# PRACTICAL REPORT ON

# **ROBOTIC PROCESS AUTOMATION**

**SUBMITTED BY:** 

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**SUBMITTED TO:** 

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# CONDUCTED AT: CHIKITSAK SAMUHA'S

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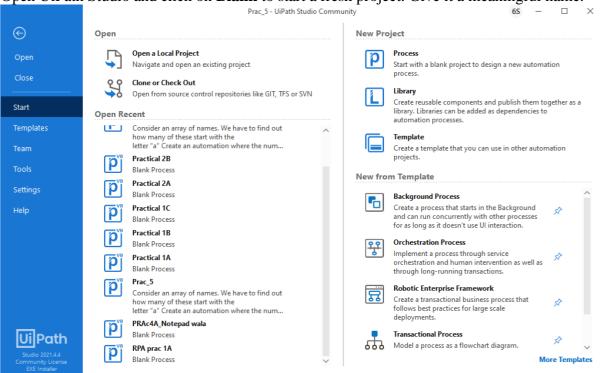
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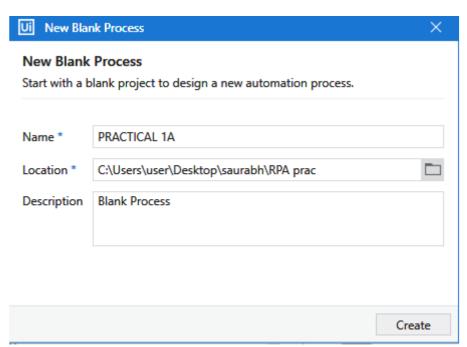
#### Practical no 1

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

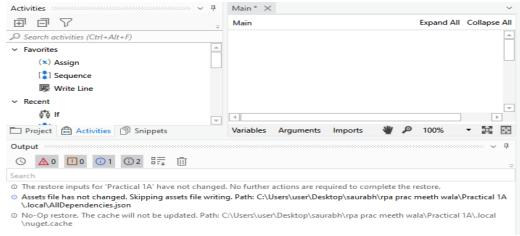
**Aim:** Use two input dialogs for First Name and Last Name store in a variable and show in Message Box. **Steps:** 

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





2. On the Designer panel, drag and drop a **Sequence** activity from the **Activities** panel.



3. Search for **Input dialog** in the Search panel of the **Activities** panel. Drag and drop the **Input dialog** activity inside the **Sequence**.

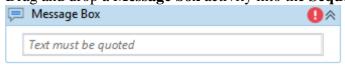
Write the appropriate message on the **Label** of this **Input dialog** to ask for the user's name. In our case, we have put in "Enter First Name"

4. Drag another **Input dialog** activity into the **Sequence**.

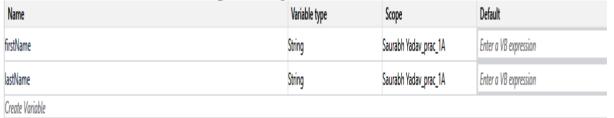


Write the Label as "Enter Last Name"

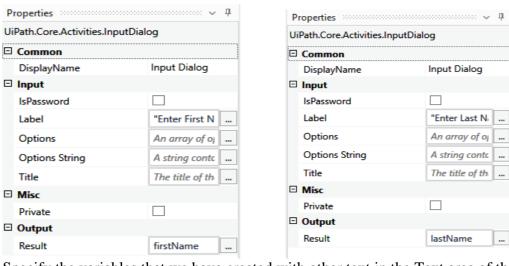
5. Drag and drop a **Message box** activity into the **Sequence**.



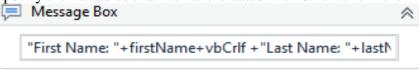
6. Next, create two **variables** and give them the desired names. These variables will receive the text that the user has entered in the **Input dialog** boxes.



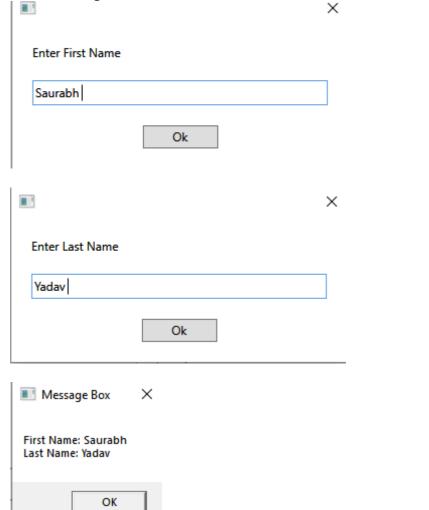
7. We now have to specify the **Result** property (in the **Properties** panel) of the **Input dialog** box. On specifying the variable name there, it will receive the text that the user entered.



8. Specify the variables that we have created with other text in the Text area of the **Message box**.



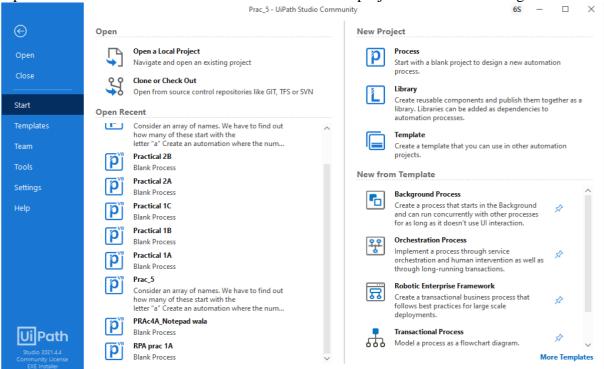
9. Hit the **Debug** button and see the result.

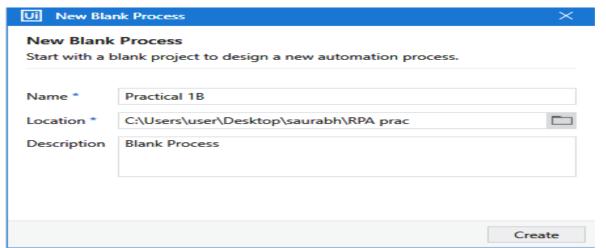


1 B) Create a simple flowchart-based project.

**Aim:** Use two input dialogs for First Name and Last Name store in a variable and show in Message Box. **Steps:** 

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





2. On the Designer panel, drag and drop a **Flowchart** activity from the **Activities** panel. Double click into Flowchart and drag **Sequence** activity.

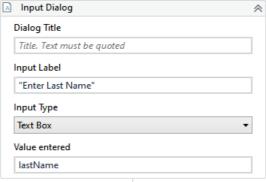


3. Search for **Input dialog** in the Search panel of the **Activities** panel. Drag and drop the **Input dialog** activity inside the **Sequence**.



Write the appropriate message on the **Label** of this **Input dialog** to ask for the user's name. In our case, we have put in "Enter First Name"

4. Drag another **Input dialog** activity into the **Sequence**.

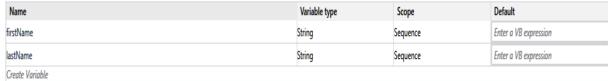


Write the Label as "Enter Last Name"

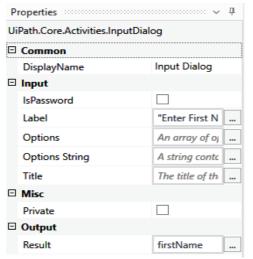
5. Drag and drop a **Message box** activity into the **Sequence**.

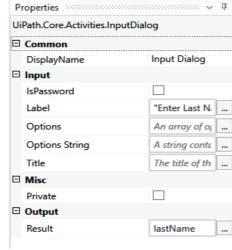


6. Next, create two **variables** and give them the desired names. These variables will receive the text that the user has entered in the **Input dialog** boxes.

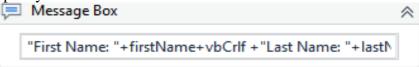


7. We now have to specify the **Result** property (in the **Properties** panel) of the **Input dialog** box. On specifying the variable name there, it will receive the text that the user entered.

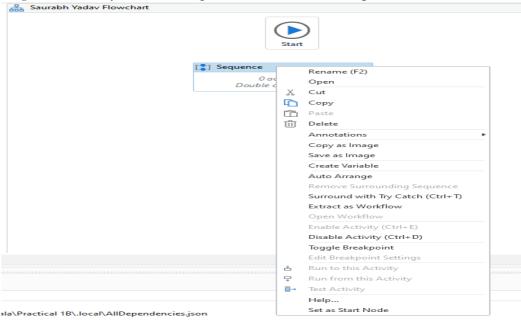


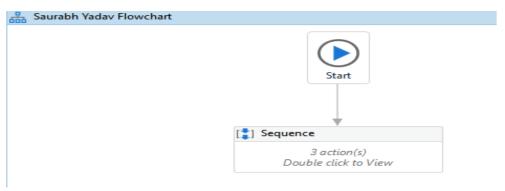


8. Specify the variables that we have created with other text in the Text area of the **Message box**.



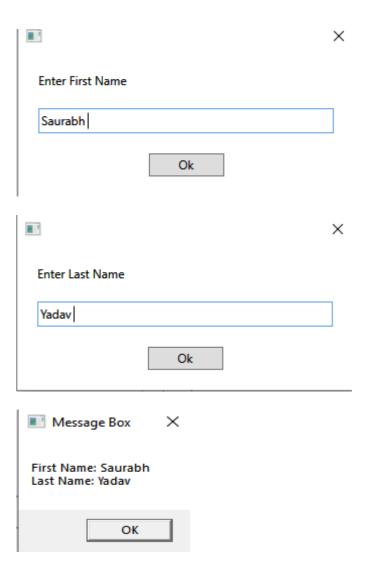
9. We need to connect the **Sequence** to the **Start** icon. This can be done by right-clicking on the **Sequence** activity and choosing the **Set as Start node** option.





10. Hit the **Debug** button and see the result.



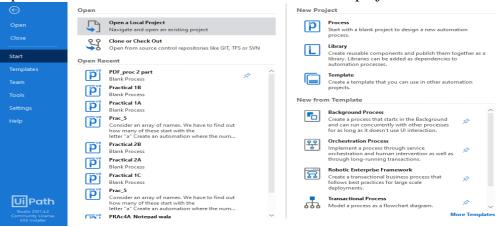


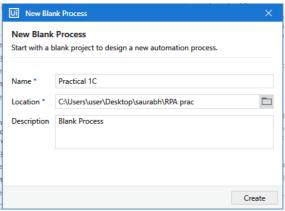
1 C) Create an UiPath Robot which can empty recycle bin in Gmail solely on basis of recording.

**Aim:** Use Web Recorder to empty trash in gmail.

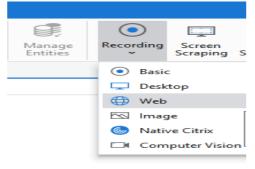
#### **Steps:**

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

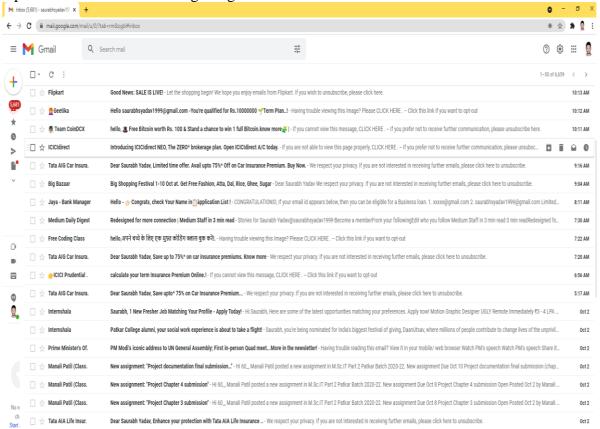




2. Choose Web recorder from the Recording drop-down list:



3. Open a Chrome browser and go to gmail.com.



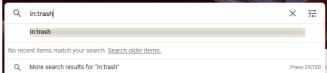
4. On the web recording panel click on "Open Browser" option and select the chrome window. In the url prompt type gmail.com.



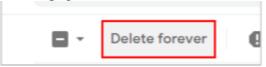
5. Now start the recording and click into the search bar of Gmail. Type "in: trash" in the type into prompt and press enter.



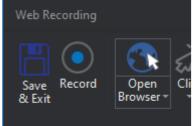
6. From the drop down click on the in:trash option.



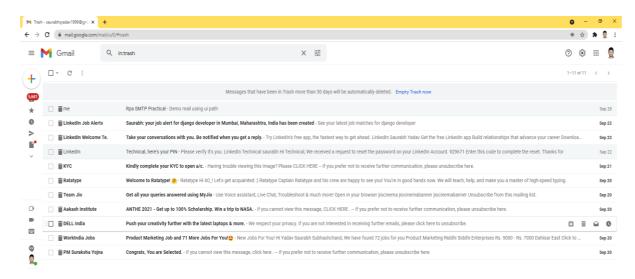
7. Once in the trash section of Gmail. Click on the checkbox button to select all the mail of the current page. Then click on Delete Forever button that appears.



8. Press Esc key and click on Save and Exit option in the web recording panel.



9. Now Run the program by clicking on Debug and see the output.



#### Practical no 2

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

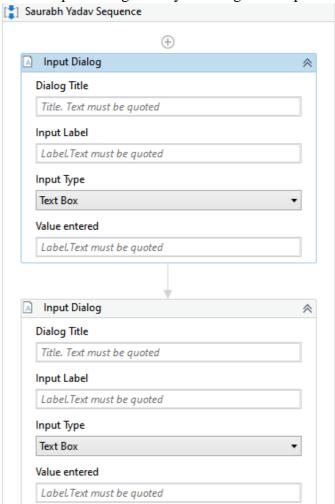
**Aim:** Use two Input dialogs for Numbers and do following calculations and show in Message Box.

#### Steps:

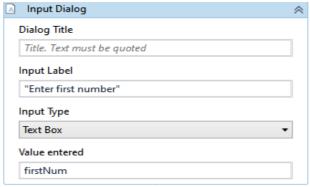
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



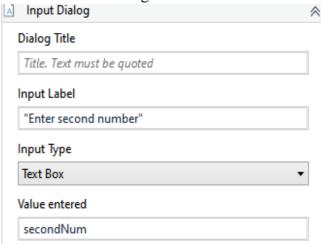
2. Search Input Dialog activity and drag and drop the activity twice.



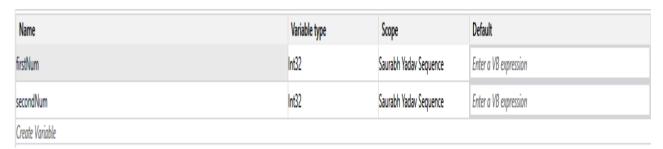
Give the first input dialog label as "Enter first number".

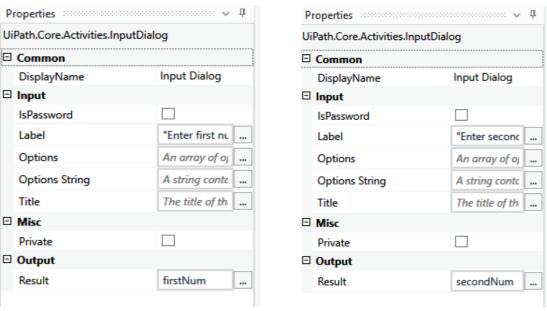


Give the second dialog label as "Enter second number".

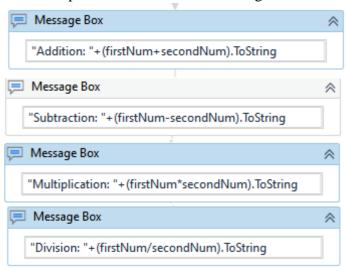


3. Create the variables to store both inputs, then enter the variables in the input dialog Result attributes.

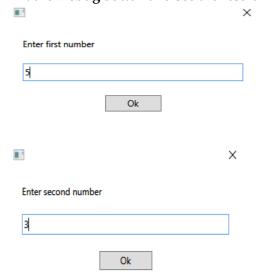


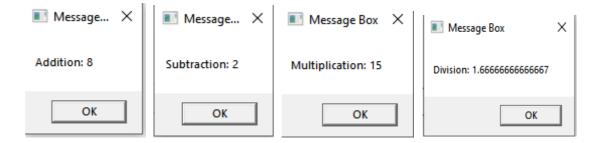


4. Drag and drop message box four times and perform the addition, subtraction, multiplication and division operation in each of the message boxes.



5. Hit the **Debug** button and see the result





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

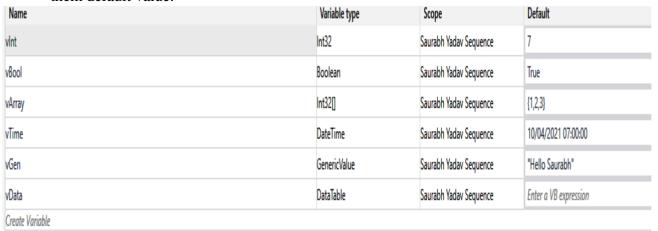
**Aim:** Create Different type of variable and provide default value and show in Message Box.

#### Steps:

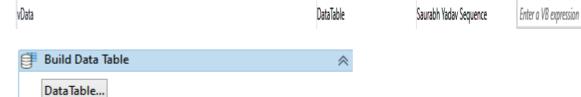
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



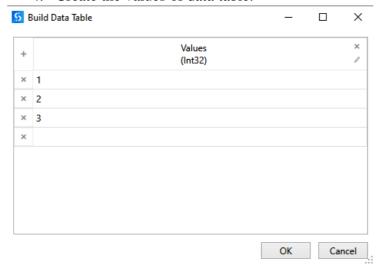
2. Create number(Int32), datetime, Boolean, string, generic, array variables and assign them default value.



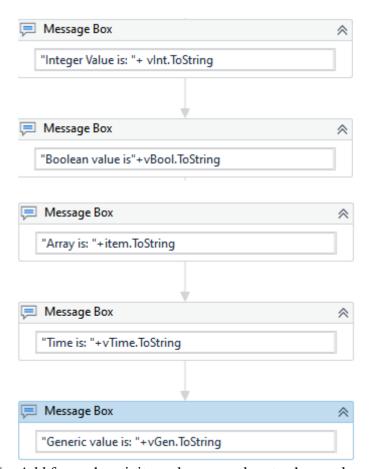
3. Create a datable variable and add a build dataTable activity.



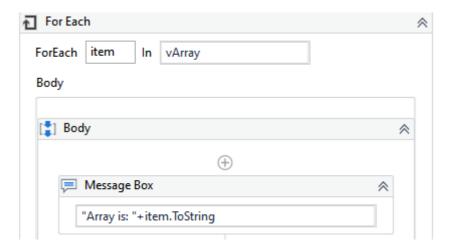
4. Create the values of data table.



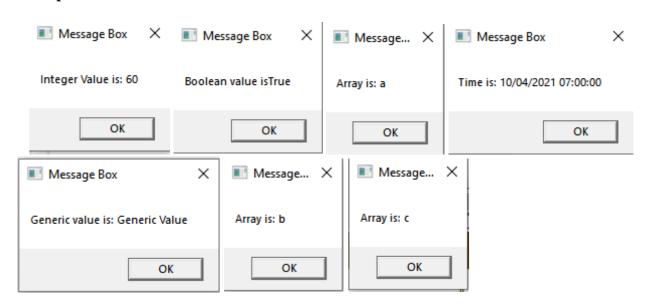
5. Add message box to show the number, datetime, Boolean, string, and generic variable.



6. Add for each activity and message box to show values of array variable.



# **Output:**



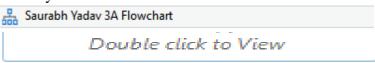
#### Practical no 3

# 3 A) Create an automation UiPath Project using decision statements.

**Aim:** Use one input dialog for Number, create a process to find provided Number is odd or even using condition (Flow Chart).

#### Steps:

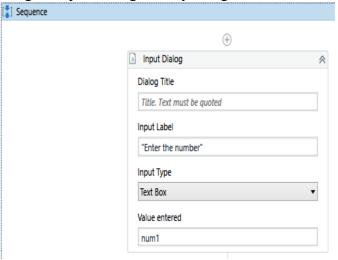
6. Create a new Blank Project and give it an appropriate name. Drag a Flowchart activity from Activity tab.



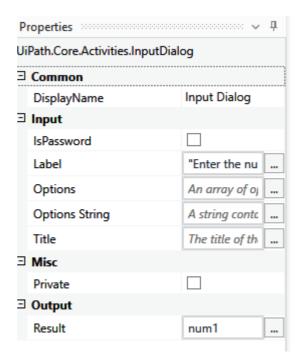
7. Double click on flowchart and drag a sequence activity.



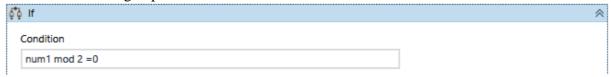
8. Drag an Input Dialog activity and give label "Enter the number".



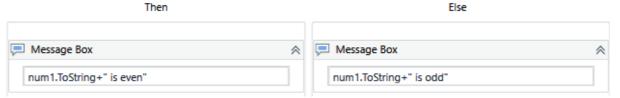
9. Create a variable of Int32 type and enter the variable in result attribute of Input Dialog.



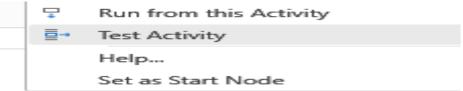
10. Write the following expression in Condition: num mod 2 = 0.



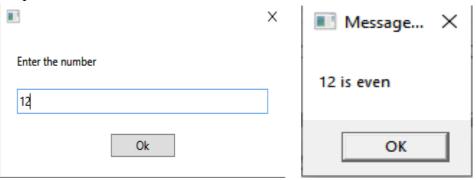
11. In the Message Box in then part write "Number is even" and in the Message Box in else part write "Number is odd".



12. Connect the sequence to the start node by right clicking on sequence and selecting the "Set as start node" option.



Output:



#### 3 B) Create an automation UiPath Project using looping statements.

**Aim:** Create a dummy List of fruits. Loop each and print in Message Box. Steps:

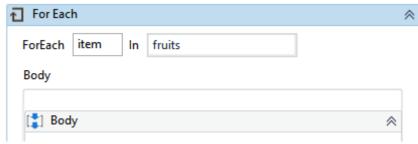
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



2. Create an Array of String Type named fruits. Give default value as {"Apple", "Mango", "Banana", "Orange", "Watermelon"}.



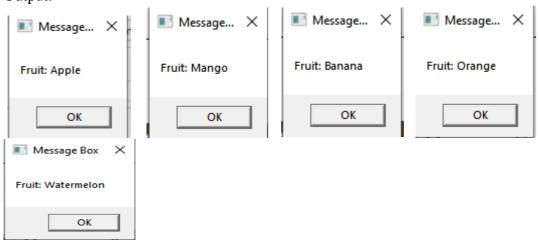
3. Add a for each activity and enter the fruits array as the iterating variable.



4. Add a Message Box and print item.



#### Output:



#### Practical: 4

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

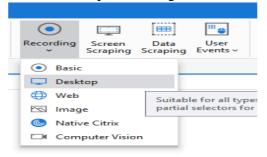
Aim: Automate Existing Notepad using basic Recorder

## Steps:

1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



2. Select Desktop Recording under Recording.



3. Open a new notepad, then on desktop recording click on open application and select notepad the click ok on the prompt that appears.

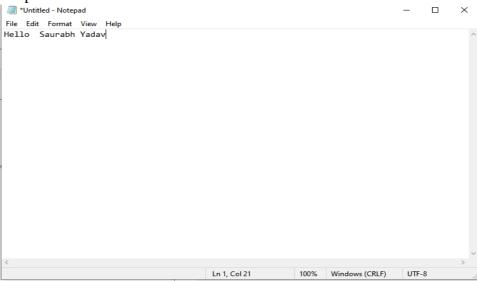


4. Start recording by clicking on record button in recording panel, then click in the text area of notepad.



5. In the type into prompt enter the text you want to be typed.

## Output:



# 4. B) Automate any process using desktop recording.

**Aim:** Use "double Ui" and automate stuff (Scrape Text, Input Text, Click Button) Insert the data from the following excel file.

Α	В	С	D	E	F	G
Sr no.	Cash In	Check_1	Check_2	Total	Transactio	Status
1	100	200	400			
2	200	300	600			
3	300	400	800			
4	400	500	1000			
5	500	600	1200			
6	600	700	1400			
7	700	800	1600			
8	800	900	1800			

# Steps:

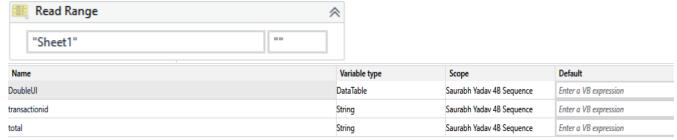
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



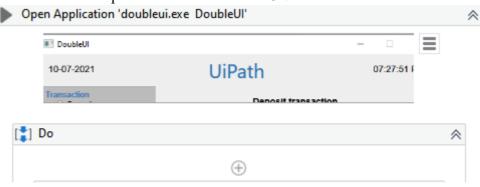
2. Add Excel Application Scope Activity and enter the path of the excel file.



3. Add Read Range and create a DataTable to store the data that will be read by read range.



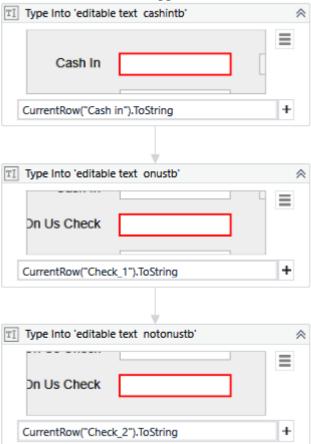
4. Add Open Application activity, start Double UI then click on "Indicate window on screen" option and select Double UI.



5. Add For each row in DataTable activity and iterate over DoubleUI datatable.



6. Add three type into activity in the for each activity. Indicate to the three textboxes in the Double UI app. Enter the DataTable element you wan to enter in the Text attribute.



7. Add two get text activities and create two variables to store the transaction is and total. Indicate these elements to the Get text activities.



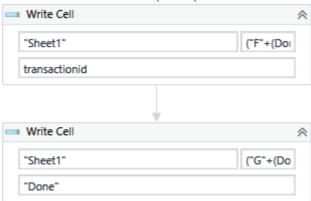


In case of Total remove the name attribute from the Edit Selector.

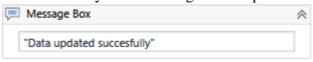
8. Add Click activity and indicate to Accept Button in Double UI.



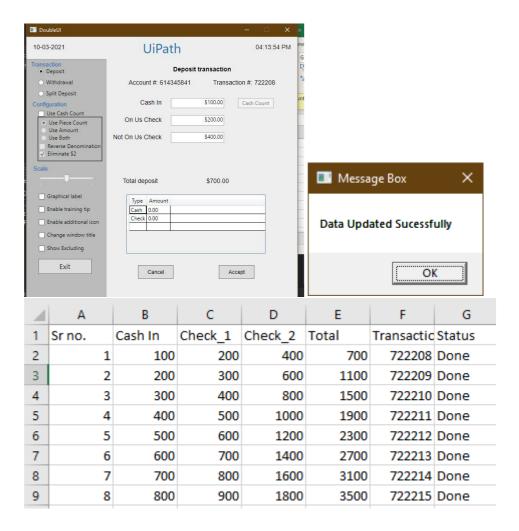
9. Add three Write Cell Activities to enter the transaction id and total and to Update the status column. ("E"+(DoubleUI.Rows.IndexOf(CurrentRow)+2).ToString)



10. Finally add a Message Box to print the success of the updation of Excel file.



Output:



#### 4 C) Automate any process using web recording.

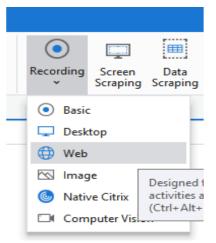
Aim: Use "google.com" and automate stuff (Scrape Text, Input Text, Click Button)

#### Steps:

1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



2. Select web recording under the recording option.



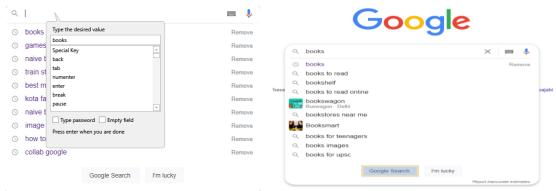
3. Open a Chrome window and from the web recording dialog select open browser and click on the Chrome window.



4. In the url dialog enter google.com and press enter.



5. Now start recording by clicking on Record and click on the search button. Type the desired search and click on the Google search button. The press Esc.



6. Now press save and exit. Add get text activity and select the text you want to scrape.



7. Add message box to print scrapped text.



#### Practical no 5

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

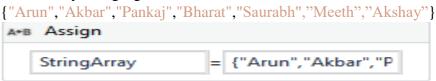
#### **Steps:**

1. Create a sequence.



2. Use 1 Assign Activity

Create array string Eg:



3. In Variable section take datatype as Array of[T] -> String



4. Take For each loop where each item in stringArray will occur repeatedly.



5. Take another Assign activity and create new variable as "First\_letter\_name" with datatype as String.

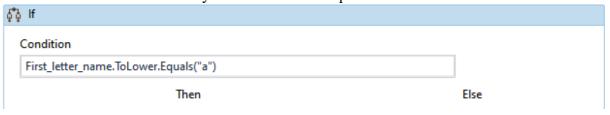


item.ToString.SubString(0,1)

Where 0 is the starting index value.

1 is the length of the name.

6. Now Take If condition -First\_letter\_name.ToLower.Equals("a") this condition states that take the letter from the name list of array which starts with alphabet "A" or "a".



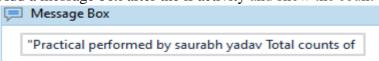
7. Then: take assign activity create Counter variable to count the number of names in the array starting with "A", give default value of Counter variable as 0.



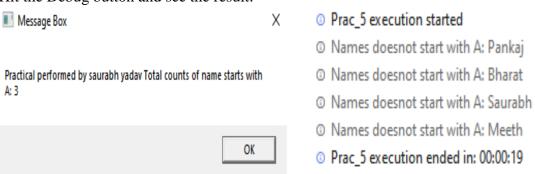
8. Else: take write line activity and put as "Names doesnot start with A:"+item.ToString



9. Add a message box after the if activity and show the count of Names starting with "A".



10. Hit the Debug button and see the result.



#### Practical no 6

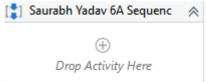
#### 6A. Create an application automating the read, write and append operation on excel file.

Aim: Using Excel sheet data perform some calculation on the data writing it into the cells

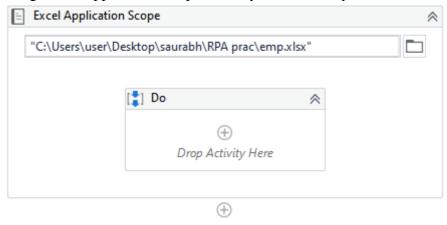
Steps: Create a sample excel as shown below

1	Emp_Id	F_name	L_name	Salary	Expenses	Saving	
2	1001	Saurabh	Yadav	100000	10000	<u> </u>	
3	1002	Pankaj	Gavali	200000	20000		
4	1003	Bharat	Bhagat	300000	30000		
5	1004	Virat	Kohli	400000	40000		
6	1005	Mahendra	Dhoni	500000	50000		
7							

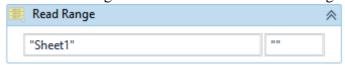
1. Start project as sequence



2. Drag Excel Application Scope Activity from Activity Panel and enter the excel file path.

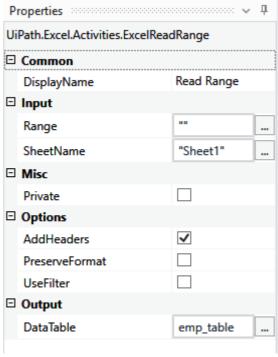


3. Add "Read Range" from activities and add the range of the cells if required.

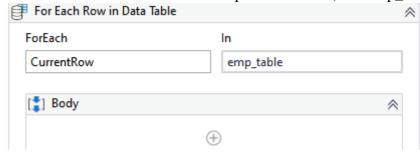


4. Create a variable of type DataTable (here variable name: emp\_table variable type: DataTable). Enter the variable in the Read Range Output>DatableTable attribute.

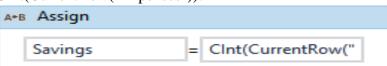




5. Select "For Each Row" and enter Input DataTable (here emp\_table).



- 6. Inside Body insert "Assign" variable (Saving) with int32 as variable type.
- 7. Enter the following in value part of assign CInt(CurrentRow("Salary"))-CInt(CurrentRow("Expenses")).

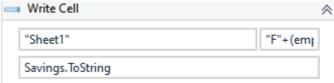


8. A "Message Box" to print the result converting it to string.

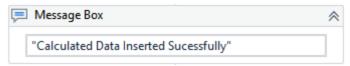


9. To insert the Saving value in the excel use Write Cell Activity. Give the Savings Variable in Value. In Range type:

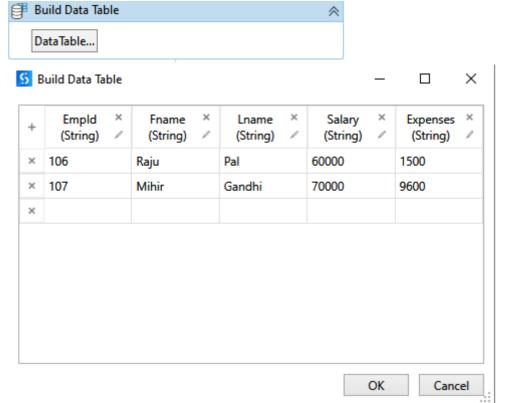
 $"F" + (emp\_table.Rows.IndexOf(CurrentRow) + 2). ToString.$ 



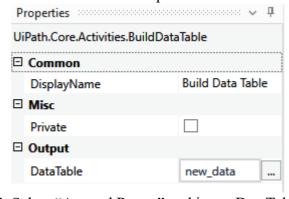
10. Add a Message Box to indicate that the calculated values have been successfully inserted.



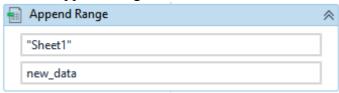
11. In order to append new data create data table using "Build Data Table" and insert the values.



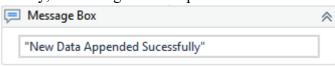
12. Create a new variable with name: new\_data and variable type: DataTable and pass it to the DataTable field in Output attribute of Build datatable activity.



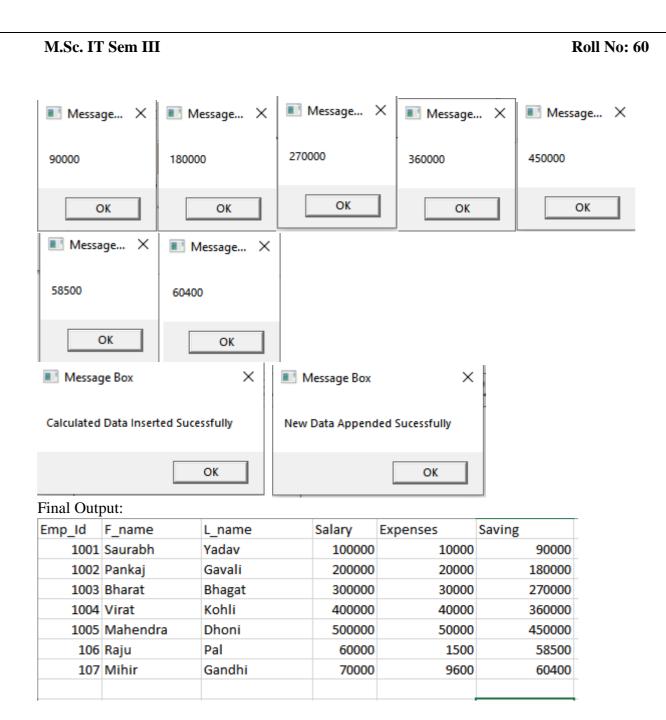
13. Select "Append Range" and insert DataTable name ("new data").



14. Finally, a "Message Box" to print a confirmation message.



Output:



**6B.** Create automate the process to extract data from an excel file into a data table and vice versa. **Aim:** Using one excel sheet data to copy and writing it into other excel sheet. (Using excel data given below)

Emp_Id	F_name	L_name	Salary	Expenses	Saving
1001	Saurabh	Yadav	100000	10000	90000
1002	Pankaj	Gavali	200000	20000	180000
1003	Bharat	Bhagat	300000	30000	270000
1004	Virat	Kohli	400000	40000	360000
1005	Mahendra	Dhoni	500000	50000	450000
106	Raju	Pal	60000	1500	58500
107	Mihir	Gandhi	70000	9600	60400

Step:

1. Start project with sequence.

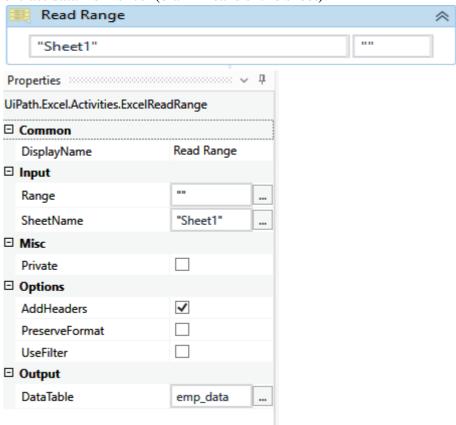


2. Add "Excel Application Scope" and enter the path of excel file.

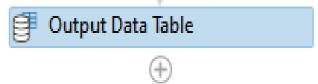
Excel Application Scope

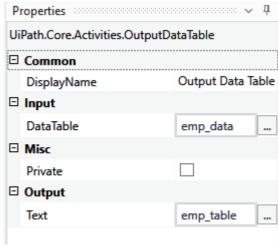
"C:\Users\user\Desktop\saurabh\RPA prac\emp.xlsx"

3. Inside body add "Read Range" variable name and datatype as datatable(emp\_data) and range to extract data from excel (blank means entire sheet).



4. Add "Output Data Table" input as "emp data" output as "emp table".





5. "Message Box" to print the result adding variable "emp\_table" (here extracted data will be printed).



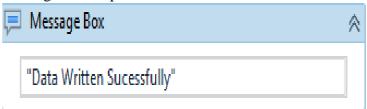
6. Insert "excel application scope" and new excel sheet path.



7. Insert "Write Range" range from where the data should be pasted and variable "emp\_data".



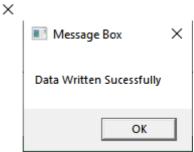
8. Message Box to print confirmation



## Output:



Emp\_Id,F\_name,L\_name,Salary,Expenses,Saving 1001,Saurabh,Yadav,100000,10000,90000 1002,Pankaj,Gavali,200000,20000,180000 1003,Bharat,Bhagat,300000,30000,270000 1004,Virat,Kohli,400000,40000,360000 1005,Mahendra,Dhoni,500000,50000,450000 106,Raju,Pal,60000,1500,58500 107,Mihir,Gandhi,70000,9600,60400



4	Α	В	С	D	E	F	G
1	1001	Saurabh	Yadav	100000	10000	90000	
2	1002	Pankaj	Gavali	200000	20000	180000	
3	1003	Bharat	Bhagat	300000	30000	270000	
4	1004	Virat	Kohli	400000	40000	360000	
5	1005	Mahendra	Dhoni	500000	50000	450000	
6	106	Raju	Pal	60000	1500	58500	
7	107	Mihir	Gandhi	70000	9600	60400	
8	106	Raju	Pal	60000	1500		
9	107	Mihir	Gandhi	70000	9600		
10							

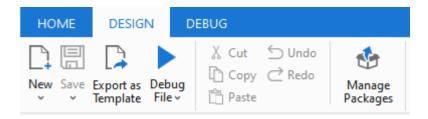
#### Practical no 7

### 7A: Install and automate any process using UiPath.

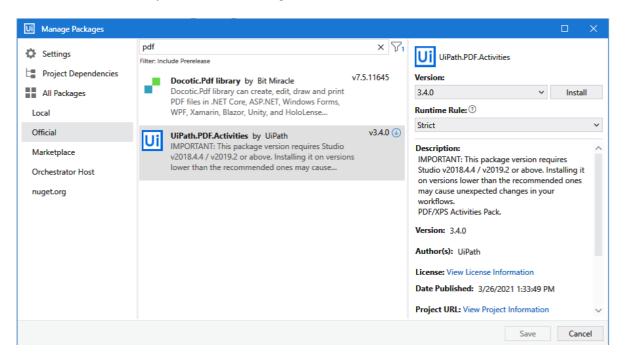
Aim: Install and automate any process using UiPath with the following plug-ins: Any two.

### **Steps:**

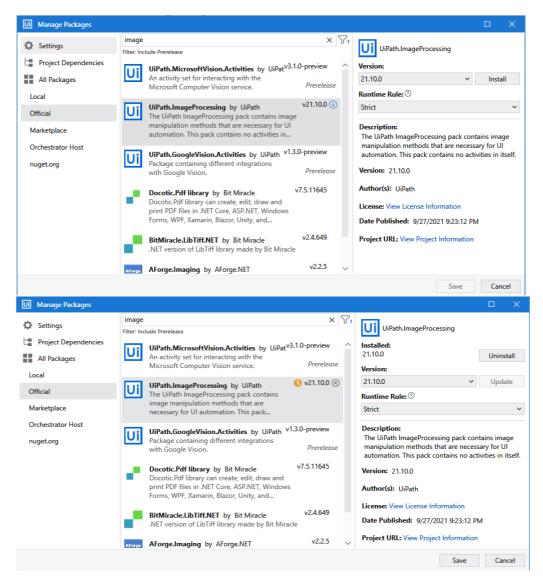
1. Create a Process→Open Ui path→Click on manage package.



2. Click on All Packages on Manage Package Pop-up widow and Search the Required Activity or Package you want to install→ Select that particular activity or package and click on install→ Click on it will Automatically will save the changes.



3. Click on All Packages on Manage Package Pop-up widow and Search the Required Activity or Package you want to install→Select that particular activity or package and click on install→ Click on it will Automatically will save the changes.



# 7 B) Automate the following screen scraping methods using UiPath

i. Full Test (Invoice PDF) 3 PDS (invoice)

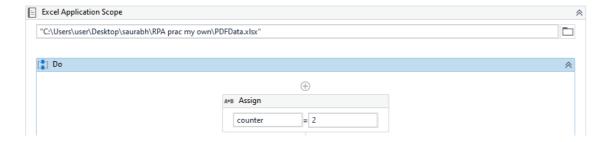
Extract and put value in Excel

### Steps:

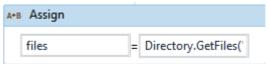
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



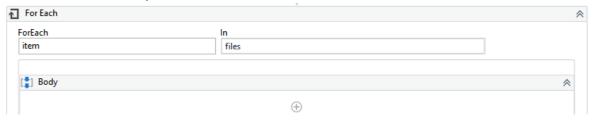
2. Add Excel Application Scope Activity give path and in an assign activity start a counter from 2.



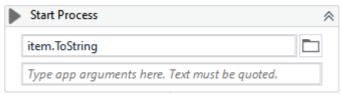
3. Add a assign activity to get the files in the given folder path.



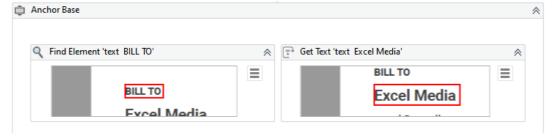
4. Add a for each activity to iterate over the files.



5. Add an Start process activity and pass the iterator variable.



6. Open one pdf and using anchor base, find element and get text extract the elements you want to get.



### 7 C) Automate the process of send mail event (use gmail setting).

SMTP server address: smtp.gmail.com.

Gmail SMTP port (TLS): 587.

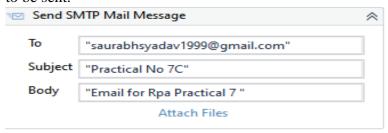
Add 3 different attachments as input.

### Step:

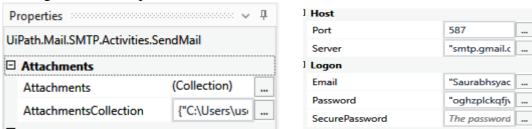
1. Create a new Blank Project and give it an appropriate name. Drag a Sequence activity from Activity tab.



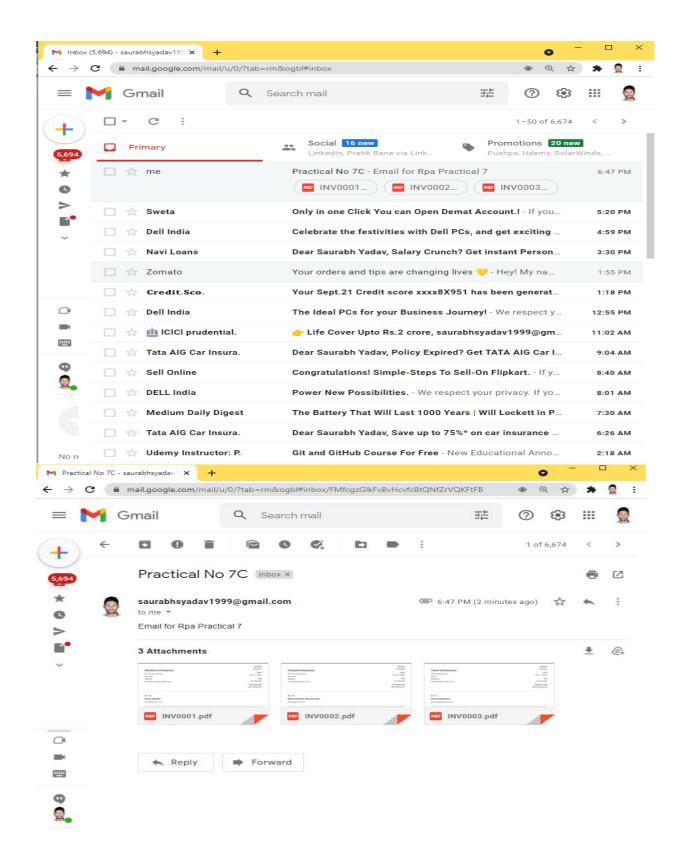
2. Add Send SMTP Mail Message Activity enter the recipient email, subject and body of the email to be sent.



3. Enter the files variable in AttachmentsCollection Attribute. 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.



# **Output:**

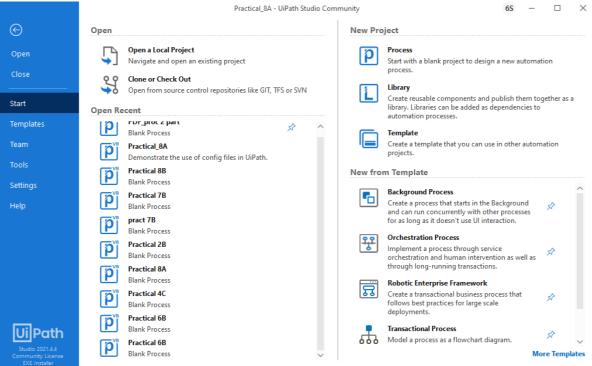


#### Practical no 08

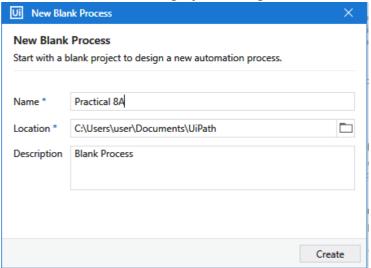
**8** A) Aim: Demonstrate the use of config files in UiPath.

### **Steps:**

1. Create new project: Open UiPath and create new project by clicking on "Process" option at the right side of the window.



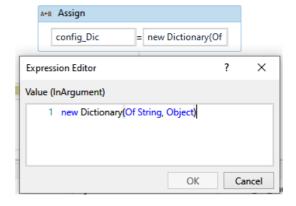
2. In "New Blank Process" window insert the project name you want in the "Name" textbox. In "Location" textbox insert the path in which folder you want to save the project (In normal case you will see the default location of project). In "Description" textbox insert the project description. Then click on "Create" button.



3. Create a Variable config\_Dic of Variable types and Dictionary<String, Object>.



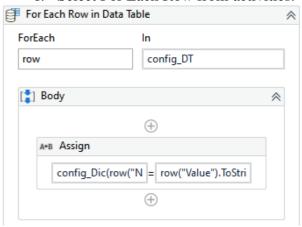
4. Select Activity Assign from Activities and initialize the Dictionary.



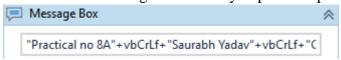
5. Select activity Read Range from activities to read Excel sheet.



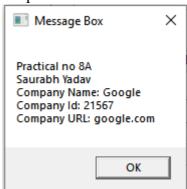
6. Select For Each Row from activities.



7. Select Message Box activity to print Output.



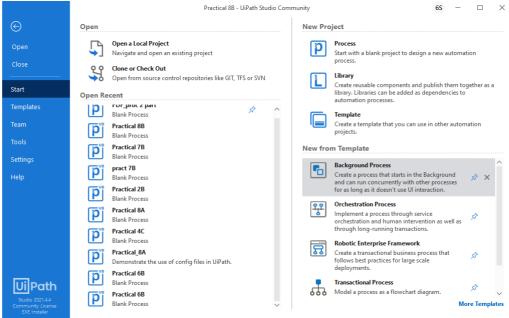
### Output:



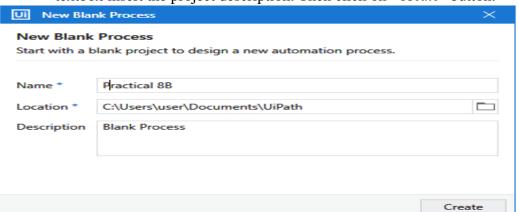
### 8 B) Aim: Demonstrate the Exception handing in UiPath.

Steps:

1. Create new project: Open UiPath and create new project by clicking on "Process" option at the right side of the window.



2. In "New Blank Process" window insert the project name you want in the "Name" textbox. In "Location" textbox insert the path in which folder you want to save the project (In normal case you will see the default location of project). In "Description" textbox insert the project description. Then click on "Create" button.



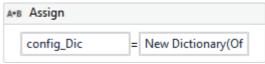
3. Create a Variable config\_Dic of Variable types and Dictionary<String,Object>.

Name	Variable type	Scope	Default
config_DT	Data Table	Saurabh Yadav 8B Sequence	Enter a VB expression
config_Dic	Dictionary <string,object></string,object>	Saurabh Yadav 8B Sequence	Enter a VB expression

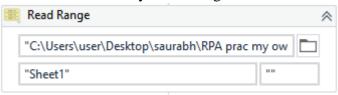
4. Select Activity Try Catch from Activities and Insert sequence in it.



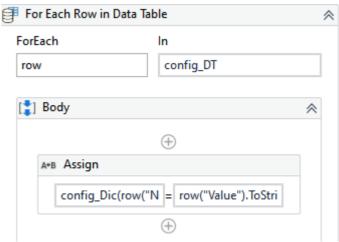
5. Select Activity Assign from Activities and initialize the dictionary.



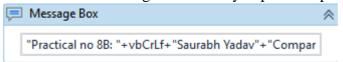
6. Select activity Read Range from activities to read Excel sheet.



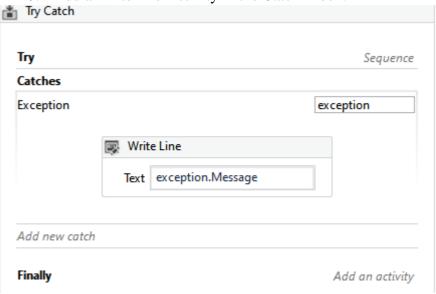
7. Select For Each Row from activities.



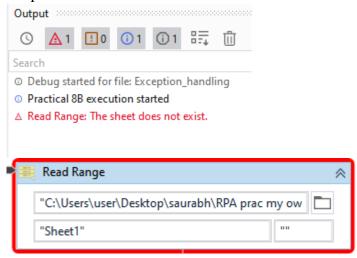
8. Select Message Box activity to print Output



9. Add a WriteLine Activity in the Catch Block.



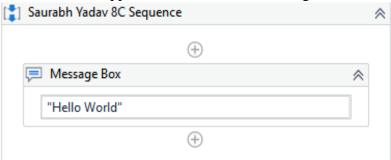
### Output:



**8** C) Aim: Create and provision Robot using Orchestrator.

### Steps:

1. Create a UIPath application which show a dialog box on execution.



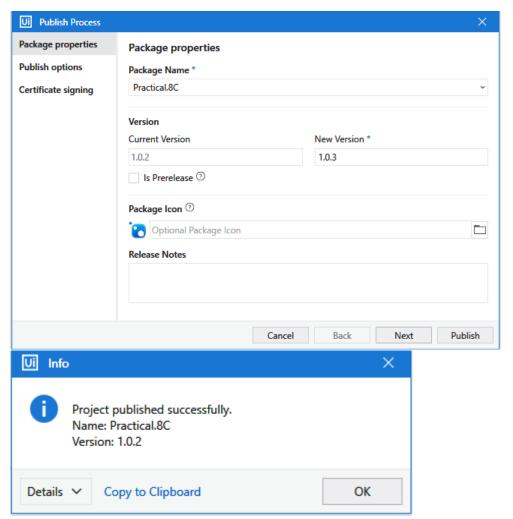
2. Make sure you are connected to the Orchestrator by checking on the bottom right bar.

# saurabhsyadav1999@gmail.... 🔻

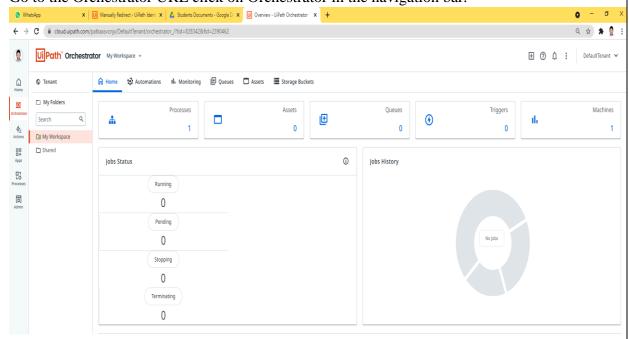
3. Publish the Program using the Publish button in Design Ribbon.



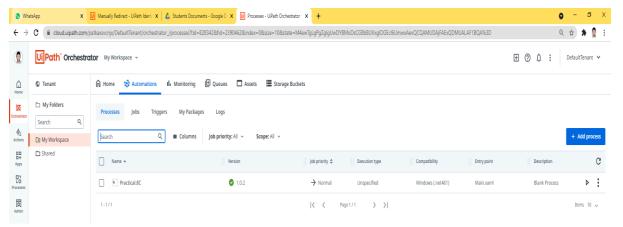
4. Set the Package name and give the version number, then click on Publish.



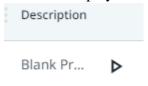
5. Go to the Orchestrator URL click on Orchestrator in the navigation bar.



6. Select processes and you will be able to see the process you just published.



7. Click on the play button beside Description.



8. Now set the job priority and run licence type and the machine you want to use to execute the process. Then click on Start button.

