



VIT[®]

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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Reg Num: 20BRS1208

Assessment 6

1.) Data Table Manipulations

Aim

Build a workflow using DataTable activities to join two library databases using matching student ID and display the output in a message box.

Process Overview

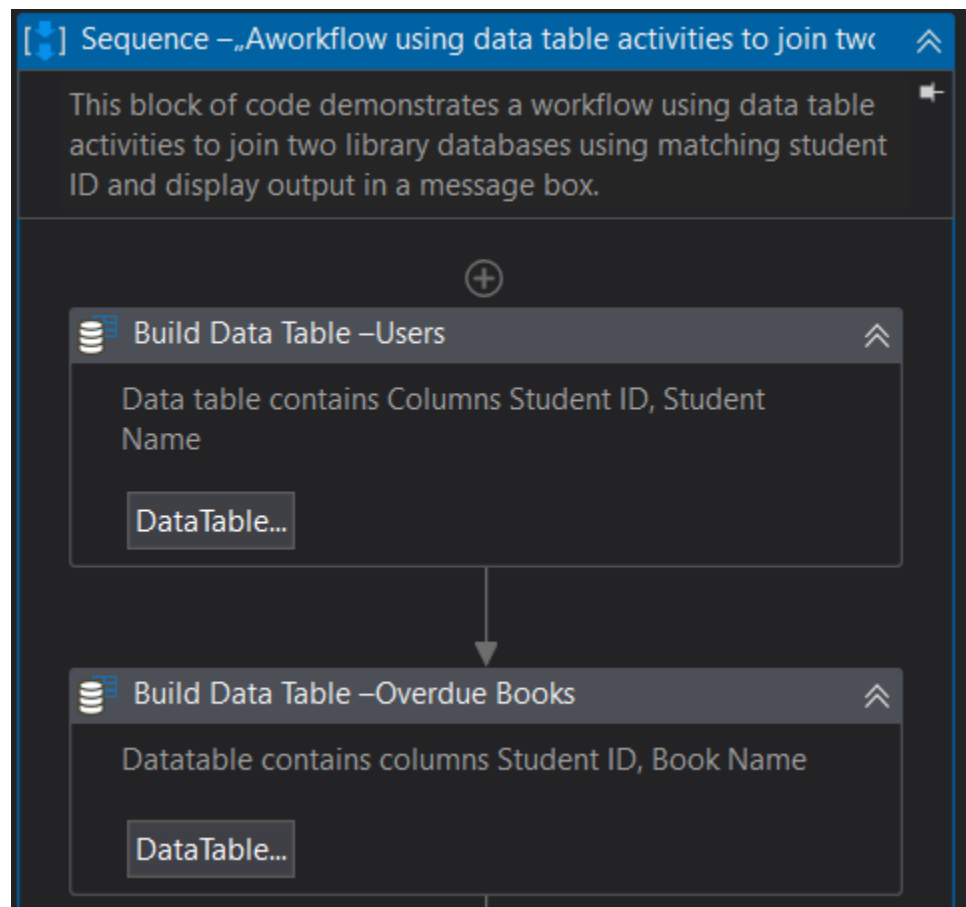
1. Start the process.
2. Use two build data table activities.
 - a. Table dt_users contains students name and ID
 - b. Table dt_OverdueBooks contains ID of students and name of book
3. Use a join data table and choose the inner join option.
4. Create a new table dt_borrowedbooks to store the information.
5. Remove data column to delete the duplicate Student ID column
6. Use a sort data table to sort the students name in alphabetical order.
7. Use the output data table to print the content of the data table.
8. Use a message box to display the table.
9. End the process.

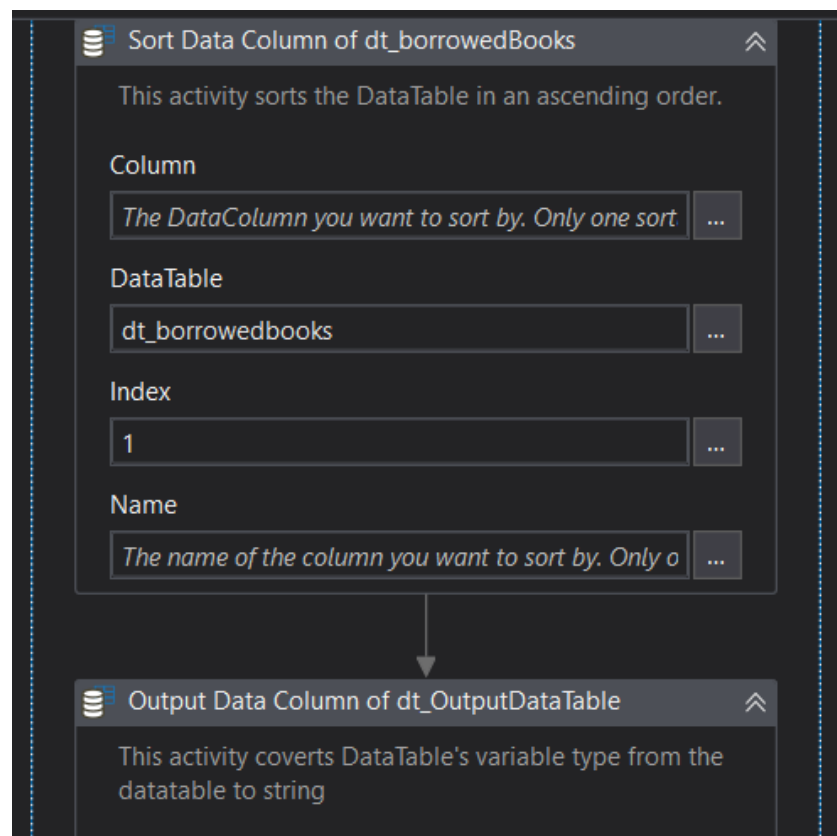
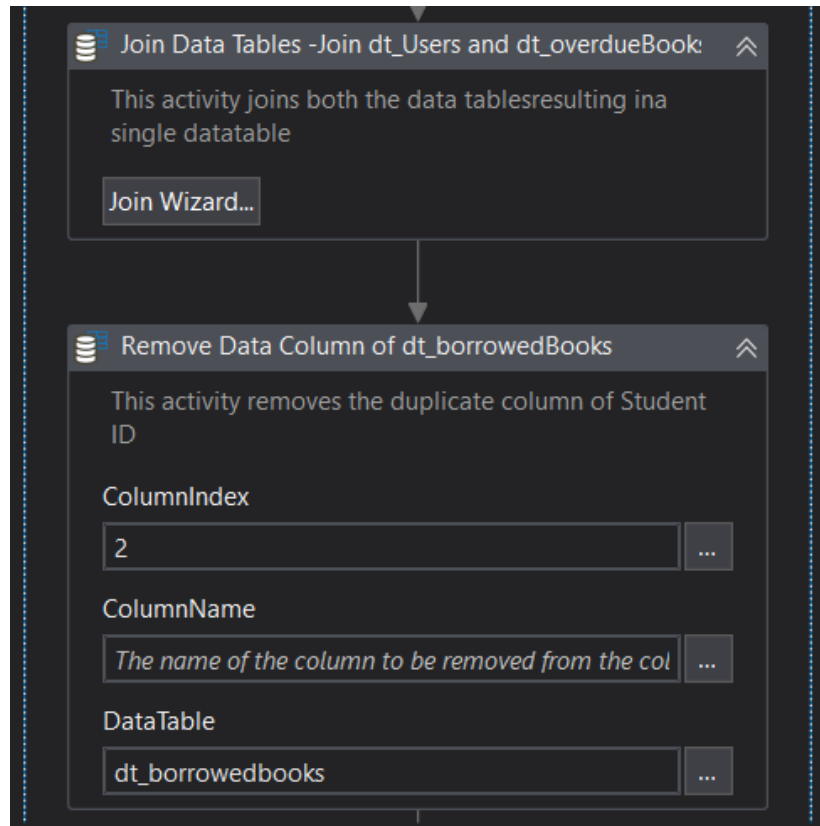
Procedure

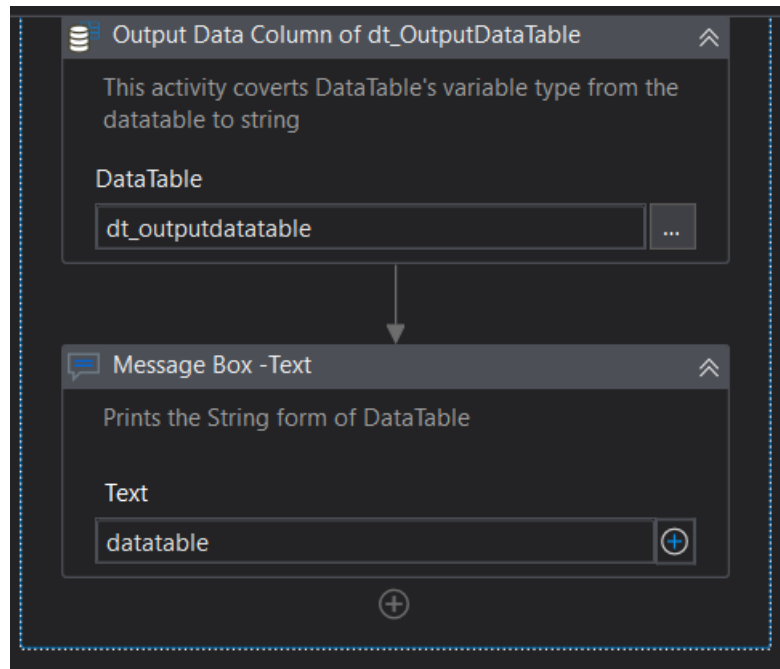
1. Open UiPath.
2. Create a project and start the workflow
3. Add a sequence activity within the workflow.
4. Right click on the sequence and select the add annotations options. Enter the annotation :- "This block of code demonstrates a workflow using data table activities to join two library databases using matching student ID and display output in a message box."
5. Now add a Build data table activity and add annotations :- "Data table contains Columns Student ID, Student Name"
6. Now create a variable named dt_users which is of type DataTable and enter this in the output property of the data table activity.
7. Click on the data table and create a data table with column names as String ID holding string values and Student Name which holds string values as well. Now add your own data to it.
8. Now add another build data table activity under the previous build data table activity and add annotations to it :- "Datatable contains columns Student ID, Book Name"
9. Now create a variable named dt_overdueBooks which is type DataTable and add it in the output property of the build data table.
10. Click on the data table and create a data table with column names Student ID and Book name which are both strings. Add your own data to it.
11. Add a Join data table activity and click on the Join wizard.
12. Enter the dt_users in input data table 1 and dt_overdueBooks in the input data table 2 and select the join as inner join.
13. Create a new DataTable dt_borrowedBooks and save the above table into it.
14. Add a remove data column activity and enter column 2 in the COLUMIndex property and enter dt_borrowedBooks in the DataTable property
15. Create a new variable named dt_OutputDataTable which is of type DataTable.
16. Add a sort data table activity and in the properties panel enter the input data table as "dt_borrowedBooks" , the output datatable as "dt_OutputDataTable" , index as 1 and the order as ascending.

17. Now add an output data table activity and enter the input data table as dt_OutputDataTable and the output as a new Variable that is DataTable.
18. Add a message box and enter the DataTable in the text area of the message box.
19. Save, debug and run the file.
20. End the process.

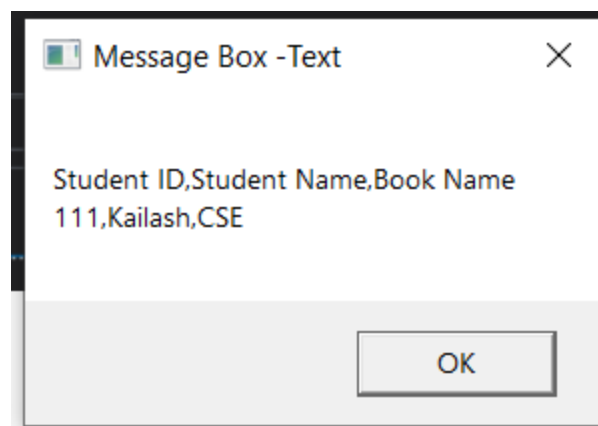
Activity







Output



2.) Lists

Aim

Build a workflow using the ConcatandJoin method that merges two lists containing the city names of the UK and Spain, sorts it, capitalizes the first letter of each item, and displays it in a message box.

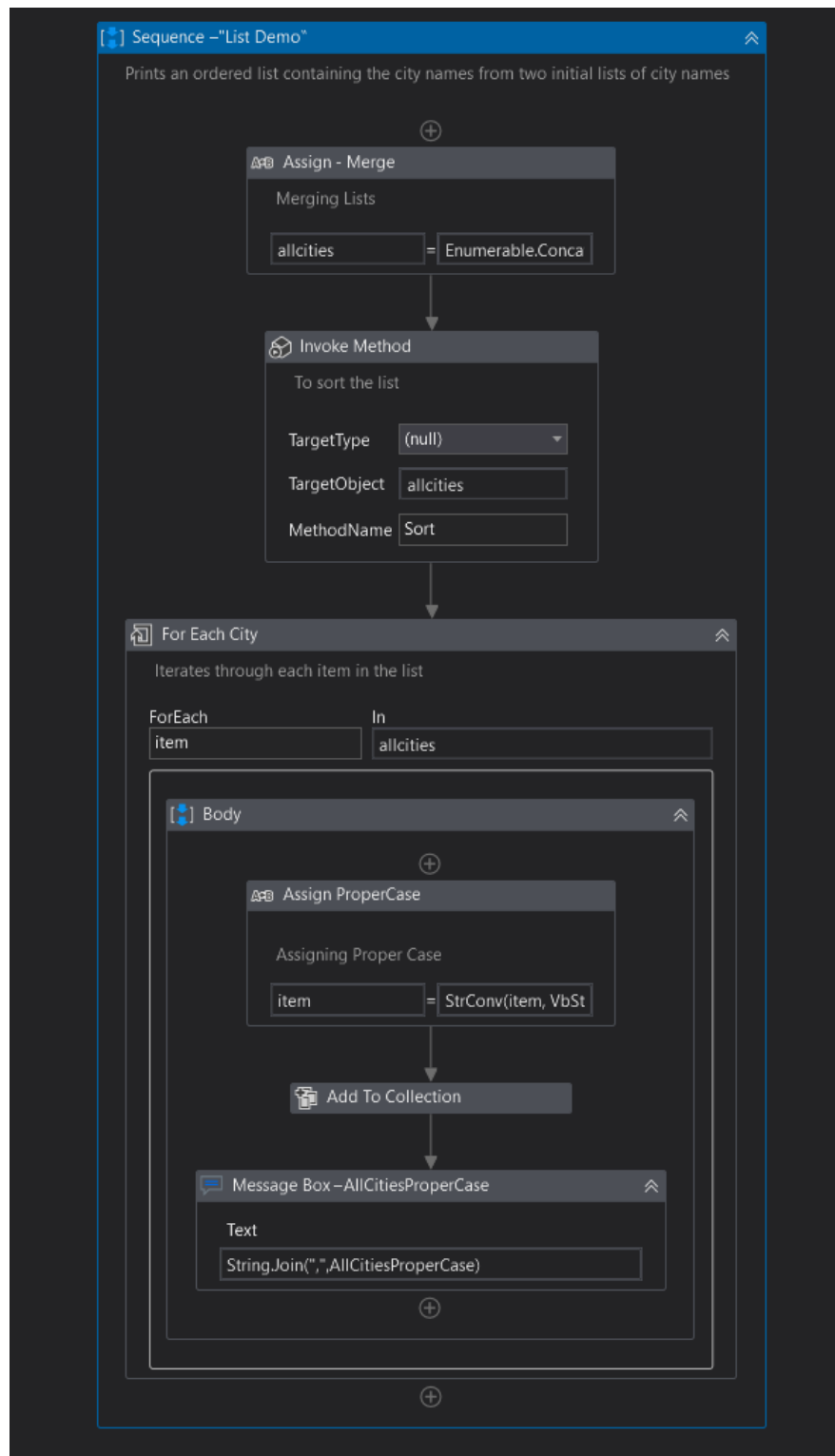
Process Overview

1. Start the process
2. Create two lists called SpainCities and UKCities and in the SpainCities create a list of cities in lowercase letters , whereas in the UKCities create a list of cities with uppercase letters.
3. Merge the two lists using an assign activity
4. Invoke a method to sort the elements of the list
5. Use a for each activity to iterate through the list AllCities and convert each item to the proper case
6. Add the converted item to a new list.
7. Use a message box to display the entire list.
8. End the process.

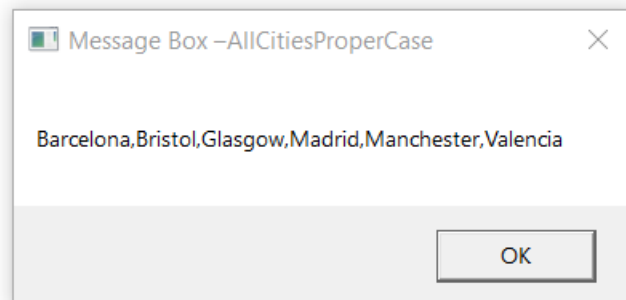
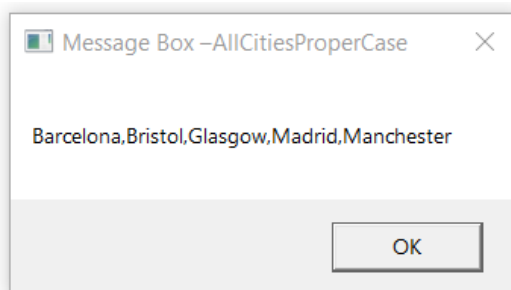
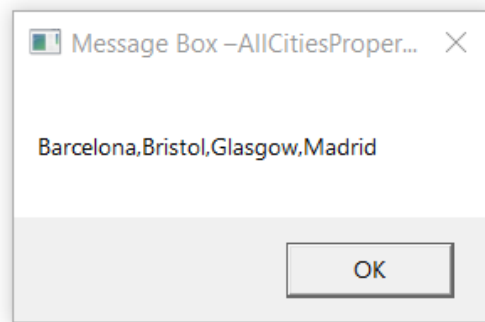
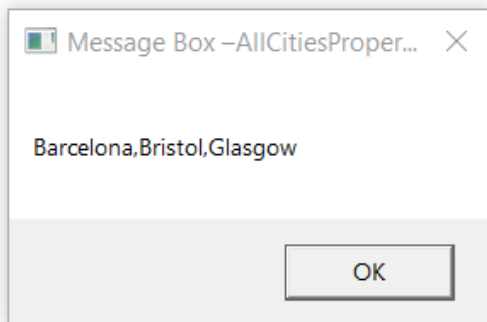
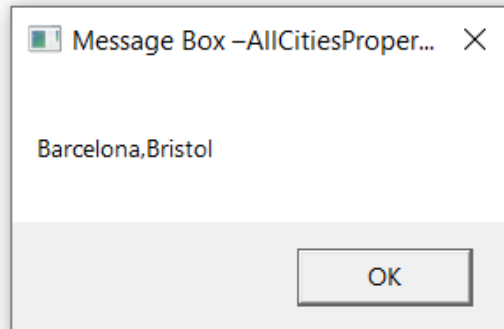
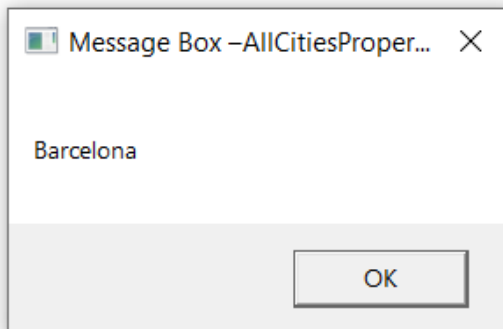
Procedure

1. Open UiPath.
2. Start a new project and open a workflow.
3. Add a sequence activity within the workflow.
4. Right click on the sequence and click on add annotations and enter the following annotation:- "Prints an ordered list containing the city names from two initial lists of city names".
5. Now create the following variables in the variables panel.
6. Now add an assigned activity within the sequence and enter the following annotations :- "Merging Lists".
7. In the assigned activity, enter AllCities in the to textbox and enter "Enumerable.Concat(SpainCities.AsEnumerable,UKCities.AsEnumerable).ToList" in the value text box.
8. Now add an invoke method activity and in the targetType enter null, in the targetObject enter AllCities and in the methodName enter Sort.
9. Now add a for each activity and change the argument to String type.
10. In the first box enter "item" and in the second box enter the variable AllCities.
11. Now add an assigned activity within the body section of the for each activity. In the to section enter "item" and in the value section enter: "StrConv(item, VbStrConv.ProperCase)"
12. Now add an add to collection activity below the Assign activity and in the properties panel, enter AllCitiesProperCase variable in the collection box and in the Item box enter the item.
13. Now add a message box and enter the expression in the text area of the message box : "String.Join(",",AllCitiesProperCase)"
14. Save, debug and run the file.
15. End the process

Activity



Output



3.) Screen Scraping - 1

Aim

Build a workflow using the Screen Scraper Wizard that scrapes text using the Tesseract OCR scraping method from an image and stores it in a Notepad.

Process Overview

1. Start the process.
2. Use an open browser activity to enter url www.google.com/images
3. Use a type into activity in the open browser and search for text images.
4. Use screen scraping from the design ribbon to select an image containing text
5. Choose tesseract OCR as the screen scraping method.
6. Change scale to 5
7. Use a write text file activity to store the content in a notepad
8. Stop the process.

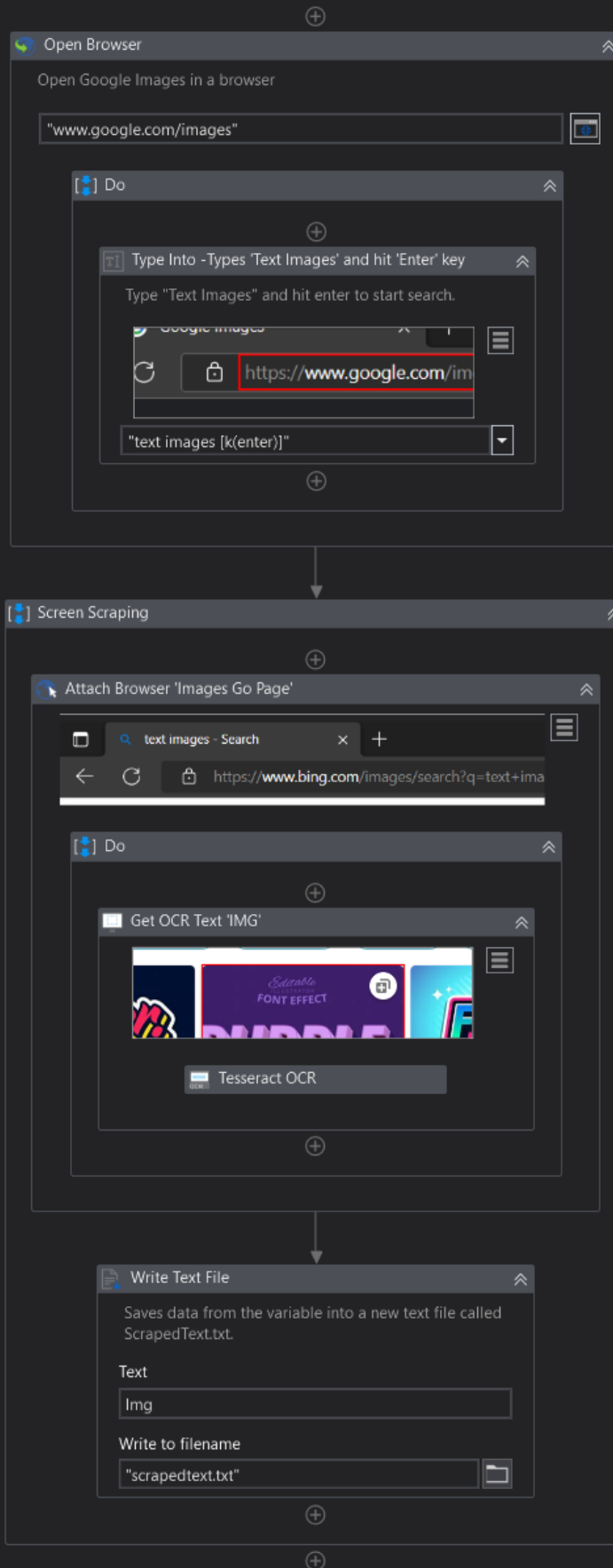
Procedure

1. Open UiPath
2. Create a project and start a workflow
3. Add a sequence activity within the workflow.
4. Now right click on the sequence and click on add annotations and enter the following annotations :- "This block of code demonstrates a workflow using Screen Scraper wizard that scrapes text using Tesseract OCR scraping method from an image and stores in a Notepad file."
5. Now add an open browser activity and in the url text box enter www.google.com/images
6. And select the type of browser as edge.
7. Now add a type into activity in the do container of the open browser activity.
8. Click on the indicated element on screen and indicate it to the search engine and confirm the selection.
9. In the text box of the type into activity, enter "text images".
10. Now click on screen scraping from the design ribbon and click on any image with text
11. A screen scraping wizard will open and select Tesseract OCR as the screen scraping method and set the scale to 5
12. In the output of the get OCR activity, set the variable as Text to store the text scraped from the image.
13. Now add a write text file activity and create a file to store the scrapped text into it.
14. Save, debug and run the file.
15. End the process.

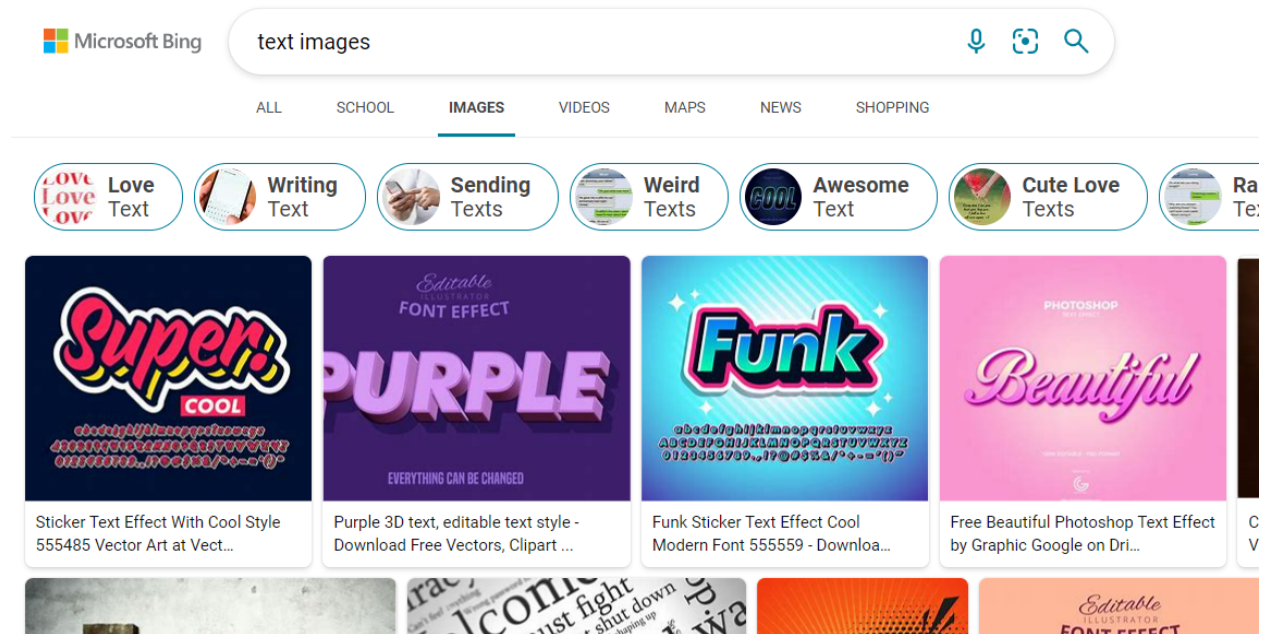
Activity

[] Sequence - „Demonstrating use of Screen Scraping Wizard“

This block of code demonstrates a workflow using Screen Scraper wizard that scrapes text using Tesseract OCR scraping method from an image and stores in a Notepad file.



Output



scrapedtext - Notepad

File Edit Format View Help

el edie

FONT EFFECT

v 9 v

EVERYTHING CAN BE CHANGED

4.) Screen Scraping - 2

Aim

Build a workflow using the Screen Scraper Wizard that scrapes text using the Full.

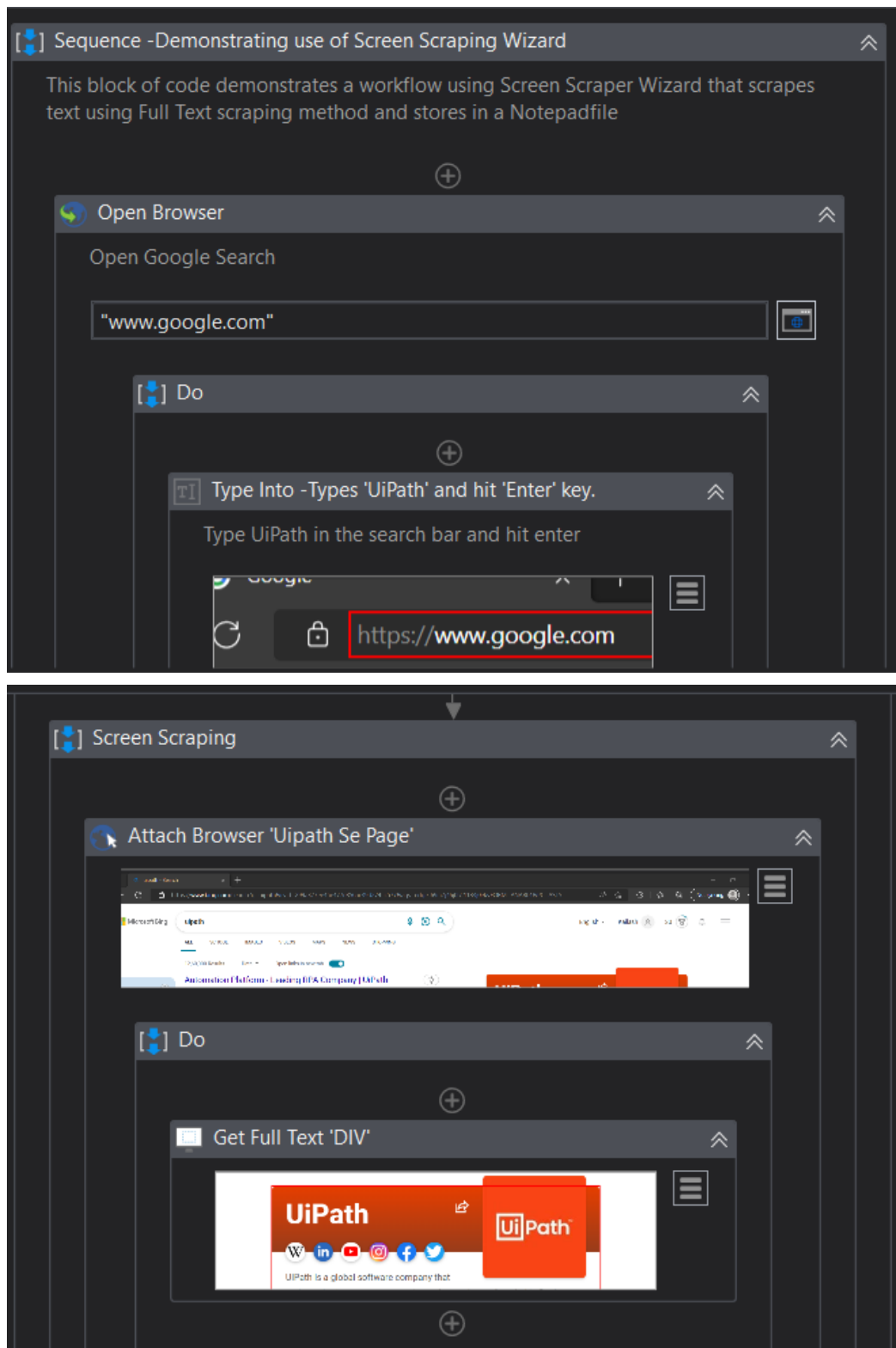
Process Overview

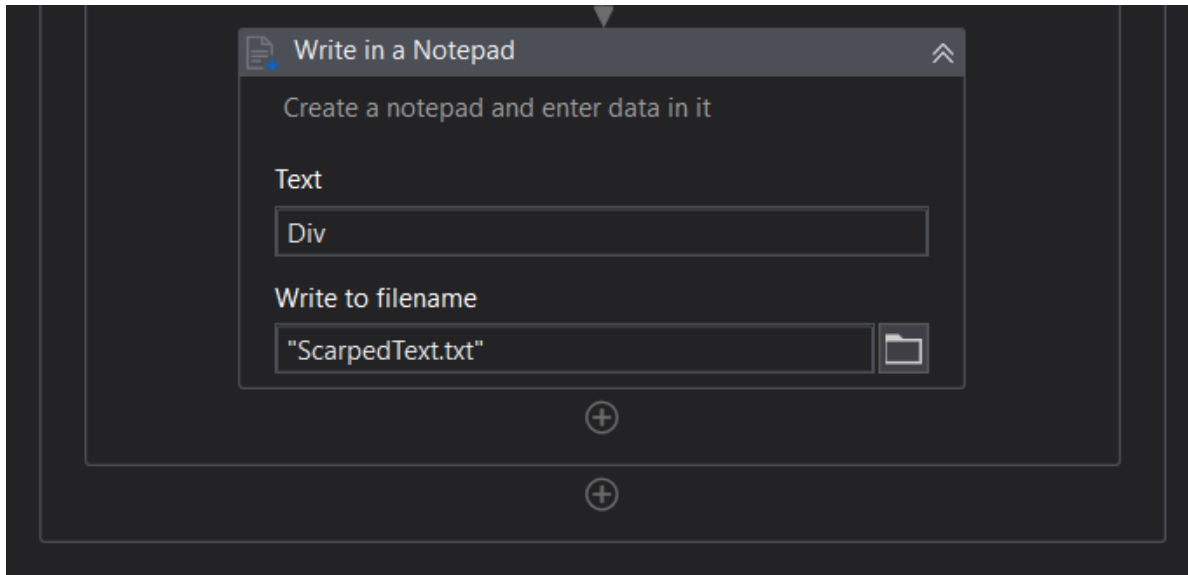
1. Start the process.
2. Use an open browser activity and enter url www.google.com
3. Use a type into activity and search for UiPath
4. Use the screen scraping and select the information about UiPath shown on the right of the google search results page
5. Choose full text as the screen scraping method.
6. Use a write text file activity to store scraped content into the notepad
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. Now right click on the sequence and click on add annotations and enter the following annotations :- "This block of code demonstrates a workflow using Screen Scraper wizard that scrapes text using full text scraping method from an image and stores it in a Notepad file."
5. Now add an open browser activity and in the url text box enter url www.google.com
6. And select the type of browser as edge.
7. Now add a type into activity in the do container of the open browser activity.
8. Click on the indicated element on screen and indicate it to the search engine and confirm the selection.
9. In the text box of the type into activity, enter "UiPath [k(enter)]".
10. Now click on screen scraping from the design ribbon and click on the information about UiPath on the right sight
11. A screen scraping wizard will open and select Full text as the screen scraping method
12. In the output of the get OCR activity, set the variable as text to store the text scraped from the image.
13. Now add a write text file activity and create a file to store the scrapped text into it.
14. Save, debug and run the file.
15. End the process.

Activity





Output

Microsoft Bing

UiPath

English Kailash 45

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2,14,00,00,000 Results Date Open links in new tab

Automation Platform - Leading RPA Company | UiPath
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RPA Software
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Orchestrator
True enterprise-grade automation requires rich, powerful orchestration. UiPath ...

Video Tutorials
Check out our collection of Video Tutorials designed to help you master our Robotic ...

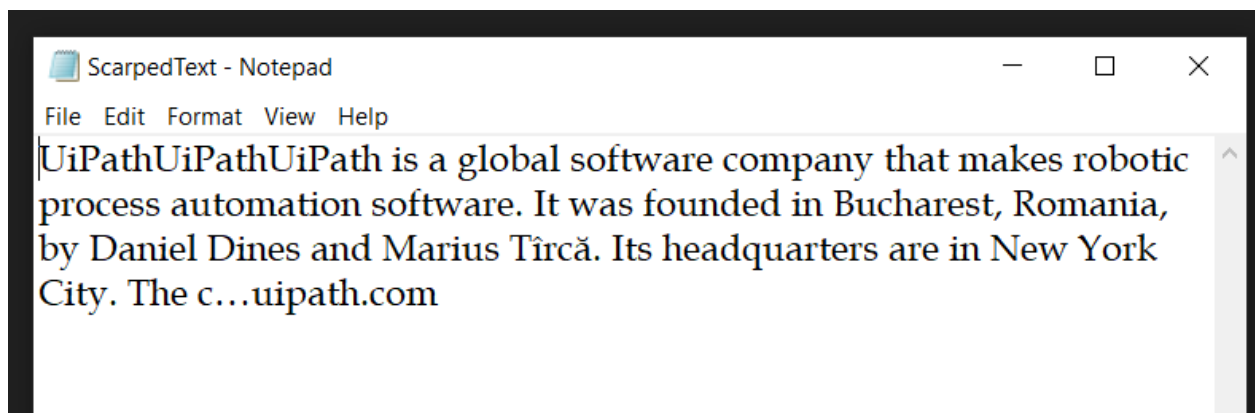
Product
Check out how the UiPath Platform is designed to support the full automation ...

Solutions
UiPath is a leading Robotic Process Automation vendor providing a complete ...

Resources
Check out our roundup of RPA resources including analyst reports, customer ...

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uipath.com

Traded as NYSE: PATH (Class A) - Russell 1000 component
Founded 2005 in Bucharest, Romania
Founders Daniel Dines - Marius Tîrcă
Headquarters One Vanderbilt - New York, New York - U.S.
See more



Result

Hence, we have successfully performed operations using Data tables and lists and also used the screen scraping method to extract data.