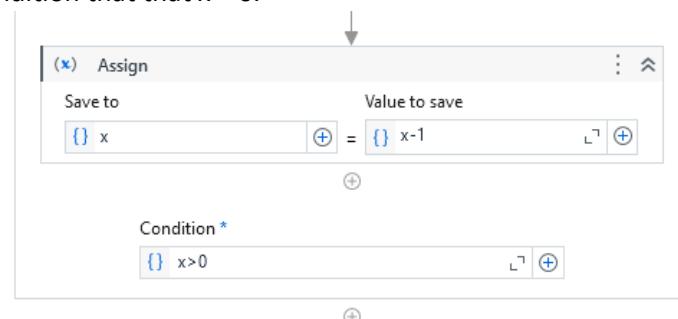
Name	Variable type	Scope	Default
x	Int32	Main Sequence	5

Create Variable

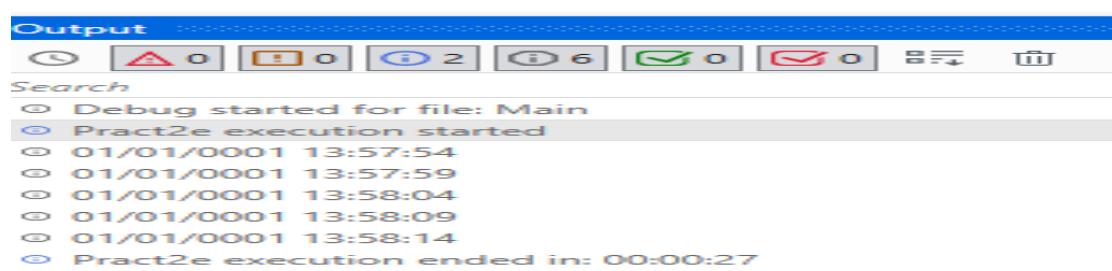
2. Select Do While activity from the activity window and drop into sequence also fill below details. Select message box activity and give x variable as input.
3. Select Delay activity from the activity window and drop into sequence to delay the output message by 5 seconds.



4. Select Assign activity from the activity window and drop into sequence and give value to save as x-1 with condition that that  $x > 0$ .



Output : The output will be displayed with 5 seconds of delay.

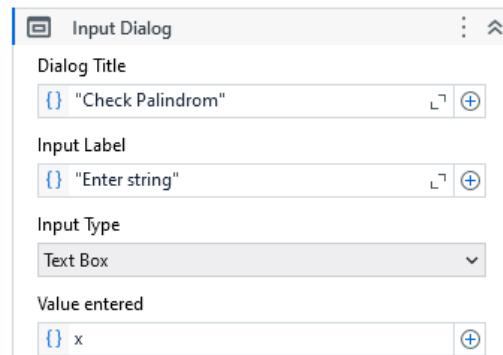


F. Create an automation to demonstrate use of decision statements (if).

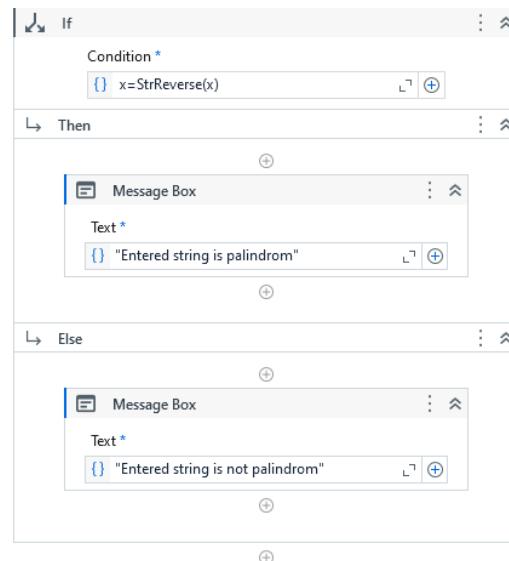
1. Open UI path and create new project with appropriate name and choose language type VB. Create variable x and give value as below.

Name	Variable type	Scope	Default
x	String	Main Sequence	Enter a VB expression
<i>Create Variable</i>			

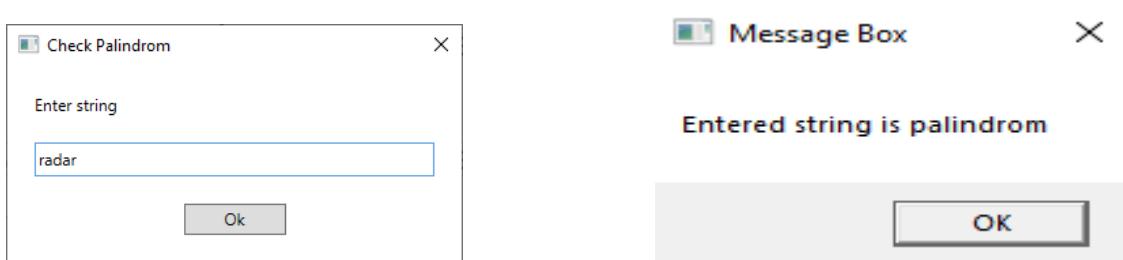
2. Select Input Dialog activity from the activity window and drop into sequence. Give Dialog Title, Input Label, Input Type as below and enter value as variable x.



3. Select If activity from the activity window and drop into sequence to give a condition. If x is equal to reverse of string of x then the message box will display output as : “Entered String is Palindrome.” Else it will display : “ Entered string is not palindrome”.



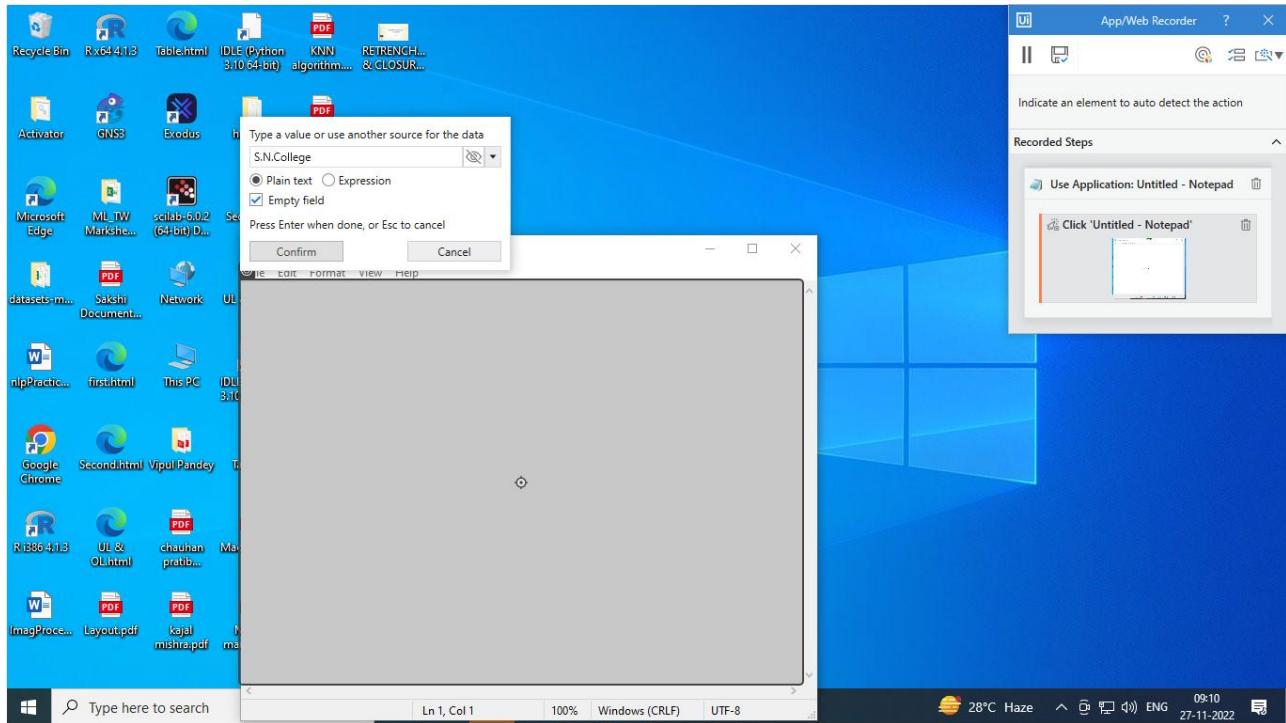
Output:



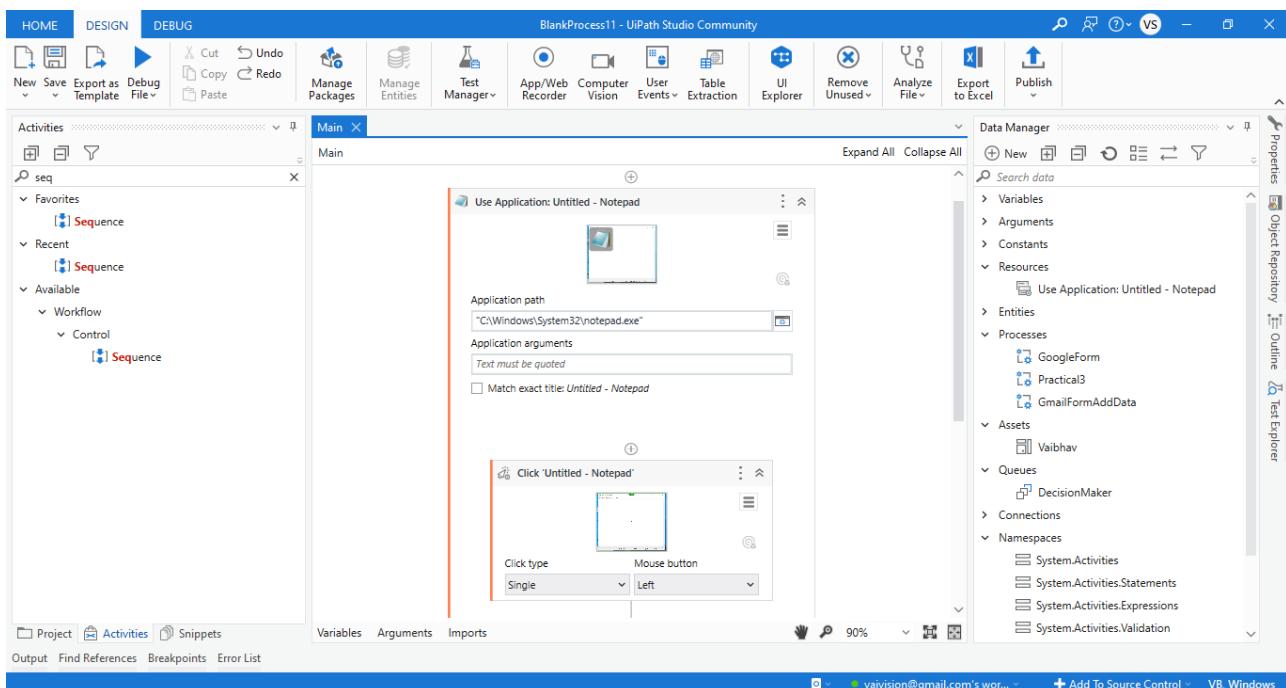
### Practical 3

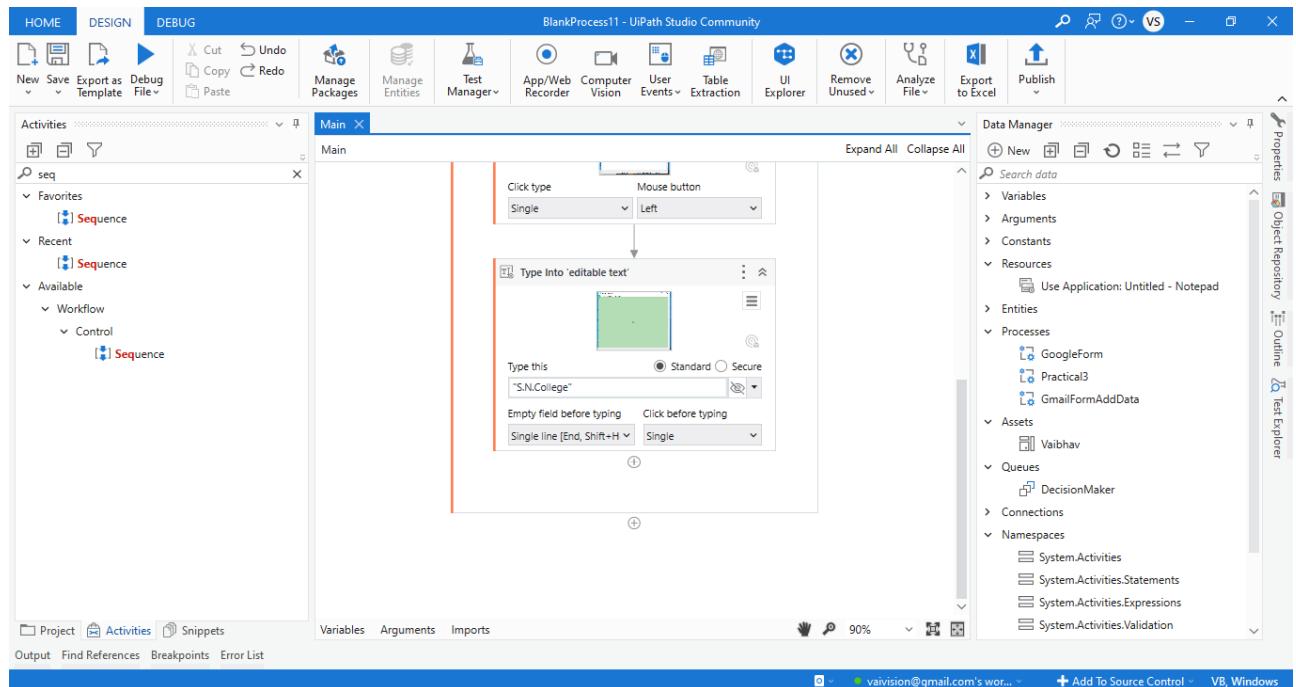
#### A. Automate any process using basic recording

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Open notepad
3. Click on App/Web recorder
4. Click on notepad. Select white area and type anything. And save process.

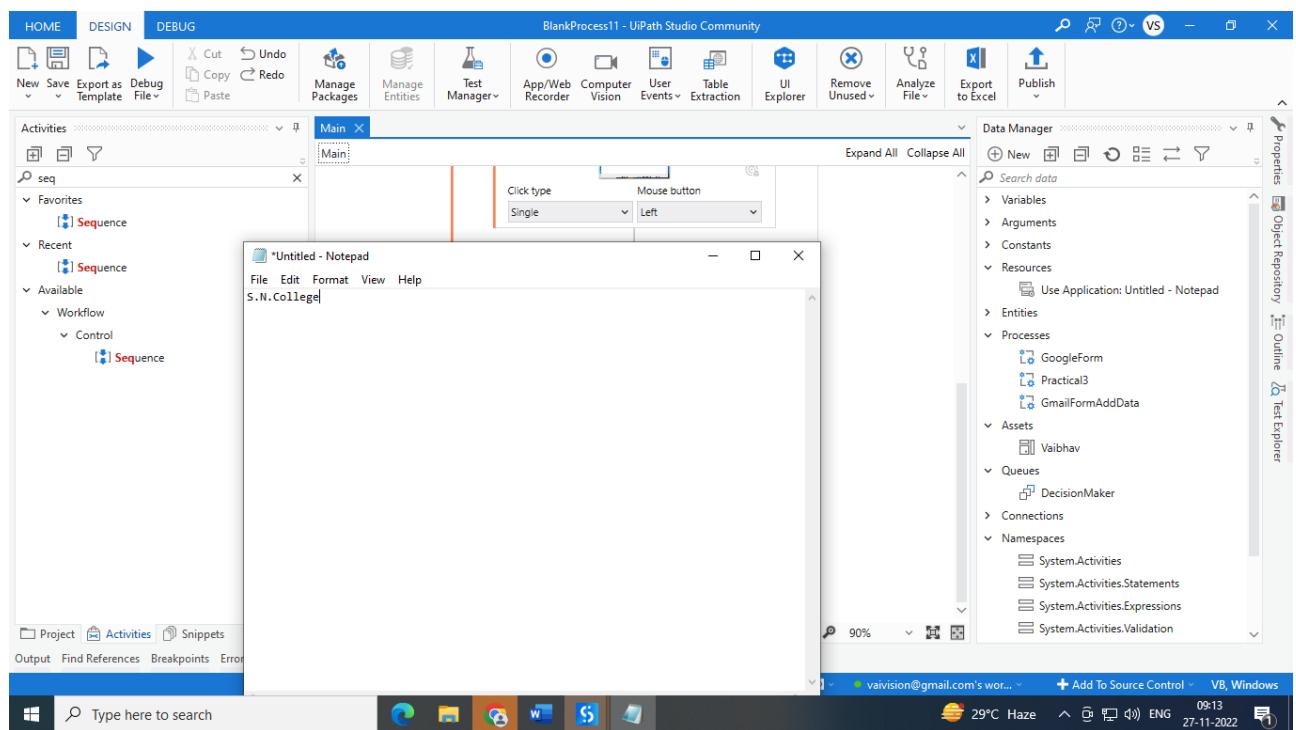


5. After saving it will create below structure automatically.



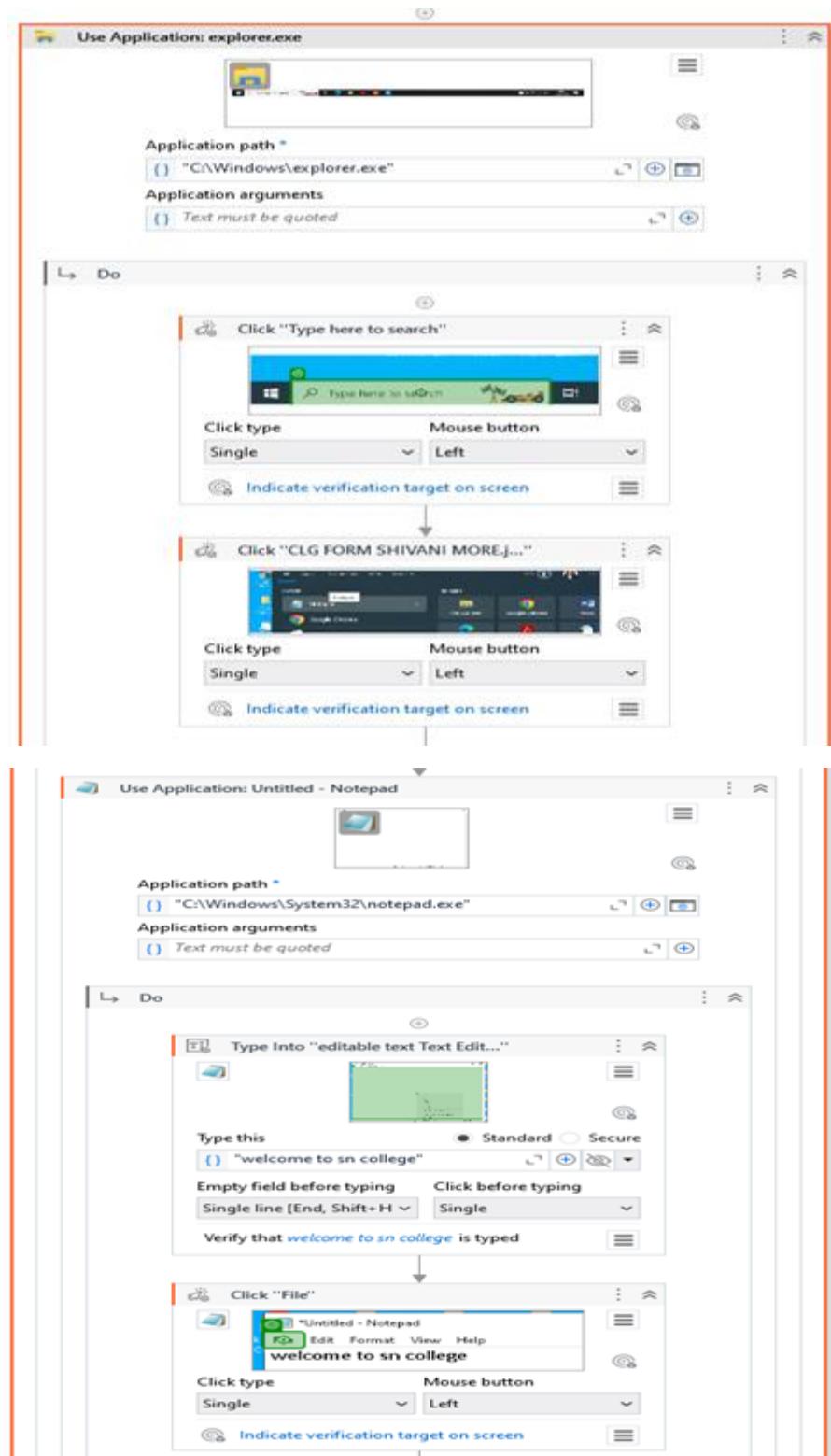


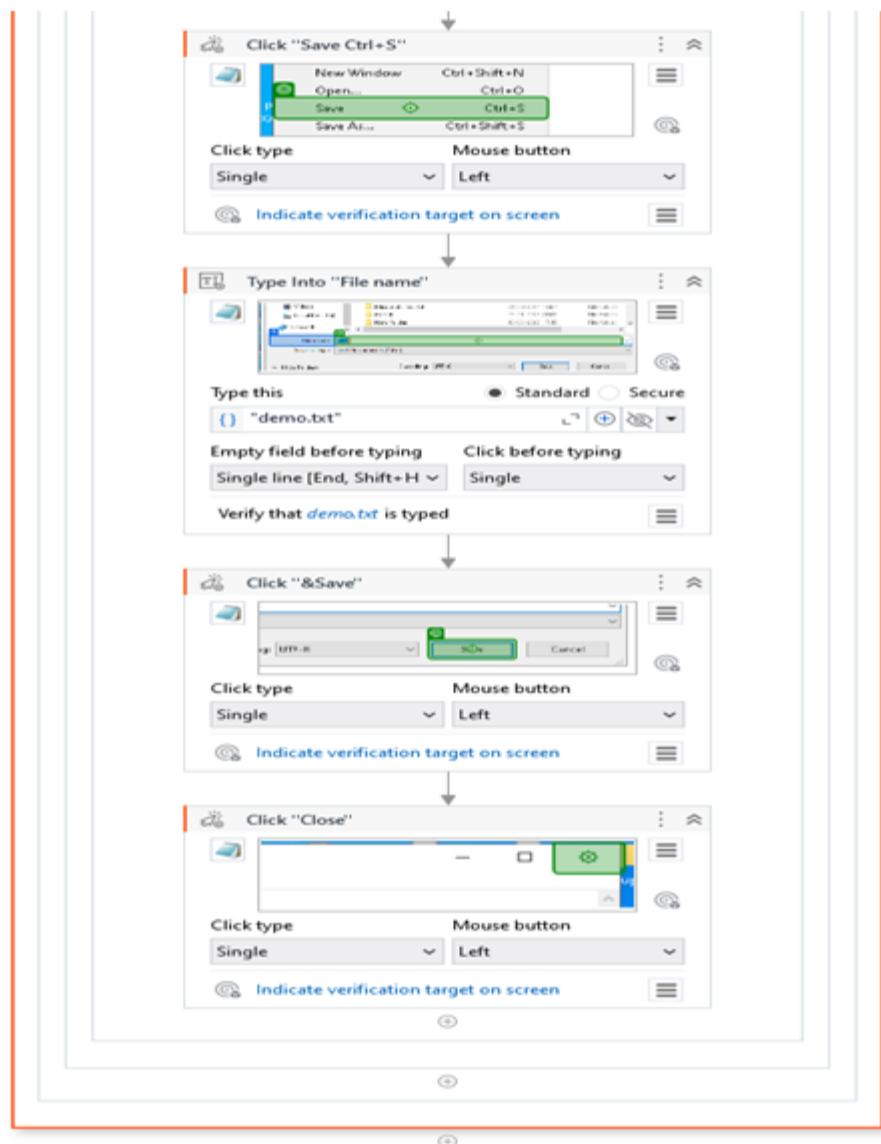
## Output:



**B: Basic Recording using Notepad**

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Click on App/Web recorder
3. Click on search of windows. Select require application. Here I am selecting notepad.
4. Then I select blank page of notepad and type into it.
5. Then I click on File menu.
6. Click on save and type file name.
7. Click on save button.

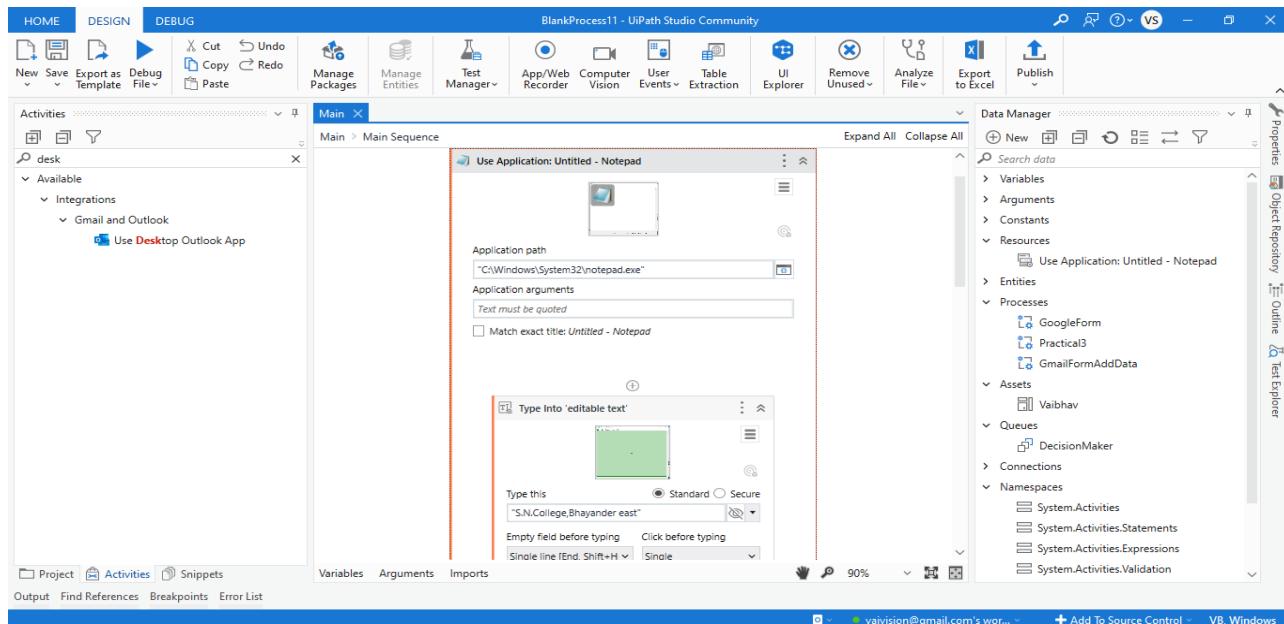
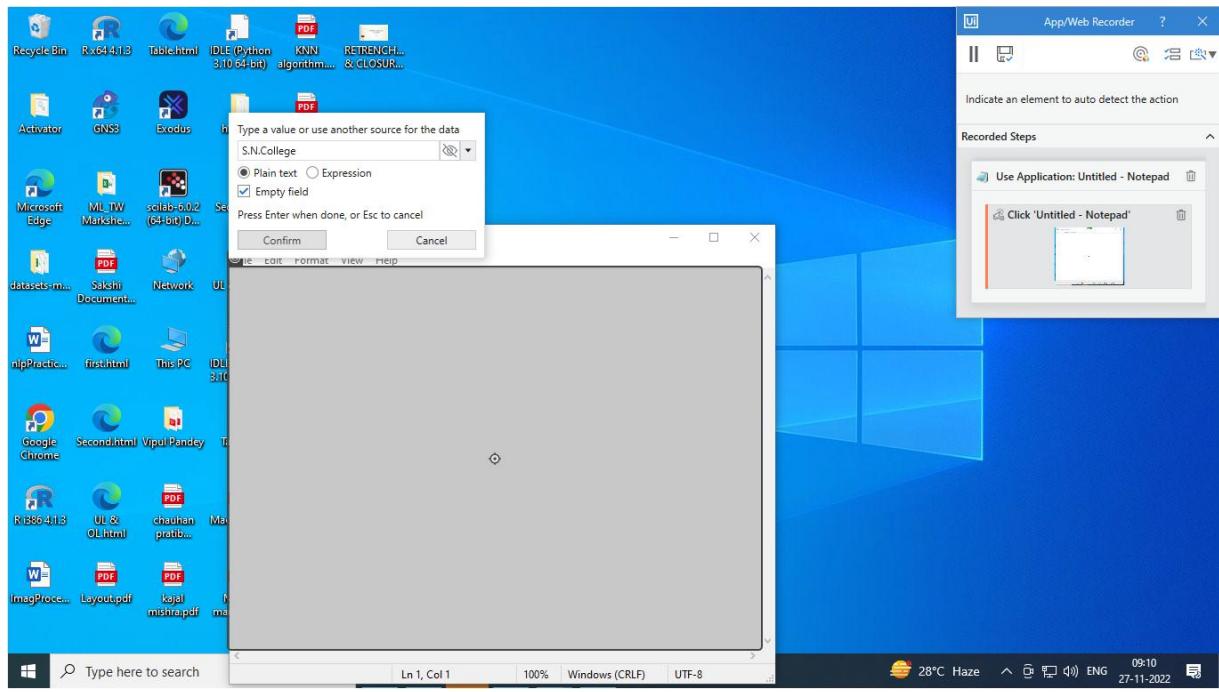


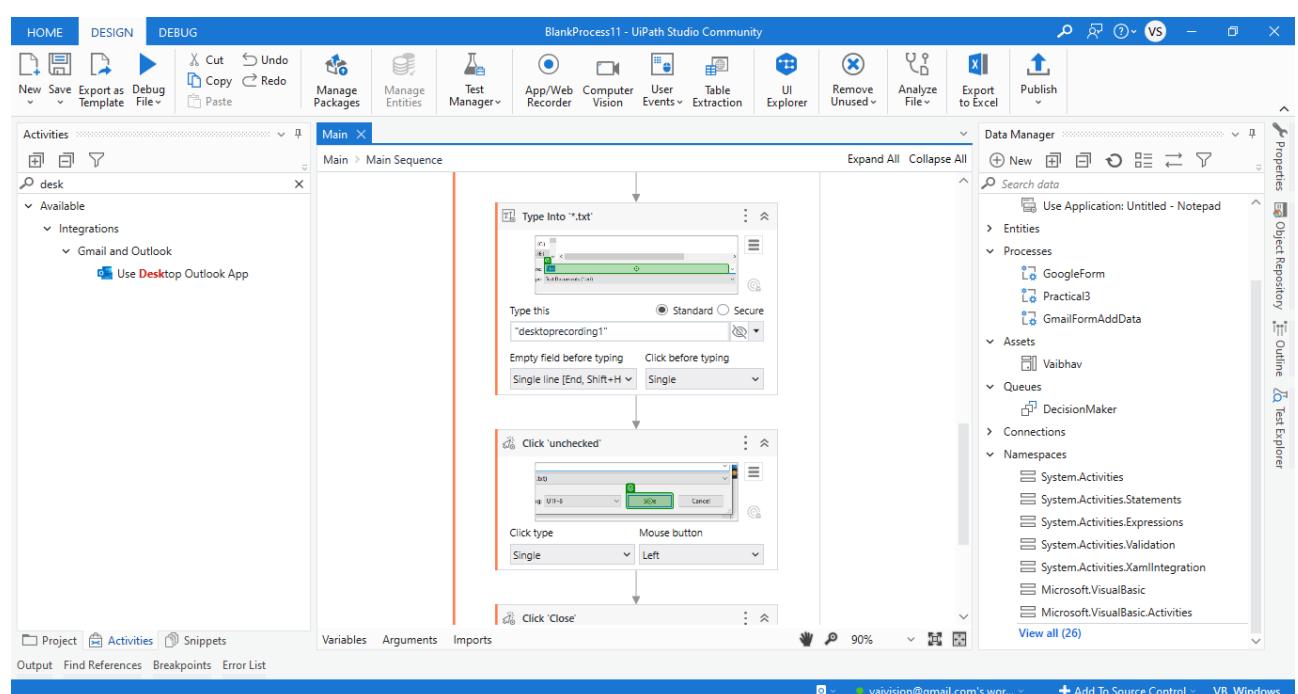
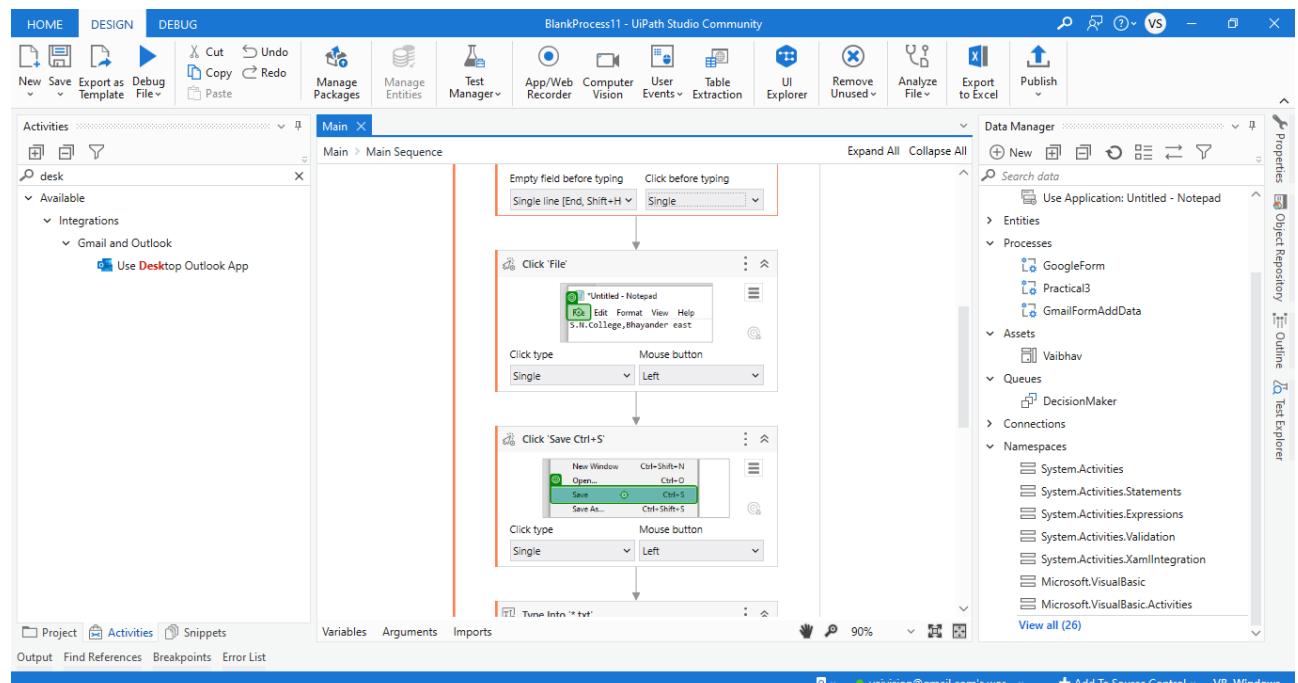
**Output:**

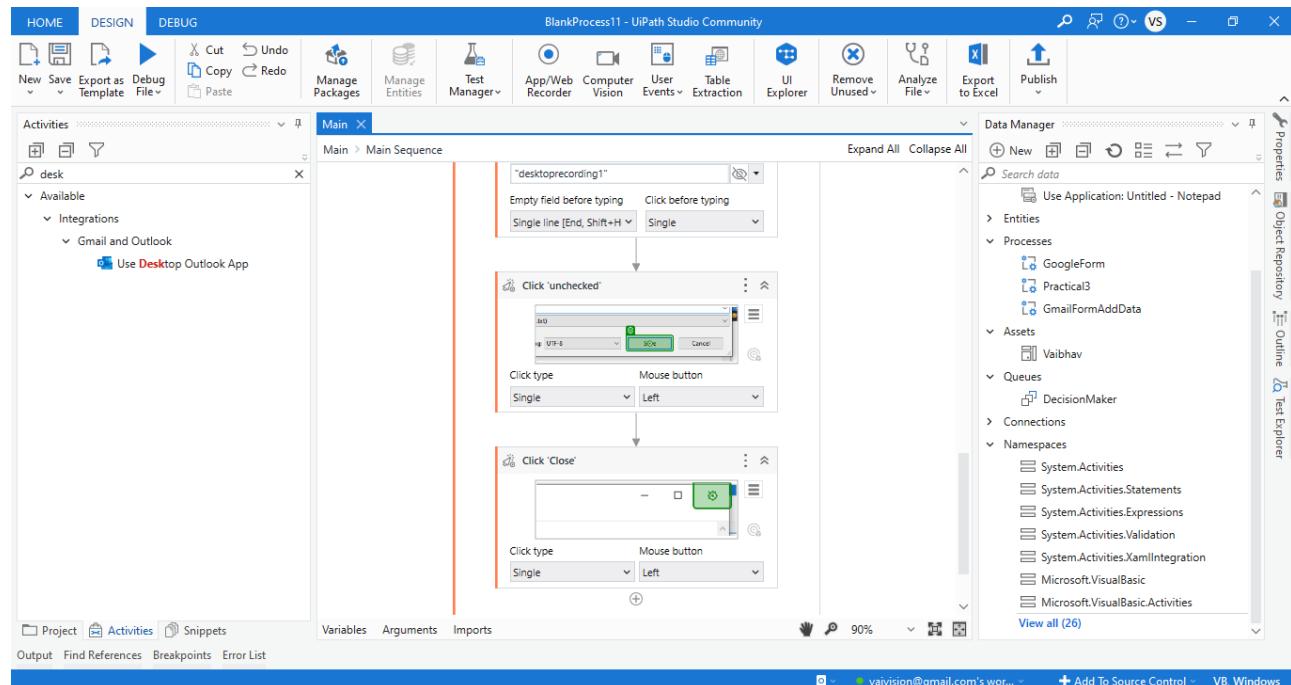
After running process Cursor will click on search of windows. Select require application. Here I am selecting notepad. Then I select blank page of notepad and type into it. Then I click on File menu. Click on save and type file name. Then click on save button.

### C. Automate any process using desktop recording using Tool bar.

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Open notepad
3. Click on App/Web recorder
4. Click on notepad. Select white area and type anything. And save process.



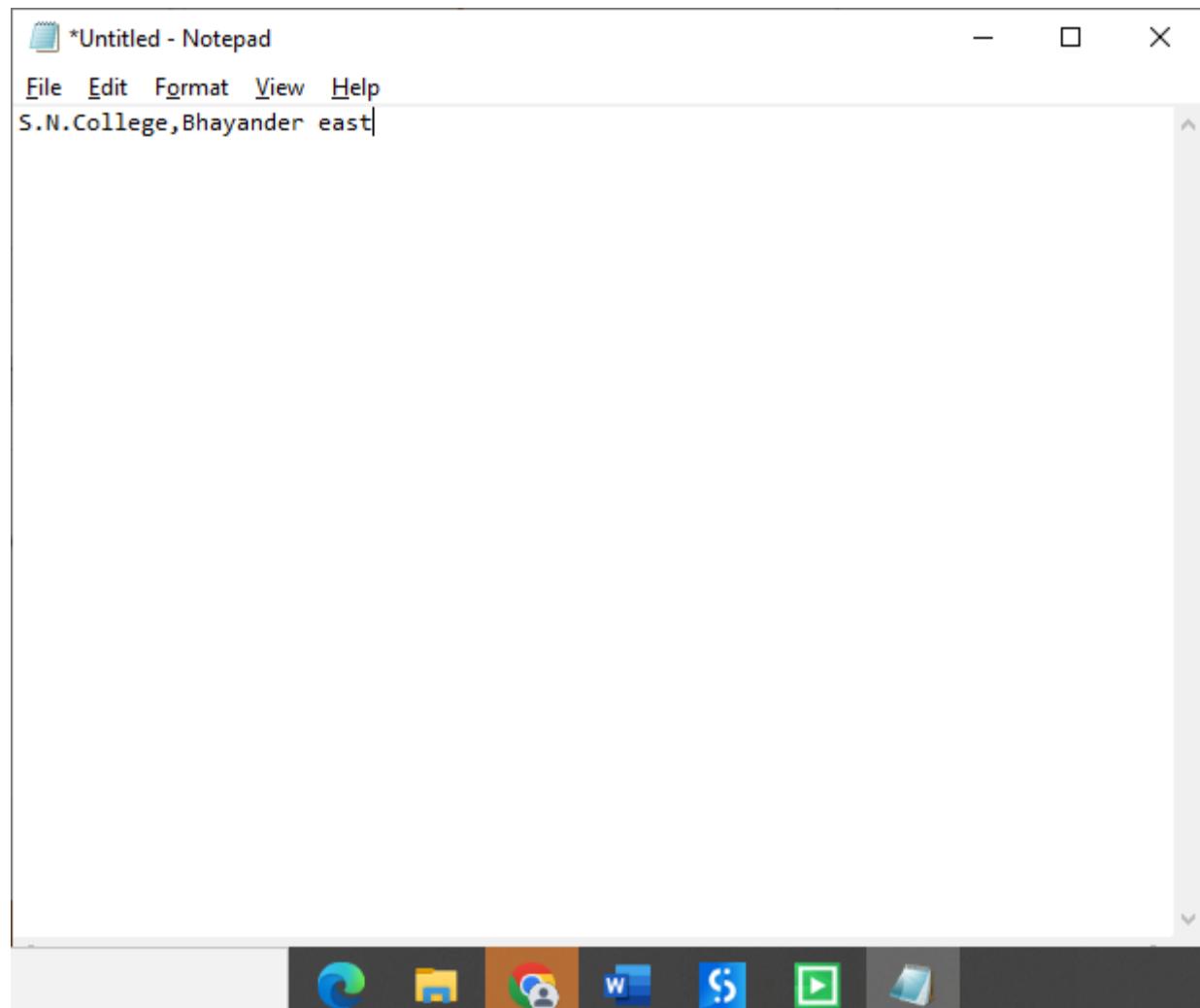




5. Close the notepad.

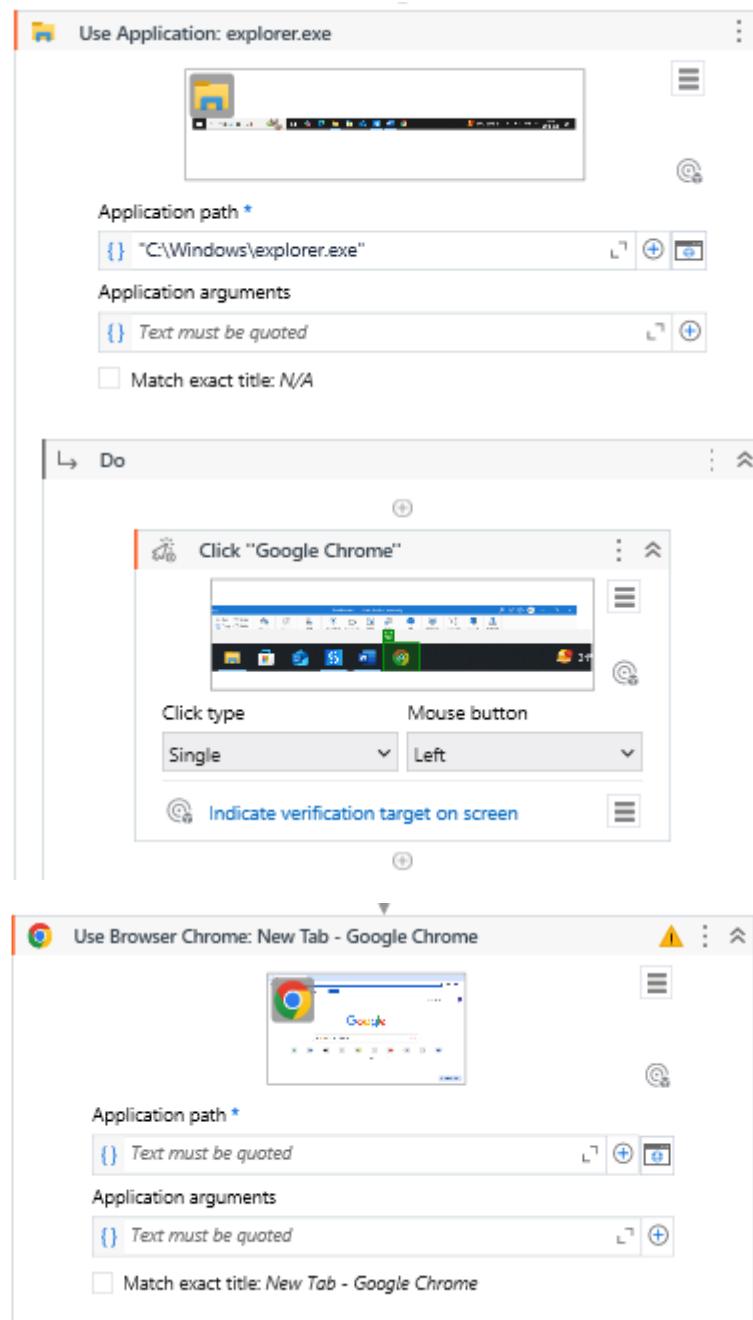
**Output:**

Also automatically save with desktoprecording1.txt



**D. Web Recording e.g. Find the rating of the movie from imdb web site**

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Click on App/Web recorder. Choose chrome and click on it.
3. It will open chrome. Select address bar and type any movie name with imdb rating. Press enter key.
4. It will show Imdb rating of movie.
5. Click on save recording.
6. It will show all process like below.



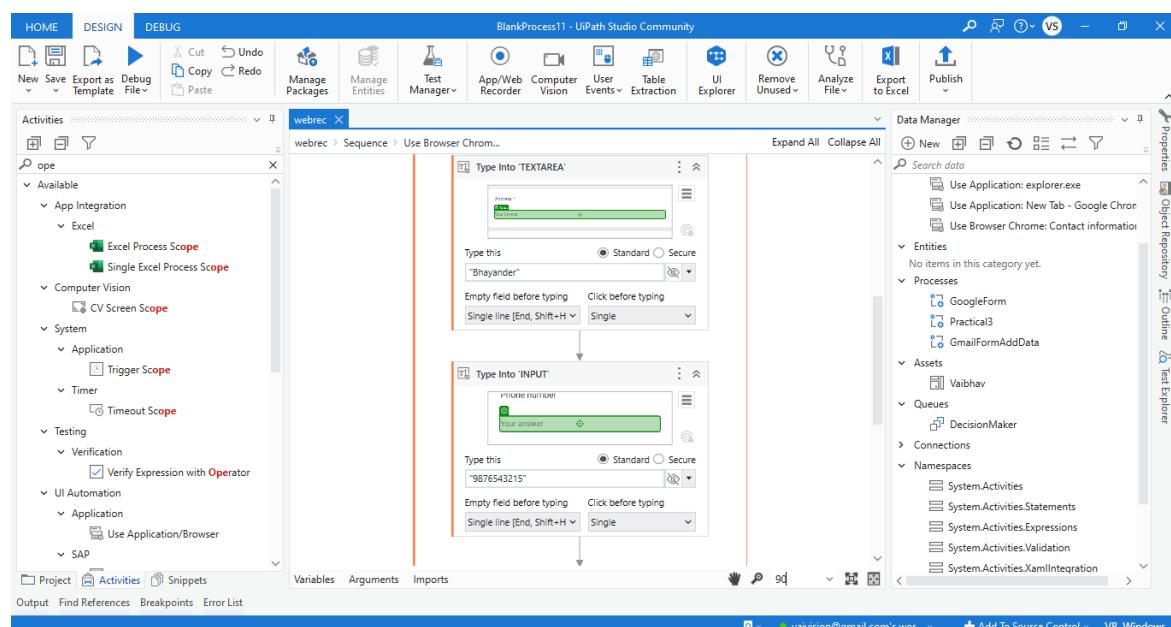
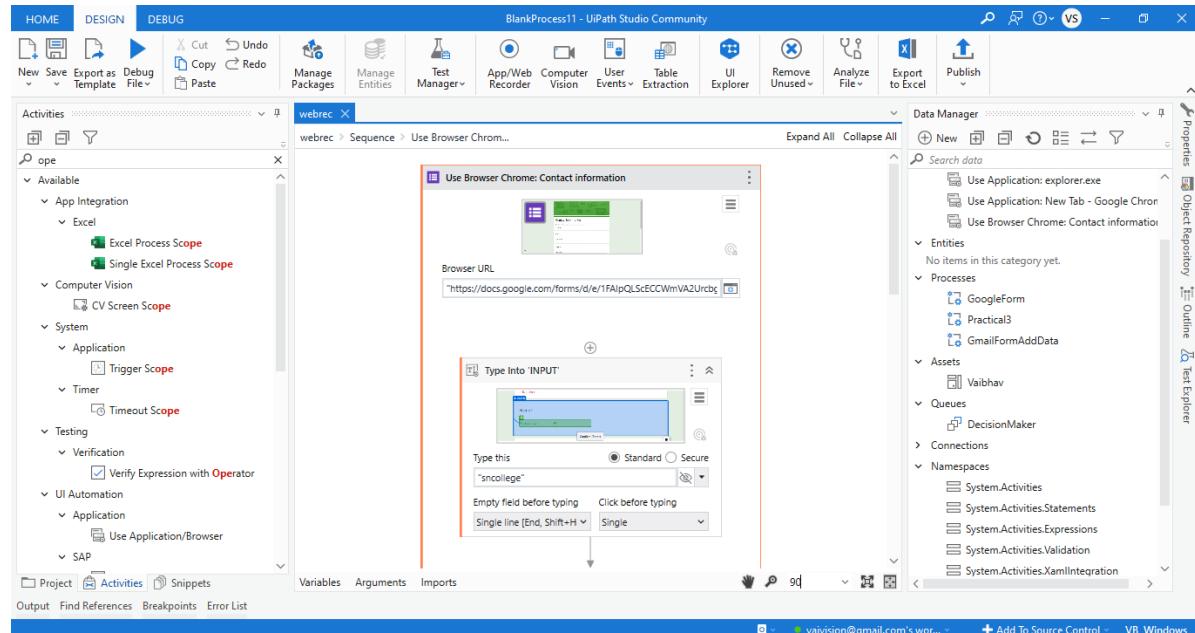
The screenshot displays a sequence of three RPA steps:

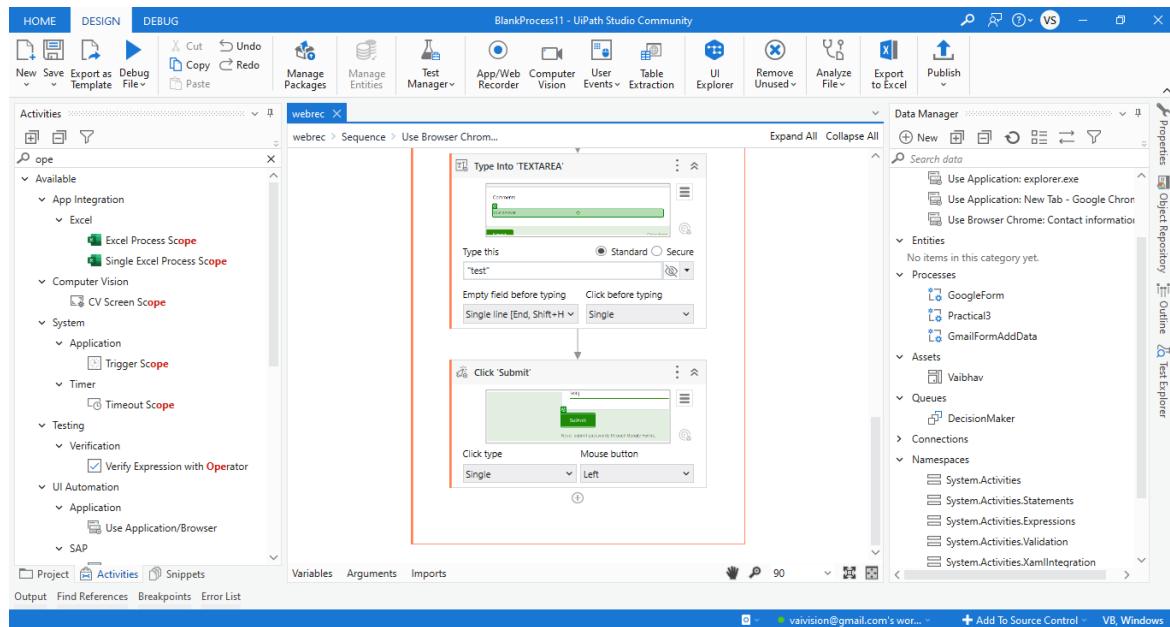
- Type Into "editable text Address a..."**:
  - Configuration: Standard mode, typing query: "imdb rating of kantara movie".
  - Verification: Verify that "mdb rating of kantara movie" is typed.
- Click "pane"**:
  - Configuration: Click type: Single, Mouse button: Left.
  - Indication: Indicate verification target on screen.The step shows a screenshot of a browser with a search result highlighted.
- Use Browser Chrome: imdb rating of kantara movie - Google Search**:
  - Configuration: Browser URL: "https://www.google.com/search?q=imdb+rating+of+kantara+movie".
- Click "9.5/10"**:
  - Configuration: Click type: Single, Mouse button: Left.
  - Indication: Indicate verification target on screen.The step shows a screenshot of a browser displaying a sentence containing the rating "9.5/10", which is highlighted.

**Output:** Run your bot and check. It will show same output.

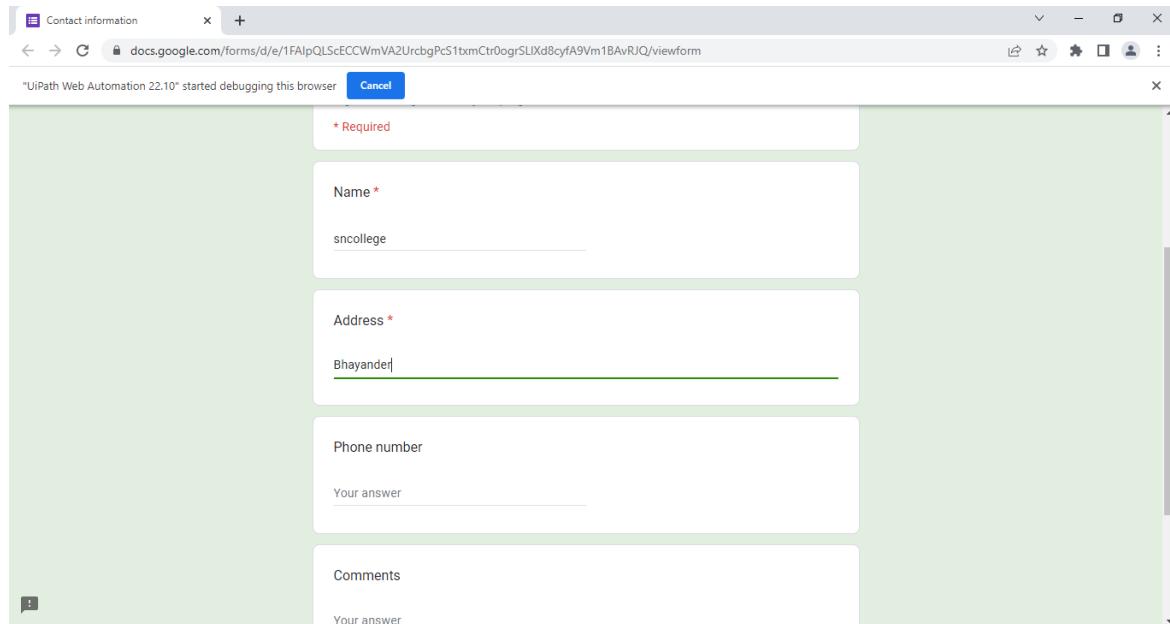
## E. Automate any process using web recording

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Click and drag open browser from the activity panel.
3. Enter Url of the form under double quotation.





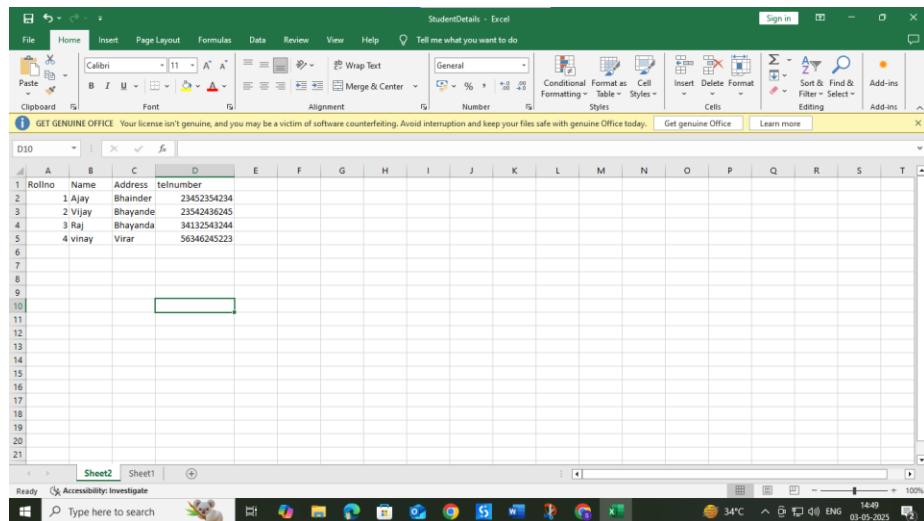
## Output:



**Practical No 4**  
**Excel Automation**

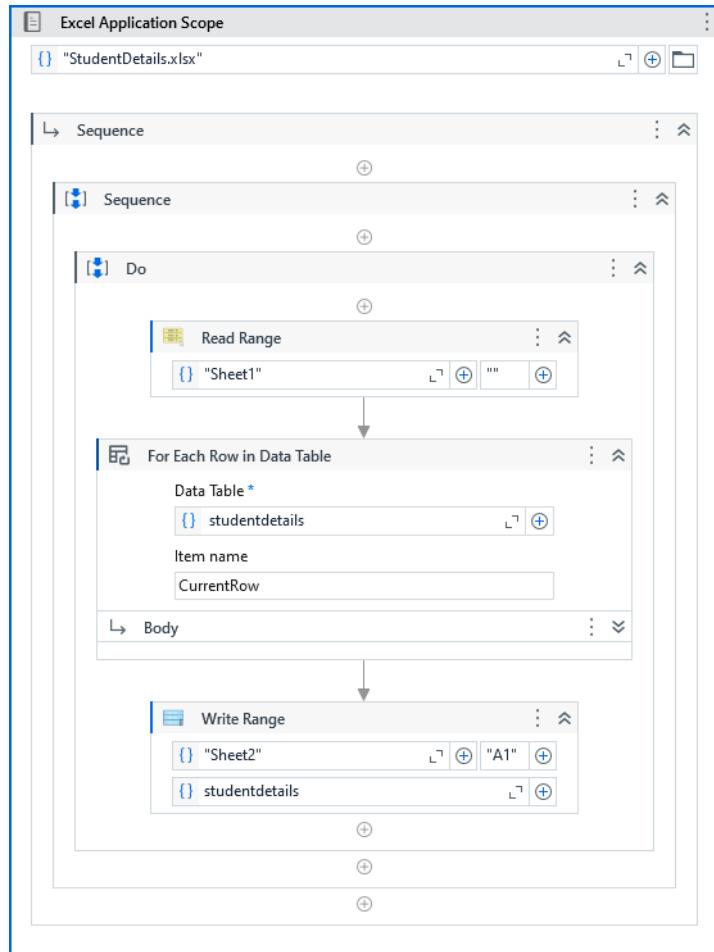
A. Automate the process to extract data from an excel file into a data table and vice versa.

1. Create an excel file with name StudentDetails.xlsx with following data.



Rollno	Name	Address	telnumber
1	Ajay	Bhairander	23452354234
2	Vijay	Bhayande	2354236245
3	Raj	Bhayanda	34132543244
4	vinay	Virar	56346245223

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Application Scope from the activity window and drop into sequence and insert the path of the StudentDetails.xlsx file.
4. Select Do activity from the activity window and drop into sequence and then select Read Range from the activity window and give "sheet1" as read range input.
5. Select For Each Row in Data Table activity from the activity window and drop into sequence and give inputs as shown below.
6. Select Write Range activity from the activity window and drop into sequence to specify the sheet where we need to copy the data and give inputs as shown below. Here sheet2 is given as input for the data to be copied from sheet1.



## Output:

Here data from Sheet2 is copied to Sheet1

StudentDetails - Excel

D10	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Rollno	Name	Address	telnumber																
2	1	Ajay	Bhainder	23452354234																
3	2	Vijay	Bhayande	23542436245																
4	3	Raj	Bhayanda	34132543244																
5	4	Vinay	Virar	56346245223																
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				

Sheet2 Sheet1

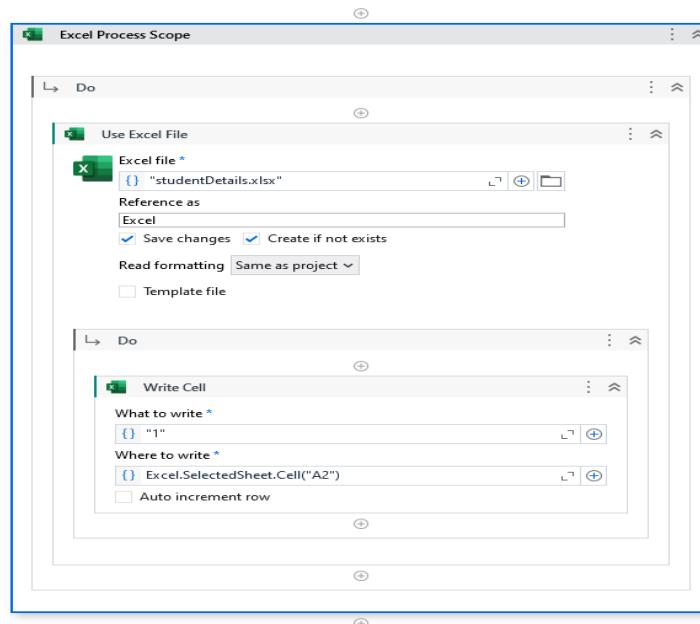
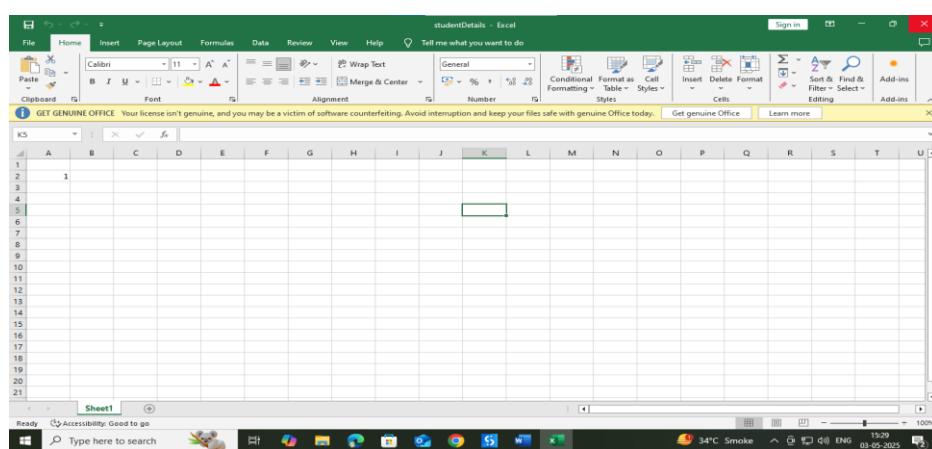
Ready Accessibility: Investigate

Type here to search

15:02 03-05-2023 ENG 34°C

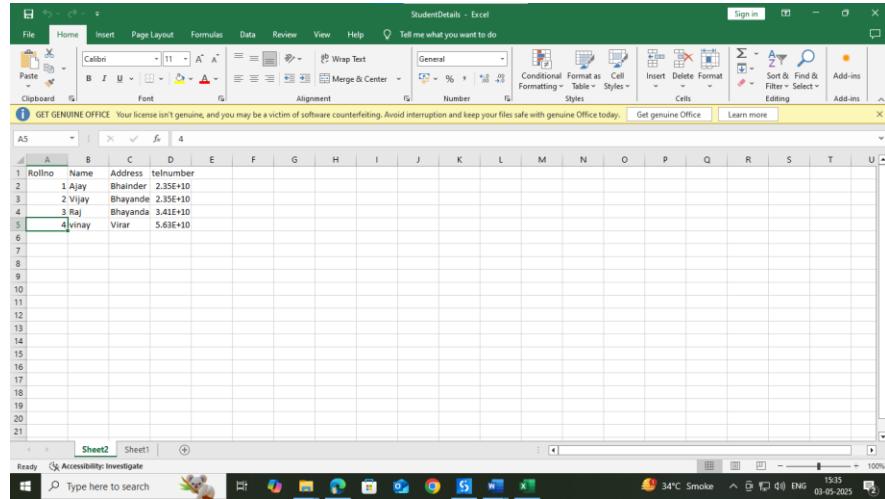
**B. Create an automation to Write data to specific cell of an excel sheet.**

1. Create an empty excel file StudentDetails.xlsx.
2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert StudentDetails.xlsx as excel input.
5. Again select Do activity from the activity box and insert write cell activity to specify the data to be written in specific cell and give input as below along with the cell location

**Output:**

### C. Create an automation to Read data to specific cell of an excel sheet.

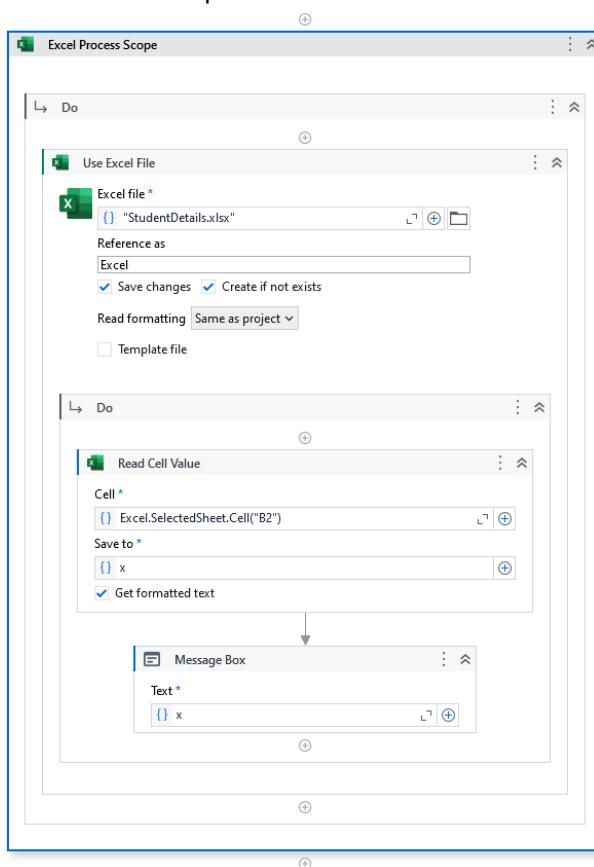
1. Create an excel file with name StudentDetails.xlsx with following data.



A screenshot of Microsoft Excel showing a table titled "StudentDetails". The table has columns for Rollno, Name, Address, and telnumber. The data is as follows:

Rollno	Name	Address	telnumber
1	Ajay	Bhaiander	2.35E+10
2	Vijay	Bhayande	2.35E+10
3	Raj	Bhayanda	3.41E+10
4	Vinay	Virar	5.63E+10

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert StudentDetails.xlsx as excel input.
5. Again select Do activity from the activity box and insert read cell activity to read the data from the specified location. Use input values as shown below to read the data



**Output:**

A screenshot of Microsoft Excel showing a table of student details and a message box.

The table has columns: Rollno, Name, Address, telnumber. The data is as follows:

Rollno	Name	Address	telnumber
1	Ajay	Bhainder	2.35E+10
2	Vijay	Bhayande	2.35E+10
3	Raj	Bhayanda	3.41E+10
4	vinay	Virar	5.63E+10

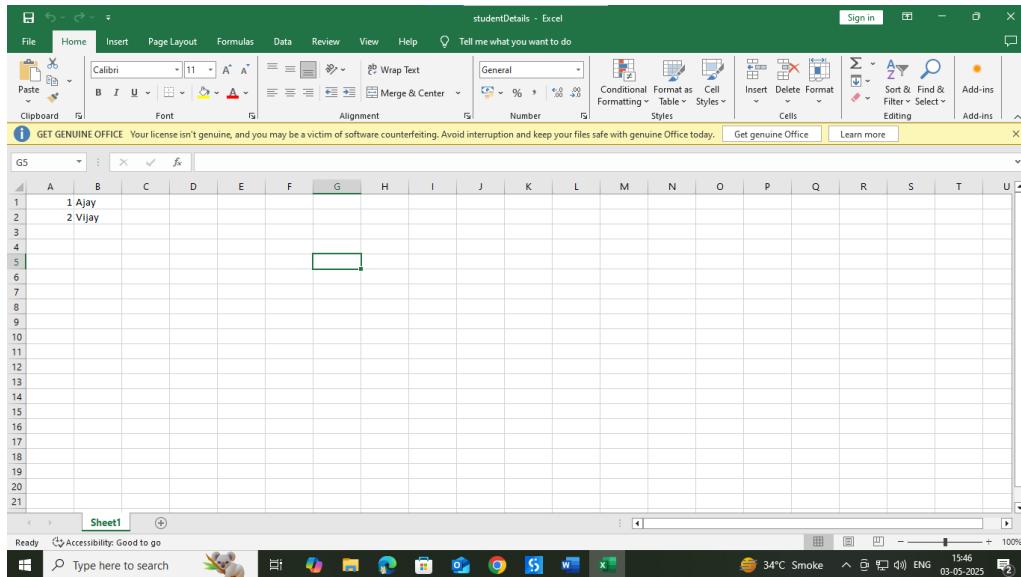
A message box titled "Message..." is displayed, containing the text "Ajay" and an "OK" button.

The Excel ribbon tabs shown are: File, Home, Insert, Page Layout, Formulas, Data, Review, View, Help, and Tell me what you want to do.

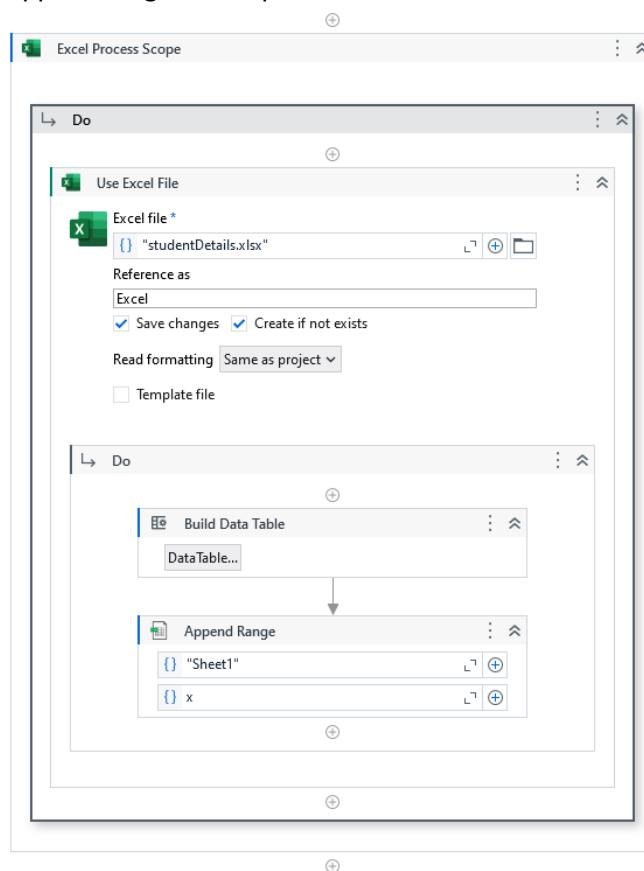
The status bar at the bottom shows: Average: 28173122614 Count: 4 Sum: 56346245227, 34°C, ENG, 15:41, 03-05-2025.

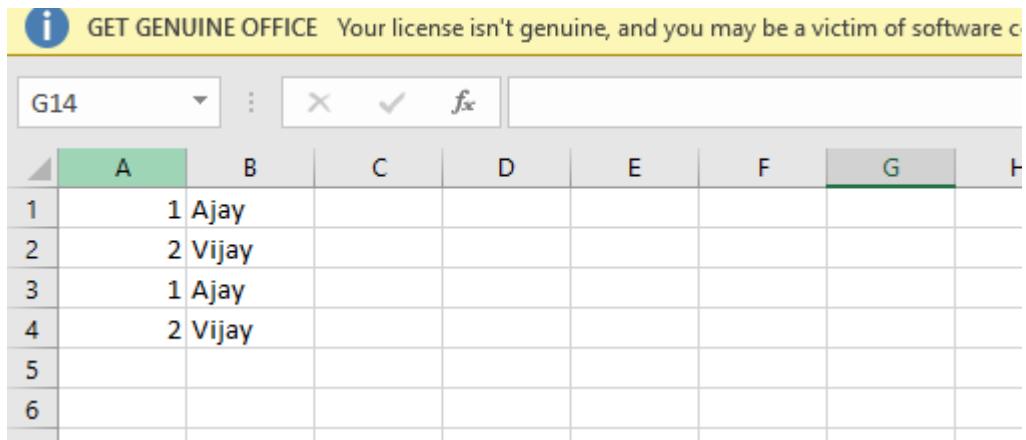
#### D. Create an automation to append data to specific cell of an excel sheet.

1. Create an empty excel file StudentDetails.xlsx.



2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert StudentDetails.xlsx as excel input.
5. Again, select Do activity from the activity box and insert Build data table and then insert append range. Use input values as shown below to read the data



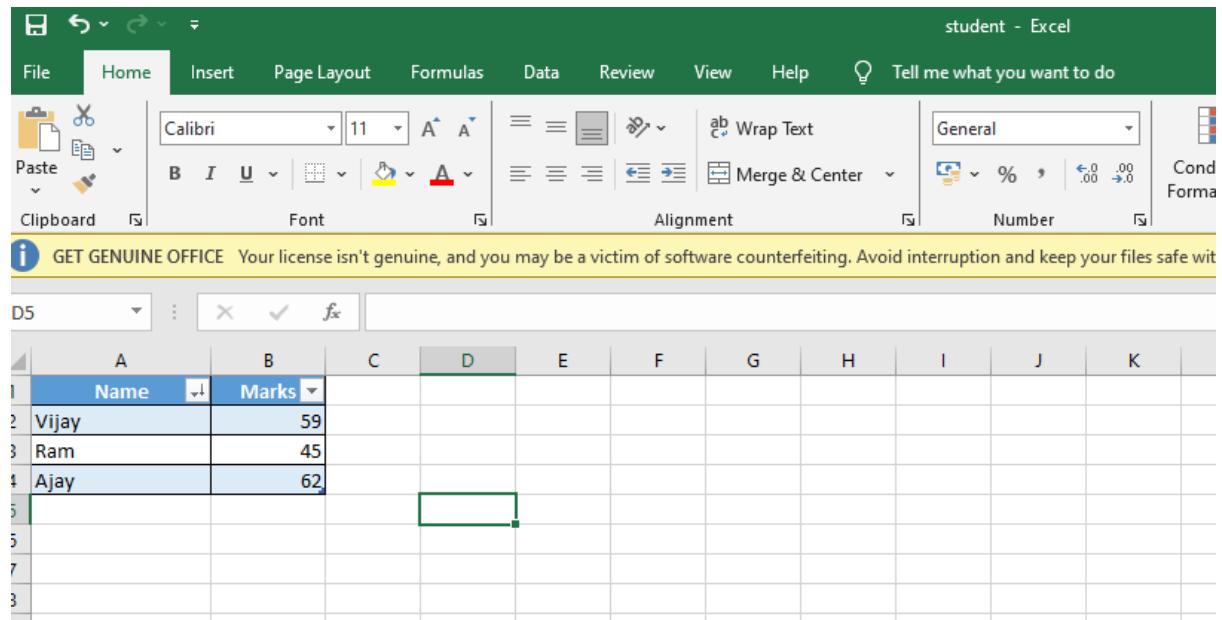
**Output:**


A screenshot of Microsoft Excel showing a table with data. The table has 6 rows and 2 columns. The first column contains numbers 1 through 6. The second column contains pairs of names: '1 Ajay' and '2 Vijay' repeated twice. The table is located on a sheet labeled 'G14'.

1	1 Ajay
2	2 Vijay
3	1 Ajay
4	2 Vijay
5	
6	

**E. Create an automation to sort a table of an excel sheet.**

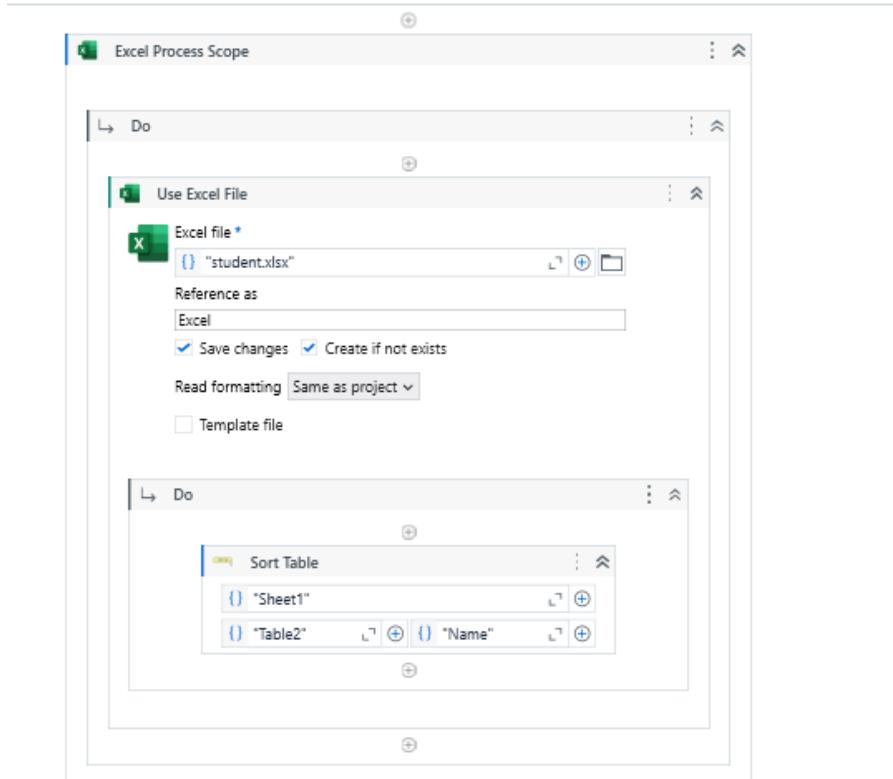
1. Create an excel file Student.xlsx.



A screenshot of Microsoft Excel showing a table with data. The table has 5 rows and 2 columns. The first row contains headers 'Name' and 'Marks'. The second row contains data 'Vijay' and '59'. The third row contains 'Ram' and '45'. The fourth row contains 'Ajay' and '62'. The fifth row is empty. The table is located on a sheet labeled 'D5'.

Name	Marks
Vijay	59
Ram	45
Ajay	62

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert Student.xlsx as excel input.
5. Again select Do activity from the activity box and insert Sort Table to sort the data . Use input values as shown below to read the data



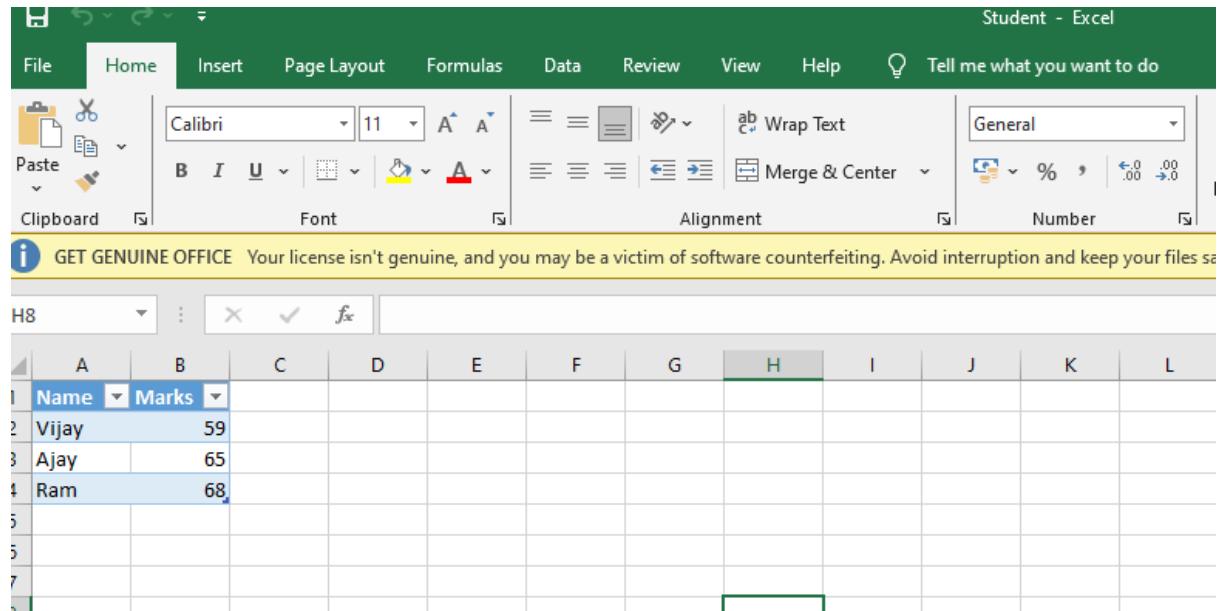
## **Output:**

The screenshot shows a Microsoft Excel spreadsheet titled "student - Excel". The ribbon menu is visible at the top, with the "Home" tab selected. The "Font" group on the ribbon includes Calibri, 11pt, bold, italic, underline, and various alignment options like Wrap Text and Merge & Center. The "Number" group shows a general format and currency settings. A yellow status bar at the bottom displays the message: "GET GENUINE OFFICE Your license isn't genuine, and you may be a victim of software counterfeiting. Avoid interruption and keep your f". The main content area contains a table with columns "Name" and "Marks". The table has 6 rows, with rows 1 through 4 containing data: Row 1 has "Name" and "Marks" as headers, Row 2 has "Ajay" and "62", Row 3 has "Ram" and "45", and Row 4 has "Vijay" and "59". Rows 5 and 6 are empty.

	Name	Marks
1	Ajay	62
2	Ram	45
3	Vijay	59
4		
5		
6		

**F. Create an automation to filter a table of an excel sheet**

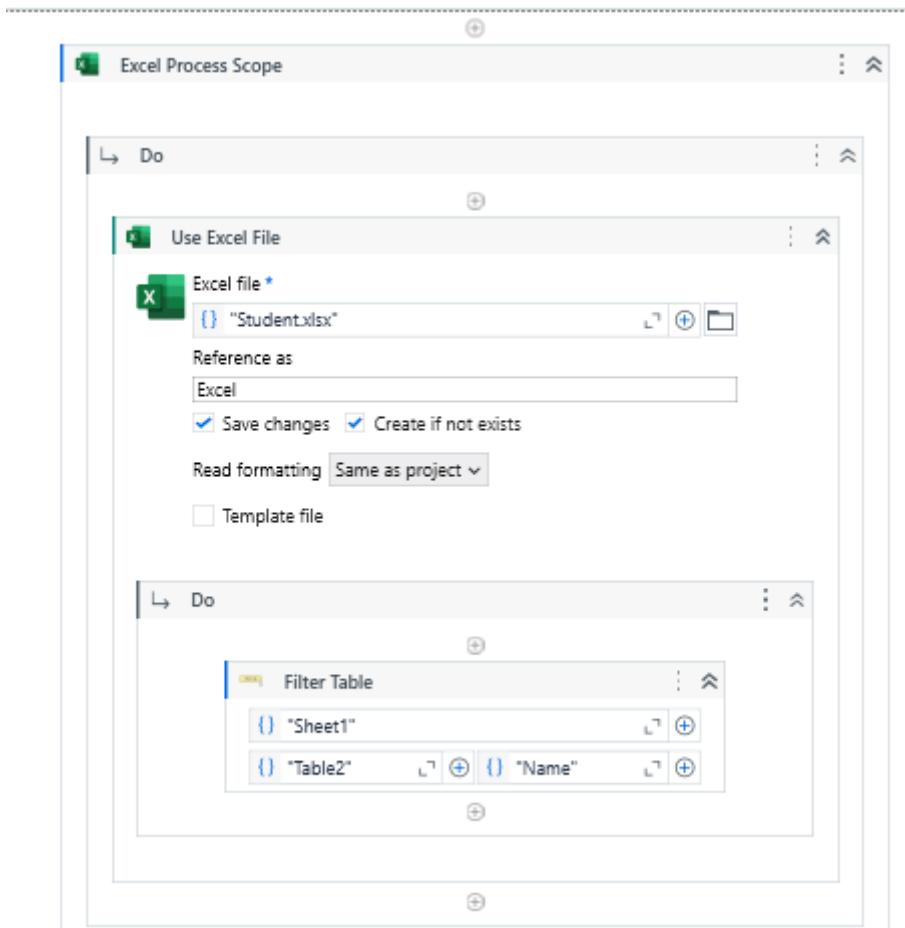
1. Create an excel file Student.xlsx.



A screenshot of the Microsoft Excel application window titled "Student - Excel". The ribbon menu is visible at the top, showing tabs like File, Home, Insert, Page Layout, Formulas, Data, Review, View, Help, and Tell me what you want to do. The Home tab is selected. The main area shows a table with two columns: "Name" and "Marks". The first row contains "Name" and "Marks" as headers. Below them, three rows of data are shown: "Vijay" with a value of "59", "Ajay" with a value of "65", and "Ram" with a value of "68". The table has a light blue header row and white data rows. The column headers "Name" and "Marks" are bolded. The cell containing "59" is also highlighted with a light blue background.

Name	Marks
Vijay	59
Ajay	65
Ram	68

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert Student.xlsx as excel input.
5. Again select Do activity from the activity box and insert Filter Table to filter the data . Use input values as shown below to read the data

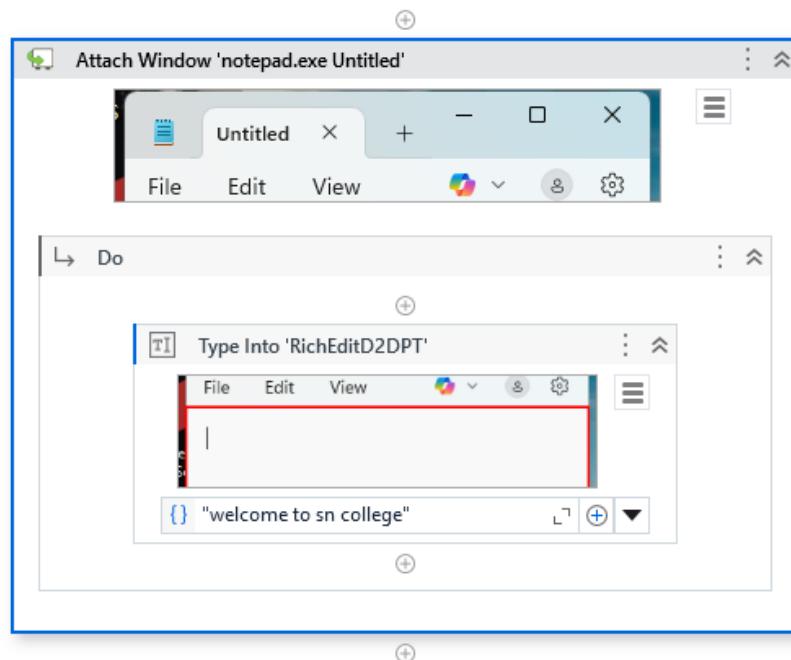


## Output:

**Practical No 5**  
**Different controls in UiPath**

**A. Implement the attach window activity.**

1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Pratical5A.
2. Open Main.xaml from Project tab. On the Designer panel, double click a Attached window activity from the Activities panel.
3. Open Notepad and click on Indicate window on screen from Attached window activity. And select blank notepad page.
4. Take another activity like Type Into activity and click on Indicate window on screen from type into activity. And type as per your requirement e.g. "welcome to sn College".
5. It will show complete flow like below.



**Output**

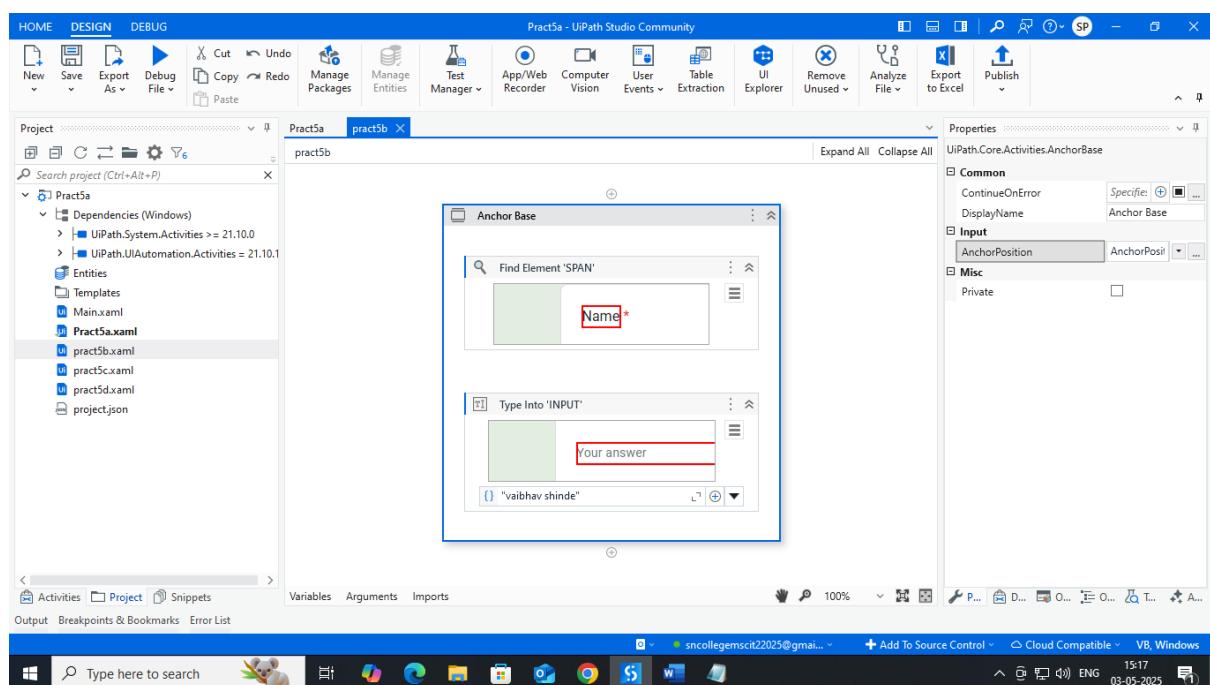


### B. Automate using Anchor Base.

1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Pratical5B.
2. Open Main.xaml from Project tab. On the Designer panel, double click Anchor Base activity from the Activities panel.
3. Select any label name from any form (Google form or any login form).
4. Select Anchor Position like top/bottom/left/right/auto.
5. Select Type Into activity from activity window. And select textbox which you want to fill.

Sample link:

[https://docs.google.com/forms/d/e/1FAIpQLSfBt4jcytSWD6\\_aH9j30SW8\\_qFF2U\\_4CjTB5ARUITJxqfstyg/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSfBt4jcytSWD6_aH9j30SW8_qFF2U_4CjTB5ARUITJxqfstyg/viewform?usp=pp_url)



Output:

Contact information

sncollegemscit22025@gmail.com [Switch account](#)

Not shared

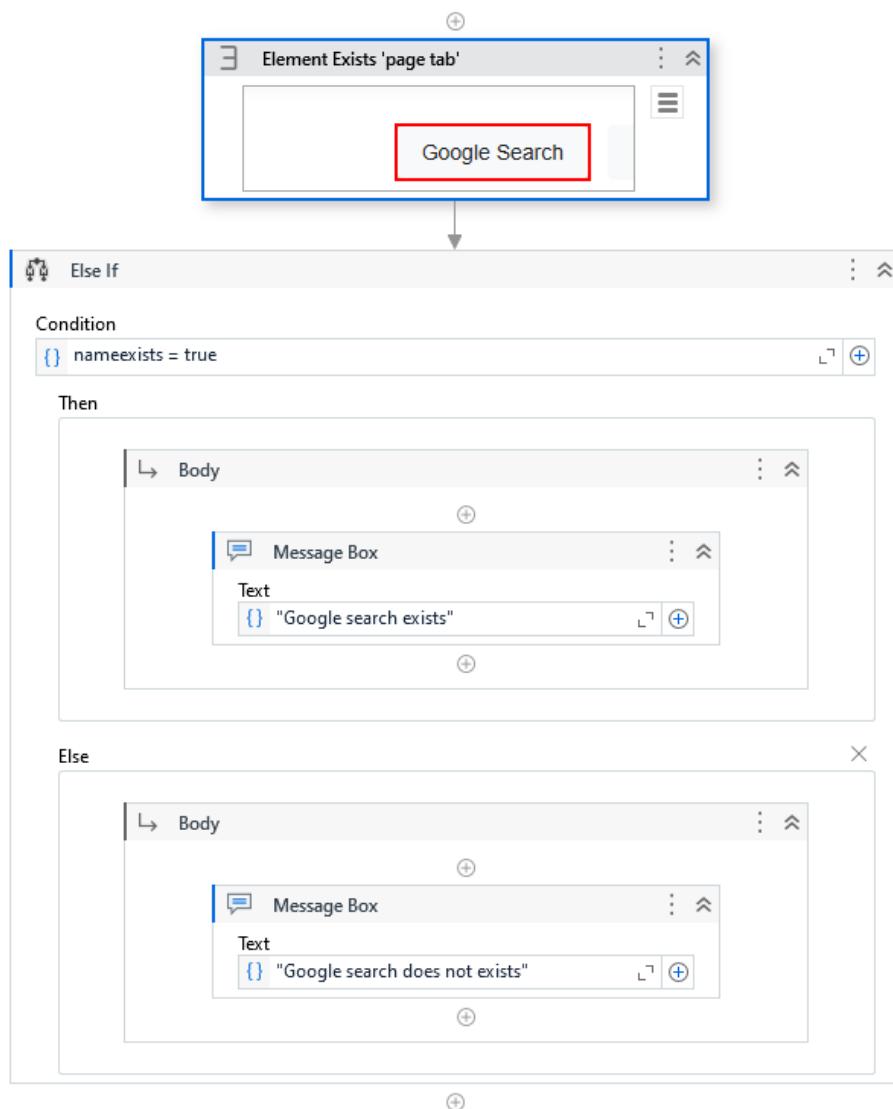
\* Indicates required question

Name \*

vaibhav shinde

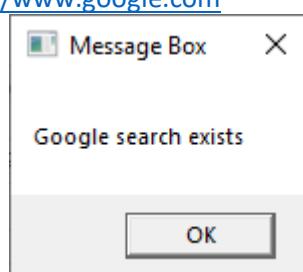
### C. Automate using Element Exists.

1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Pratical5C.
2. Open Main.xaml from Project tab. On the Designer panel, double click Element Exists activity from the Activities panel.
3. Click on Indicate window on screen and select Google search button from google.com.
4. Create one variable nameexists as boolean. And mapped in exists property of Element Exists activity.
5. Select Else-if activity from activity window. And give condition as below.

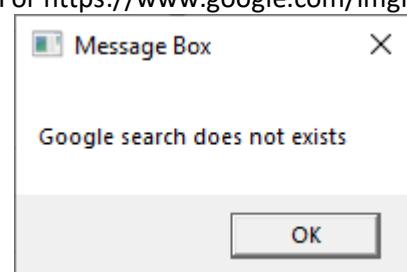


#### Output:

For <https://www.google.com>



For <https://www.google.com/imghp>

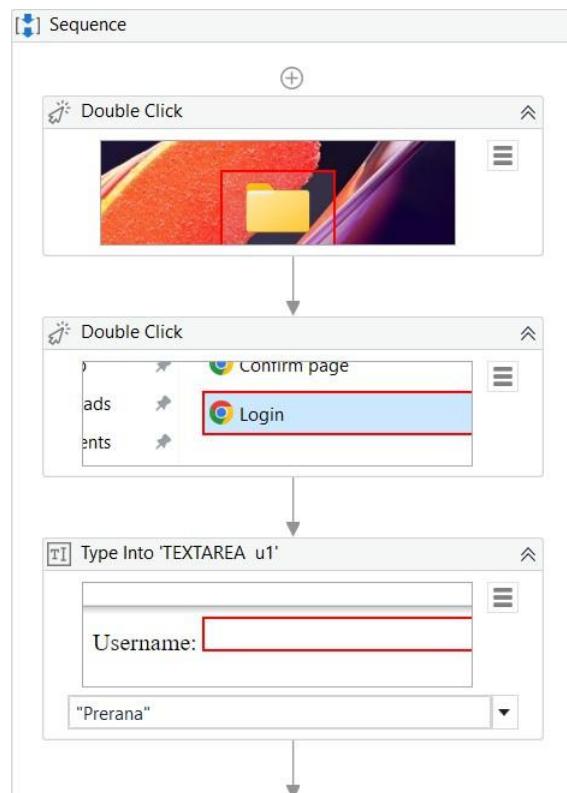


**Practical No. 6****A. Demonstrate the following activities in UiPath:**

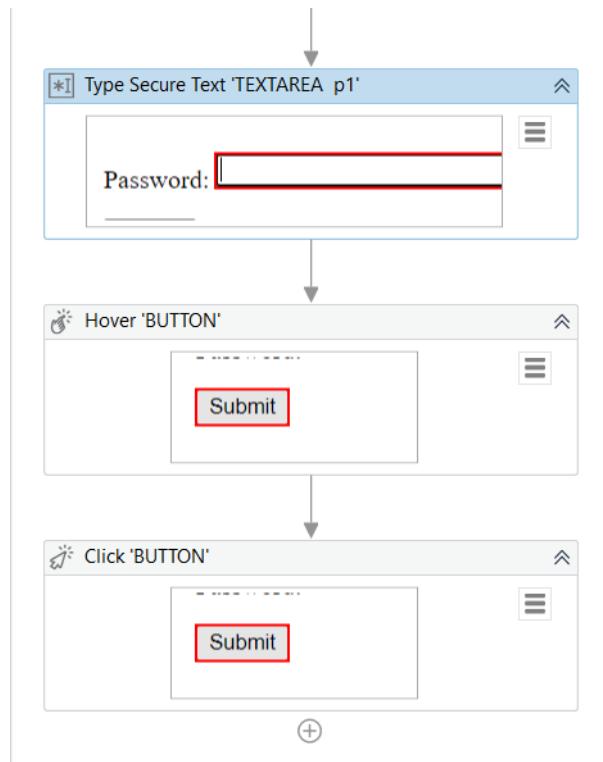
- i. **Mouse (click, double click and hover)**
- ii. **Type into**
- iii. **Type Secure text**

Steps:

1. Create a flowchart activity.
2. Drag and drag a sequence activity from activities panel.
3. Connect the start node to this sequence
4. Drag and drop the double click activity and indicate the folder icon to open it.
5. Drag and drop another double click activity and indicate the Login page to open it in browser.
6. Drag and drop type into activity and indicate the text area of username in the page and pass the value in double quotes.

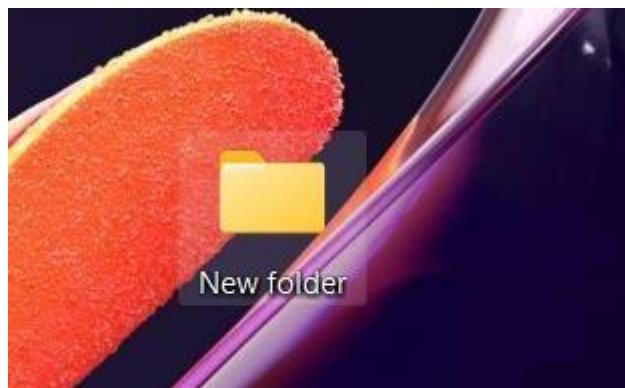


1. Drag and drop the type secure text activity.
2. Create a variable pwd with data type as SecureString and provide the value using Net package and convert it into SecureString and pass this value in SecureText of the input of type secure text.
3. Drag and drop the hover button to point at Submit button.
4. Drag and drop another click button and indicate it on the submit button.



Name	Variable type	Scope	Default
pwd	SecureString	Sequence	new System.Net.NetworkCredential("", "prerana").SecurePassword
<i>Create Variable</i>			

Output:



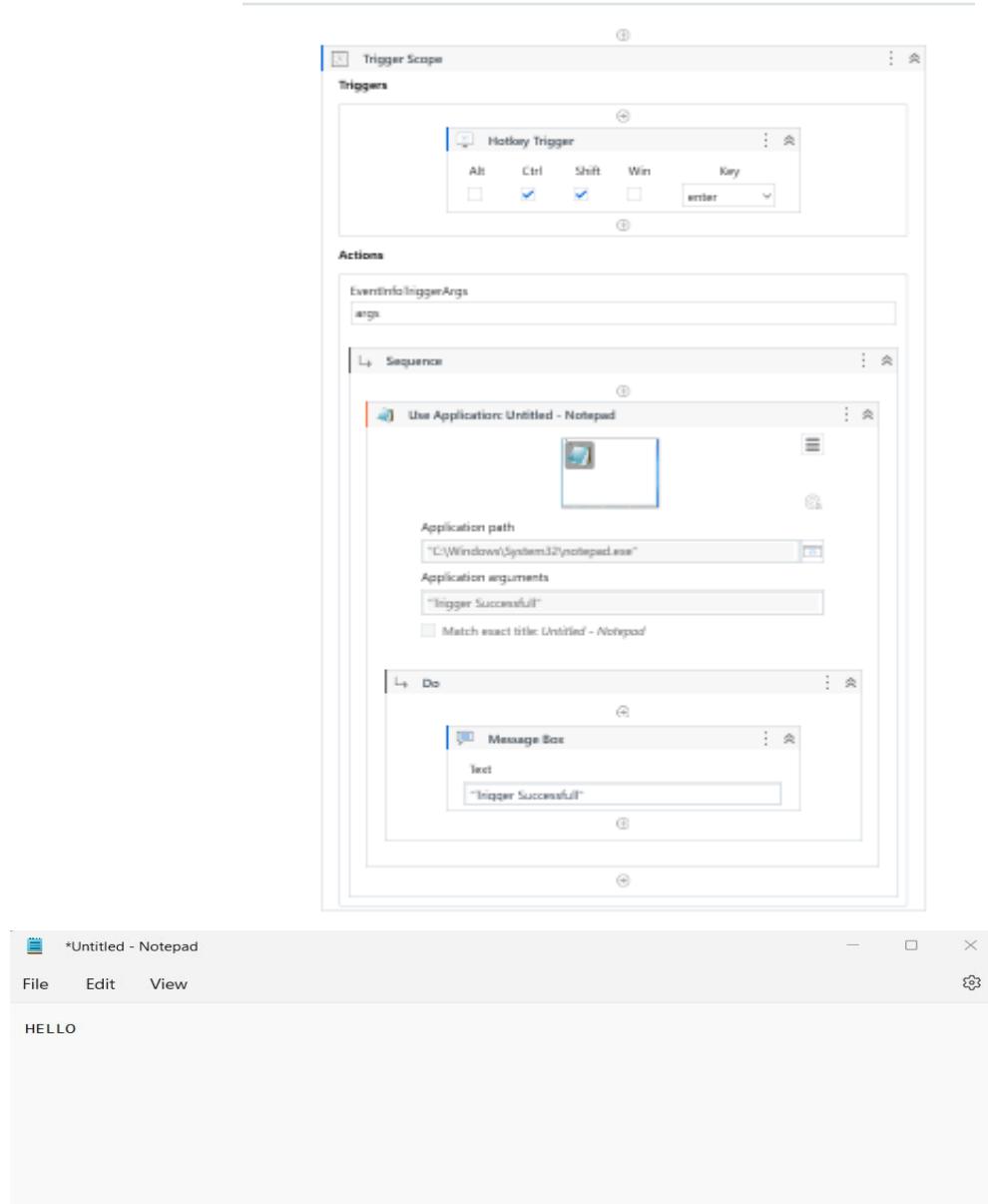
A screenshot of a web browser window titled "Login.html". The address bar shows the file path: "File | C:/Users/Prerana%20P%20Byahatti/Desktop/New%20folder/Login.html". A message at the top says "'UiPath Web Automation 22.10' started debugging this browser" with a "Cancel" button. The form contains fields for "Username" (Prerana) and "Password" (prerana), and a "Submit" button.

A screenshot of a web browser window titled "Confirm page.html". The address bar shows the file path: "File | C:/Users/Prerana%20P%20Byahatti/Desktop/New%20folder/Confirm%20page.html". A message at the top says "'UiPath Web Automation 22.10' started debugging this browser" with a "Cancel" button. The message "Successfully added!" is displayed below the message bar.

**B. Demonstrate the following events in UiPath:**

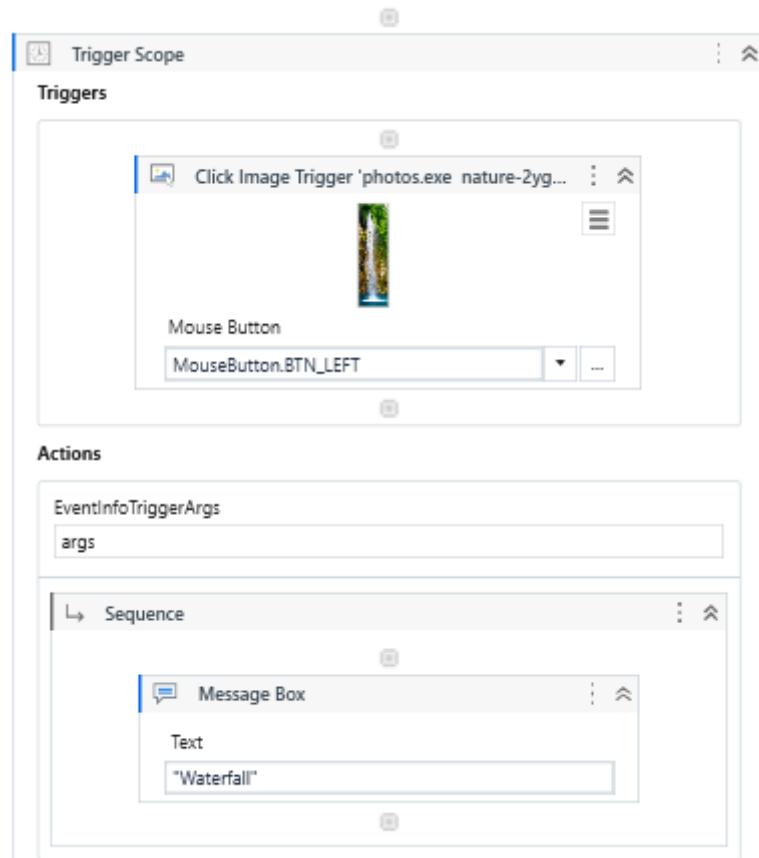
- i. Element triggering event
- ii. Image triggering event
- iii. System Triggering Event

1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Pratical6b.
2. Open Main.xaml from Project tab. On the Designer panel, double click a flowchart activity from the Activities panel.
3. Create a sequence and set it as Start node.
4. Drag and drop a trigger scope activity and in triggers add click trigger – indicate an untitled notepad and specify the mouse button.
5. In actions section's sequence add a type into activity - indicate an untitled notepad and add some text.

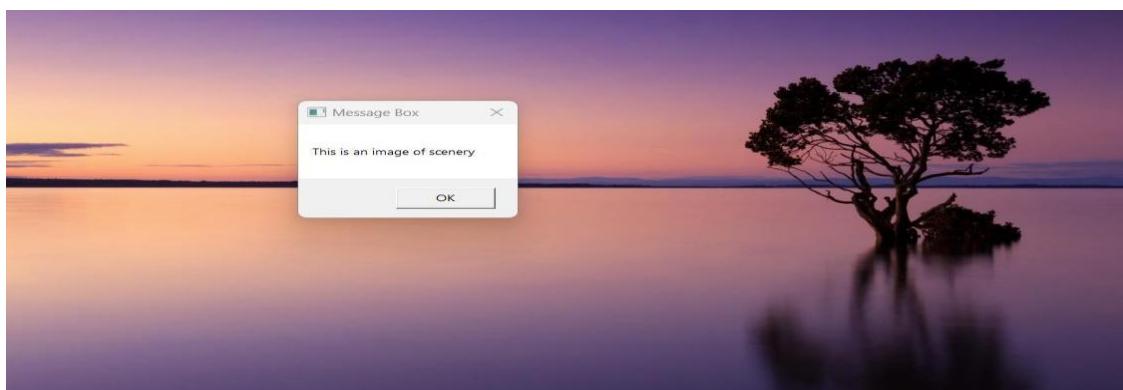


## ii) Image triggering event

1. Create another sequence and set this as Start node.
2. Drag and drop a trigger scope activity and in triggers section add click image trigger – indicate a region of image and specify mouse button.
3. In action's sequence section add a message box and enter some text to display.

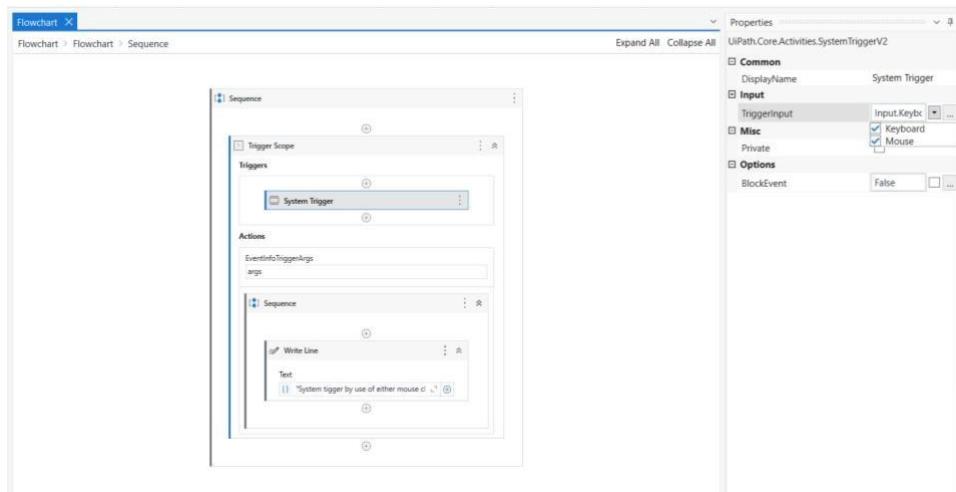


## Output:

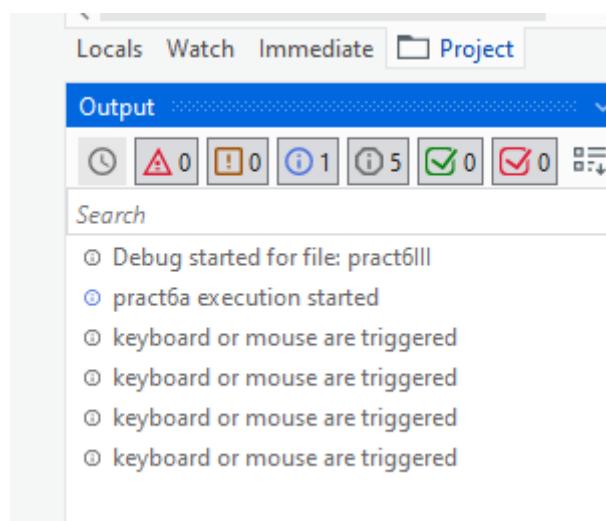


### iii) System Triggering Event.

1. Create another sequence and set this as Start node.
2. Drag and drop a trigger scope activity and in triggers section add system trigger – check both keyboard and mouse from its properties panel.
3. In action's sequence section add a Write Line activity and enter some text to display.



### Output:

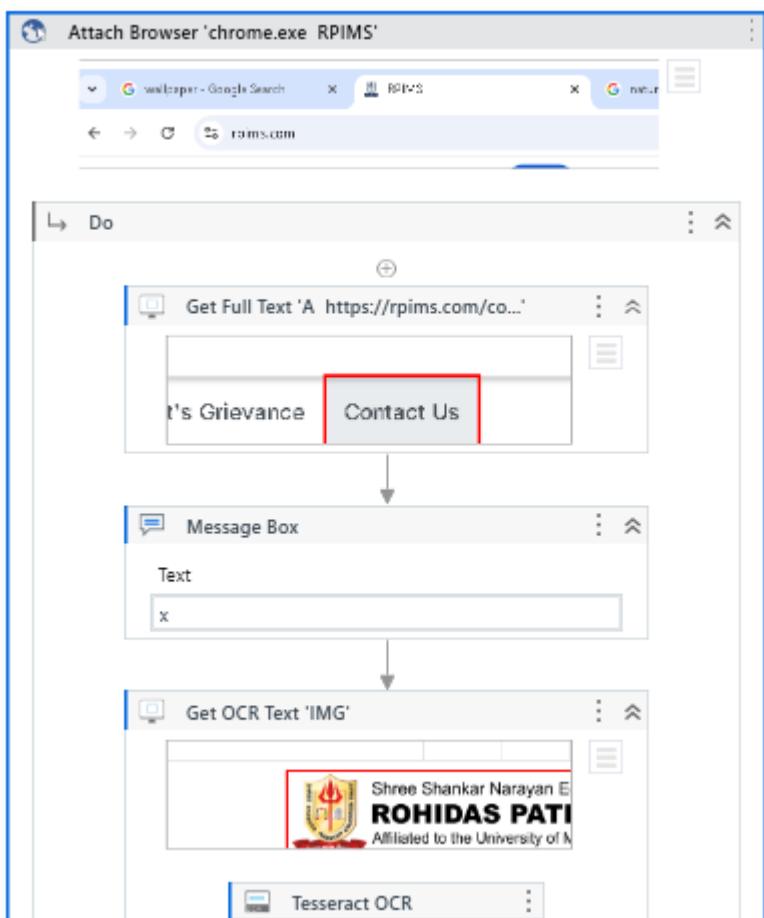


## Practical No. 7

Automate the following screen scraping methods using UIPath

- a. Full Text
- b. Native
- c. OCR

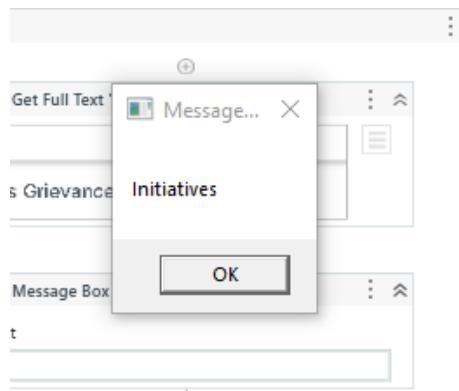
1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Pratical.
2. Open Main.xaml from Project tab. On the Designer panel, double click a flowchart activity from the Activities panel.
3. Click on Screen Scraping option from design tab and specify the region from which we need to extract the information.
4. Specify scraping methods as full text and click on finish.
5. Repeat step 3 and 4 by changing methods as Native and OCR.



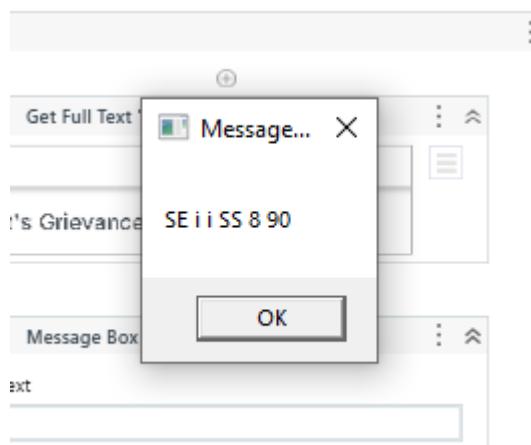


**Output:**

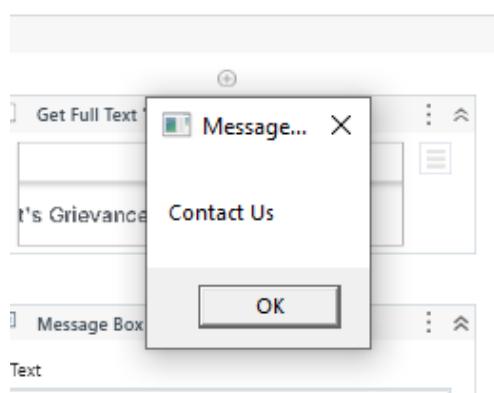
**Native text:**



**OCR text:**



**Full text:**

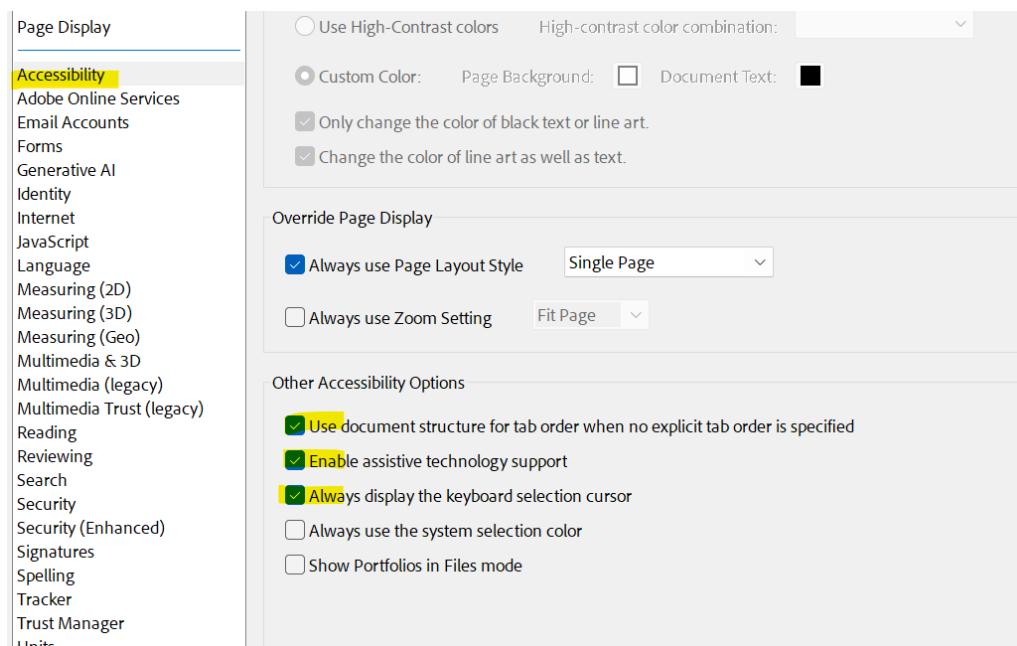
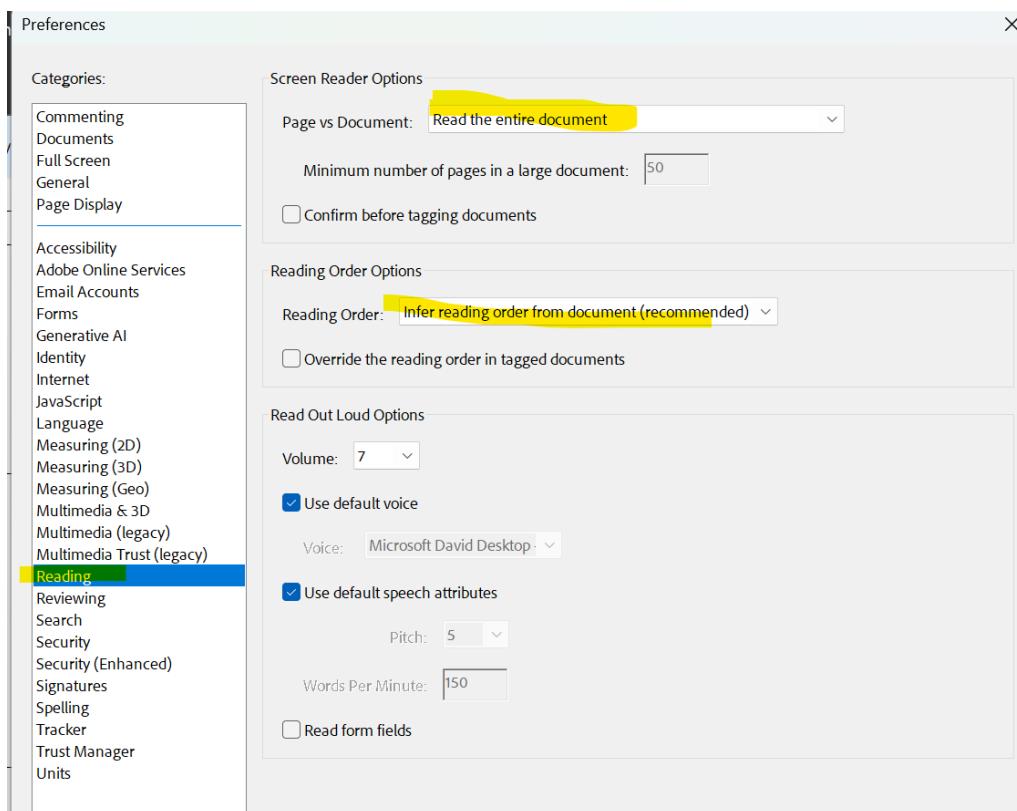


## Practical No. 8

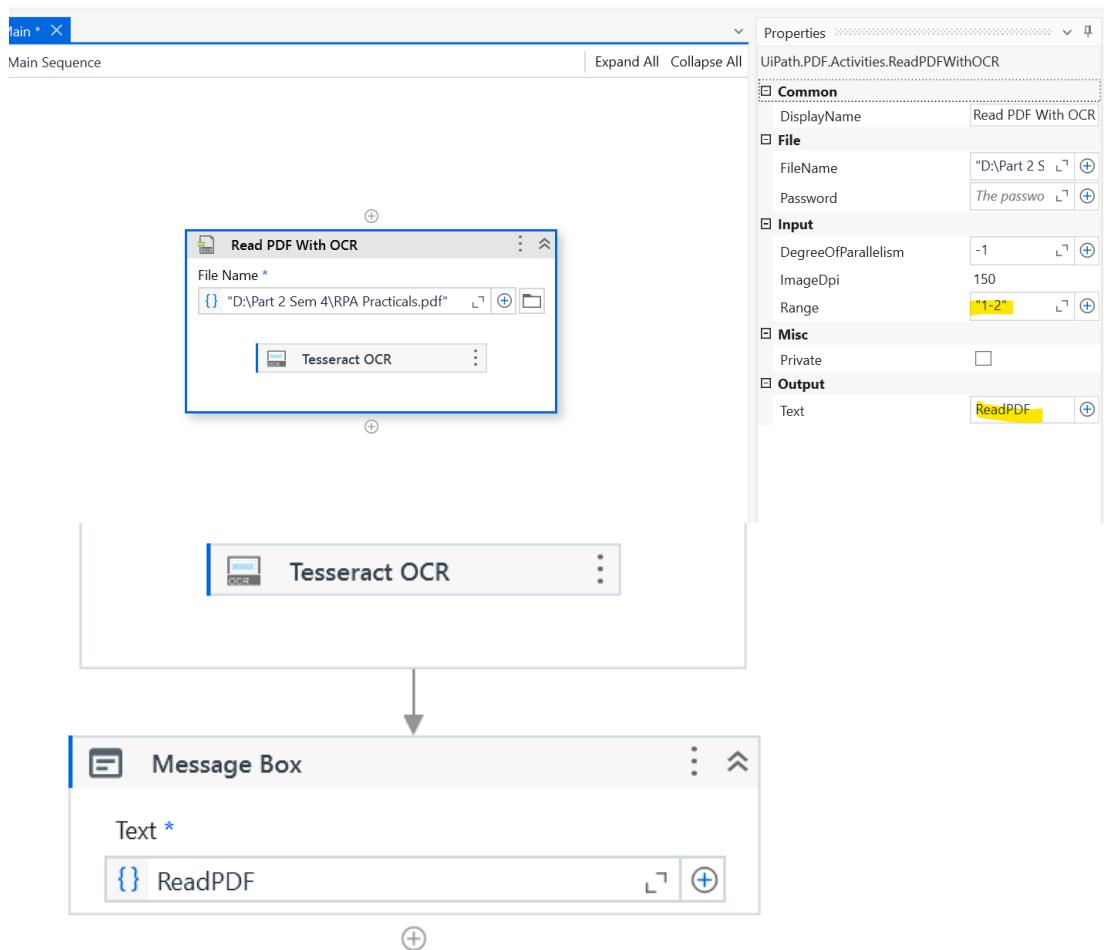
### PDF Automation and Exception Handling

#### A. Read PDF With OCR

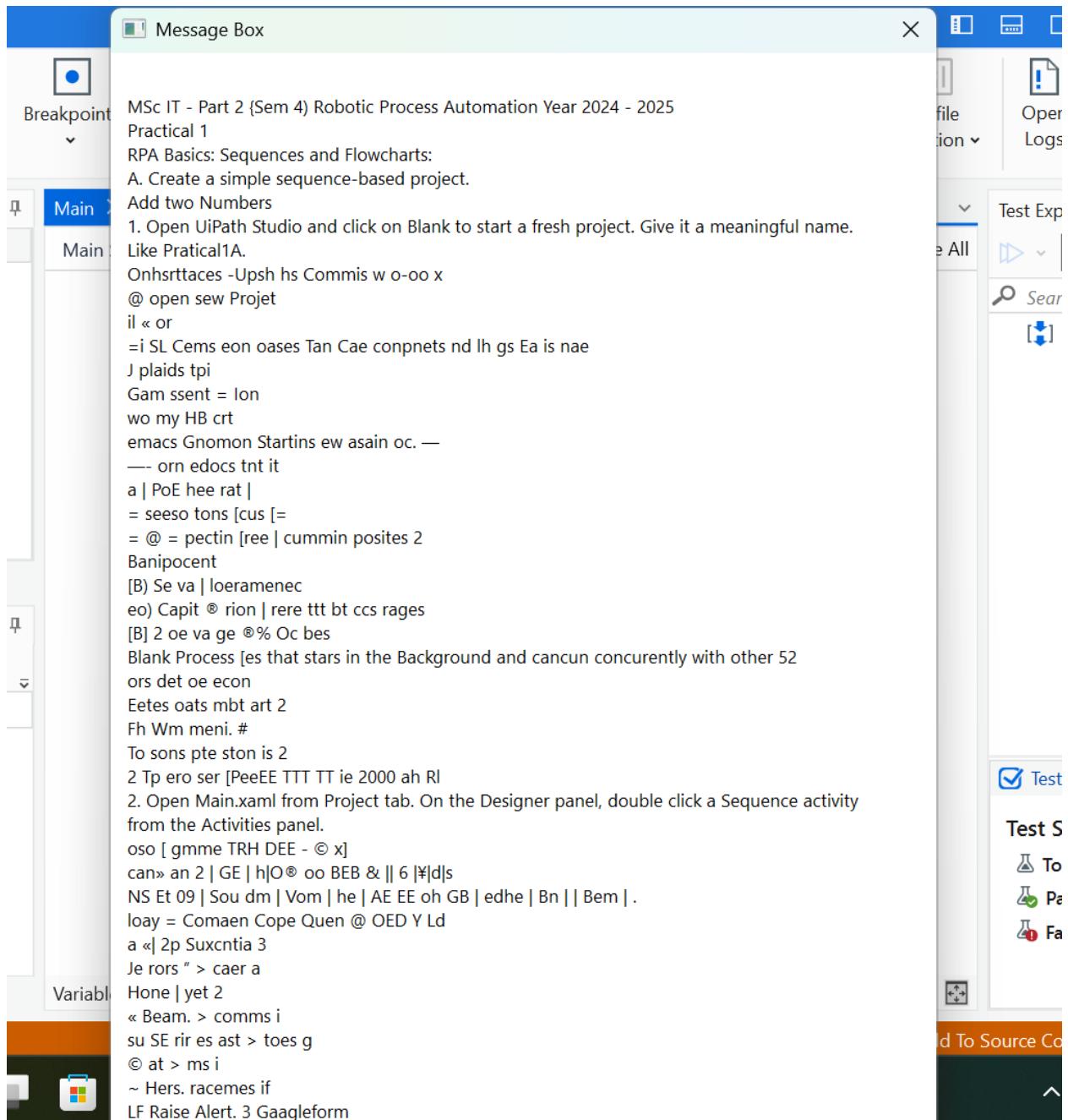
##### 1. Enable Adobe Setting –



2. Install PDF packages- UiPath.PDF.Activities
3. Open UI path and create new project with appropriate name and choose language type VB.
4. Select Read Pdf With OCR,Tesseract OCR Engine from the activity window and drop into sequence and select the pdf and set variable as ReadPDF.

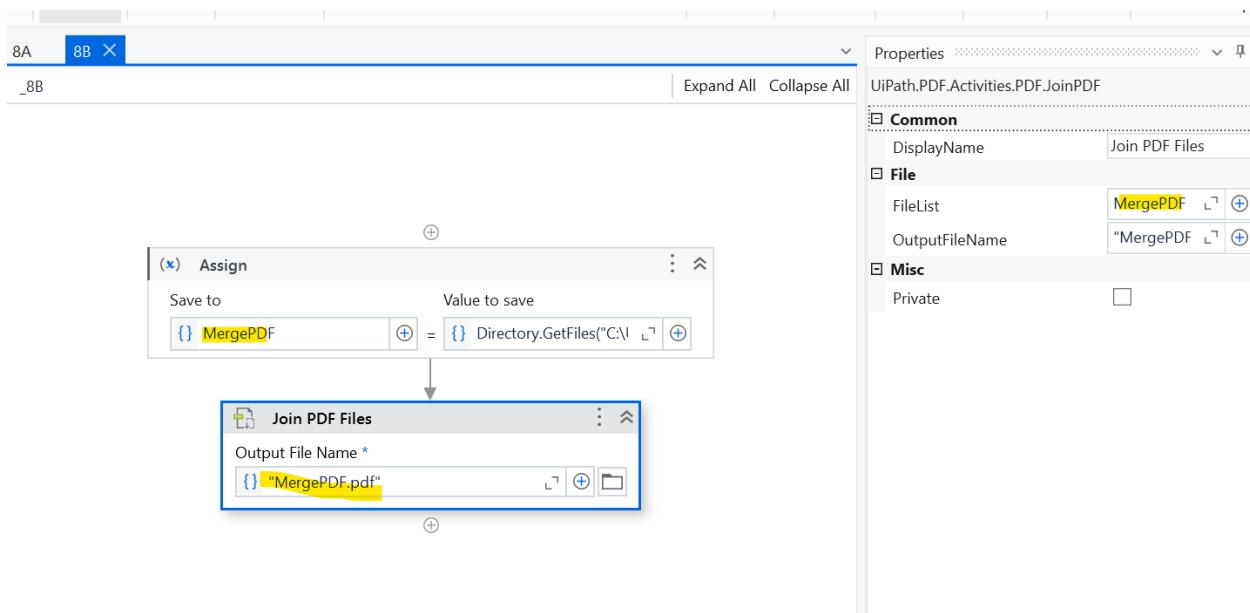


5. Add Message BOX from the activity window and drop into sequence

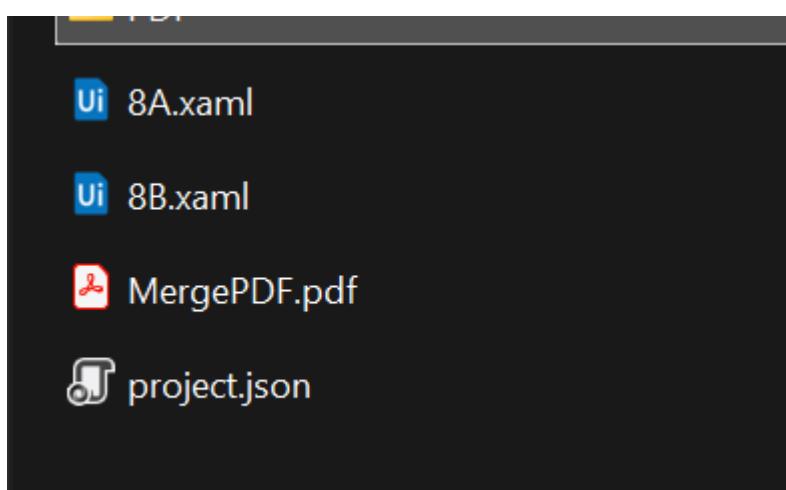
**Output:**

## B. Merge PDF's into one

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Select Assign from the activity window and drop into sequence and set variable as MergePDF and give the path (Directory.GetFiles("File Path")
3. Select Join PDF Files from the activity window and drop into sequence and in FileList give the variable name In Output give the output file name.

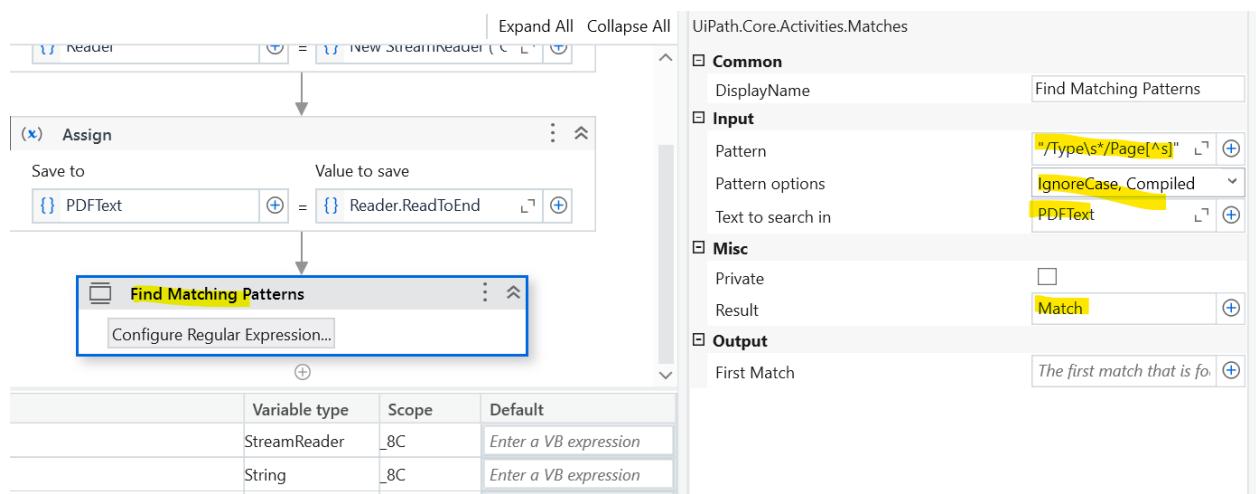


### Output:

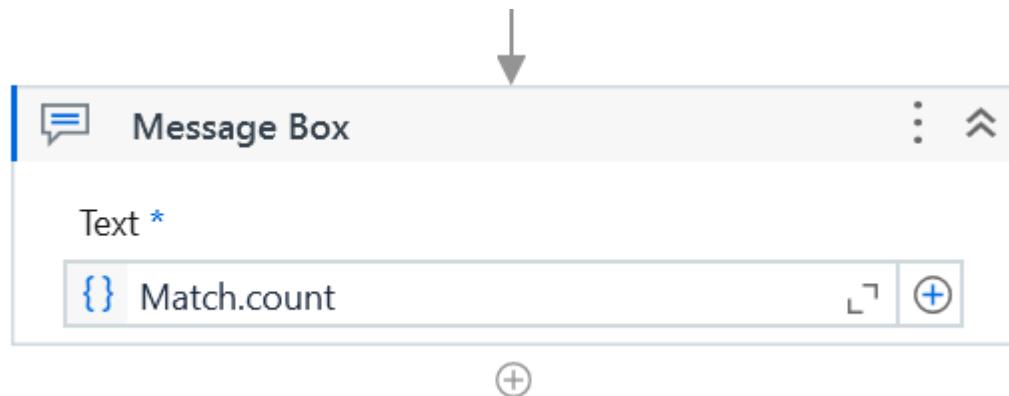


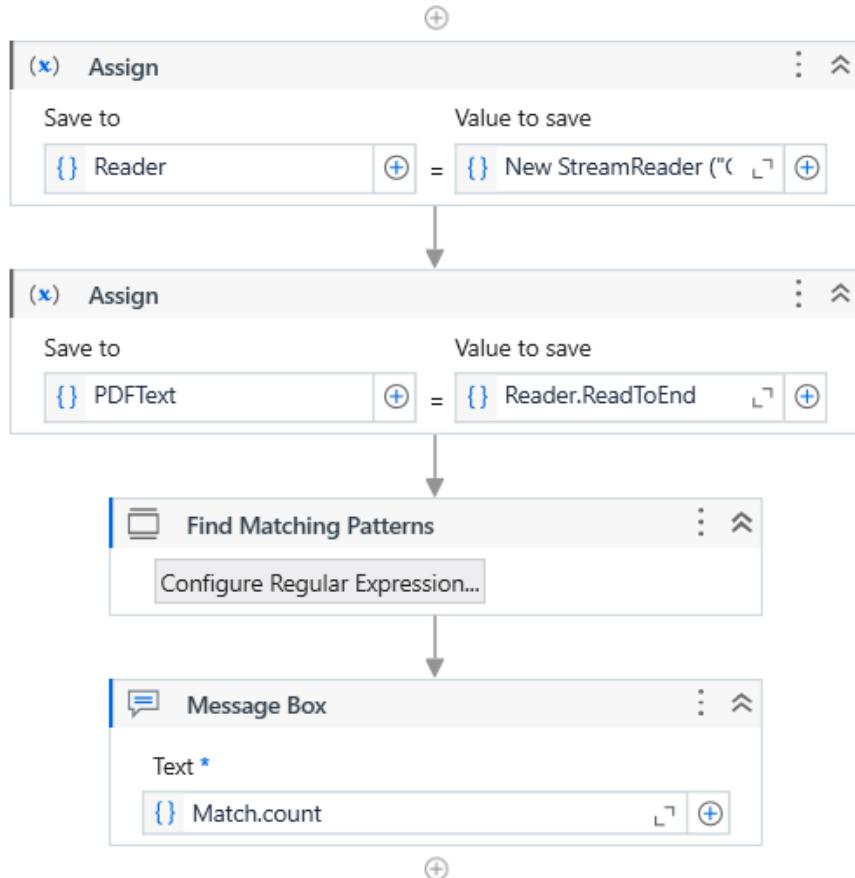
### C. Get PDF Total Page count Using Regex

1. Open UI path and create new project with appropriate name and choose language type VB.
2. Select Assign from the activity window and drop into sequence and set variable as Reader and give the path `New StreamReader ("file path")`
3. Select Assign from the activity window and drop into sequence and set variable as PDFText and give the value `Reader.ReadToEnd`
3. Select Find Matching Patterns from the activity window and drop into sequence and give the following values

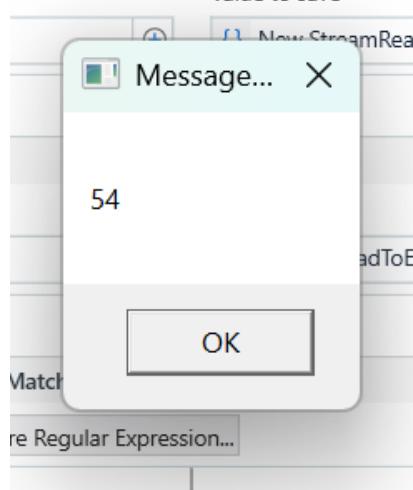


4. Select Message Box From the Activity window and give value `Match.count`





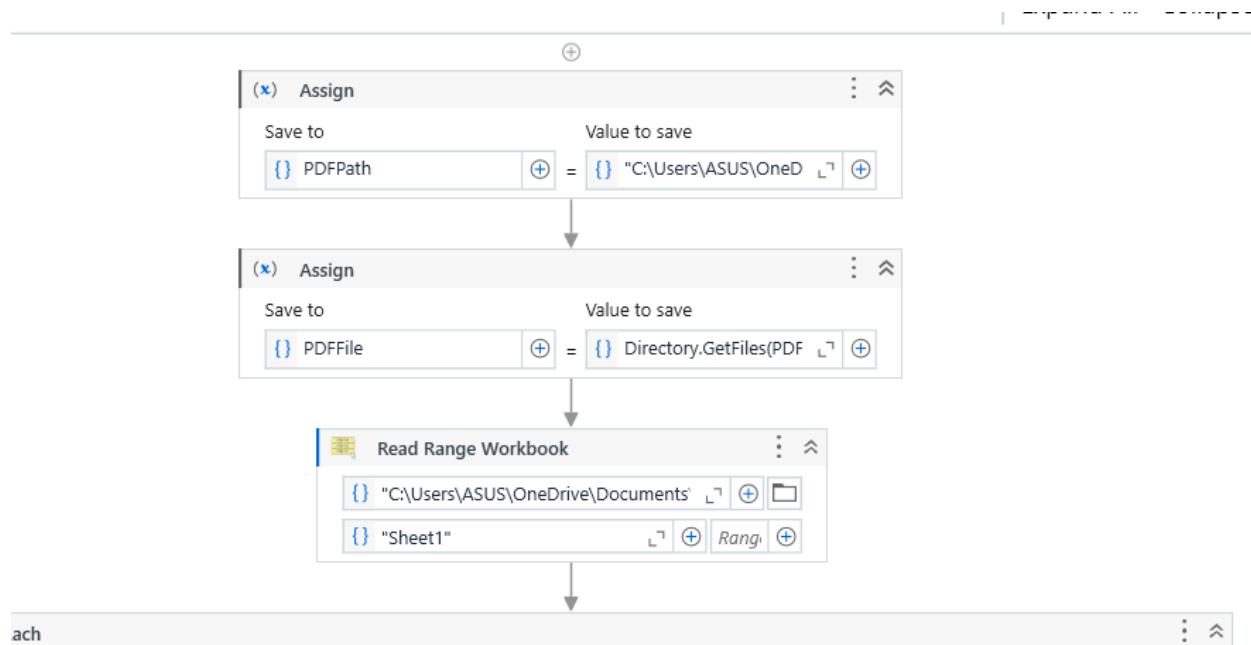
### Output:



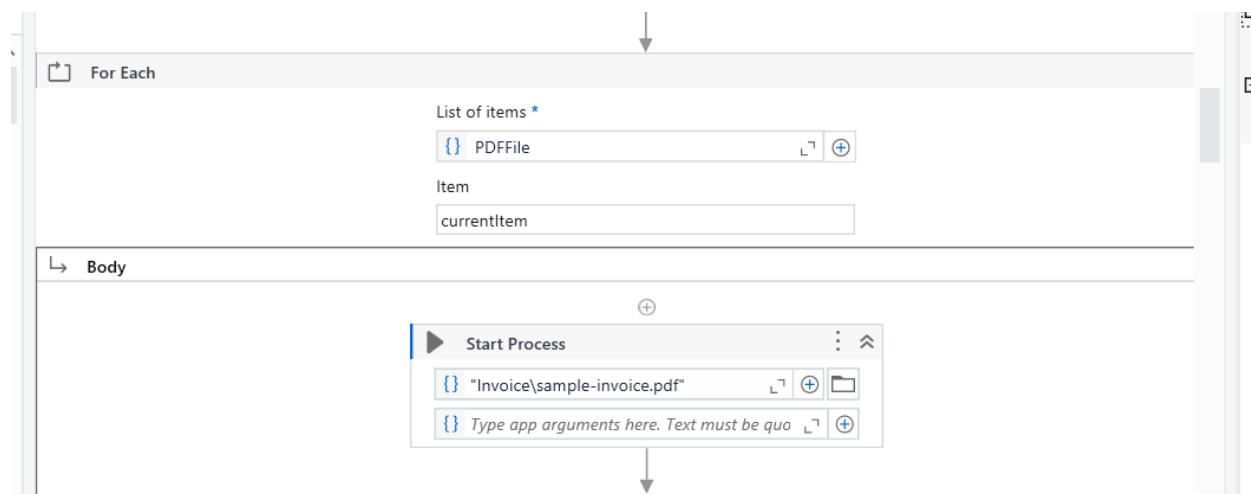
**D. Extract data from a PDF or Excel file and populate it into a database or spreadsheet.**

1. Open UI path and create new project with appropriate name and choose language type VB.

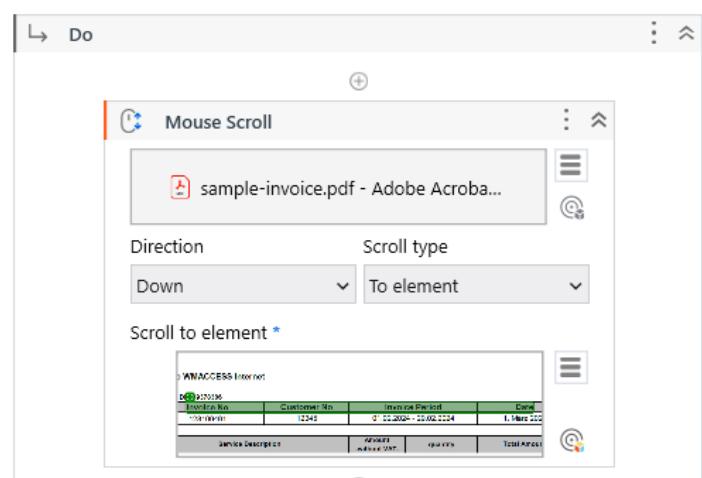
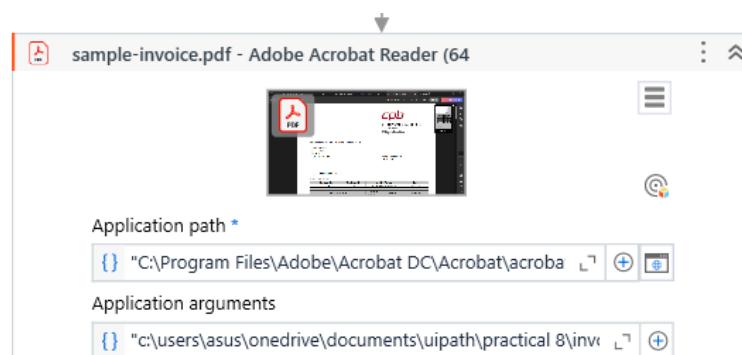
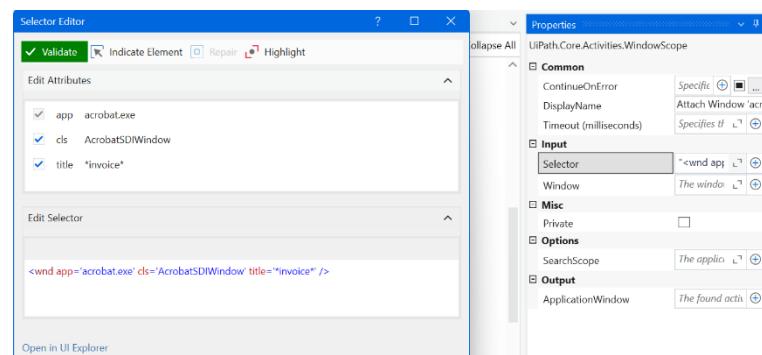
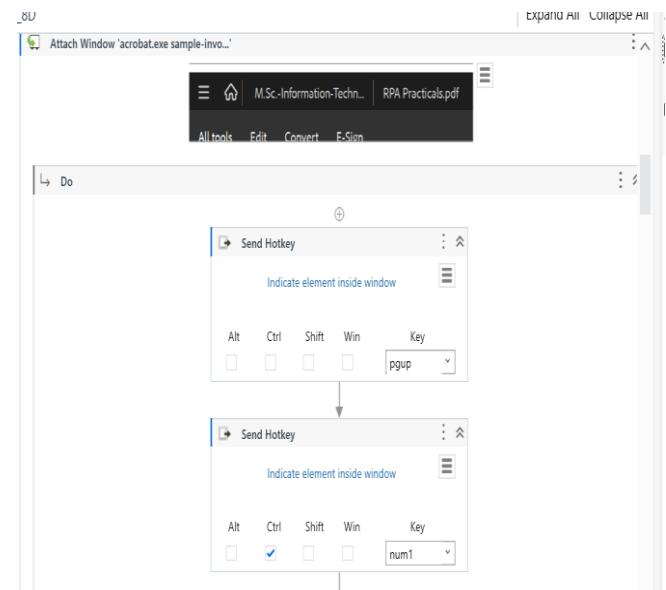
2. Select Assign from the activity window and drop into sequence and set variable



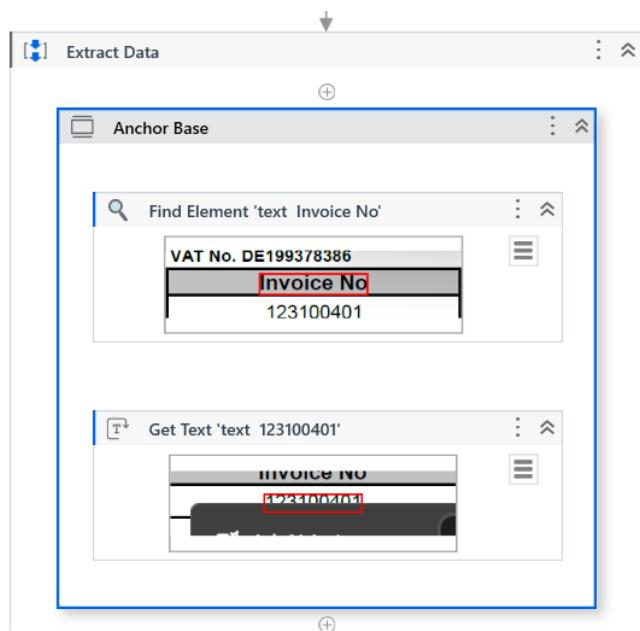
3. Select For each element from activity window and give argument as Object and inside body give the start Process Element



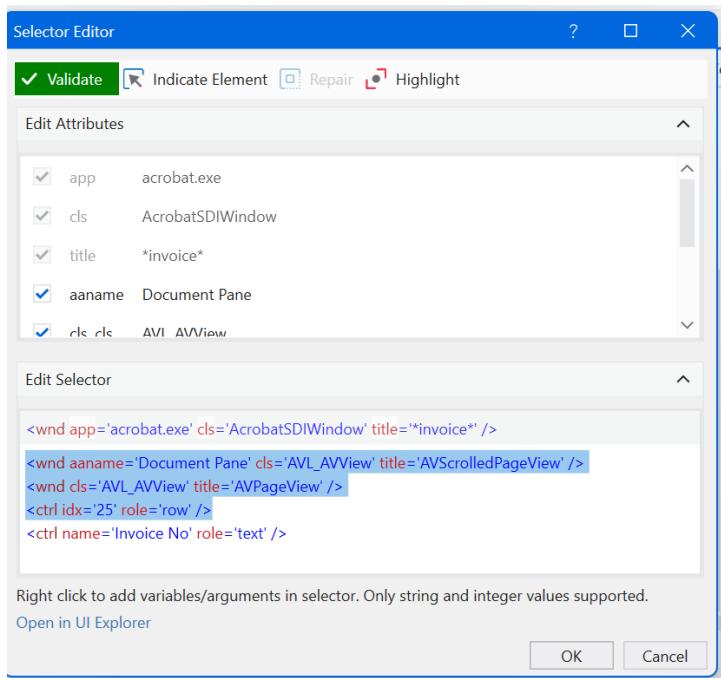
4. Select Attach Window Option from activity window and use send hotkey elements as shown below and add Mouse scroll event according to needed for your pdf.

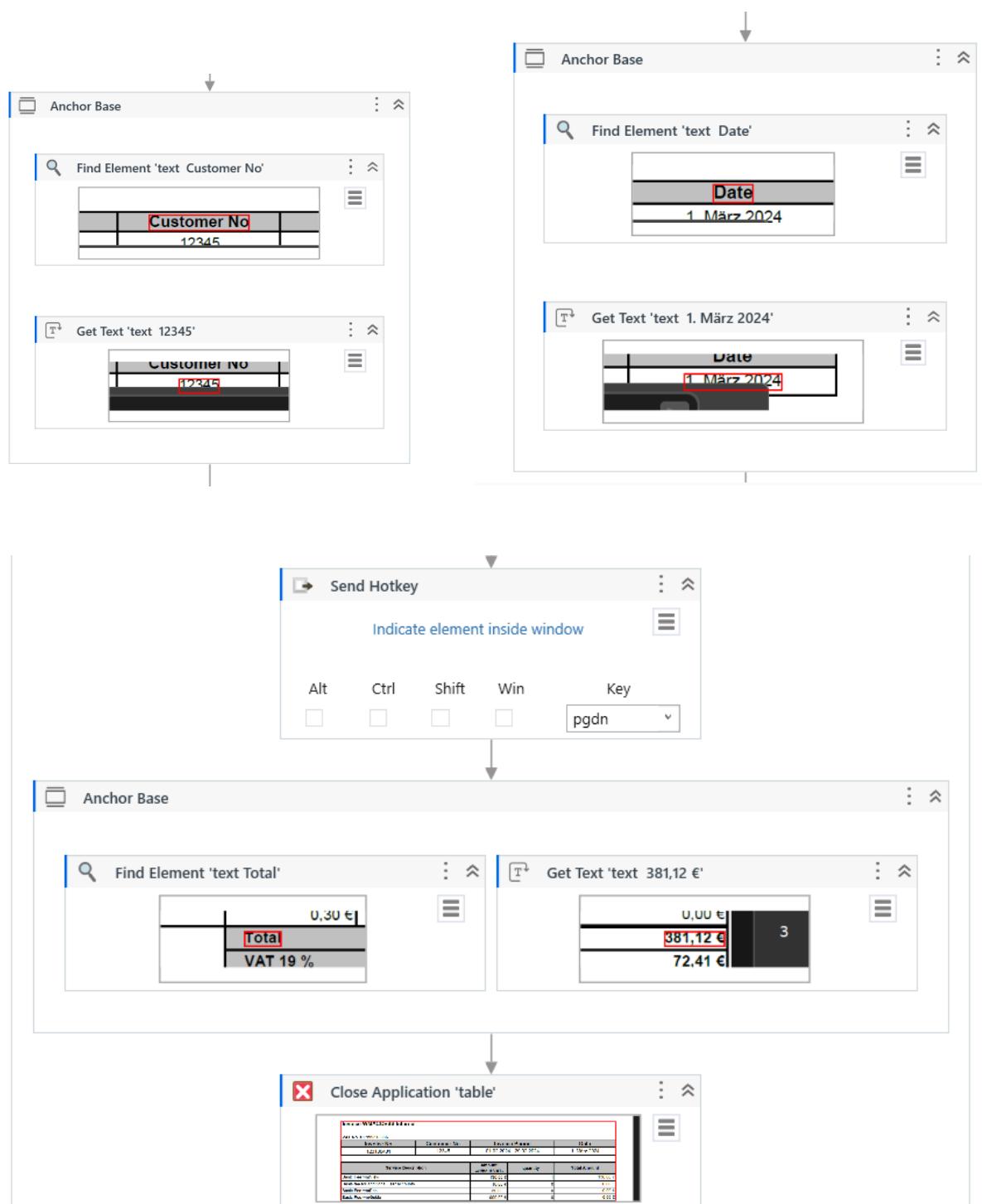


## 5. Now will Start with Extract Data

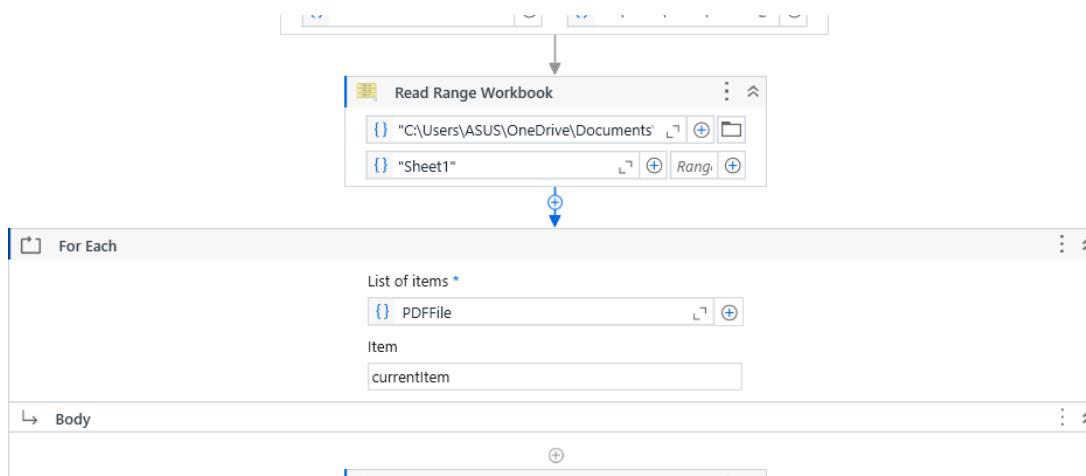


## 6. In Find Element Selector remove the highlighted code and do the same for other column also and Give the close Application Acitivity

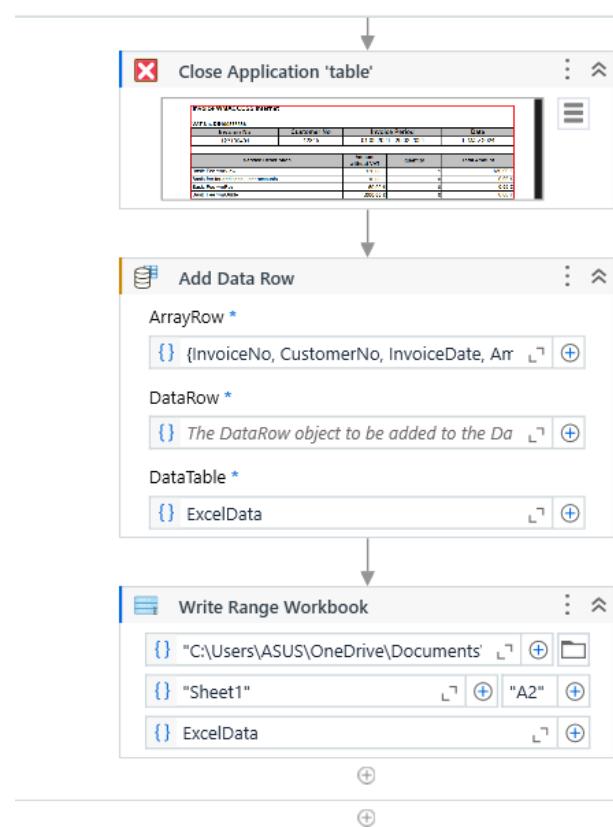


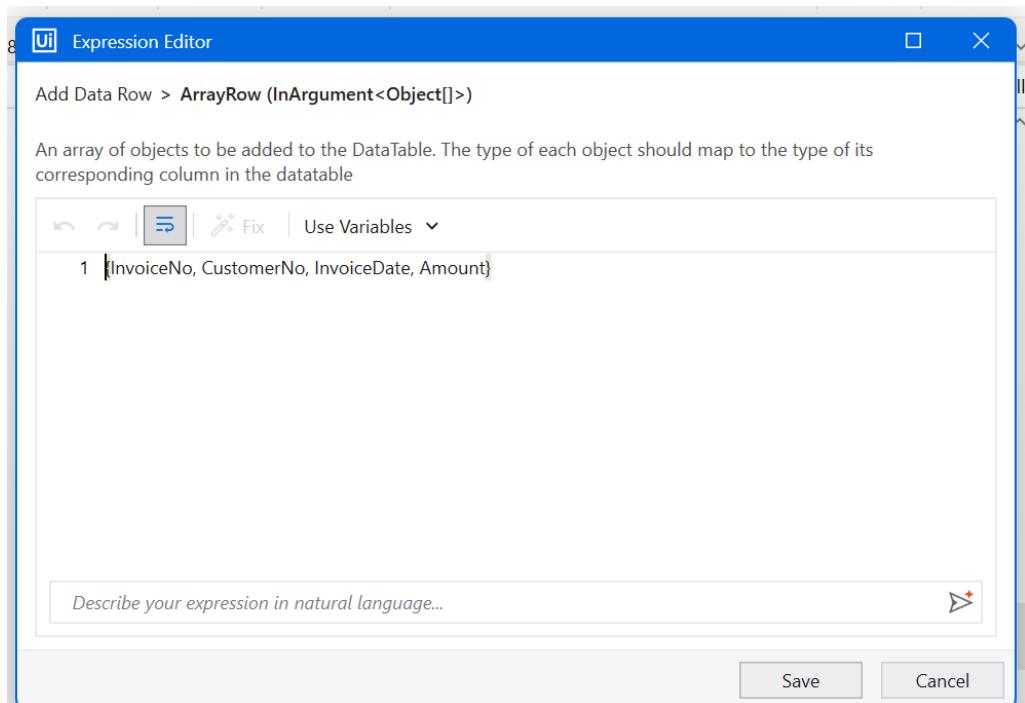


7. Add Read Range element before for Each



8. Give the Add Data Row Element To add the data from data table and Write Range element to write the data in Excel

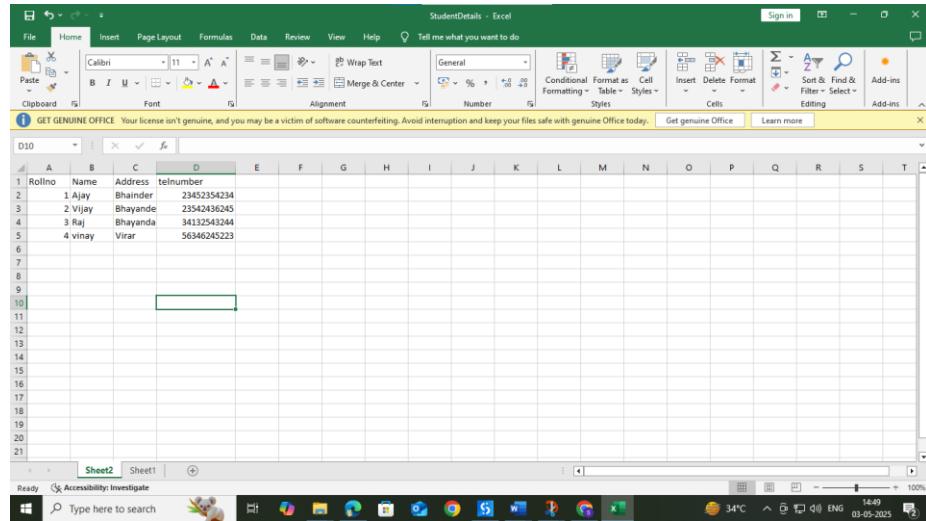




## Output:

**E. Extract data from a PDF or Excel file and populate it into a database or spreadsheet. Implement data manipulation techniques like filtering, sorting, or data validation.**

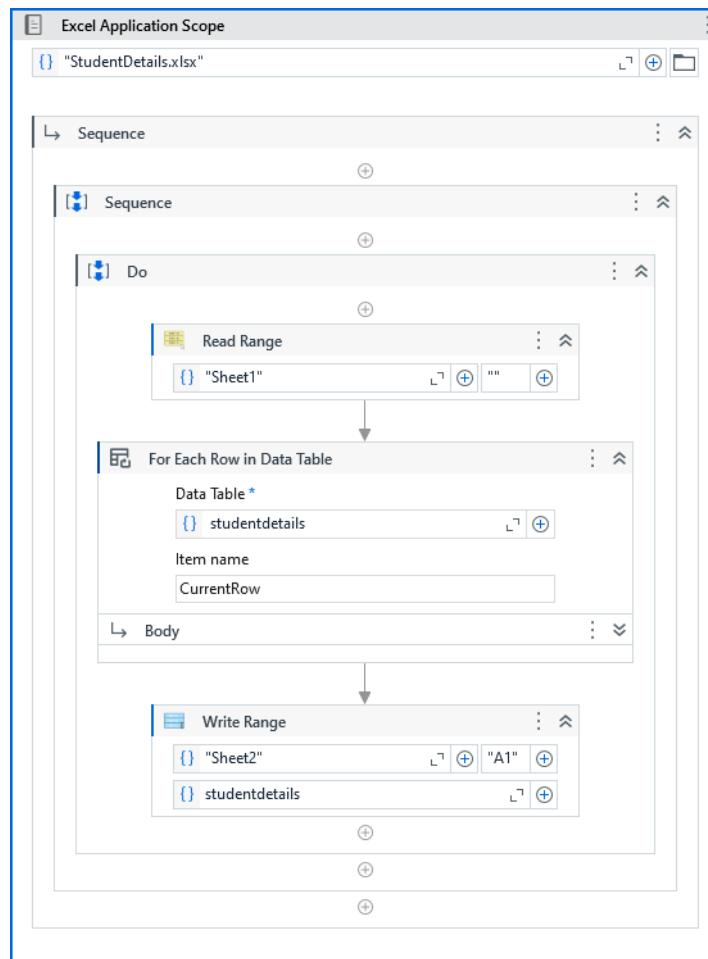
1. Create an excel file with name StudentDetails.xlsx with following data.



A screenshot of the Microsoft Excel application. The window title is "StudentDetails - Excel". The ribbon menu is visible at the top with tabs like File, Home, Insert, Page Layout, Formulas, Data, Review, View, and Help. The "Home" tab is selected. The main area shows a table with data in rows 1 through 5. The columns are labeled A, B, C, and D. Column A is "Rollno", column B is "Name", column C is "Address", and column D is "telnumber". The data entries are:

Rollno	Name	Address	telnumber
1	Ajay	Bhairander	23452354234
2	vijay	Bhayande	23542363245
3	Raj	Bhayanda	34132434244
4	vinay	Virar	5634624523

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Application Scope from the activity window and drop into sequence and insert the path of the StudentDetails.xlsx file.
4. Select Do activity from the activity window and drop into sequence and then select Read Range from the activity window and give "sheet1" as read range input.
5. Select For Each Row in Data Table activity from the activity window and drop into sequence and give inputs as shown below.
6. Select Write Range activity from the activity window and drop into sequence to specify the sheet where we need to copy the data and give inputs as shown below. Here sheet2 is given as input for the data to be copied from sheet1.



## Output:

Here data from Sheet2 is copied to Sheet1

The screenshot shows a Microsoft Excel window titled "StudentDetails - Excel". The "Sheet2" tab is active, displaying a table with columns: Rollno, Name, Address, and telnumber. The data rows are: 1 Ajay Bhainder 23452354234, 2 Vijay Bhayande 23542436245, 3 Raj Bhayanda 34132543244, and 4 vinay Virar 56346245223. The "Sheet1" tab is also visible at the bottom. The status bar at the bottom right shows the date as 03-05-2025 and the time as 15:02.

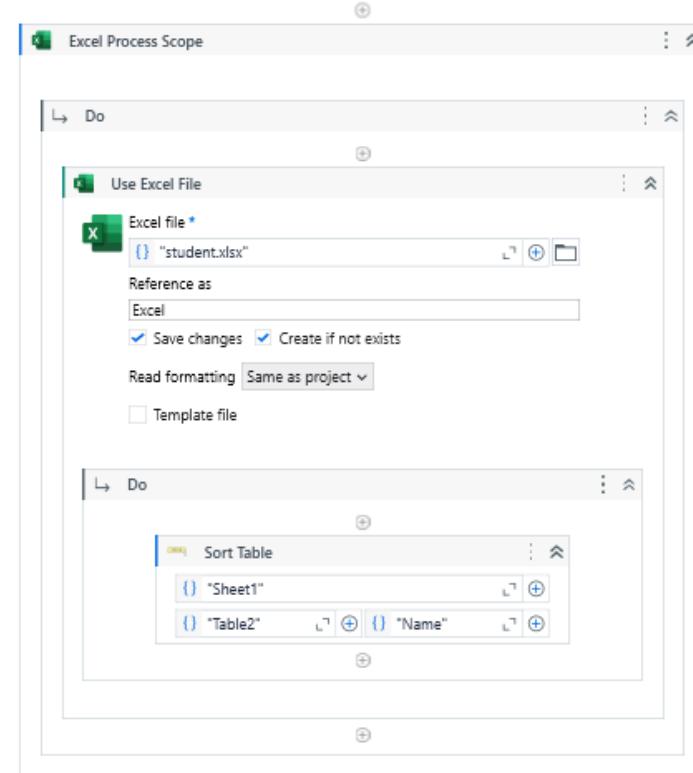
Rollno	Name	Address	telnumber
1	Ajay	Bhainder	23452354234
2	Vijay	Bhayande	23542436245
3	Raj	Bhayanda	34132543244
4	vinay	Virar	56346245223

Create an automation to sort a table of an excel sheet.

1. Create an excel file Student.xlsx.

	A	B	C	D	E	F	G	H	I	J	K
1	Name	Marks									
2	Vijay	59									
3	Ram	45									
4	Ajay	62									
5											
6											
7											
8											

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert Student.xlsx as excel input.
5. Again select Do activity from the activity box and insert Sort Table to sort the data . Use input values as shown below to read the data



## Output:

Create an automation to filter a table of an excel sheet

1. Create an excel file Student.xlsx.

A screenshot of Microsoft Excel showing a table with two columns: 'Name' and 'Marks'. The 'Name' column contains three rows of data: 'Vijay', 'Ajay', and 'Ram'. The 'Marks' column contains the corresponding values: 59, 65, and 68. The table is sorted by the 'Name' column in descending order. The Excel ribbon is visible at the top, showing the 'Home' tab is selected. The status bar at the bottom indicates a genuine office license.

Name	Marks
Vijay	59
Ajay	65
Ram	68

2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Excel Process Scope from the activity window and drop into sequence
4. Select Do activity from the activity window and then select Use Excel File activity and give inputs as below. Insert Student.xlsx as excel input.
5. Again select Do activity from the activity box and insert Filter Table to filter the data . Use input values as shown below to read the data

The screenshot shows the configuration of a 'Do' step in the 'Excel Process Scope' application. The step is titled 'Use Excel File'. It includes a section for selecting an 'Excel file' (set to "Student.xlsx"), specifying a 'Reference as' name ('Excel'), and two checked checkboxes: 'Save changes' and 'Create if not exists'. Below these are options for 'Read formatting' (set to 'Same as project') and a checkbox for 'Template file'. The 'Do' step is currently empty, indicated by the placeholder text 'Do'.

Do

Use Excel File

Excel file \*

{ } "Student.xlsx"

Reference as

Excel

Save changes  Create if not exists

Read formatting Same as project

Template file

Do

Filter Table

{ } "Sheet1"

{ } "Table2" { } "Name"

## Output:

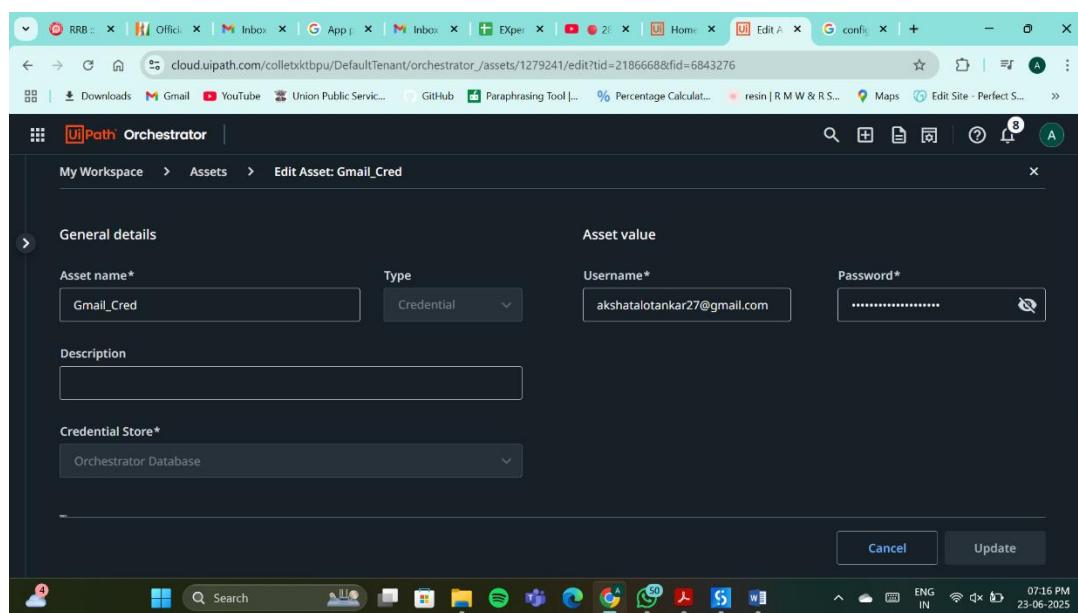
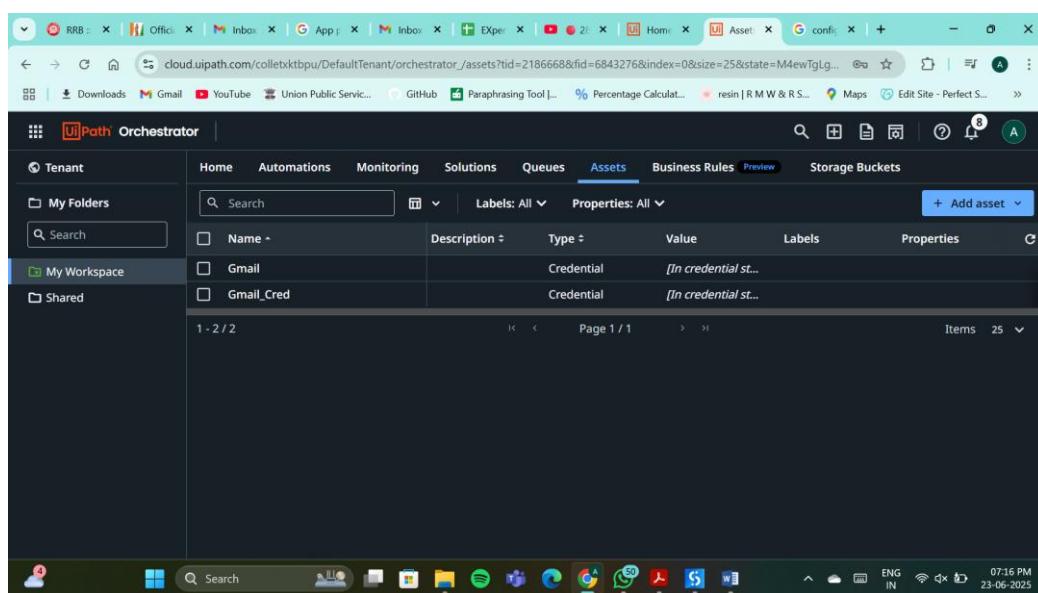
A screenshot of Microsoft Excel 2016. The ribbon menu at the top includes File, Home, Insert, Page Layout, Formulas, Data, Review, View, Help, and a search bar. The Home tab is selected. The ribbon contains various icons for file operations, clipboard, font, alignment, and number formats. Below the ribbon, a status bar displays 'GET GENUINE OFFICE' and a warning about a non-genuine license. The main area shows a table with columns A through M. Row 1 contains 'Name' and 'Marks'. Row 2 contains 'Vijay' and '59'. Rows 3, 4, and 5 are empty. Row 6 contains a formula '=A6\*B6' in cell C6. Row 7 contains a formula '=C6\*D6' in cell E6.

## Practical No. 9

### Email Automation

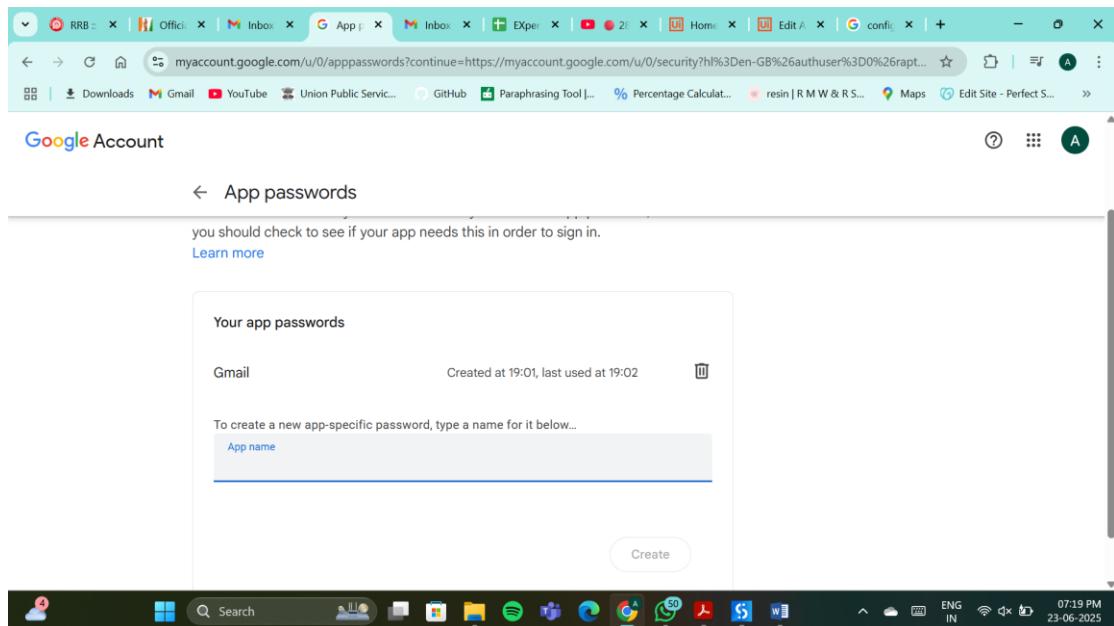
#### A. Configure Email using UiPath

1. Install PDF packages- UiPath.Mail.Activities
2. Open UI path and create new project with appropriate name and choose language type VB.
3. Select Get Credentials from the activity window and drop into sequence and click on Manage Asset.
4. UiPah Ochesterator will be open in asset section add new asset and give id and password.

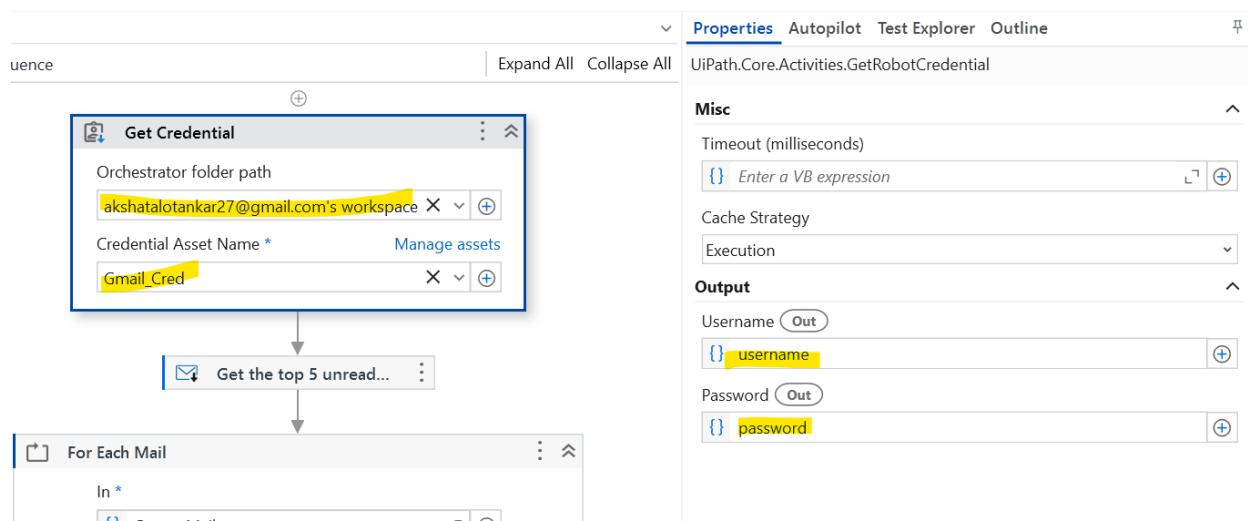


5. Before that need to do some setting changes in google account.

In Gmail 2-Step Verification Must be on and in google setting search for App Password, Copy the auto generated password from here and add in orchestrator.



6. Do the Changes as given below in the element of get credentials.



7.

7. Select Get IMAP Mail Messages from the activity window and drop into sequence. You can get the Port number and server from google by searching it.

The left screenshot shows the properties for the 'Get IMAP Mail Messages' activity. It includes settings for Common (DisplayName, TimeoutMS), Host (MailFolder, Port 993, Server imap.gmail.com), Logon (ClientName, ClientVersion, Email, Password, SecurePassword, UseOAuth), Misc (Private), Options (DeleteMessages, FilterExpression, FilterExpressionCharacterSet, IgnoreCRL), and a checkbox for 'Indicates whether to use OAuth'.

The right screenshot shows the properties for the same activity with more detailed configurations. It includes Logon (ClientName, ClientVersion, Email, Password, SecurePassword, UseOAuth) and Misc (Private, DeleteMessages, FilterExpression, FilterExpressionCharacterSet, IgnoreCRL, MarkAsRead, OnlyUnreadMessages, OrderByDate, SecureConnection, Top 5). The 'Output' section specifies 'Messages' and 'OutputMail'.

## B. Read Emails

- Select For Each from the activity window and drop into sequence after continuation from above practical. And inside that Add message Box Element.

The screenshot shows the Main Sequence with the following steps:

- Get Credential**: Orchestrator folder path is set to "akshatalotankar27@gmail.com's workspace". Credential Asset Name is "Gmail\_Cred".
- Get IMAP Mail Messages**: This activity is part of a **For Each Mail** loop.
- For Each Mail**: Loop variable is "In" (set to "OutputMail"). Inside the loop:
  - Message Box**: Text is "Mail.Body".

The Properties pane on the right shows configuration for the "For Each Mail" activity, including:
 

- Item name: Mail
- Argument type: System.Net.Mail.MailMessage
- Condition: {} Enter a VB expression
- Max Iterations: {} Enter a VB expression
- Index (Out): CurrentIndex

Output:

Before:

1–50 of 10,452

Primary Promotions Social Updates

- Naina Rajput Appointment Scheduled for today - akshatalotankar27@gmail.com - Hi Akshata Prashant Lotankar, Akshata Prashant Lotankar 19:22
- LinkedIn Accenture Principal Director of IT recently posted - IT x Advanced Tech x Life ... 19:11
- Google Security alert - App password created to sign in to your account akshatalotankar27@g... 19:01
- Priyanka HR Manager Your request has been accepted by.. Priyankaa ! - Hi Akshata Prashant Lotankar, Priyanka HR Manager 18:44
- CBI : Hiring Latest Opening !! Central Bank Please Submit Your Application Today ! - Dear Candidate... 18:35
- Tata 1mg BIGGEST DISCOUNTS of the year END TONIGHT! - A sale so big, Even time's running... 17:24
- Top Industry Leader Congratulations! You are selected to attend the Sanchita Kathiwada session on Ju... 16:16

After: All First 5 Mails were Read.

1–50 of 10,452

Primary Promotions Social Updates

- Naina Rajput Appointment Scheduled for today - akshatalotankar27@gmail.com - Hi Akshata Prashant Lotankar, Akshata Prashant Lotankar 19:22
- LinkedIn Accenture Principal Director of IT recently posted - IT x Advanced Tech x Life Scie... 19:11
- Google Security alert - App password created to sign in to your account akshatalotankar27@g... 19:01
- Priyanka HR Manager Your request has been accepted by.. Priyankaa ! - Hi Akshata Prashant Lotankar, Priyanka HR Manager 18:44
- CBI : Hiring Latest Opening !! Central Bank Please Submit Your Application Today ! - Dear Candidate... 18:35
- Tata 1mg BIGGEST DISCOUNTS of the year END TONIGHT! - A sale so big, Even time's running... 17:24

Message Box

No preview available

OK

Message Box

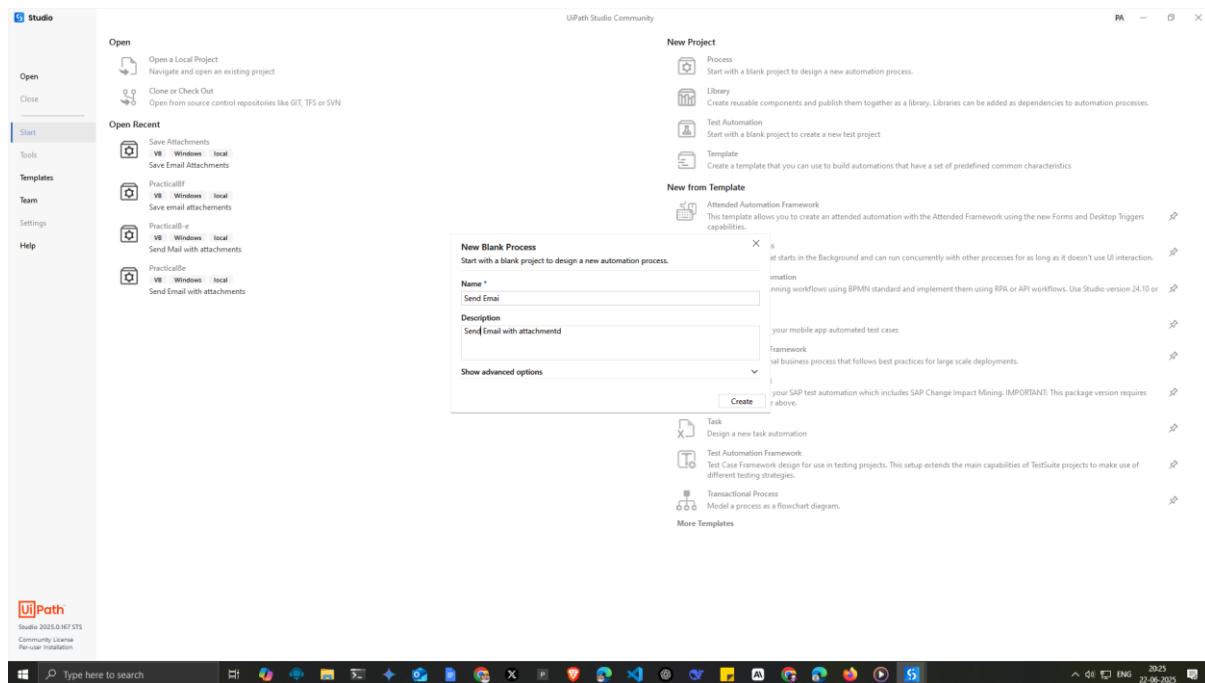
[image: Google]  
App password created to sign in to your account

akshatalotankar27@gmail.com  
If you didn't generate this password for Gmail, someone else might be using your account. Check and secure your account now.  
Check activity  
<https://accounts.google.com/AccountChooser?Email=akshatalotankar27@gmail.com&continue=https://myaccount.google.com/alert/nt/1750685471451?rfn%3D20%26rfnc%3D1%26eid%3D-2387038229784272148%26et%3D0>  
You can also see security activity at https://myaccount.google.com/notifications  
You received this email to let you know about important changes to your Google Account and services.  
© 2025 Google LLC, 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA

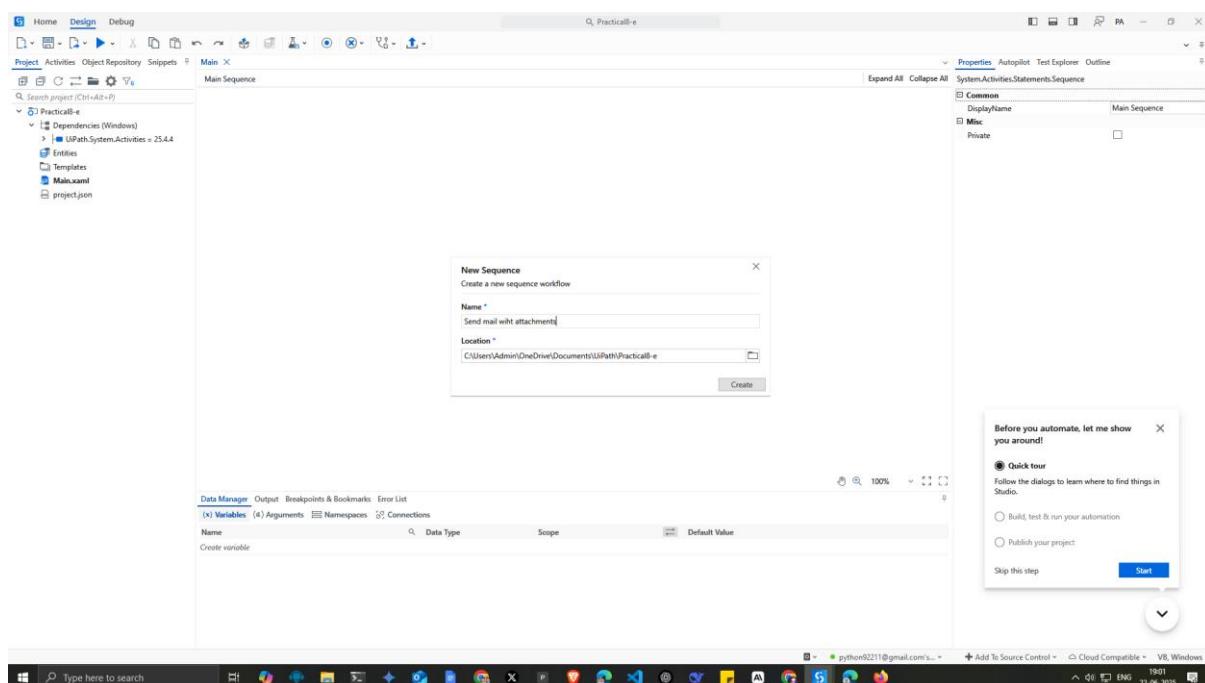
OK

## C. Send email with attachments

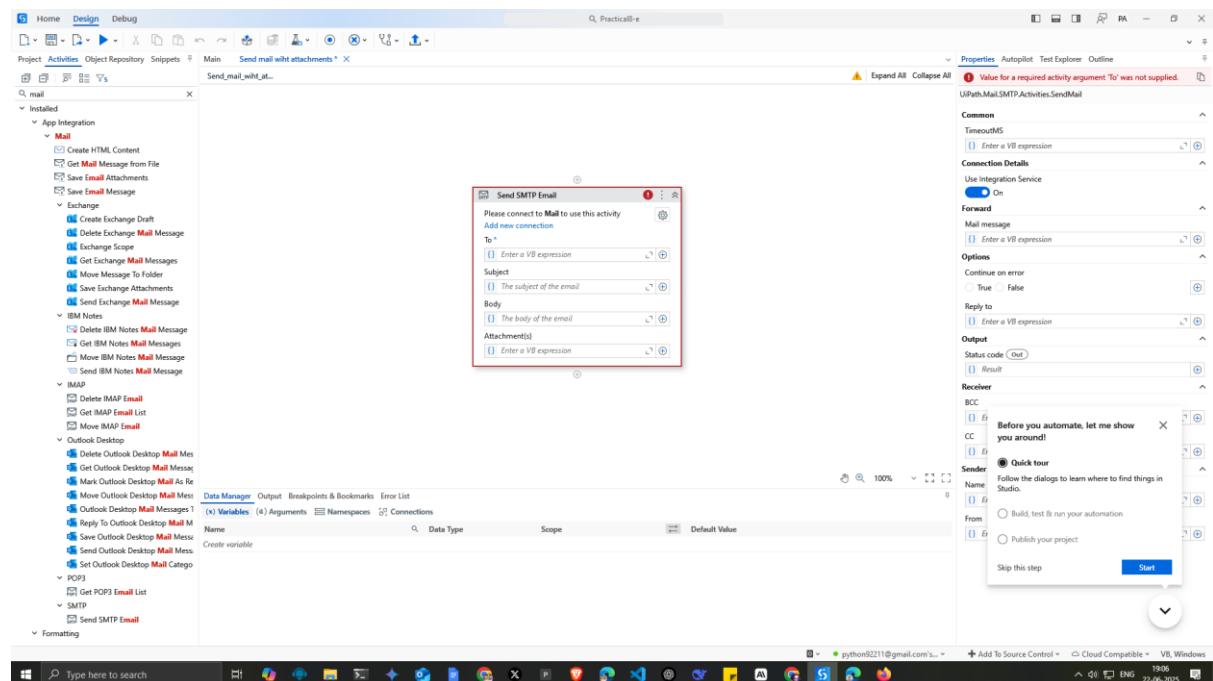
1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Send Email.



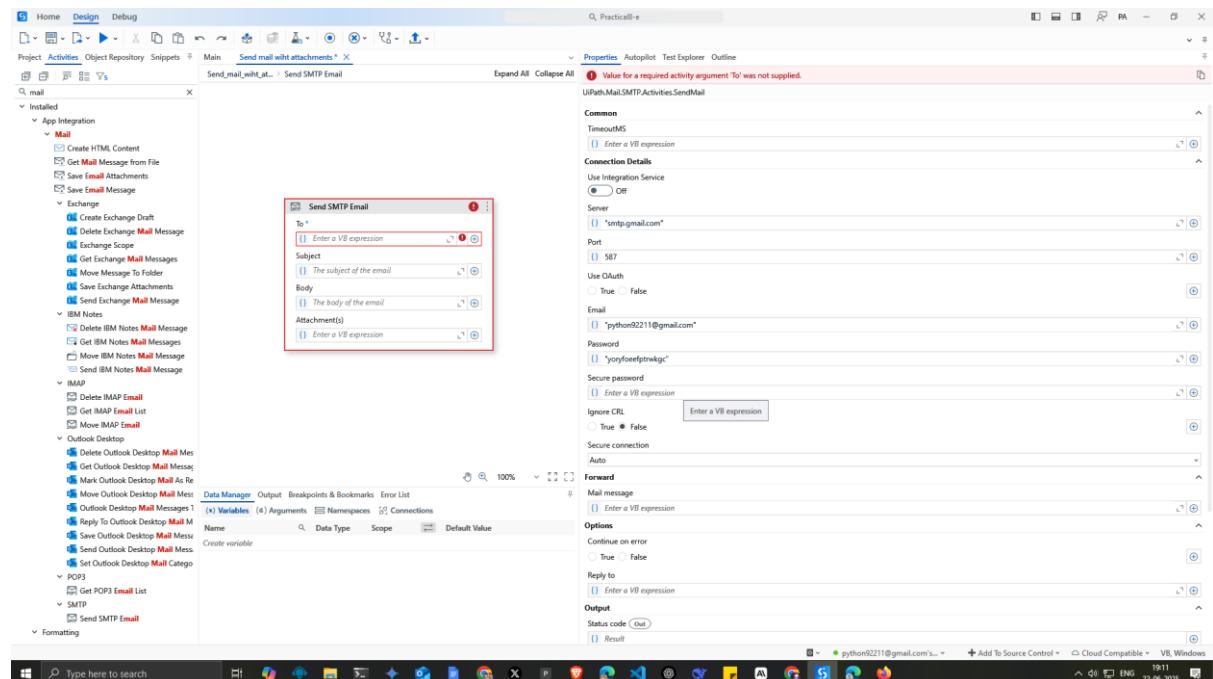
2. Add sequence in project and give name.



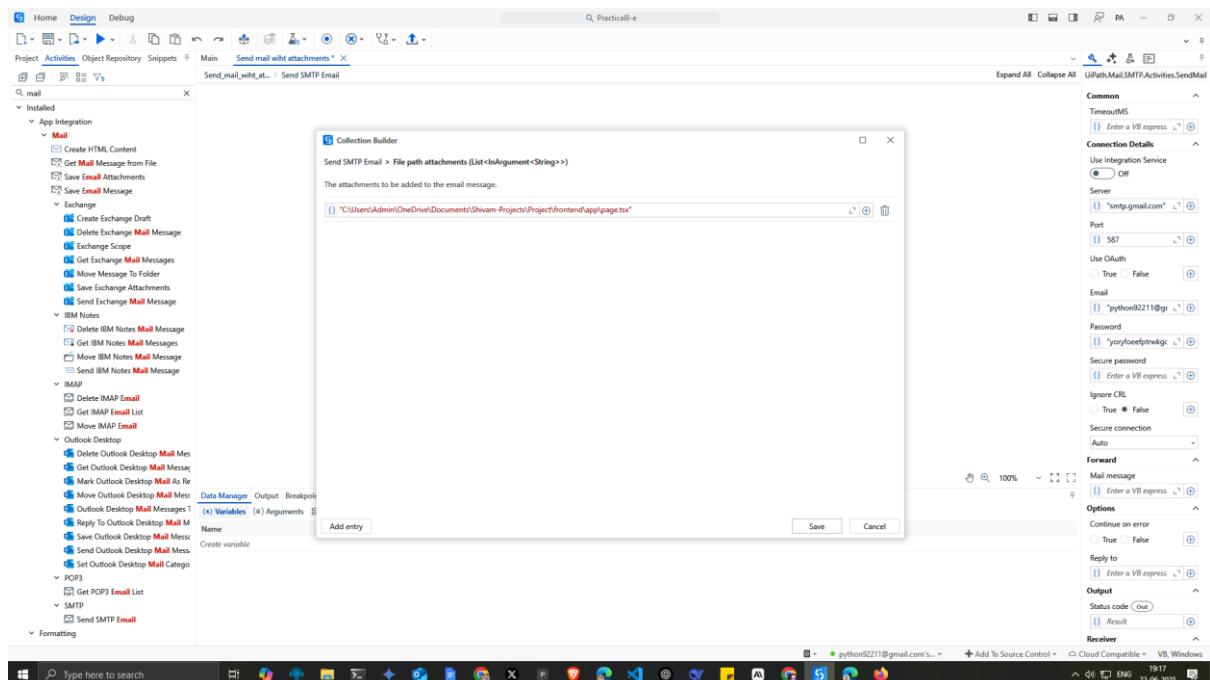
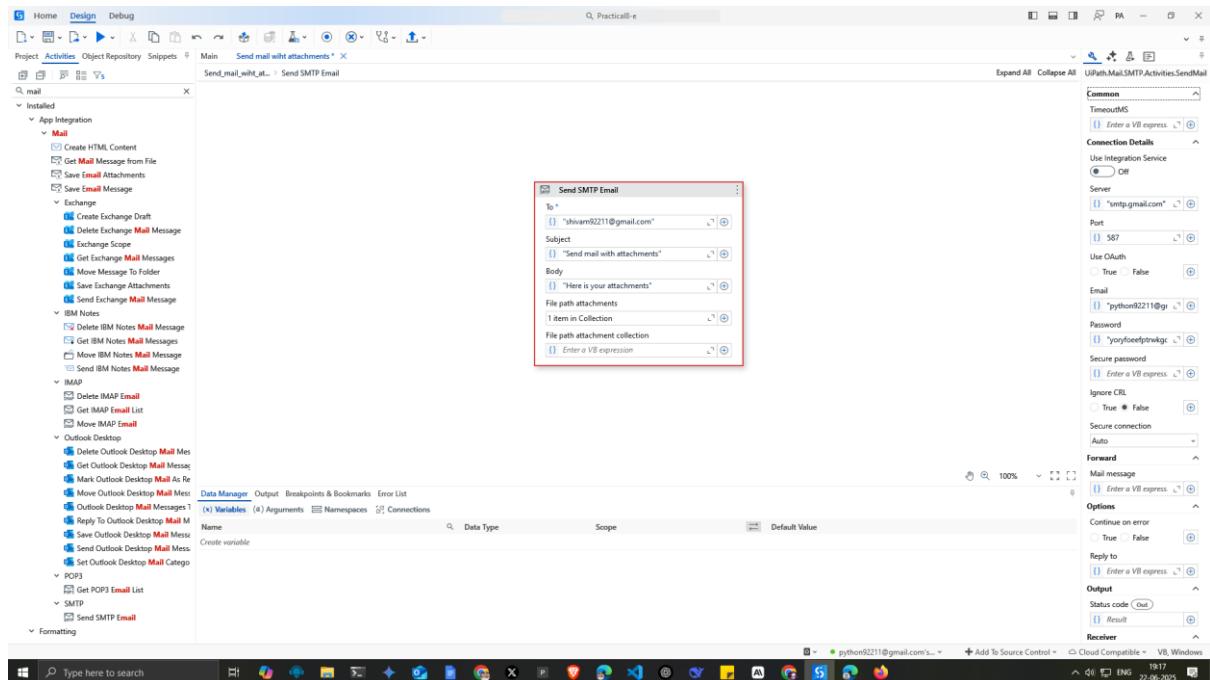
3. Click on activities and search for “Mail”, then scroll down and select “Send SMTP Email”, and add to sequence. If not found add dependency



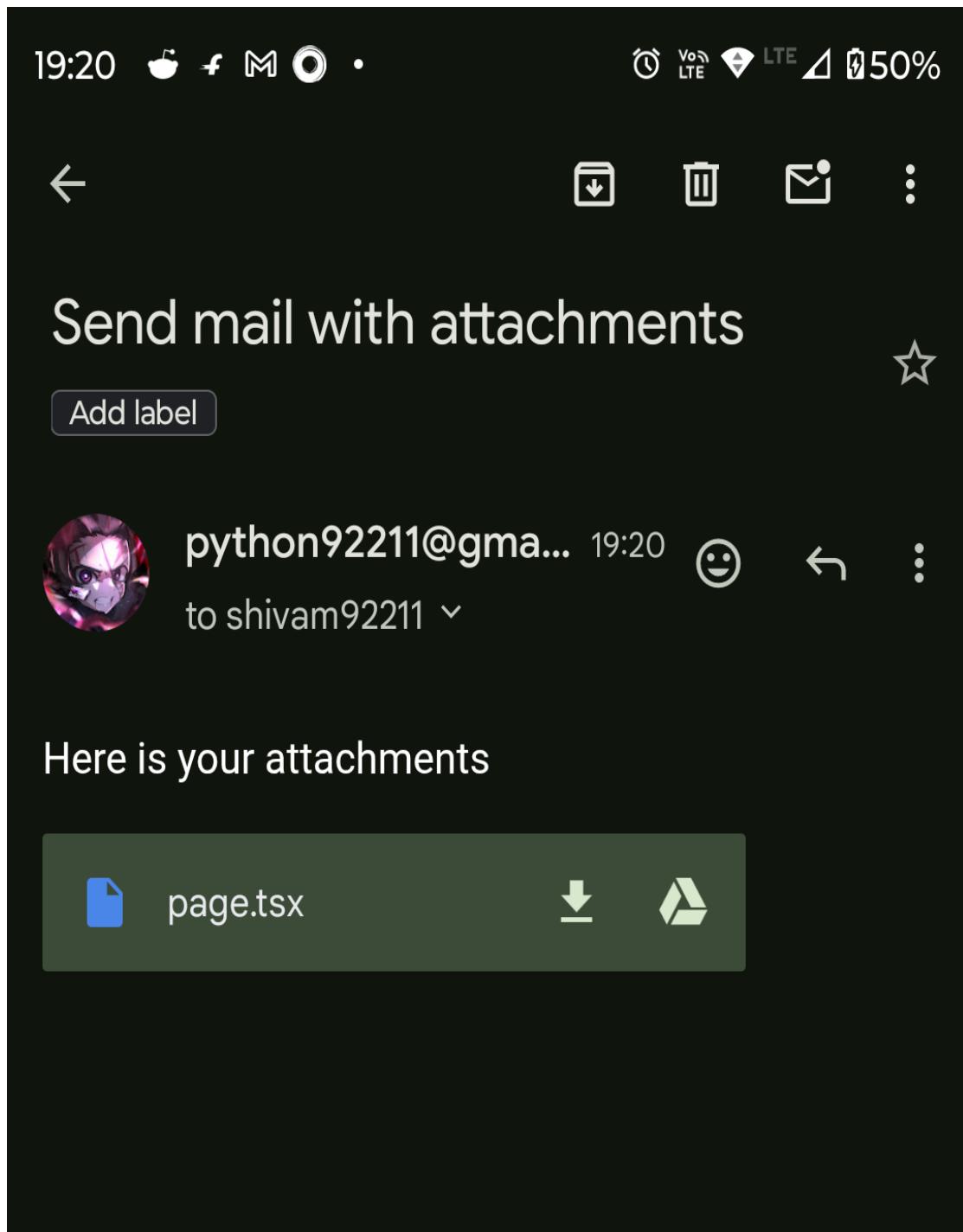
4. In Configuration, server is "<smtp.gmail.com>", port is 587, enter your mail and its app password (you can get your gmail account app password on “manage you google”)



5. Fill the email detail and give the file path of attachment and run the project.

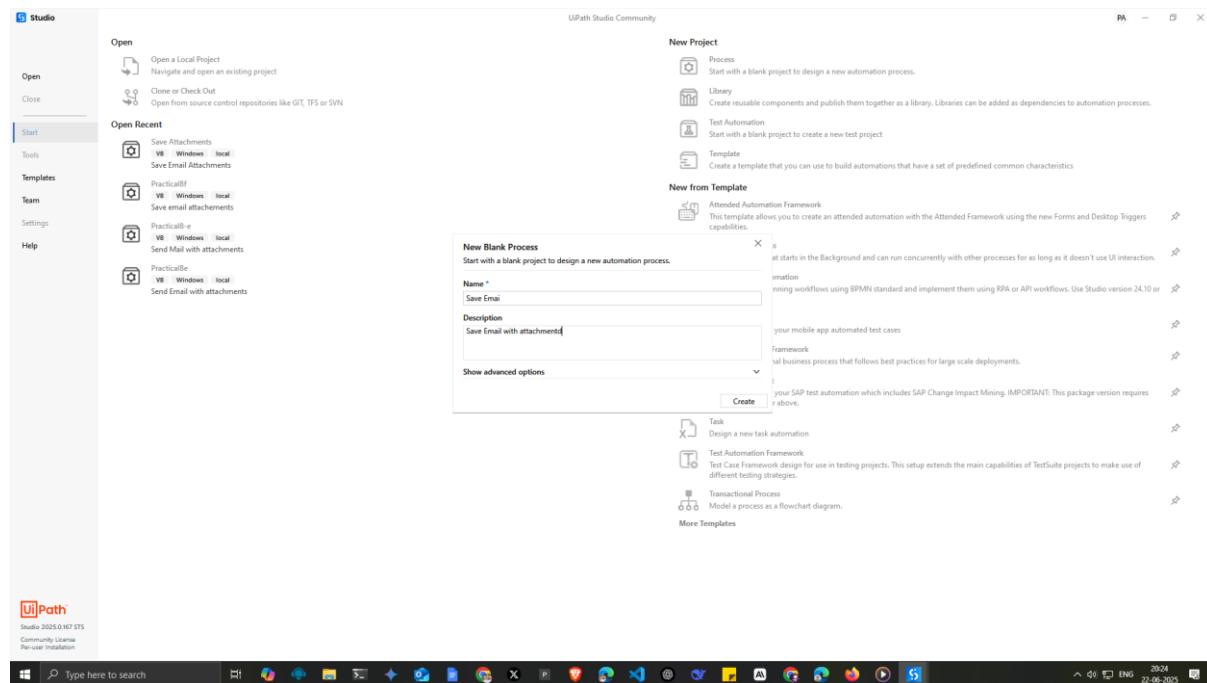


Output:

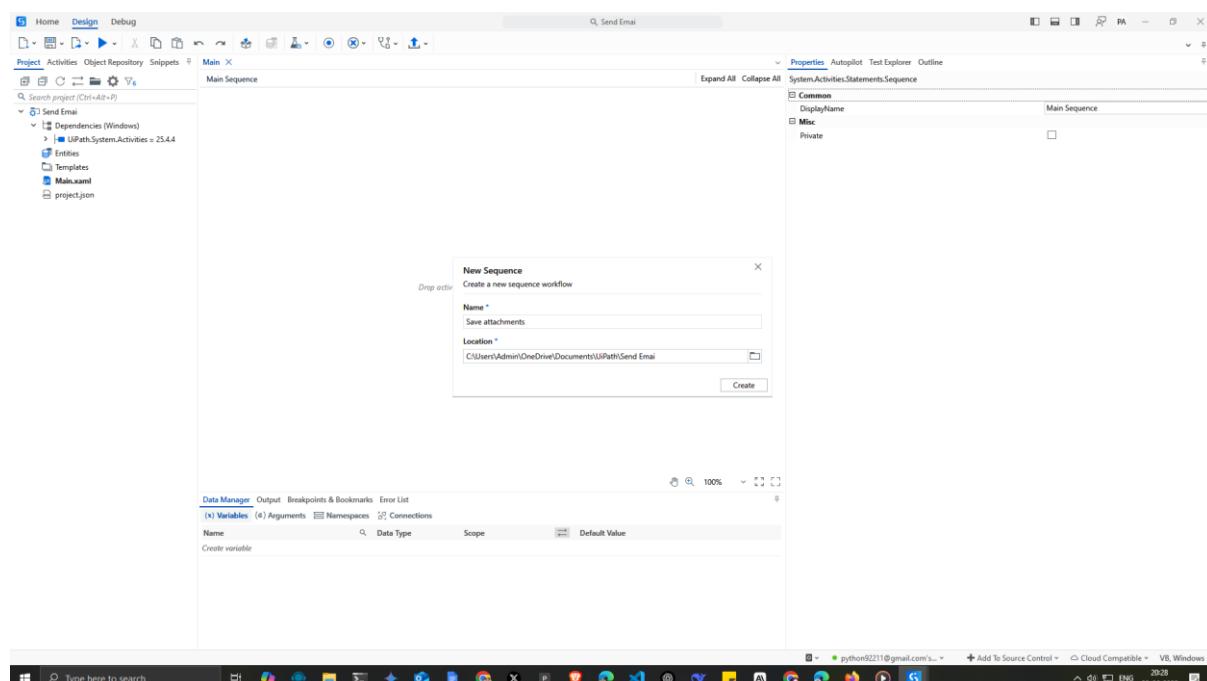


## D. Save Email Attachments

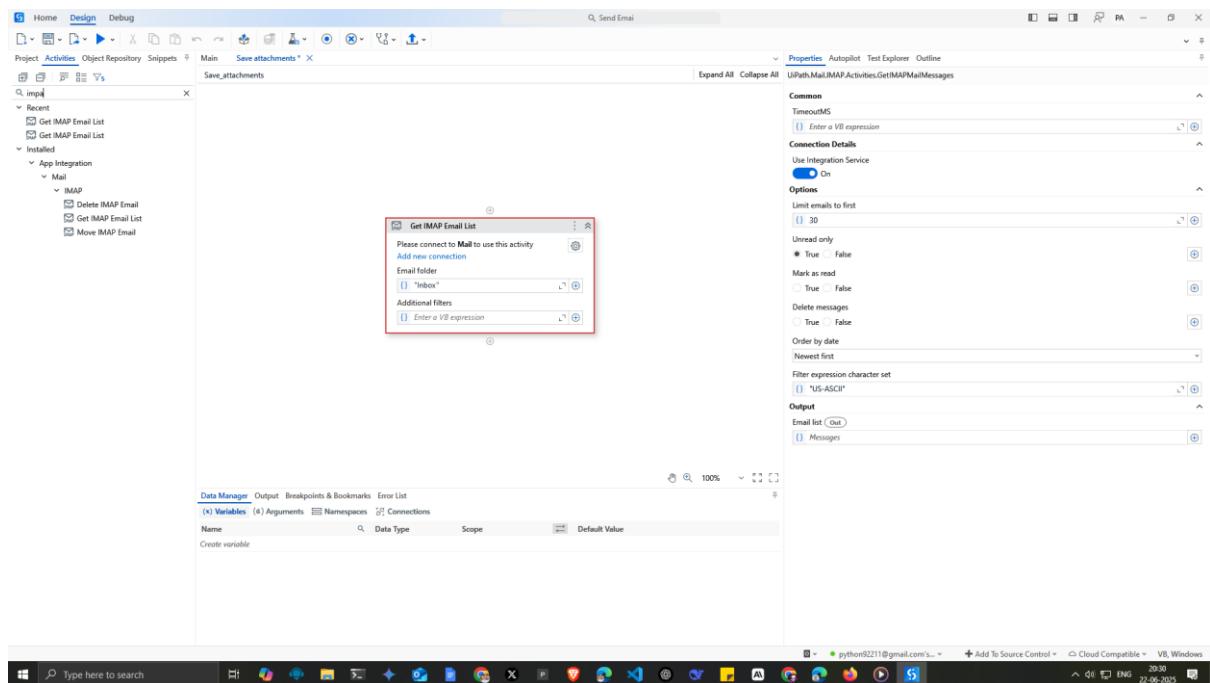
1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Save Attachments.



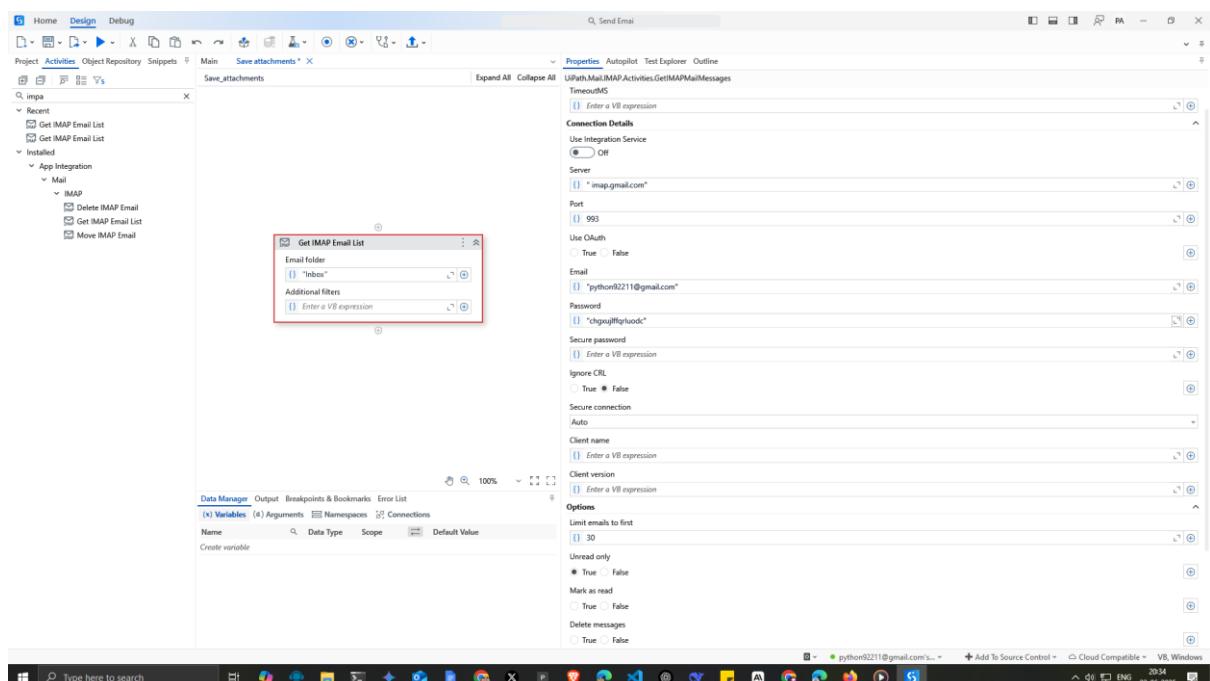
2. Add sequence in project and give name.



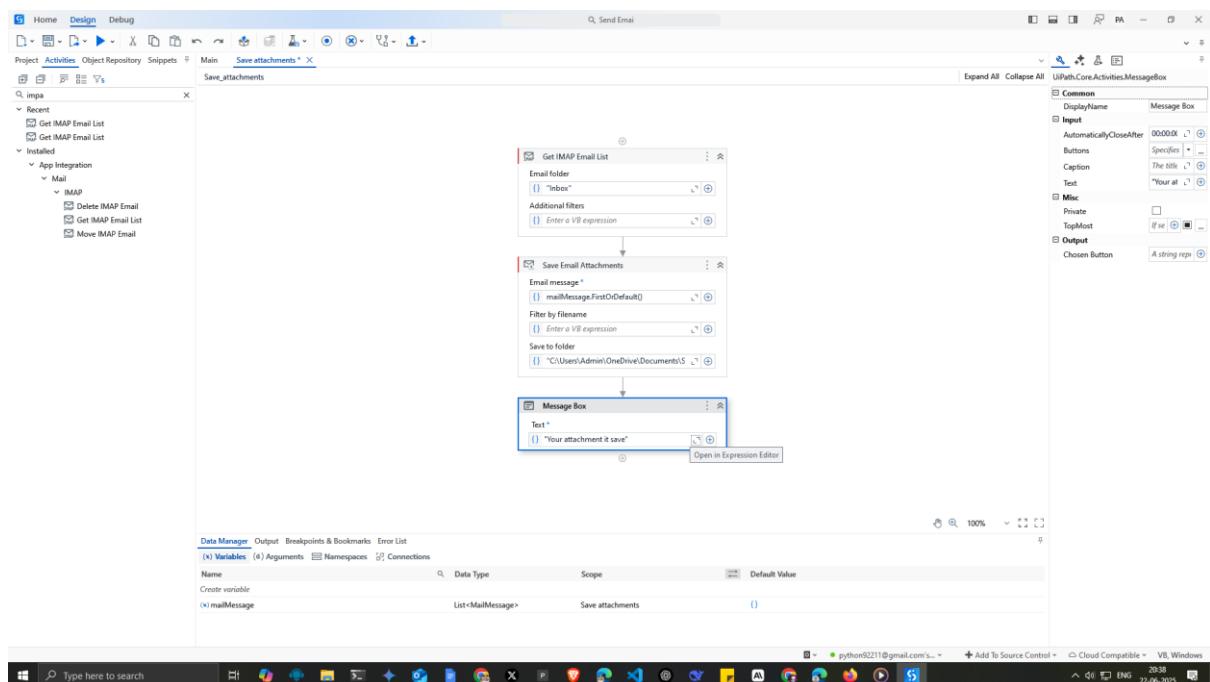
3. Click on activities and search for “Mail”, then scroll down and select “Get IMAP mail list”, and add to sequence. If not found add dependency



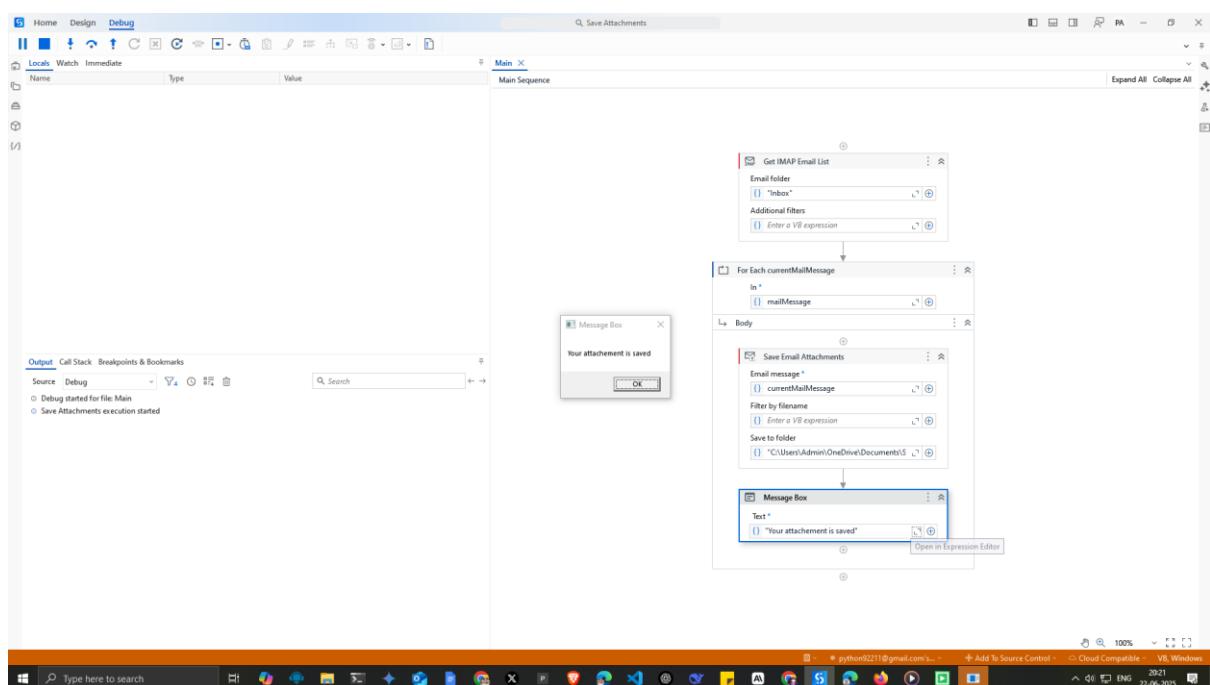
4. In Configuration, server is " imap.gmail.com", port is 993, enter your mail and its app password (you can get your gmail account app password on “manage you google”)



5. Search for “Save email attachments” and “message box” and configure the both and run.

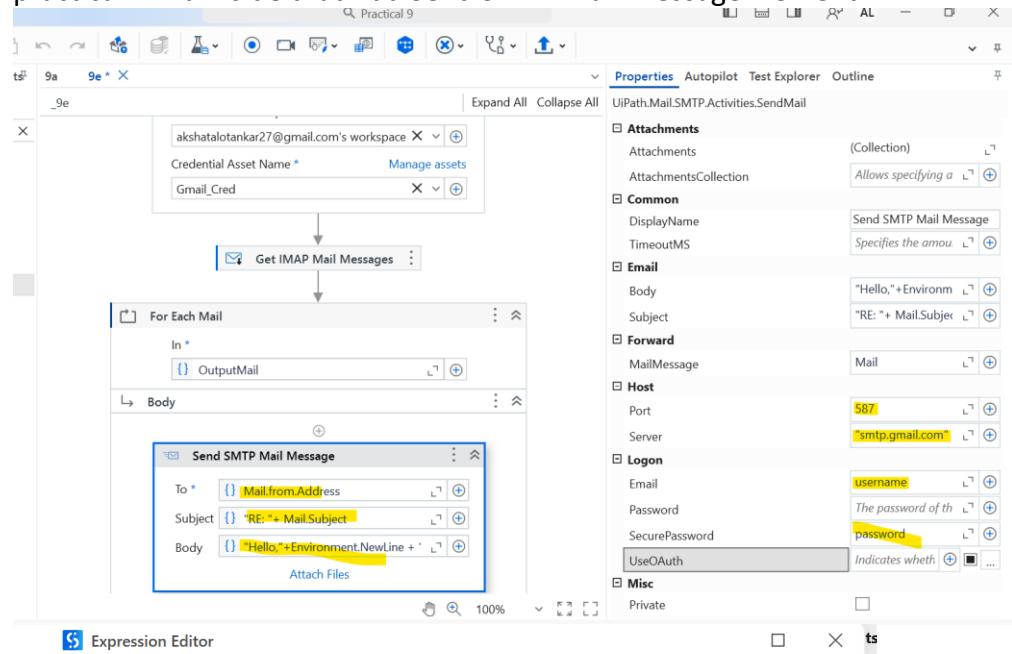


**Output:**



## E. Reply to Email

1. Select For Each from the activity window and drop into sequence after continuation from above practical. And inside that Add Send SMTP Mail Message Element.



Expression Editor

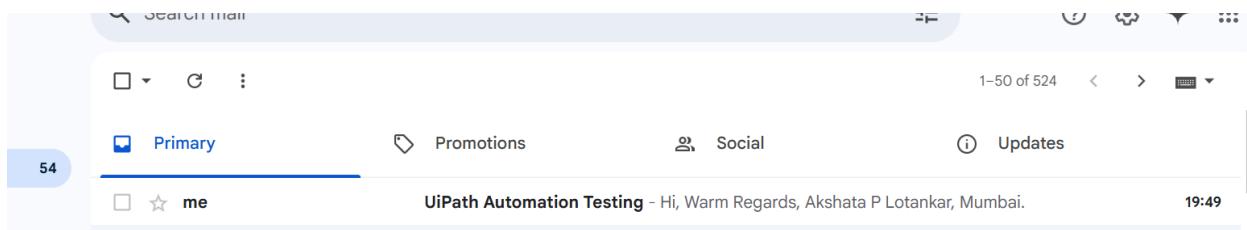
Send SMTP Mail Message > Body (InArgument<String>)

The body of the email message.

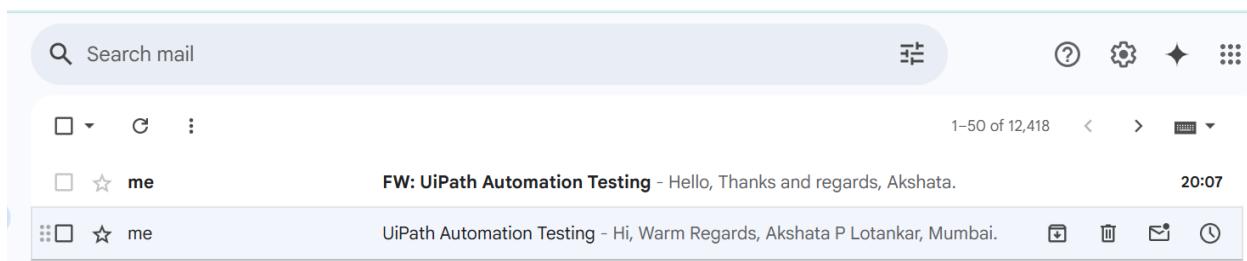


## Output:

Before:



After:

A screenshot of an open email message. The subject line is 'FW: UiPath Automation Testing'. The recipient field shows 'akshatalotankar27@gmail.com' with a green circular profile picture containing a white letter 'A'. Below the recipient, it says 'to me'. The message body starts with 'Hello,' followed by 'Thanks and regards,' and 'Akshata.' A horizontal line separates the message body from the forwarded message details. The forwarded message details are as follows:

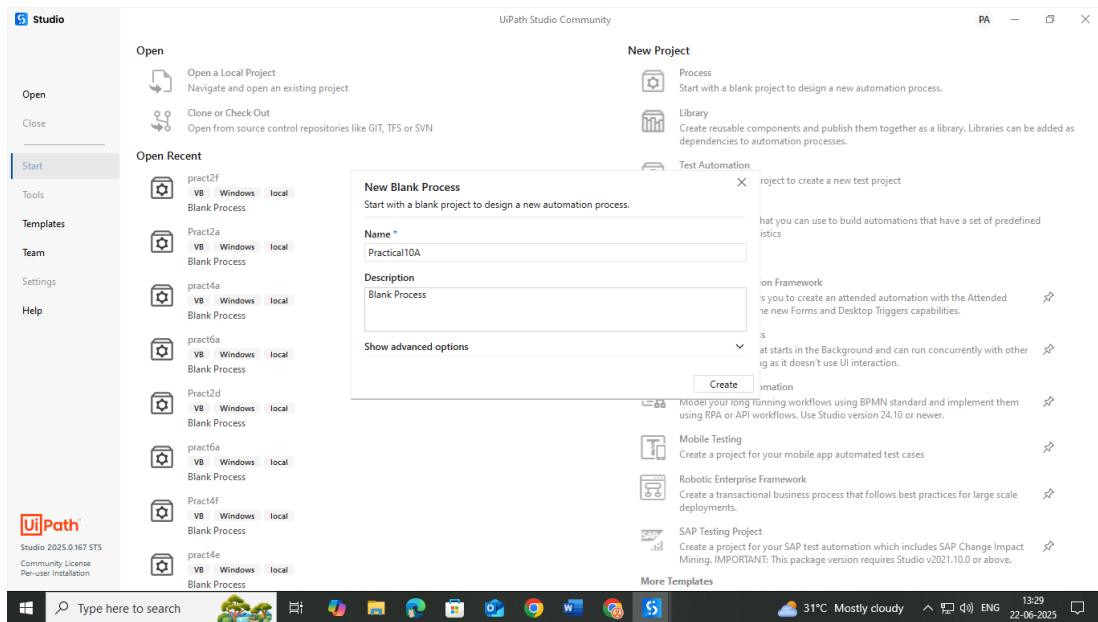
----- Forwarded message -----  
From: Akshata Lotankar <[akshatalotankar27@gmail.com](mailto:akshatalotankar27@gmail.com)>  
To: Akshata Lotankar <[akshatalotankar27@gmail.com](mailto:akshatalotankar27@gmail.com)>  
Cc:  
Bcc:  
Date: Mon, 23 Jun 2025 10:10:21 +0530

## Practical No. 10

### Orchestrator management and mini project

#### A. Deploy bots to Orchestrator

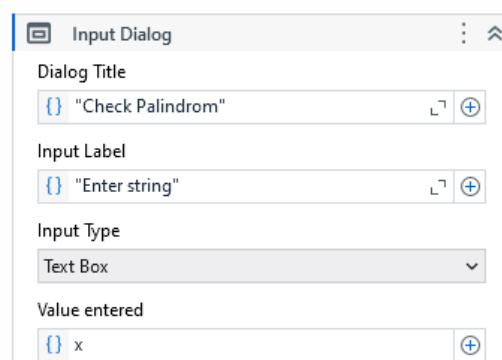
1. Open UiPath Studio and click on Blank to start a fresh project. Give it a meaningful name. Like Pratical10A.



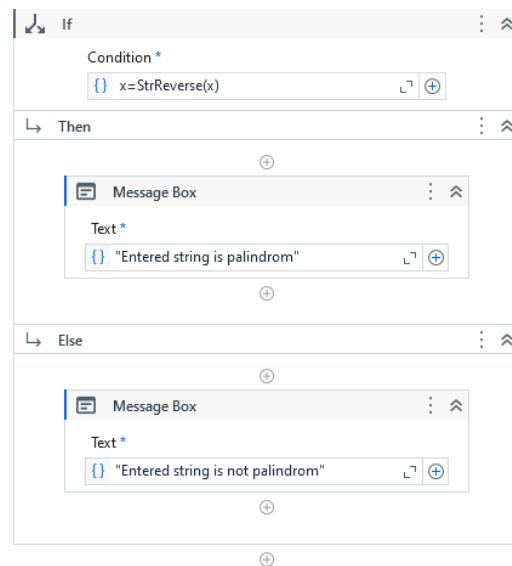
2. Open UI path and create new project with appropriate name and choose language type VB. Create variable x and give value as below.

Name	Variable type	Scope	Default
x	String	Main Sequence	Enter a VB expression
<i>Create Variable</i>			

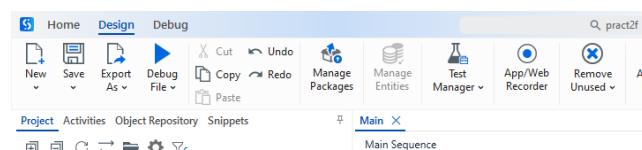
3. Select Input Dialog activity from the activity window and drop into sequence. Give Dialog Title, Input Label, Input Type as below and enter value as variable x.



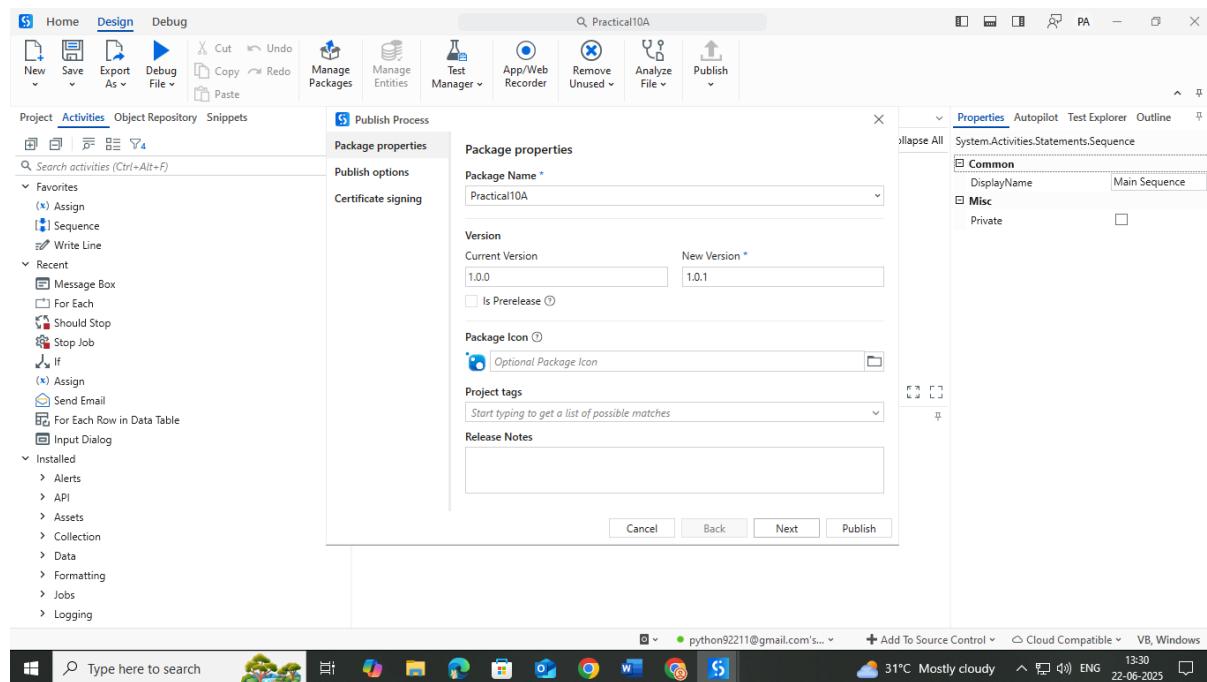
4. Select If activity from the activity window and drop into sequence to give a condition. If x is equal to reverse of string of x then the message box will display output as : “Entered String is Palindrome.” Else it will display : “ Entered string is not palindrome”.

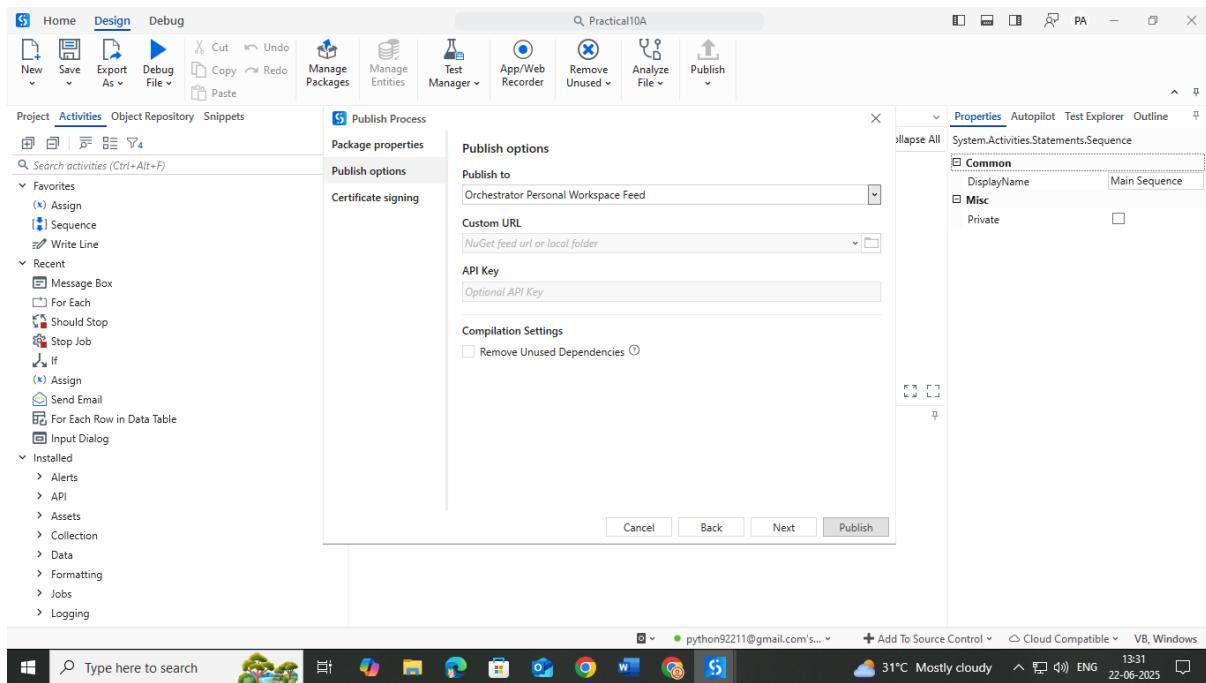


5. Click on Publish button.

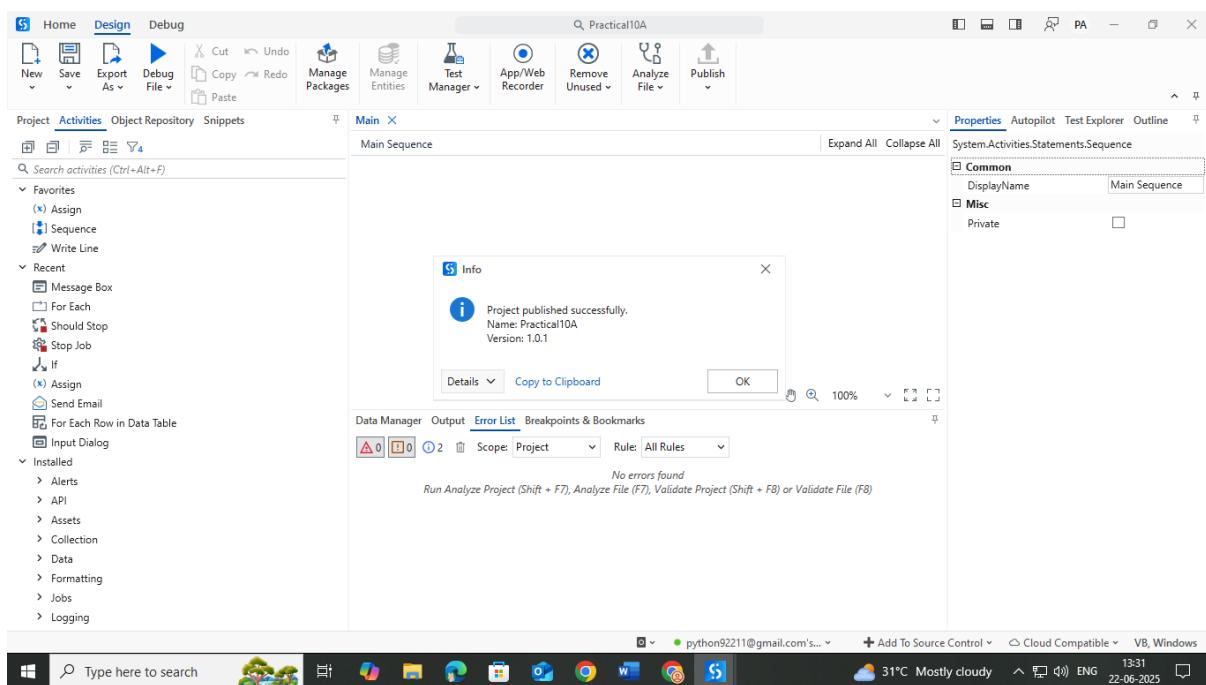


6. After that set package name and click on next then click on publish.

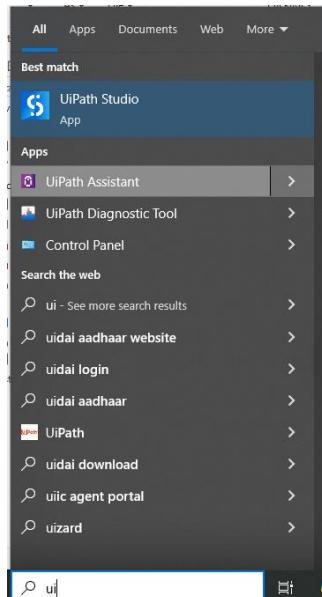




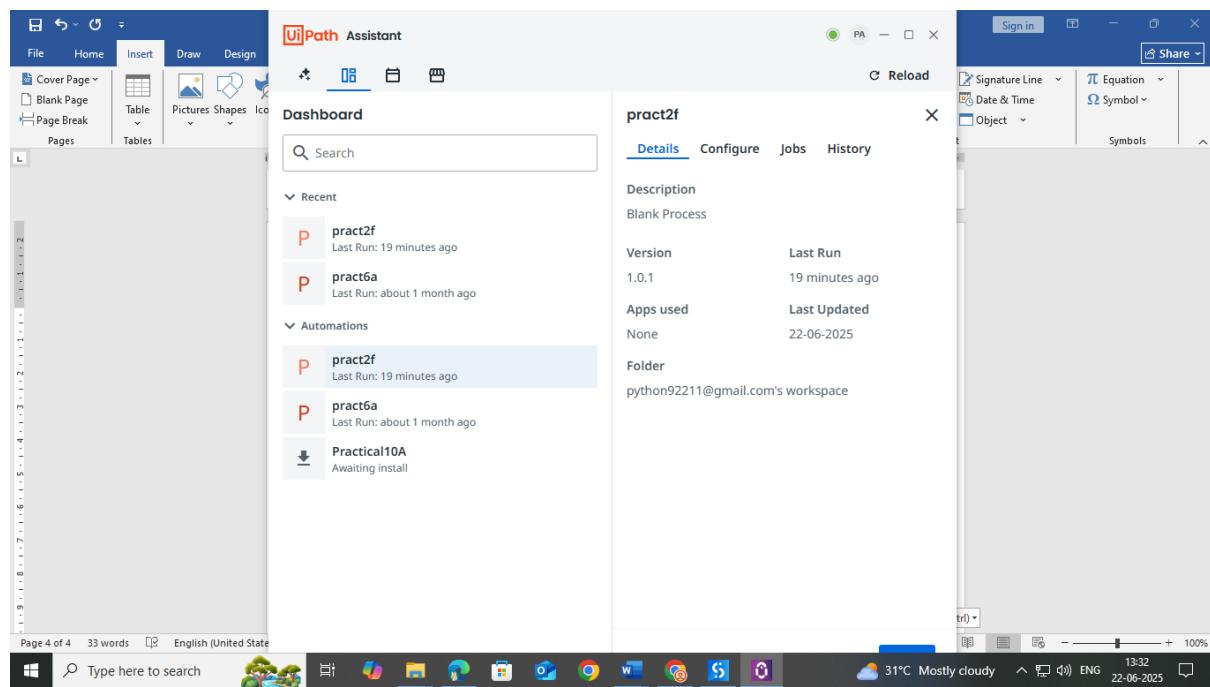
## 7. Package Published Successfully.



8. After package published successfully, open UiPath Assistant

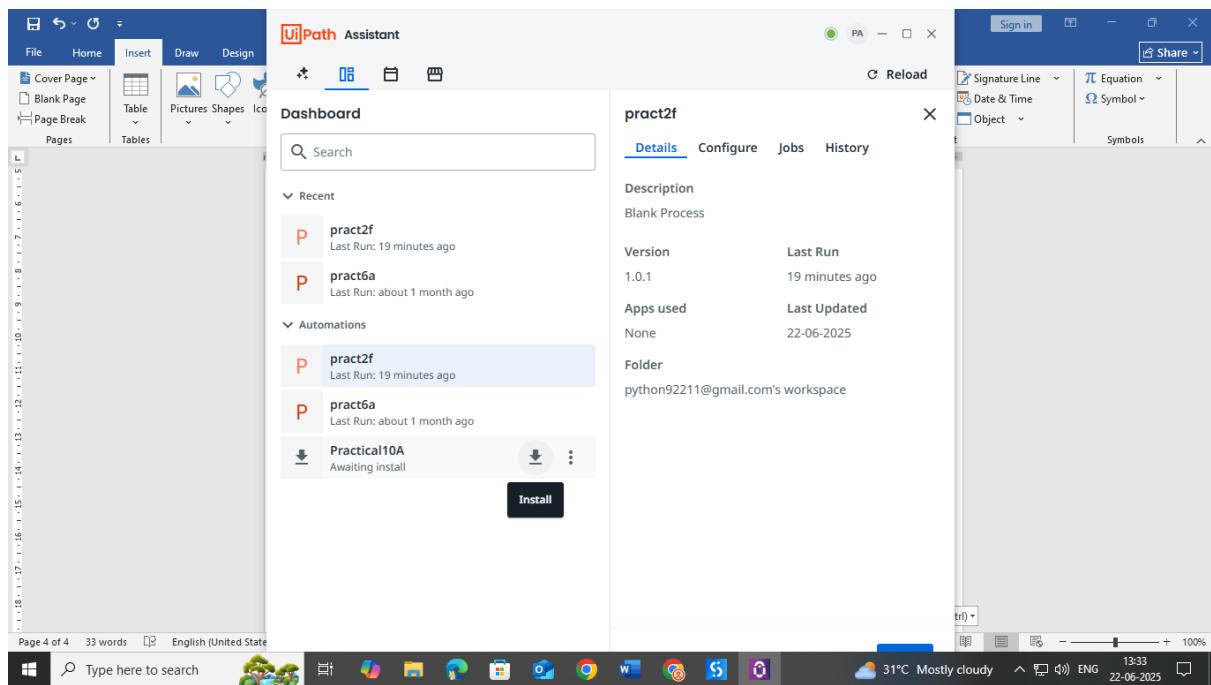


9. In UiPath Assistant you will see the published package Practical10A.

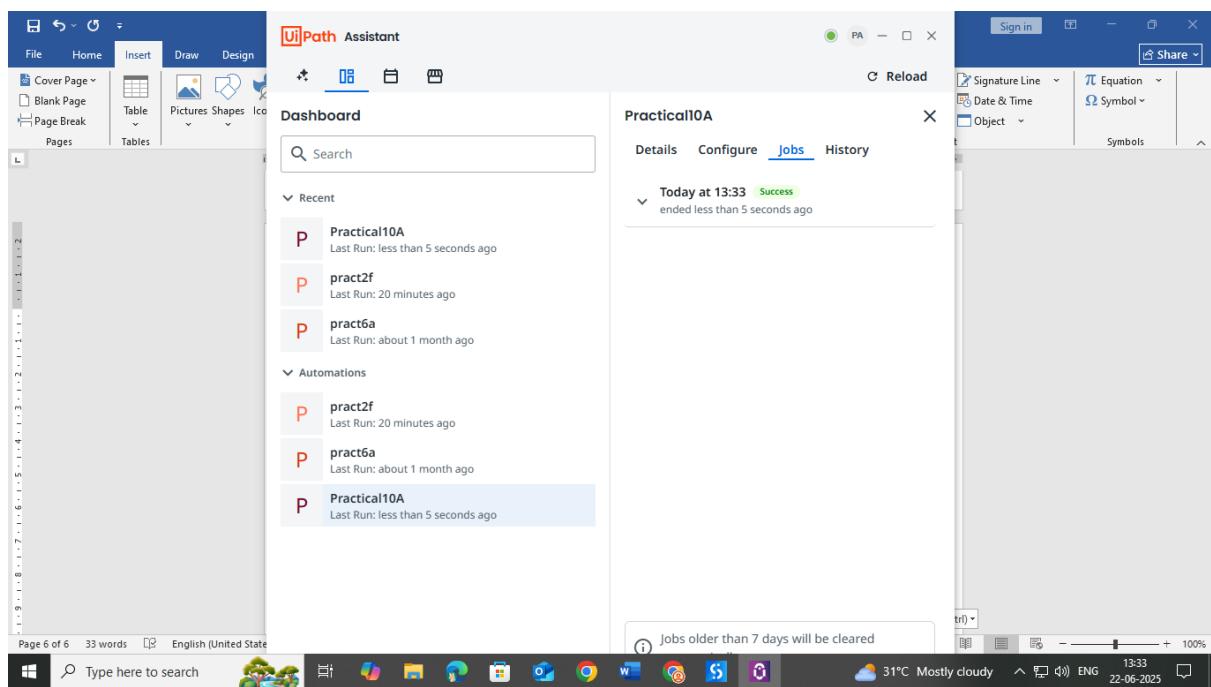


## B. Run jobs from Orchestrator

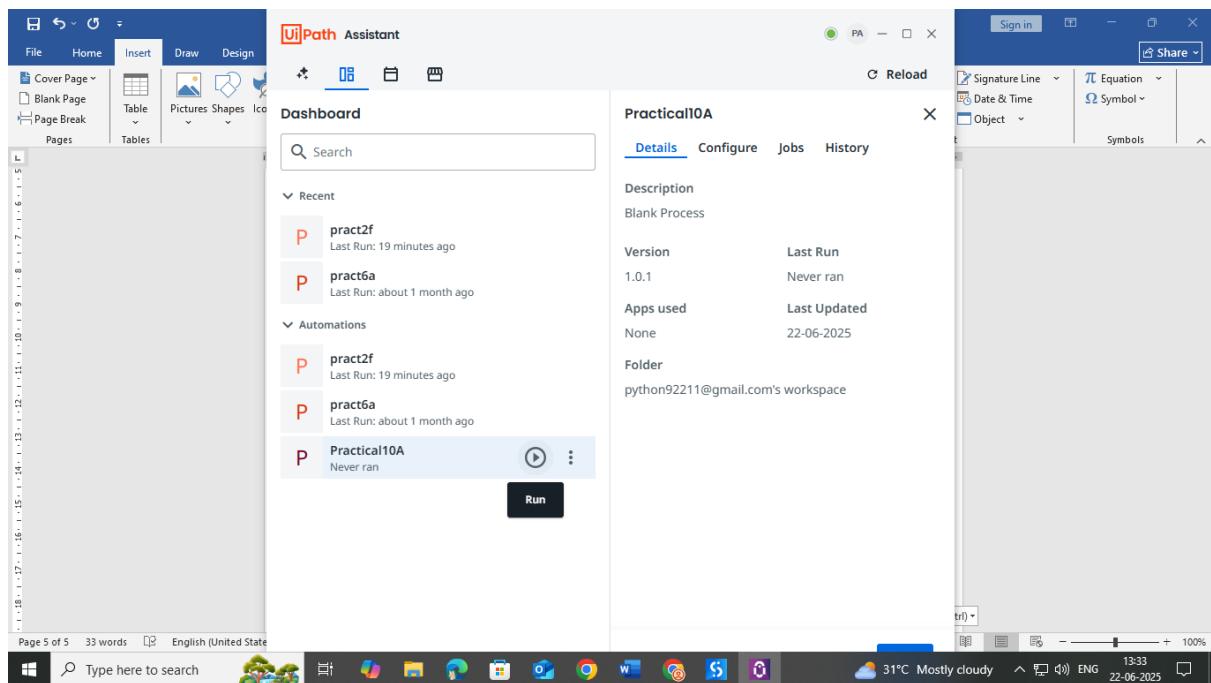
- Once the package is visible in UiPath Assistant then click on install button.



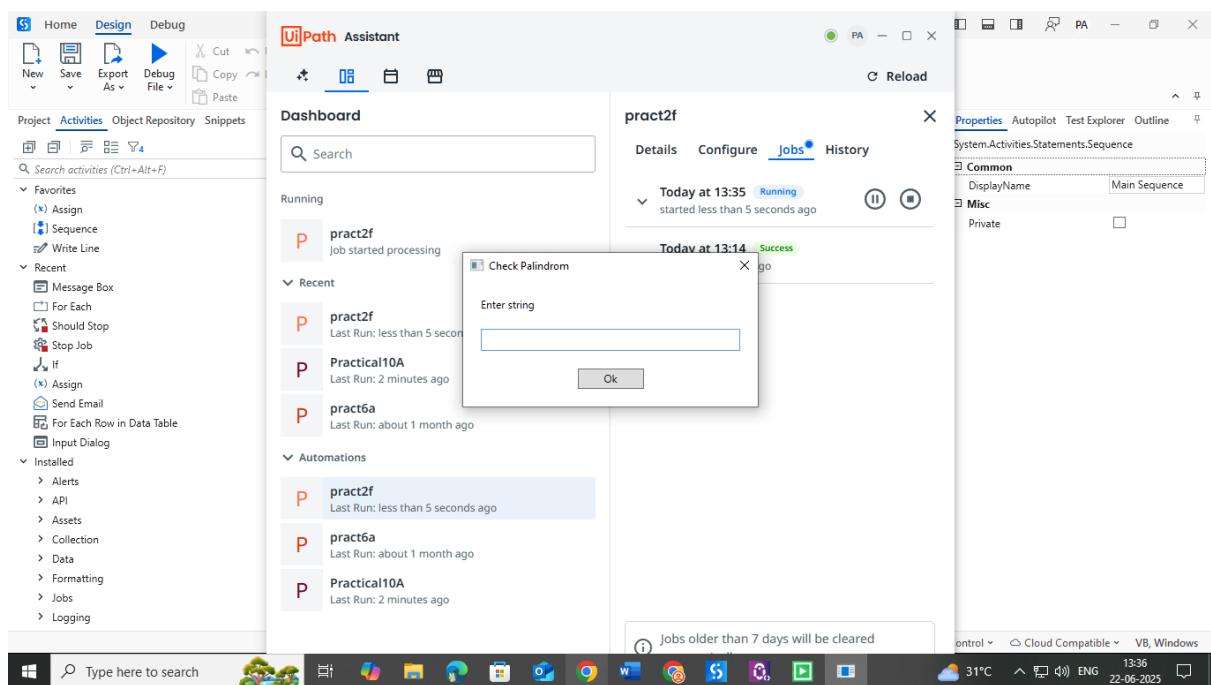
- You will see download details on screen.



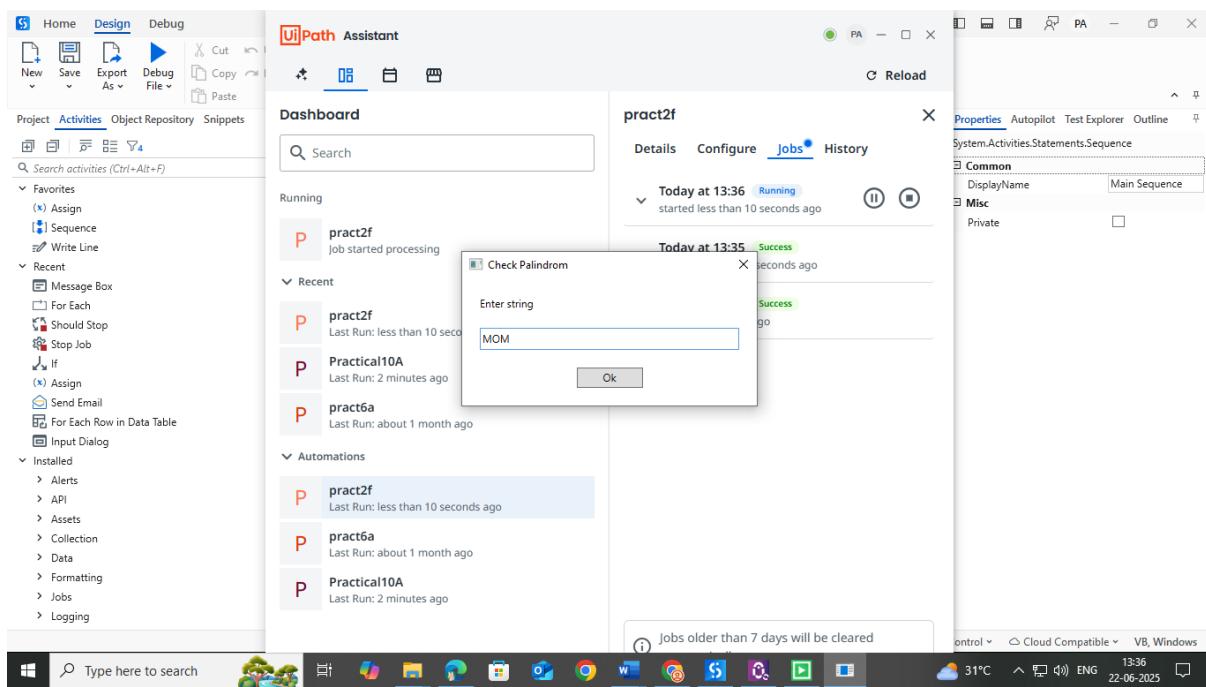
3. Also if you want to see the details of download package then you can see in details tab.



4. After click on Run the Palindrome condition will be appear in message box.



5. Enter the string. Then palindrome condition will checked and result result will be shown.



Output:

