



# VIT<sup>®</sup>

## Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

Programme	:	B.Tech	Semester	:	Fall 22-23
Course	:	Robotic Process Automation LAB	Code	:	CSE2023
Faculty	:	Sakthivel V	Slot	:	L29+L30

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Name: P.Je Sai Kailash

Reg Num: 20BRS1208

Assessment 8

## 1.) Workbook Automation

### Aim

Build a workflow using Read Range and Append Range activity to read data from a workbook and append data to another workbook.

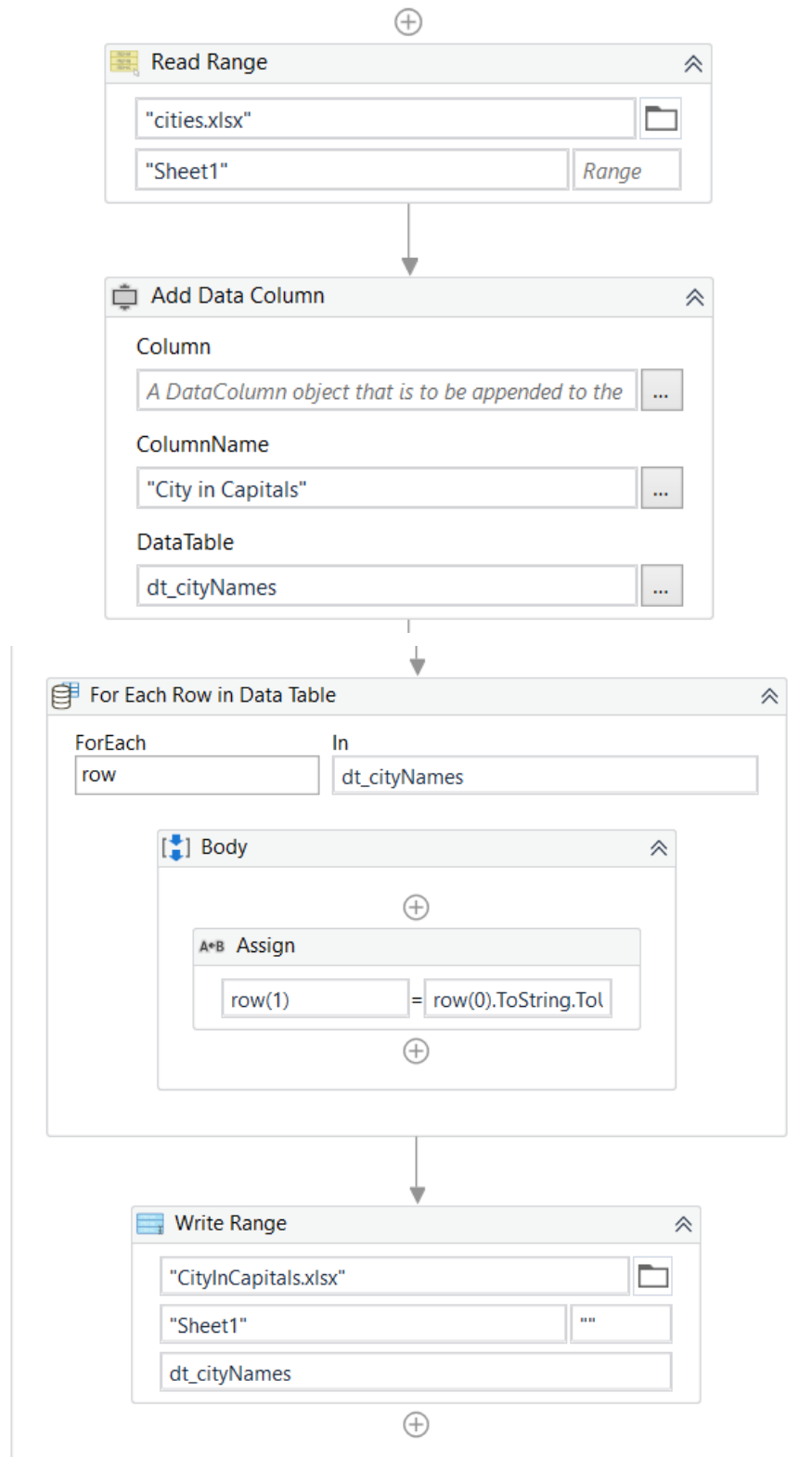
### Process Overview

1. Start the process
2. Use a read range to read data from an excel sheet
3. Use add data column to add a new column in the data table
4. Use a for each row in data table activity to iterate through each row item in the data table
5. Use an assign activity to convert each row item to uppercase
6. Use an Append range activity below the for each activity to store updated data tables with city names in capitals in a new excel file
7. Stop the process

## Procedure

1. Open UiPath
2. Create a project and start a workflow
3. Add a sequence activity within the workflow.
4. Right click on the sequence activity and select on add annotations, enter the annotations:- "This block of code demonstrates a workflow using Read Range and Append Range activity to read data from a workbook and append data to another workbook"
5. Now add a read range activity in the sequence, and in the click the folder button to select the already created excel file and confirm the selection
6. In the sheet name enter "Sheet1"
7. Create a variable named "dt\_cityNames" which holds a data table and enter it into the output box in the properties panel of the read range activity.
8. Now add a Add data column below the read range activity and in the columnName enter "City in capitals" and the data table should be dt\_cityNames.
9. Now add a for each row in data table activity under the add data column activity and pass the Vb expression as dt\_cityNames and the iterated variable should be named as row.
10. Now add an assign activity within the body section of the for each row in data table activity and enter the title as "row(1)" and the value as "row(0).ToString.ToUpper"
11. Now insert a write range activity below the for each row in data table activity and in the properties panel, the workbookPath should be "CityInCapitals.xlsx" and the data table should be dt\_cityNames, starting cell should be "" and the sheetname should be "Sheet1"
12. Now check the checkbox for add headers for the above activity
13. Save, debug and run the file.
14. End the process.

## Activity



## Output

D15			
	A	B	
1	City names	City in Capitals	
2	chennai	CHENNAI	
3	hyderabad	HYDERABAD	
4	mumbai	MUMBAI	
5	kolkata	KOLKATA	
6	delhi	DELHI	
7			

## 2.) Excel Automation

### Aim

Build a workflow that calculates the total monthly deposit of a bank from an Excel file and store output in a new sheet.

### Process Overview

1. Start the process
2. Use a build data table and create a variable dt\_sumTable
3. Create a data table with three integer columns named as above
4. Use an excel application scope activity and select the downloaded excel file.
5. Use a read range activity to read the excel sheet that's downloaded.
6. Use an assign activity within the for each row in data table activity and in the first text box enter intSum1 and in the second box enter  $Cint(row(1))+intSum1$
7. Use a second assign and in the first box enter intSum2 and in the second box enter  $Cint(row(2))+intSum2$
8. Use a third assign activity and in the first box enter intSum3 and in the second box enter  $Cint(row(3))+intSum3$
9. Now add a add data row below the for each row in data table activity and add the intSum1,intSum2 and intSum3 as dt\_sumTable
10. Use a write range activity to insert June total in first box , dt\_sumTable in the second box and check add headers box
11. End the process.

## Procedure

1. Open the UiPath
2. Create a project and start a workflow
3. Add a sequence activity within the workflow
4. Right click on the sequence and select on add annotations and enter the following annotations:- "This block of code demonstrates a workflow that calculates total monthly deposit of a bank from an Excel file and store output in a new sheet."
5. Now add a Build Data Table activity in the sequence and click on the DataTable button.
6. In the Build data table window create three columns named "Cash in Total" , "on-us check total" and "not-on us total" which should all store int32 data type and click ok
7. Now create a variable named "dt\_sumTable" which should be of type DataTable and add it into the output box in the build data table activity
8. Add an Excel application scope activity below the build data table activity and click the folder button and select the downloaded excel file
9. Now in the do section of the excel application scope activity, add a read range activity and enter the sheet name as "June Report"
10. Now create a variable named as "dt\_JuneReport" which is of type DataTable, this dataTable would store the excel information.
11. Now add a for each row in data table activity below the read range activity and in the forEach text box enter "row" and in the second text box enter dt\_JuneReport
12. Now create three variables "intSum1","intSum2" and "intSum3" which should hold Int32 data type.
13. Now add an assign activity and in the to section enter "intSum1" and in the value section enter " CInt(row(1))+intSum1"
14. Add another assign activity and in the to section enter "intSum2" and in the value section enter "Cint(row(2))+intSum2"
15. Add another assign activity and in the to section enter "intSum3" and in the value section enter "CInt(row(3))+intSum3"
16. Now add a Add data row activity below the for each row in data table activity and in the ArrayRow enter "{intSum1,intSum2,intSum3}" and the dataTablew as dt\_sumTable

17. Add a read range activity below the add data row activity and enter the sheet name as "June total" and the datatable as "dt\_sumTable" and check the add header checkbox.

18. Save, debug and run the file

## Activity

File Home Insert Page Layout Formulas Data Review View				
PROTECTED VIEW Be careful—files from the Internet can contain viruses. Unless you need to run it, click the icon to help protect your data.				
G9				
	A	B	C	D
1	Name	Cash In	On-Us Check	Not On-Us Check
2	Marlene Dienston	20	150	45
3	Robert Smith	80	200	75
4	Janine Costa	90	225	80
5	John Smith	10	250	40
6	Rodriguez Manfret	100	250	85
7	Dillan Londyn	110	275	90
8	Sophia Corbin	120	300	95
9	Avery Calvin	130	325	100
10	James Jameson	140	350	105
11	Emily Paul Emerson	150	375	110
12	James Weston	160	400	115
13	David Hope	170	425	120
14	Logan Alexis	180	450	125
15	Michelle Asher	2190	475	1130
16	Aubrey Edwin	200	500	135
17	Jennifer Maxwell	2200	500	1135
18	Oliver Presley	210	525	140
19	Madelyn Leilani	220	550	145
20	Keira Abraham	2240	560	1155
21	Ray Delaney	2260	565	1165
22	Morgan Freeman	230	575	150
23	Jason Braylon	240	600	155
24	Ian Zane	250	625	160
25	Trinity Stephen	260	650	165
26	Stella Edwin	270	675	170
27	Gianna Montega	280	700	175
28	Kevin Zane	290	725	180

## Output

L12				
	A	B	C	D
1	Cash in To	on-us chec	not-on us total	
2	35630	179809	19565	
3				
4				



### 3.) Email Automation

#### Aim

Build a workflow that extracts attachments from emails containing the word "Resume" in its subject.

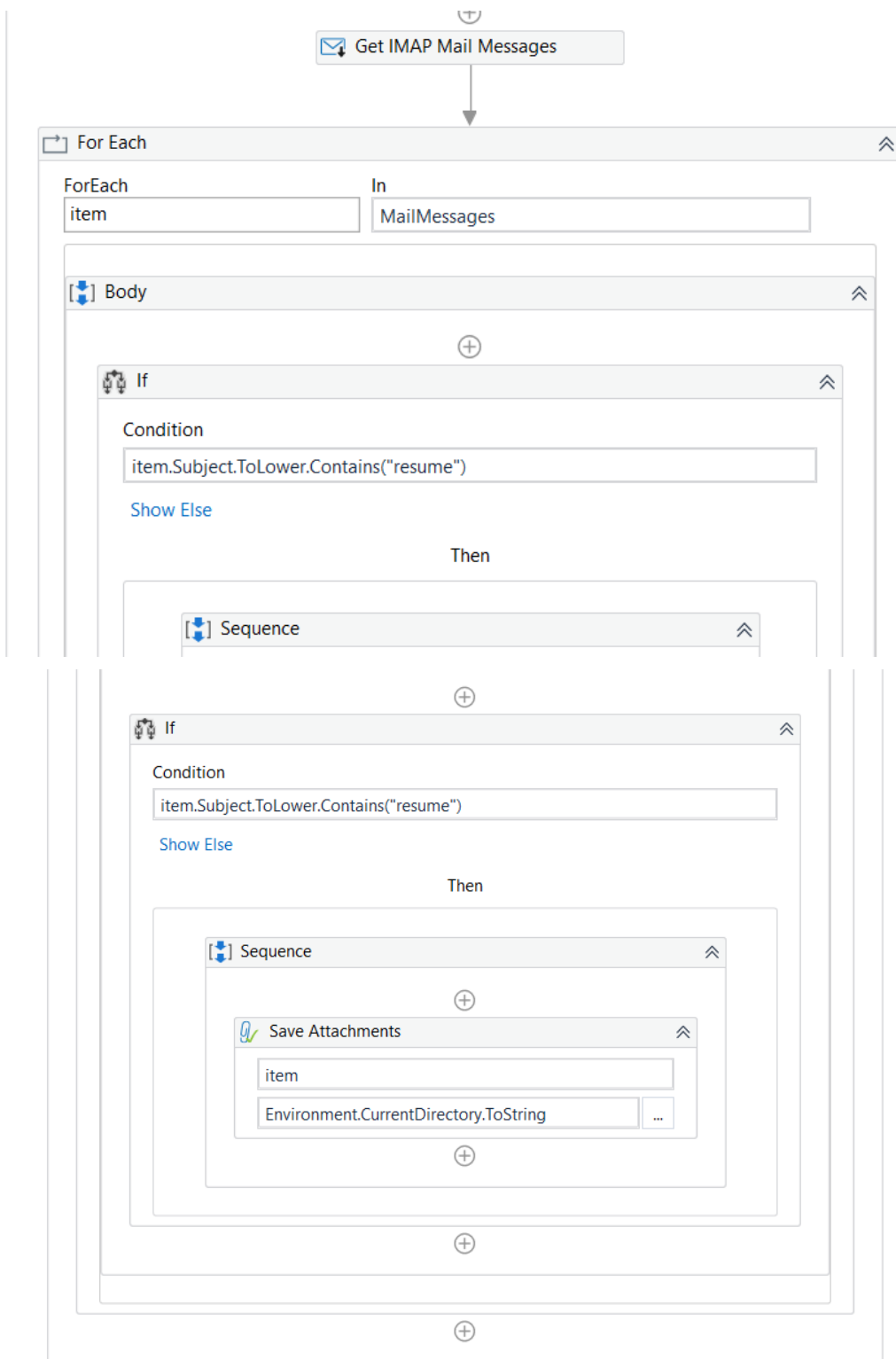
#### Process Overview

1. Start the process.
2. Use a Get IMAP Mail Messages activity to retrieve email data.
3. Use a for each activity to iterate through the retrieved emails.
4. Use an if activity within the for each activity and check for the word "Resume" in the subject
5. Use a save attachment activity within the if activity to store attachments.
6. Stop the process.

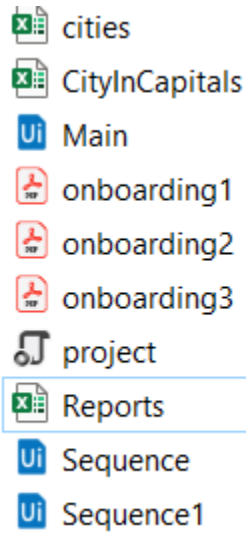
## *Procedure*

1. Open UiPath
2. Create a project and start a workflow
3. Add a sequence activity within the workflow
4. Right click on the sequence and select the add annotations and enter the following annotations:- "This block of code demonstrates a workflow that extracts attachments from the emails containing the word "Resume" in its subject."
6. In the messages box which is the output section, enter CTRL+K and create a variable named "MailResumes"
7. Now add a for each activity below the Get IMAP mail messages activity and set the argument type as "System.Net.Mail.MailMessage"
8. Now add an if activity in the body section of the for each activity and set the condition as "item.Subject.ToLower.Contains("resume")"
9. Now in the then section of the if activity, add a save attachments activity and in the first box enter "item" and in the second box enter "Environment.CurrentDirectory.ToString".
10. Save, debug and run the file.
11. End the process.

## Activity



## Output



These are the files that the process extracted finally after running the workflow

## Result

Hence we have successfully made processes for workbook automation where we get an excel file and convert the words to uppercase, we performed excel automation where we performed arithmetic operations for an extracted excel file and finally performed email automation where we got all the mails containing the word "Resume" and extracted the attachments present in that mail.