TRAVEL BOT USING RPA

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Abstract: This report aims to analyze the implementation of a travel bot using the UiPath Robotic Process Automation (RPA) tool. The travel bot serves as an interactive platform for travelers to plan their trips and make reservations. Furthermore, the report will detail the design and development of the travel bot using UiPath, including the different components and workflows involved. Finally, the report will evaluate the performance of the travel bot, including its usability, functionality, and effectiveness in streamlining the travel booking process. It will also provide recommendations for future improvements and enhancements to the travel bot.

KEYWORDS: Robotic Process Automation (RPA), UiPath

Introduction: The travel industry is constantly evolving, and with the rise of technology, the way we book, and plan travel is changing rapidly. Travel booking has traditionally been a time-consuming and often frustrating process, with users having to navigate multiple travel websites, input their preferences repeatedly, and perform tedious data entry tasks.

To address these issues, the travel bot has been developed using UiPath, an automation solution that aims to simplify the travel booking process. The travel bot takes input from the user about their desired destination, travel dates, and email address, and then navigates through travel websites, extracts the relevant information, compiles it into an Excel file, and sends it to the user's email address.

The travel bot is an innovative tool that streamlines the travel booking process, saving users time, money, and hassle. By eliminating the need for manual data entry and allowing users to quickly compare prices and availability across multiple travel websites, the travel bot offers a faster and more convenient way to book travel.

Description of work:

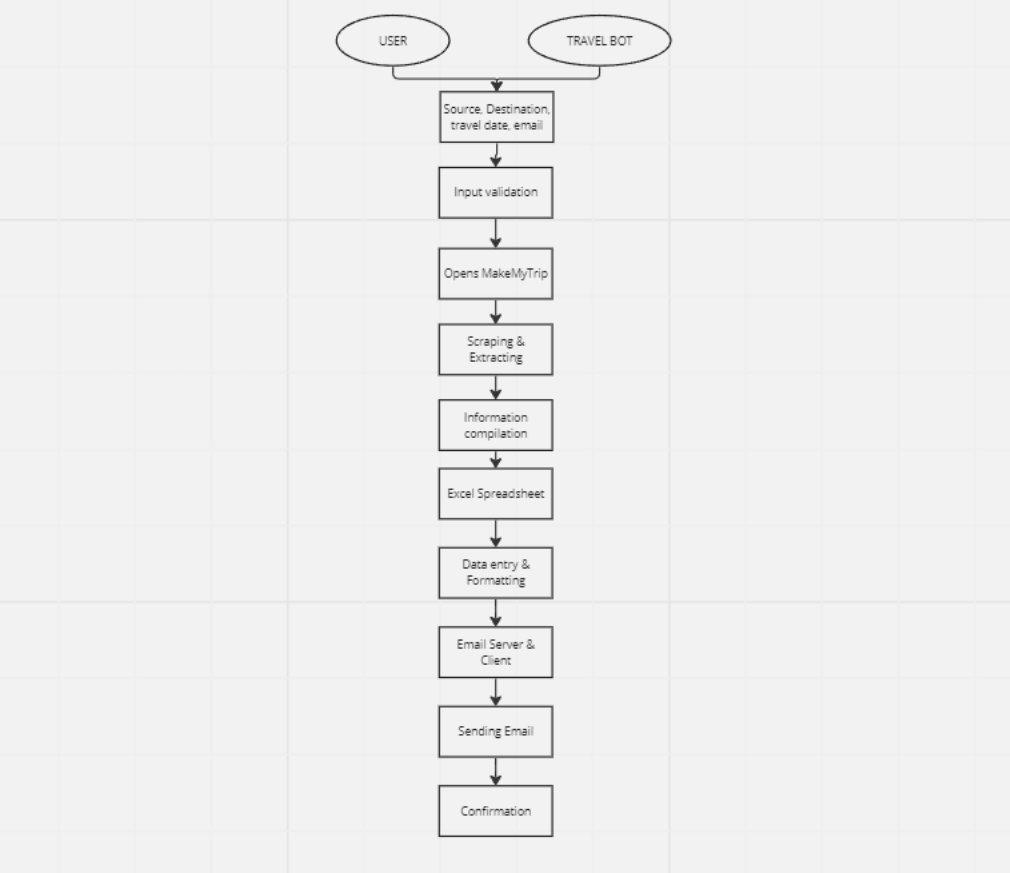


*Figure 1: DFD diagram of the use case titled "**Travel Bot**"*

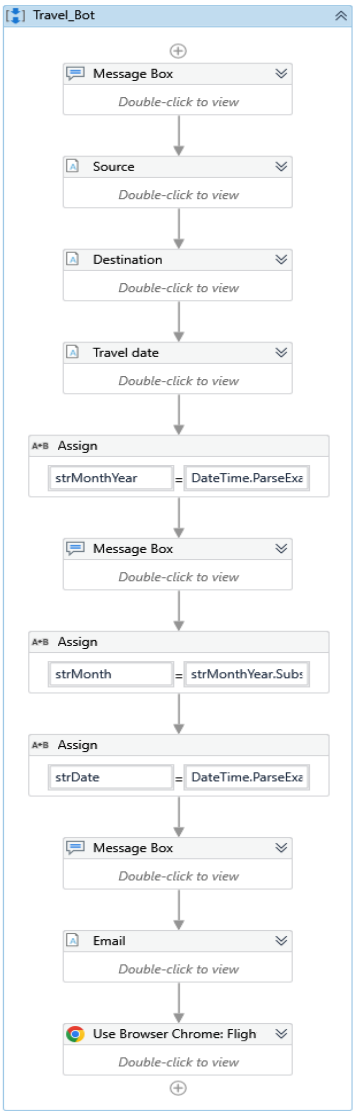
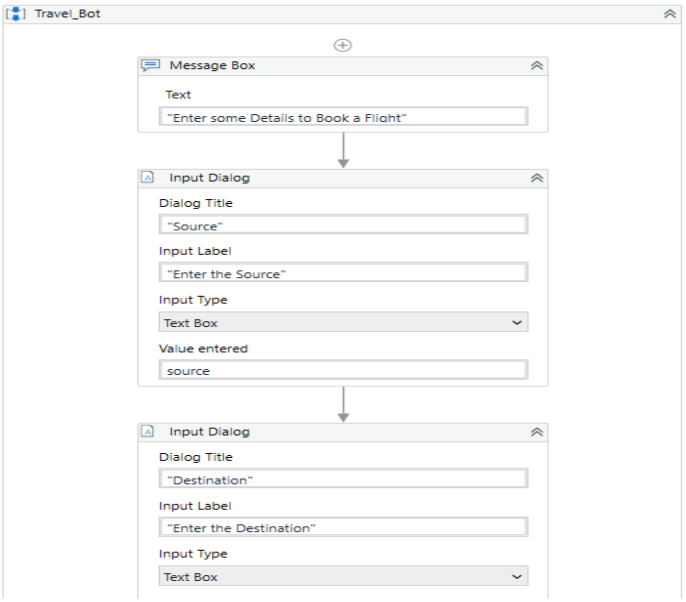
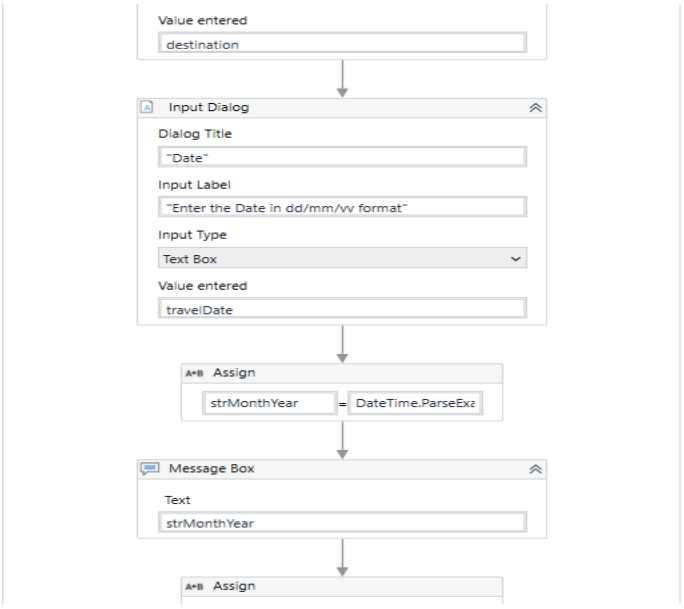


Figure2: Flowchart diagram of use case


Travel_Bot
Message Box
Text
"Enter some Details to Book a Flight"
Input Dialog
Dialog Title
"Source"
Input Label
"Enter the Source"
Input Type
Text Box
Value entered
source
Input Dialog
Dialog Title
"Destination"
Input Label
"Enter the Destination"
Input Type
Text Box


Value entered
destination
Input Dialog
Dialog Title
"Date"
Input Label
"Enter the Date in dd/mm/yy format"
Input Type
Text Box
Value entered
travelDate
Assign
strMonthYear
=
DateTime.ParseEx
Message Box
Text
strMonthYear
Assign

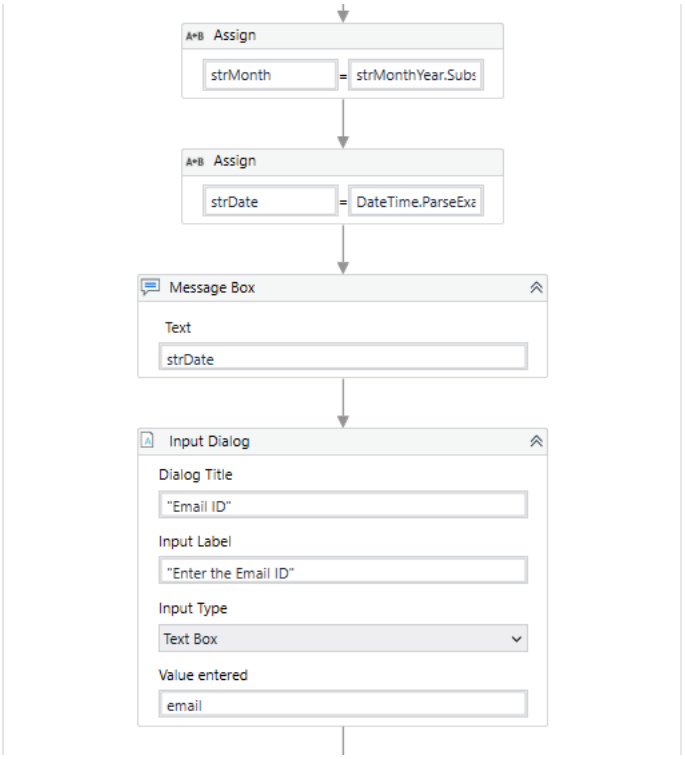
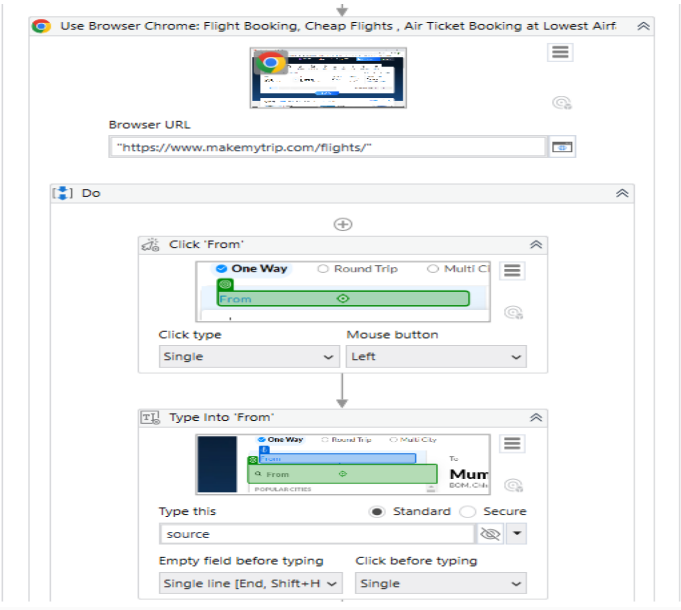
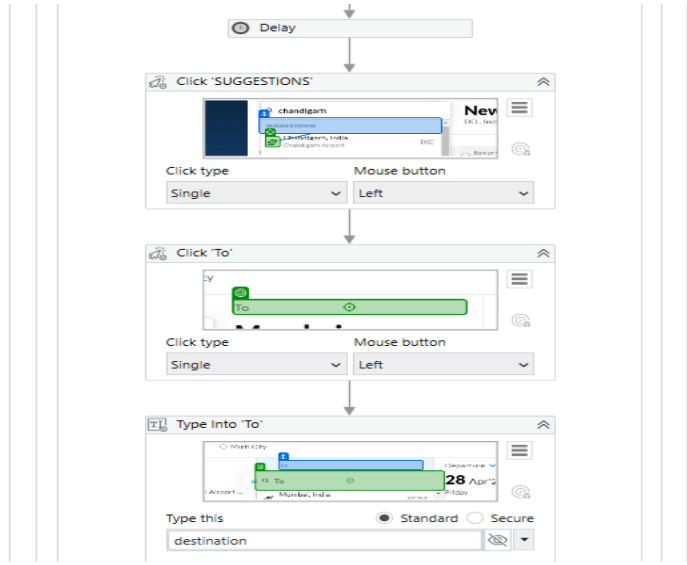
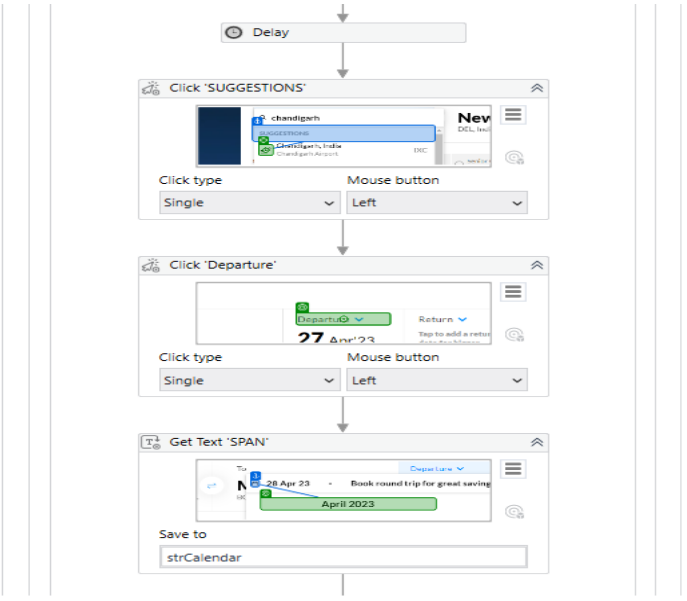
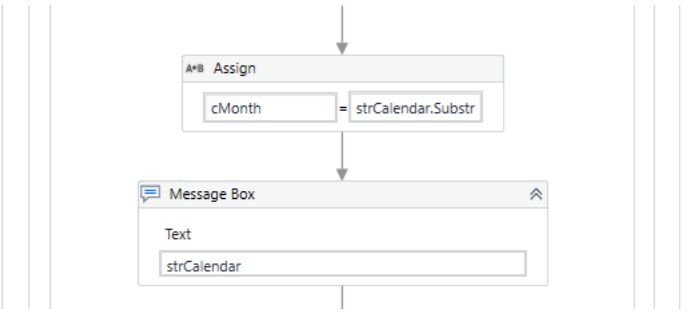


Figure 3: It shows the input section which includes Source, Destination, Travel date and Email of the user.




Delay
Click 'SUGGESTIONS'
Click type
Single
Mouse button
Left
Click 'To'
To
Click type
Single
Mouse button
Left
Type Into 'To'
Type this
Standard
Secure
destination


Delay
Click 'SUGGESTIONS'
Click type
Single
Mouse button
Left
Click 'Departure'
Return
Click type
Single
Mouse button
Left
Get Text 'SPAN'
28 Apr 23
Book round trip for great saving
April 2023
Save to
strCalendar


Assign
cMonth
=
strCalendar.Substr
Message Box
Text
strCalendar

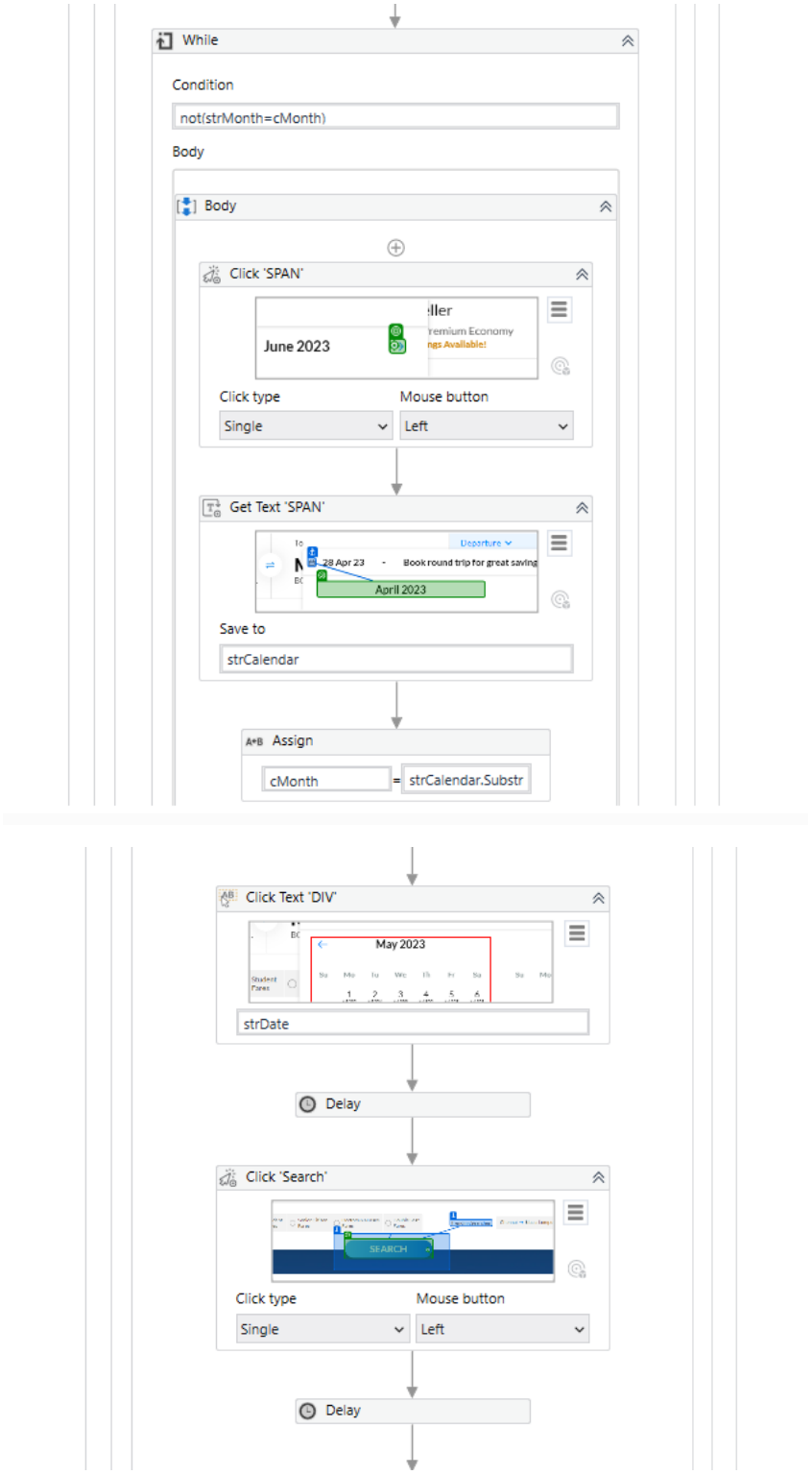


Figure 4: It shows Data Scraping and extracting

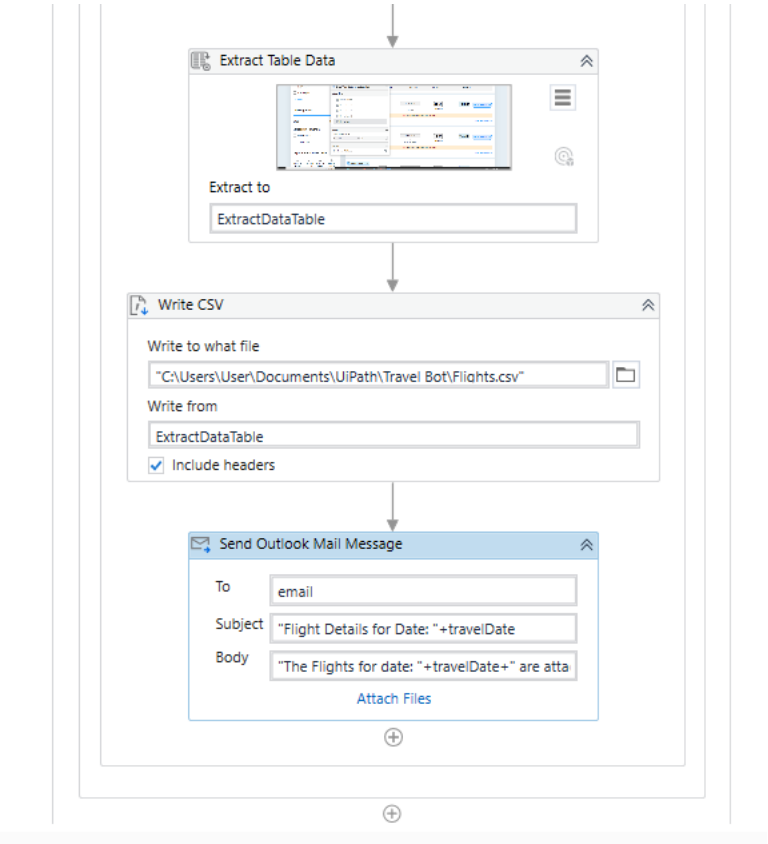


Figure 5: It shows information compilation and sending it to user via mail

Results:

The snapshots through out of process after running the robot and result are:

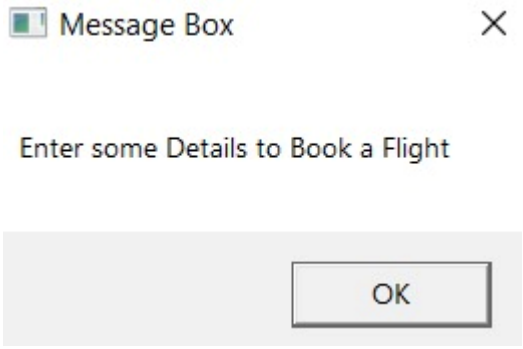


Figure 6: A message box will appear.

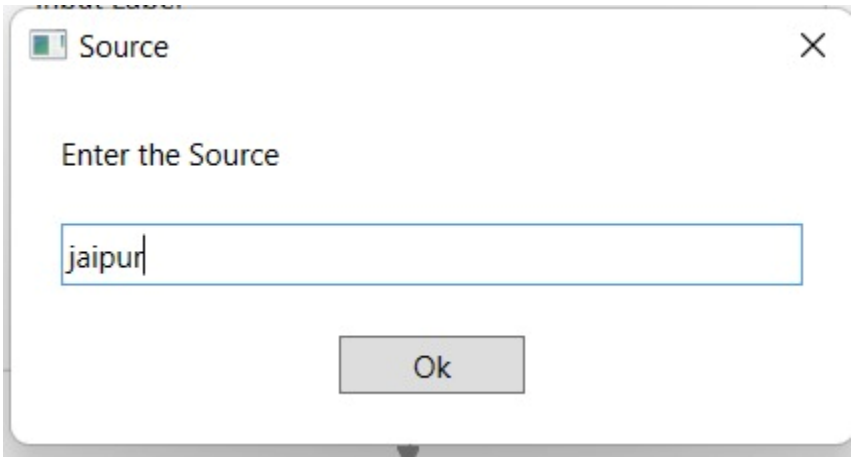


Figure 7: Dialog box to enter Source

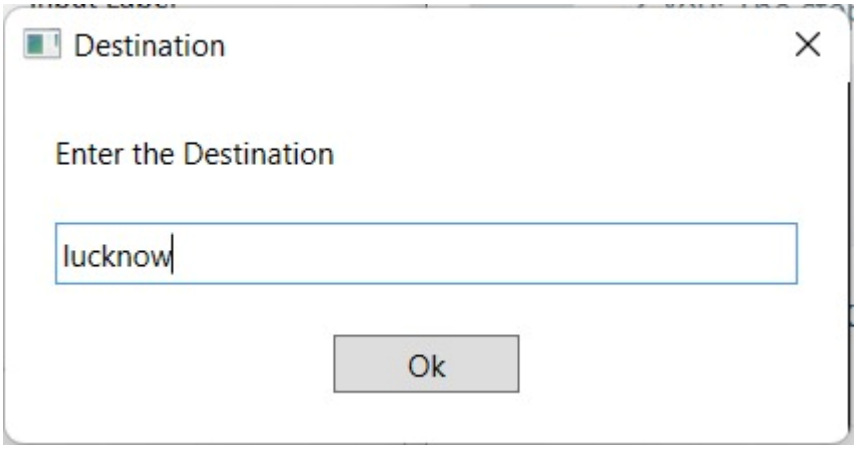


Figure 8: Dialog box to enter Destination

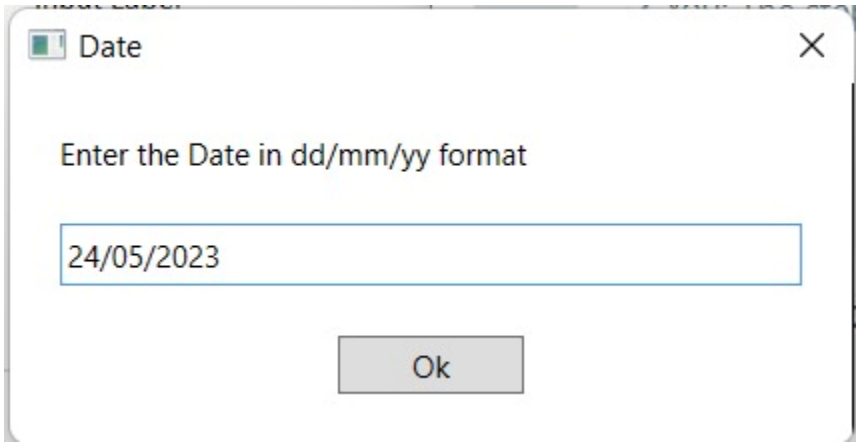


Figure 9: Dialog box to enter travel date

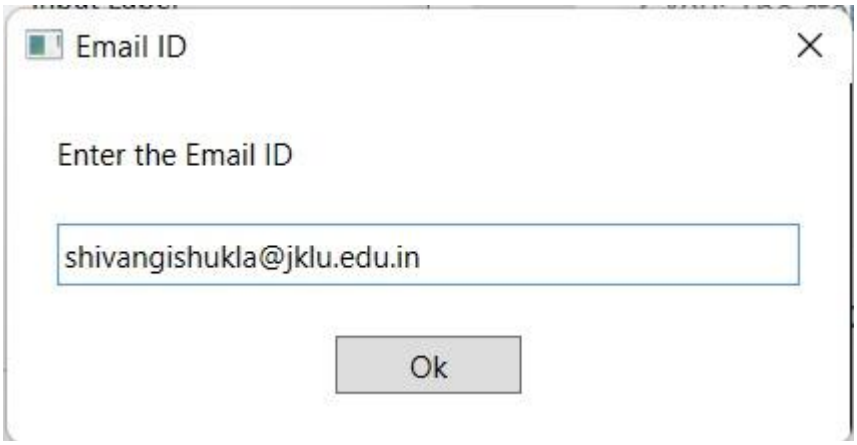
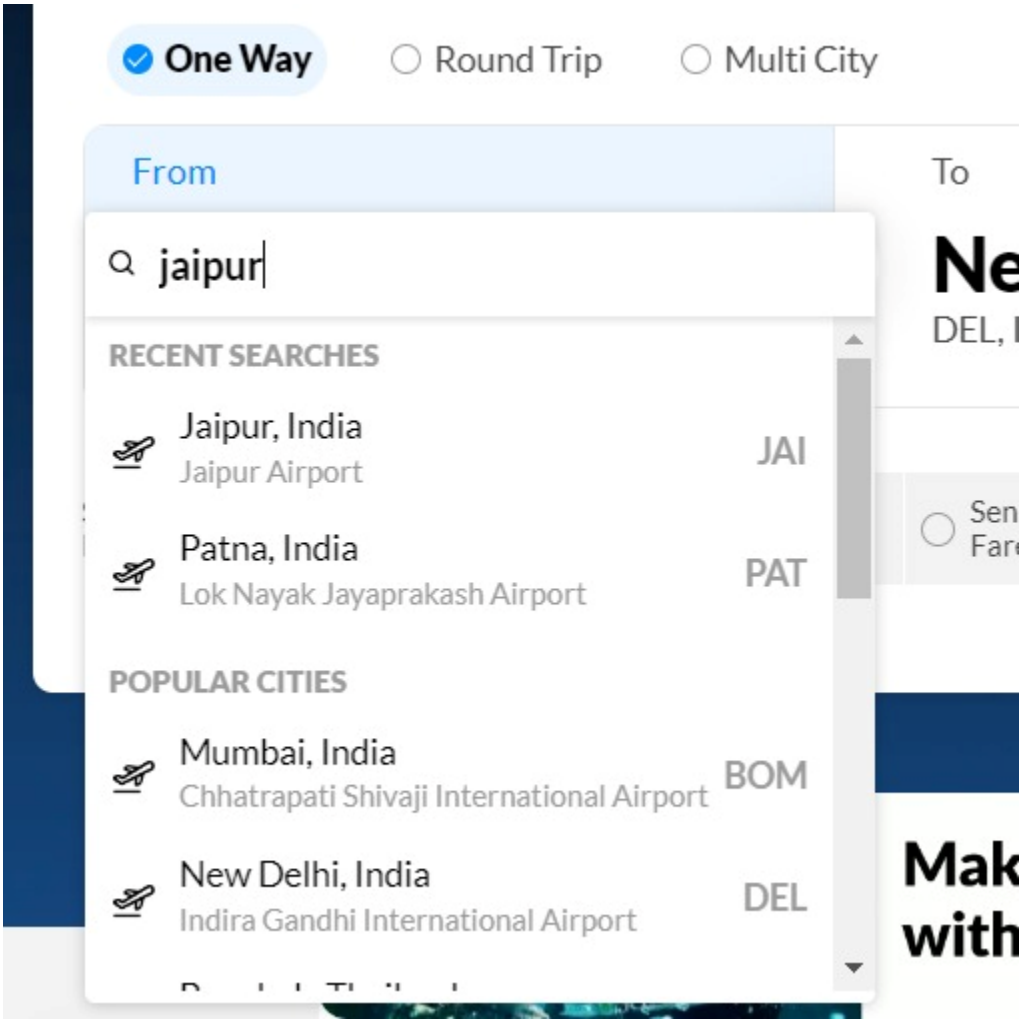


Figure 9: Dialog box to enter Email Id



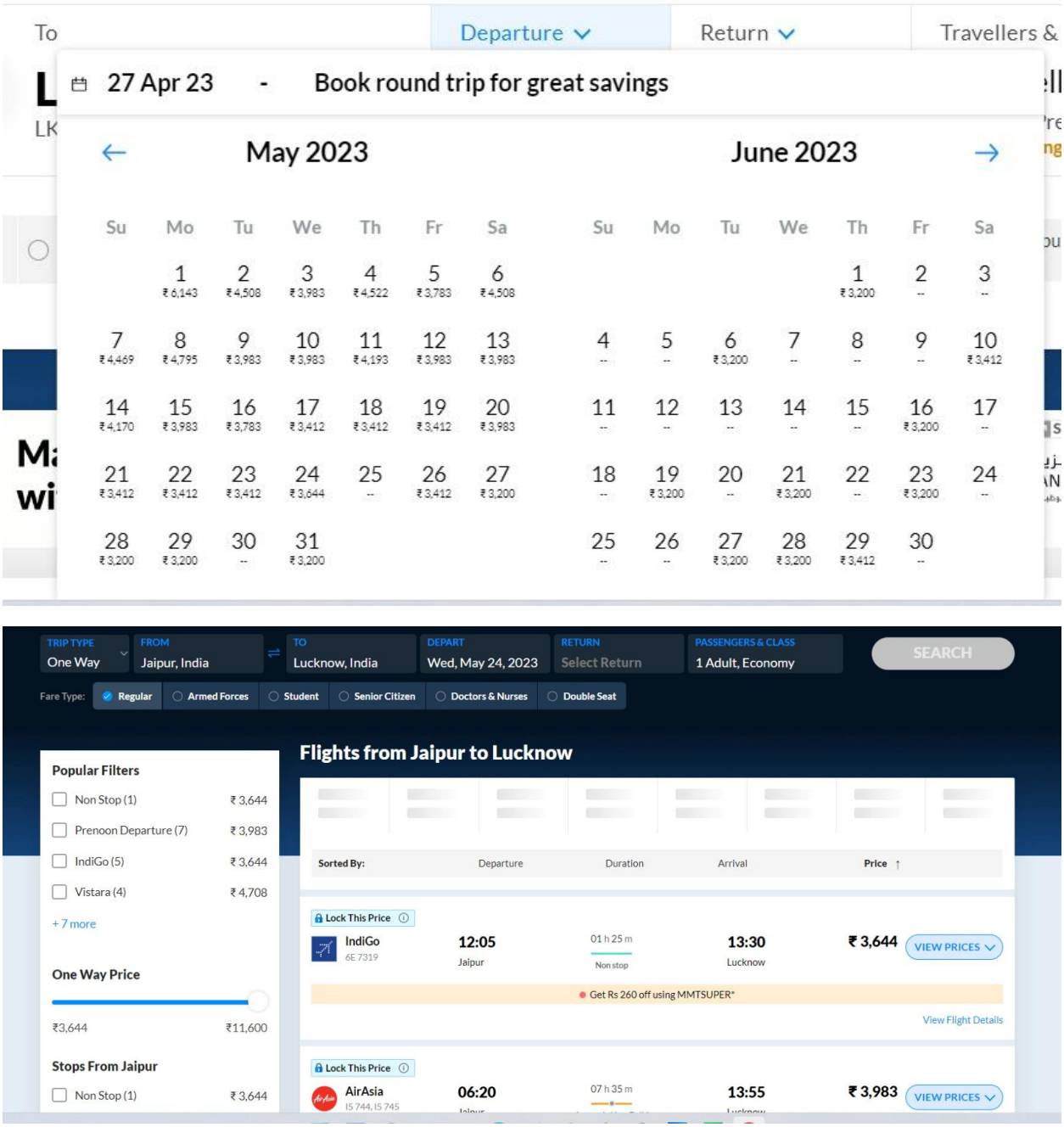


Figure 10: Data Scraping

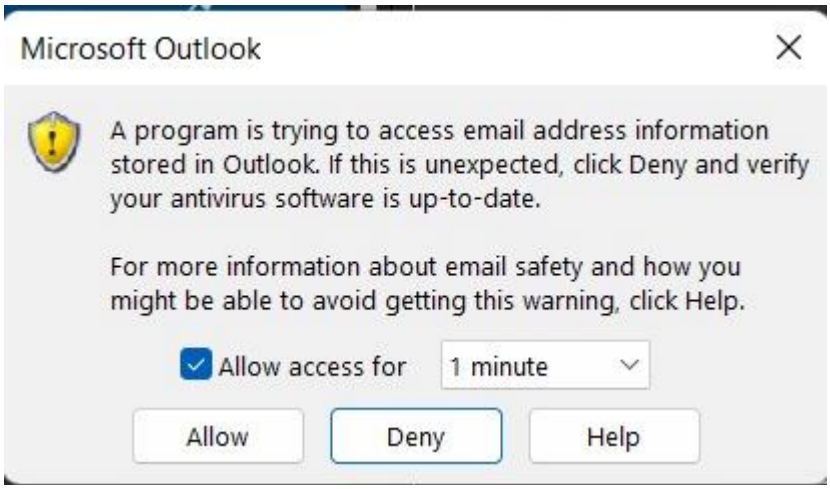


Figure 11: Asking permission to send mail

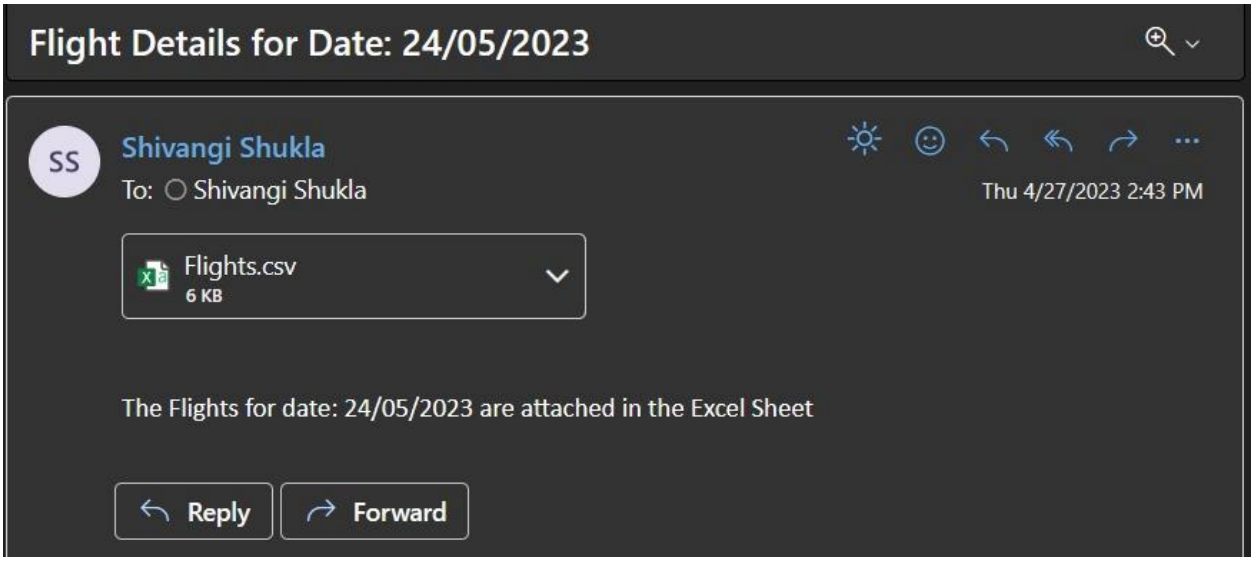


Figure 12: Mail received

	A	B	C	D	E
1	Name	Departure	Duration	Arrival	Price
2	IndiGo	12:05	01 h 25 m	13:30	₹ 3,644
3	AirAsia	6:20	07 h 35 m	13:55	₹ 3,983
4	Alliance Air, Vistara	7:30	07 h 20 m	14:50	₹ 4,708
5	AirAsia, Air India	6:20	07 h 10 m	13:30	₹ 4,765
6	IndiGo	5:40	08 h 20 m	14:00	₹ 5,060
7	IndiGo	14:20	04 h 50 m	19:10	₹ 5,060
8	Alliance Air, Air India	7:30	06 h	13:30	₹ 5,080
9	AirAsia	21:45	10 h 30 m	8:15	₹ 5,558
10	IndiGo	5:40	03 h 55 m	9:35	₹ 6,004
11	Go First	9:35	07 h 30 m	17:05	₹ 9,433
12	Vistara	19:55	18 h 55 m	14:50	₹ 10,066
13	Vistara	19:55	18 h 55 m	14:50	₹ 10,066
14					

Figure 13: Data received

Conclusion:

In conclusion, the travel bot is an automation solution that simplifies the travel booking process by taking input from users about their travel preferences and booking the trip on their behalf. The bot navigates through travel websites, extracts relevant information, compiles it into an Excel file, and sends it to the user's email address.

The travel bot has several advantages over traditional travel booking methods, including faster booking times, and greater convenience. It also eliminates the need for users to navigate multiple travel websites and perform tedious data entry tasks.

The travel bot represents an innovative and useful tool for simplifying the travel booking process. As technology continues to advance, there are many opportunities to improve and enhance the functionality of the travel bot, making it an even more valuable tool for travelers.

Future work:

Here are some potential future improvements that could be made to the travel bot:

Integration with more travel websites: Currently, the travel bot navigates through a limited travel website. In the future, the bot could be enhanced to integrate with more travel websites to provide users with more options and a wider range of prices.

Support for additional languages: The travel bot is currently designed to handle input in a single language. However, it could be improved to support multiple languages, making it more accessible to users who speak different languages.

Enhanced user interface: The travel bot could be improved by adding a more user-friendly interface, making it easier for users to input their travel preferences and follow the progress of the booking process.

Integration with other services: The travel bot could be enhanced to integrate with other services, such as hotel booking or car rental services, providing a more comprehensive travel booking experience for users.

Integration with voice assistants: The travel bot could be integrated with voice assistants, such as Siri or Alexa, to provide users with a hands-free experience and more accessibility.

References:

https://academy.uipath.com/

https://docs.uipath.com/studio/standalone/2023.4/user-guide/example-of-using-data-scraping