

TRAVEL BOT USING RPA

Aditi Saha

Department of Computer Science and Engineering, JK Lakshmipat University

*aditisaha@jkl.edu.in

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:

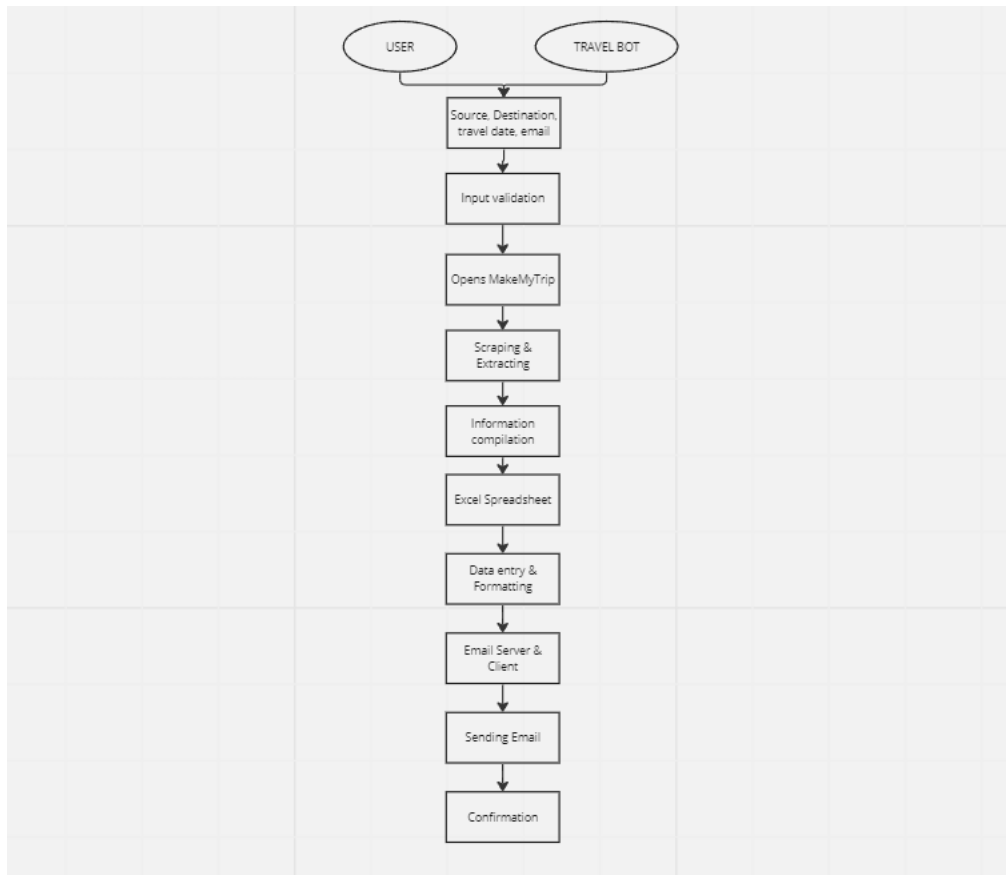


Figure 1: DFD diagram of the use case titled “**Travel Bot**”

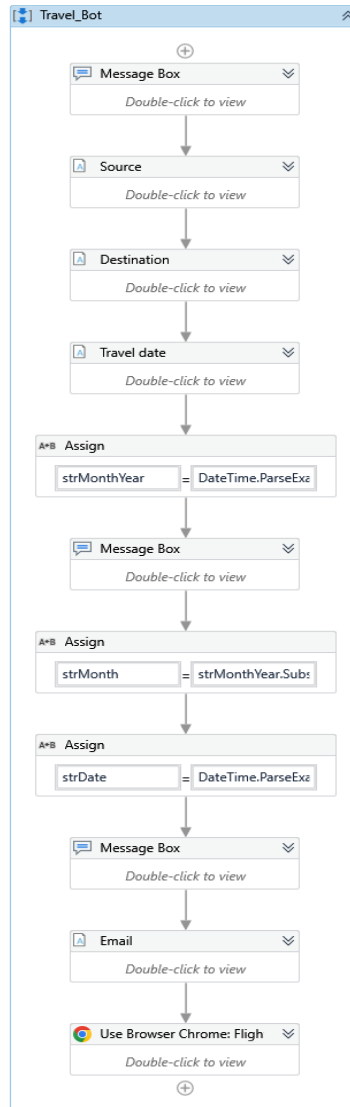
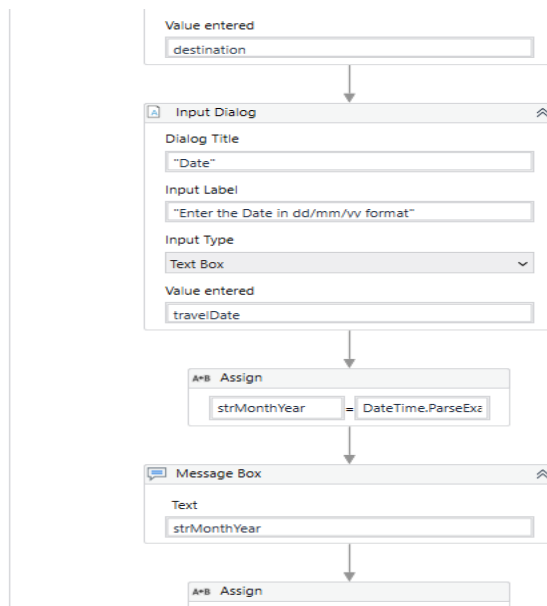
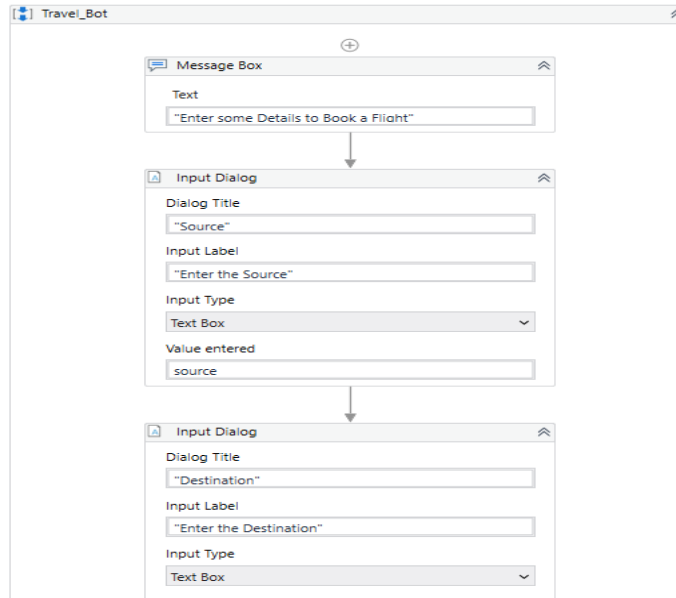


Figure2: Flowchart diagram of use case



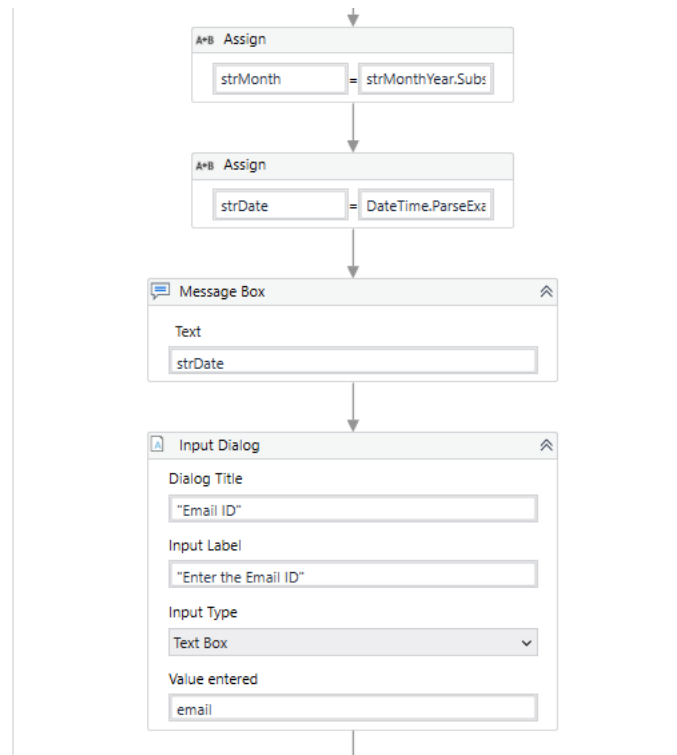
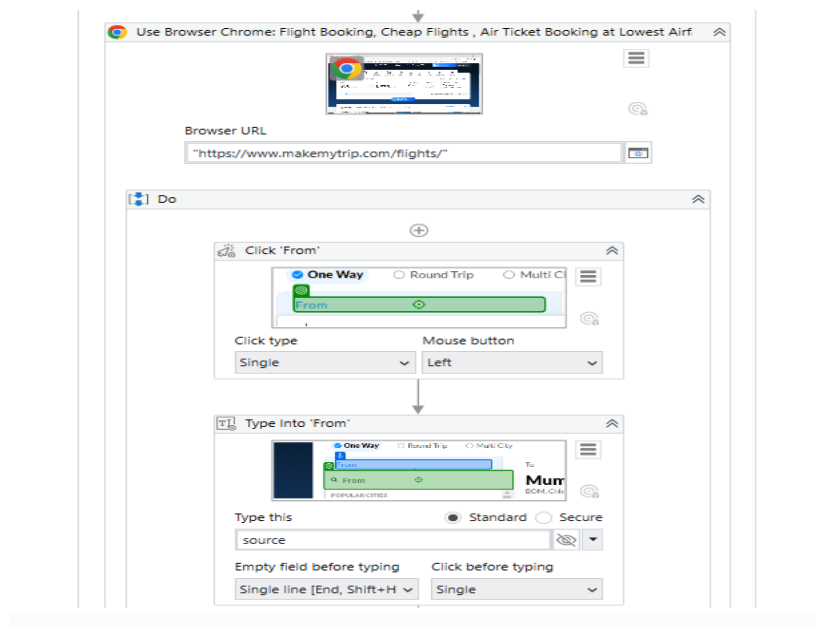
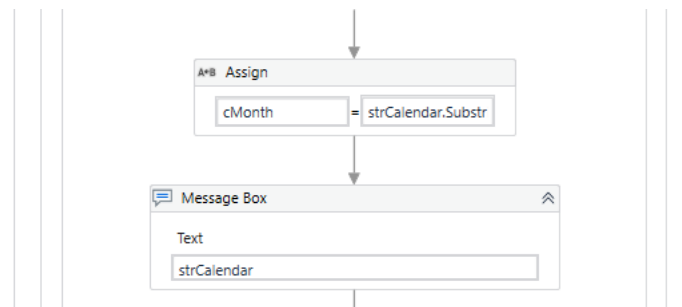
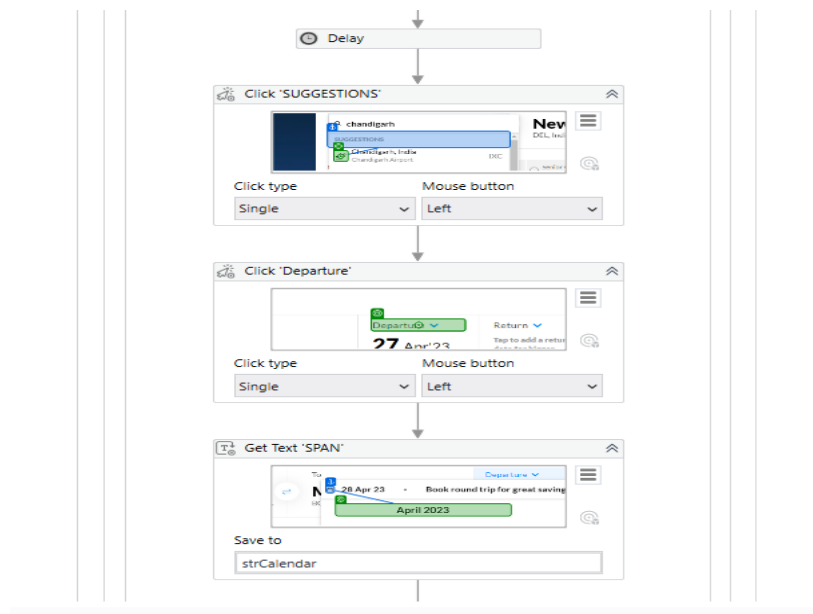
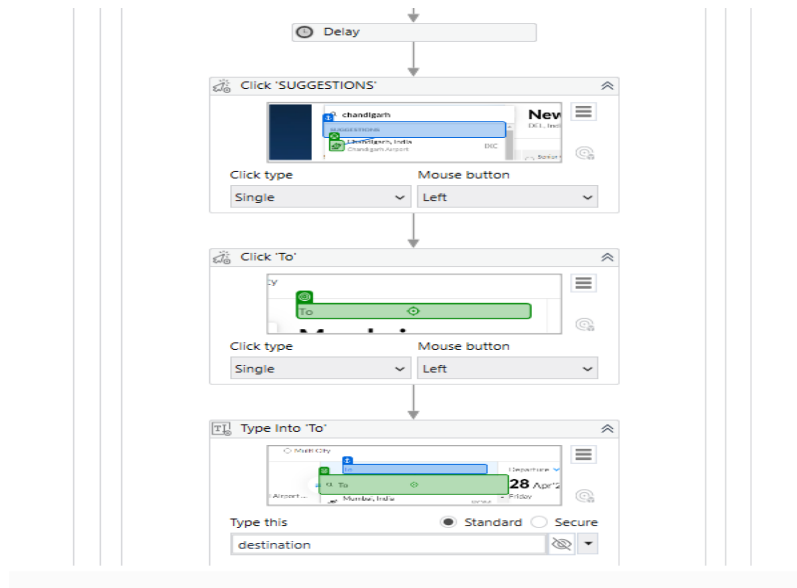


Figure 3: It shows the input section which includes Source, Destination, Travel date and Email of the user.





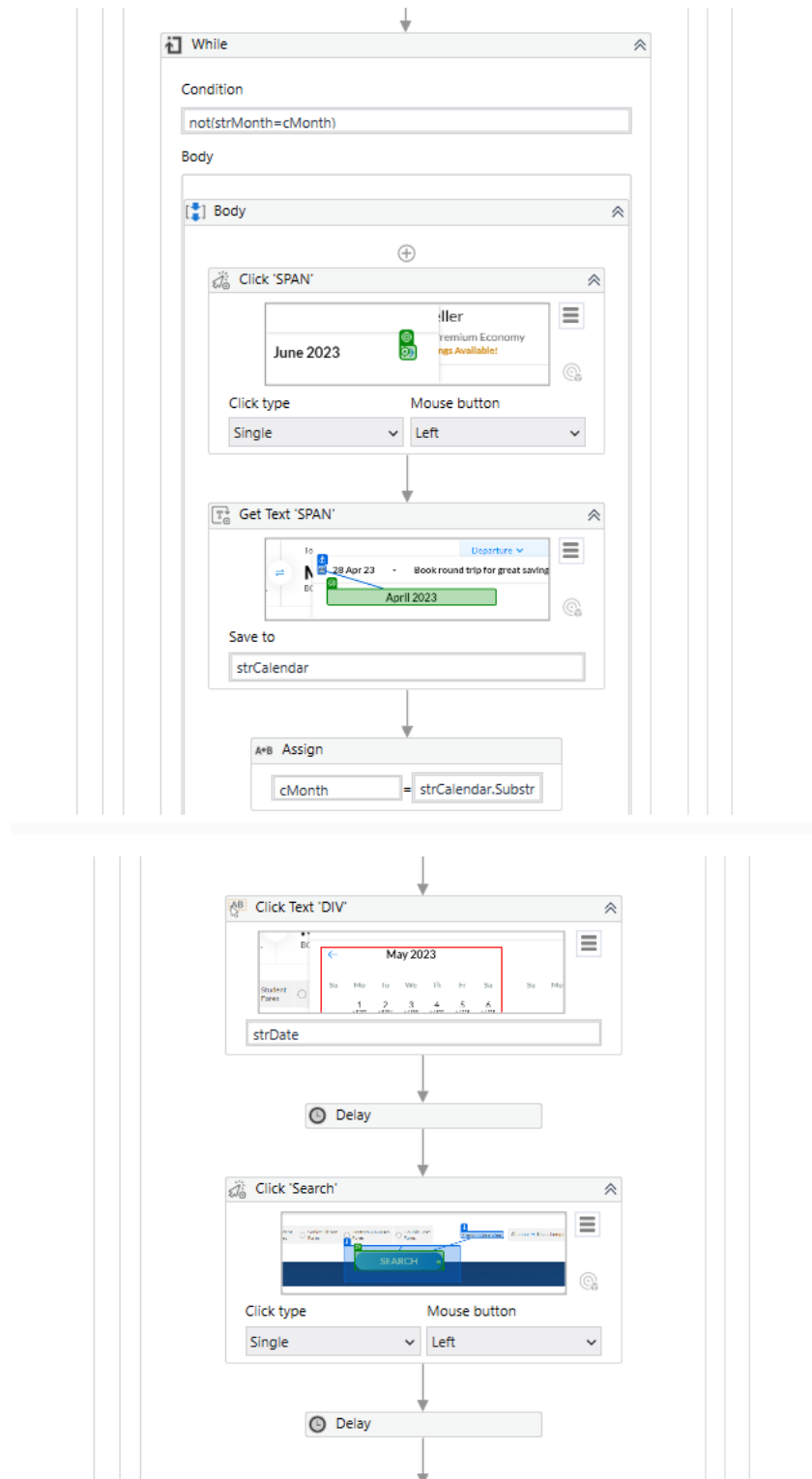


Figure 4: It shows Data Scraping and extracting

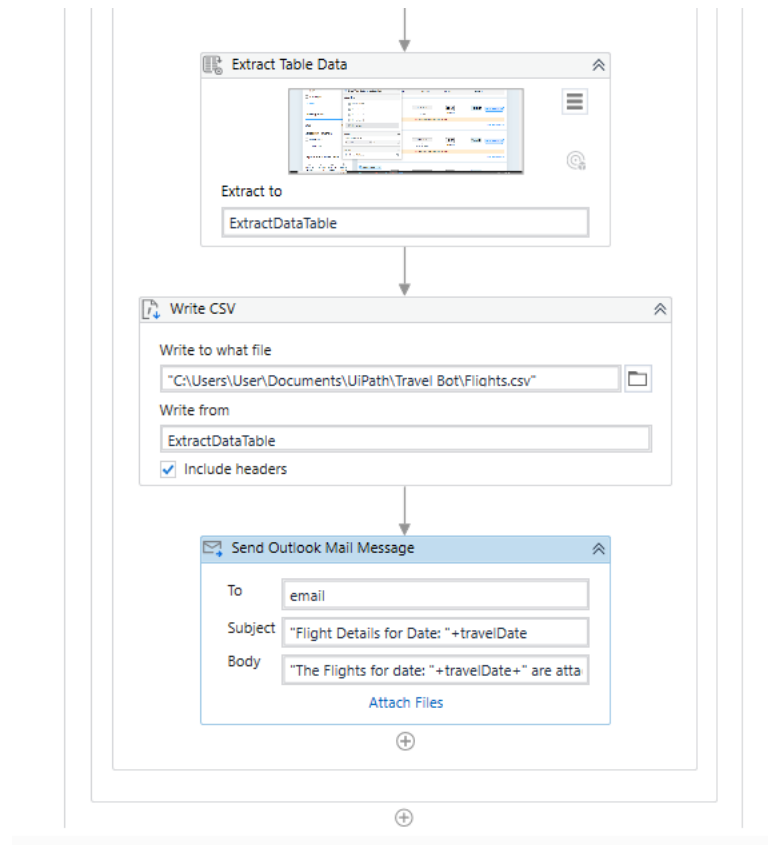


Figure 5: It shows information compilation and sending it to user via mail

Results:

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

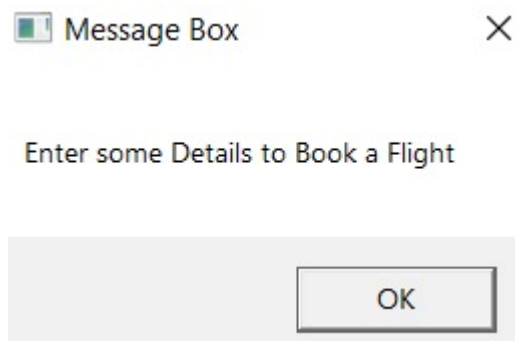
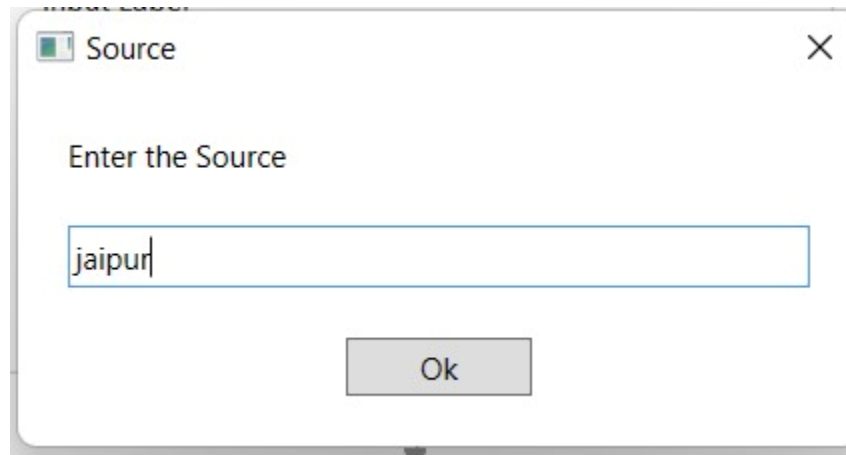
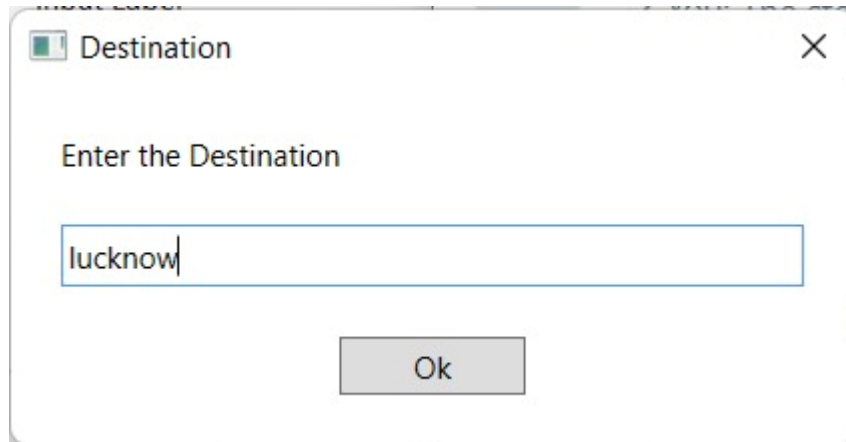


Figure 6: A message box will appear.



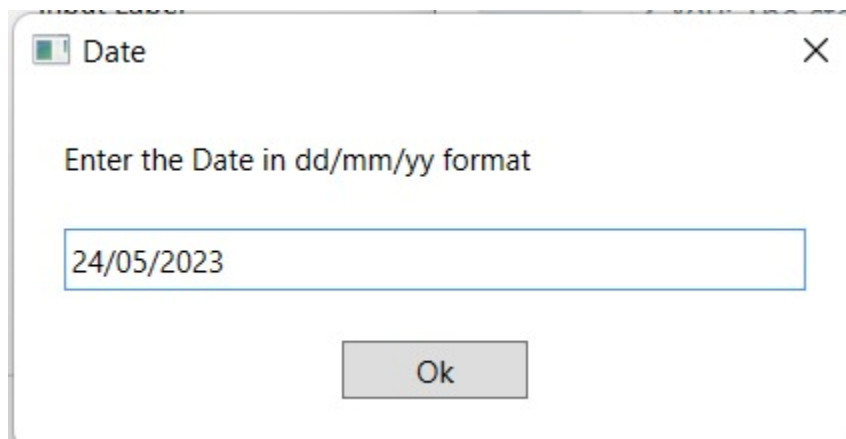
A screenshot of a Windows-style dialog box titled "Source". It has a standard window frame with a close button (X) in the top right corner. The text "Enter the Source" is displayed above a single-line text input field. The input field contains the text "jaipur". Below the input field is a single "Ok" button.

Figure 7: Dialog box to enter Source



A screenshot of a Windows-style dialog box titled "Destination". It has a standard window frame with a close button (X) in the top right corner. The text "Enter the Destination" is displayed above a single-line text input field. The input field contains the text "lucknow". Below the input field is a single "Ok" button.

Figure 8: Dialog box to enter Destination



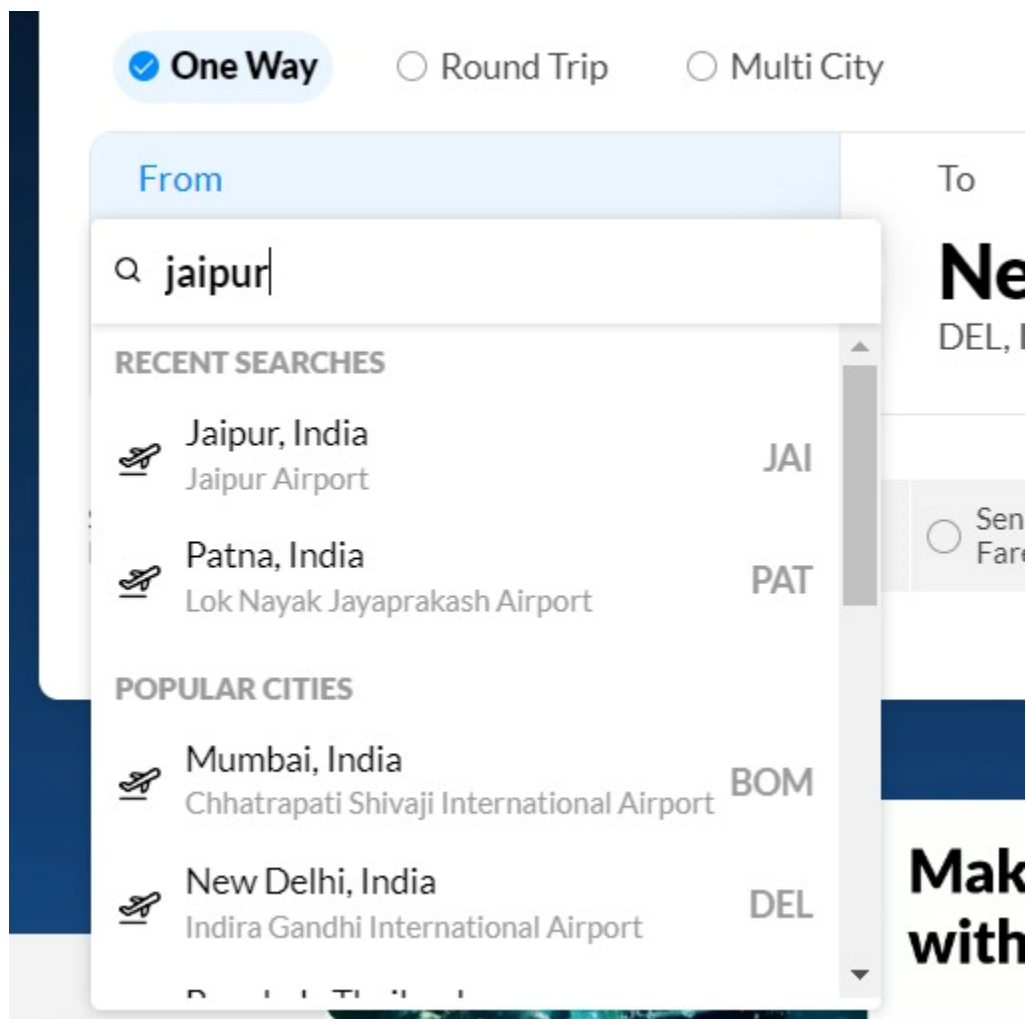
A screenshot of a Windows-style dialog box titled "Date". It has a standard window frame with a close button (X) in the top right corner. The text "Enter the Date in dd/mm/yy format" is displayed above a single-line text input field. The input field contains the date "24/05/2023". Below the input field is a single "Ok" button.

Figure 9: Dialog box to enter travel date







A dialog box titled "Email ID" with a close button (X) in the top right corner. It contains a label "Enter the Email ID" and a text input field with the email address "shivangishukla@jkl.edu.in". Below the input field is an "Ok" button.

Figure 9: Dialog box to enter Email Id



A flight search interface with three radio buttons: "One Way" (selected), "Round Trip", and "Multi City". Below these is a "From" field with a search icon and the text "jaipur". A dropdown menu is open, showing "RECENT SEARCHES" and "POPULAR CITIES".

RECENT SEARCHES		
	Jaipur, India Jaipur Airport	JAI
	Patna, India Lok Nayak Jayaprakash Airport	PAT

POPULAR CITIES		
	Mumbai, India Chhatrapati Shivaji International Airport	BOM
	New Delhi, India Indira Gandhi International Airport	DEL

On the right side, there is a "To" field with the text "Ne" and "DEL, I". Below it is a "Send Fare" button. At the bottom right, there is a blue button labeled "Mak with".

To

Departure ▾

Return ▾

Travellers &

📅

27 Apr 23

-

Book round trip for great savings

←

May 2023

→

Su

Mo

Tu

We

Th

Fr

Sa

1

2

3

4

5

6

₹ 6,143

₹ 4,508

₹ 3,983

₹ 4,522

₹ 3,783

₹ 4,508

Su

Mo

Tu

We

Th

Fr

Sa

1

2

3

₹ 3,200

--

--

7

8

9

10

11

12

13

₹ 4,469

₹ 4,795

₹ 3,983

₹ 3,983

₹ 4,193

₹ 3,983

₹ 3,983

4

5

6

7

8

9

10

--

--

₹ 3,200

--

--

--

₹ 3,412

14

15

16

17

18

19

20

₹ 4,170

₹ 3,983

₹ 3,783

₹ 3,412

₹ 3,412

₹ 3,412

₹ 3,983

11

12

13

14

15

16

17

--

--

--

--

₹ 3,200

--

--

21

22

23

24

25

26

27

₹ 3,412

₹ 3,412

₹ 3,412

₹ 3,644

--

₹ 3,412

₹ 3,200

18

19

20

21

22

23

24

--

₹ 3,200

--

₹ 3,200

--

₹ 3,200

--

28

29

30

31

₹ 3,200

₹ 3,200

--

₹ 3,200

25

26

27

28

29

30

--

--

₹ 3,200

₹ 3,200

₹ 3,412

--

TRIP TYPE

FROM

TO

DEPART

RETURN

PASSENGERS & CLASS

SEARCH

One Way

Jaipur, India

Lucknow, India

Wed, May 24, 2023

Select Return

1 Adult, Economy

Fare Type:

Regular

Armed Forces

Student

Senior Citizen

Doctors & Nurses

Double Seat

Popular Filters

Non Stop (1)

₹ 3,644

Prenoon Departure (7)

₹ 3,983

IndiGo (5)

₹ 3,644

Vistara (4)

₹ 4,708

+ 7 more

One Way Price

₹3,644

₹11,600

Stops From Jaipur

Non Stop (1)

₹ 3,644

Flights from Jaipur to Lucknow

Sorted By: Departure Duration Arrival Price ↑

Lock This Price

IndiGo

6E 7319

12:05

Jaipur

01 h 25 m

Non stop

13:30

Lucknow

₹ 3,644

VIEW PRICES

Get Rs 260 off using MMTSUPER*

View Flight Details

Lock This Price

AirAsia

I5 744, I5 745

06:20

Jaipur

07 h 35 m

13:55

Lucknow

₹ 3,983

VIEW PRICES

Figure 10: Data Scraping

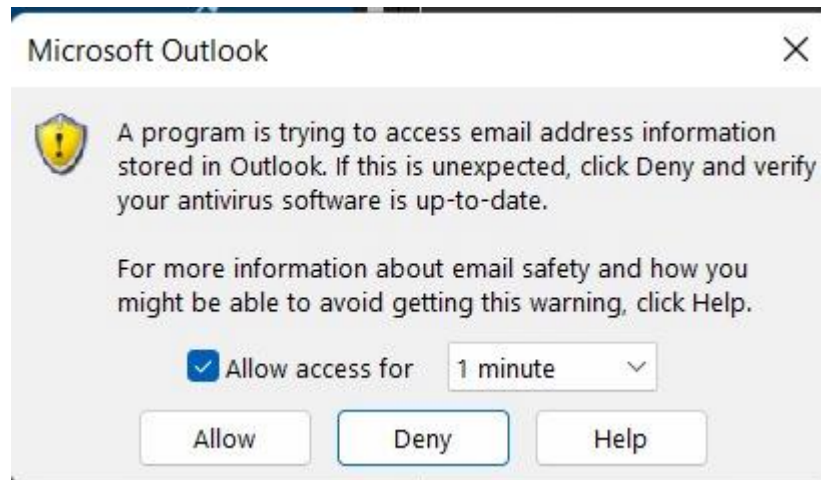


Figure 11: Asking permission to send mail

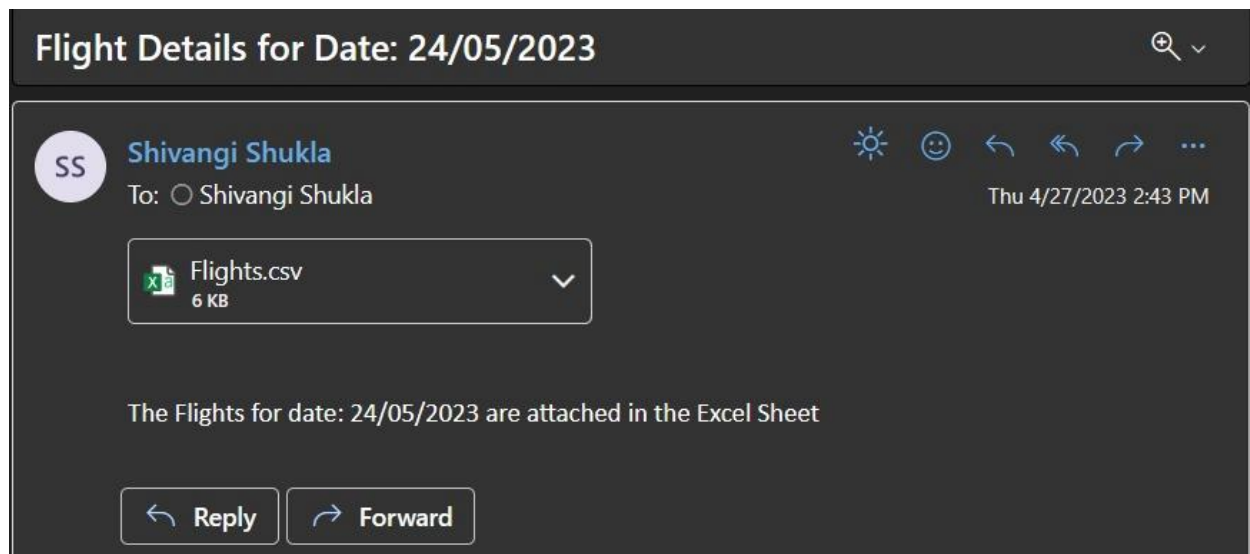


Figure 12: Mail received

	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>