

# Web Automation to book Hotels using RPA

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# Agenda

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- Introduction
- Area introduction - existing system
- Literature Survey
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# Abstract

- In web automation to book hotels, the manually done web source contents are entered automatically through RPA.
- Here we also automate the process of searching for hotels, scraping the contents and generate a list based on the requirements of the user entered.
- The requirements of the user is obtained by predefined filters list and from that the agent chooses rooms based on budget and comfort, then the check for availability of the rooms is to confirm and it is notified to the customers by agents.

# Objective & Outcome

## **Objective:**

The Objective of the project is to develop a system that automates the process and activities of a hotel booking.

## **Outcome:**

Customer can decide about places they want to visit and make hotel bookings through online for staying and accommodation.

# Introduction of RPA

- Robotic Process Automation(RPA) is a software-based technology utilizing software robots to emulate human execution of a business process. RPA captures data, runs applications, triggers responses, and communicates with other systems to perform a variety of tasks - Uiopath.
- RPA doesn't require programming skills. Employees with any subject expertise can be trained to automate RPA tools instantly.

- Any interaction between a human and a computer can be automated. However, processes with repeatable, predictable interactions with IT applications are best suited for RPA. Automation can improve the effectiveness and efficiency of these processes without changing the underlining systems.

# Area Introduction-Existing system

- Recent studies report the benefit of the application of RPA in terms of productivity, costs ,speed and error reduction.
- The previous techniques were proposed to make hotels booking through web.
- Checking for availability of rooms at various hotels are not maintained effectively through direct automation techniques.

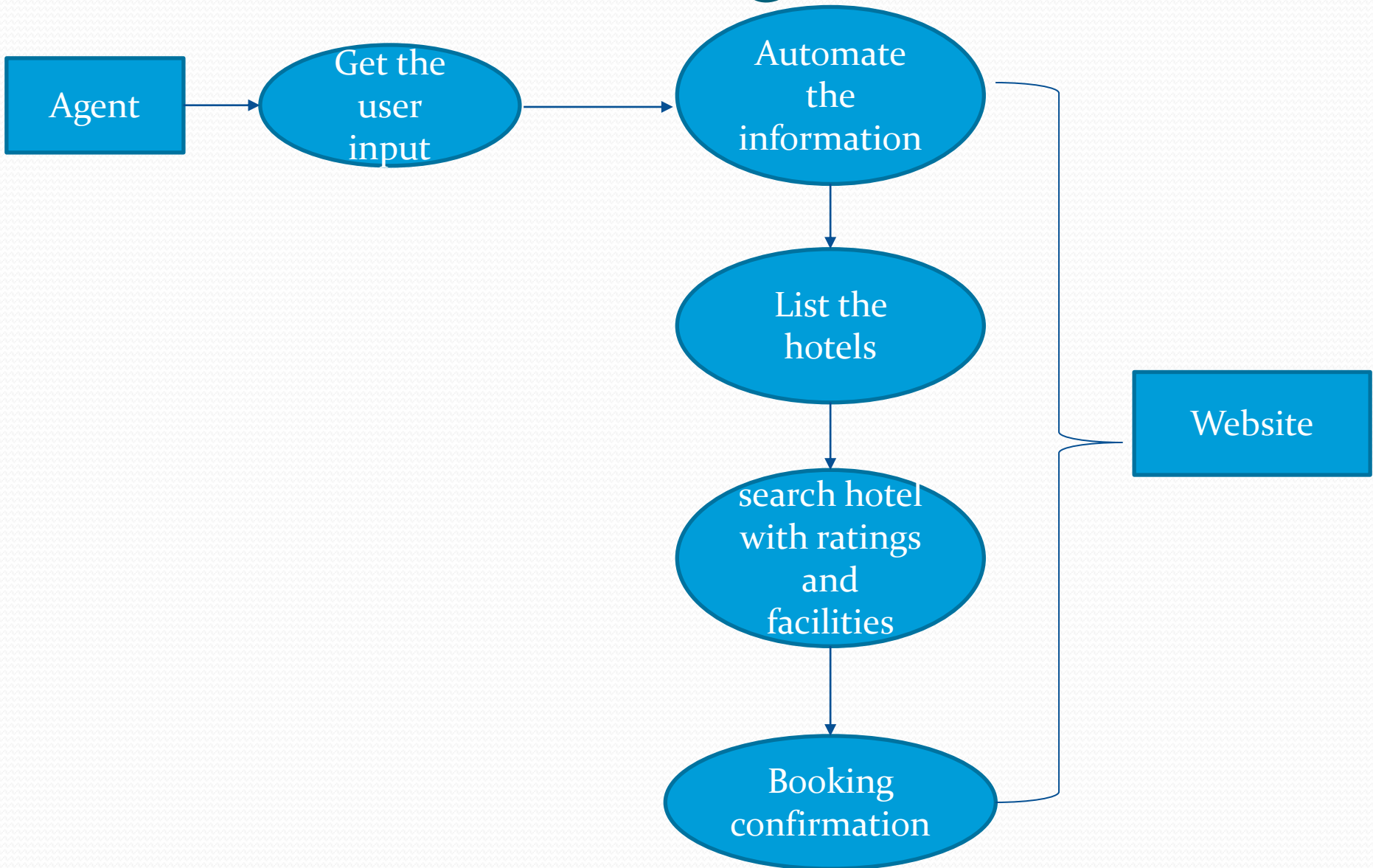
# Literature Survey

Title	Publication year	Publisher	Description
Online Hotel Reservation System	1973	Richard Bemile	It is a computerized system that stores and distributes information of a hotel, resort or other lodging facilities.
Consumer's Preferred Criteria for Hotel Online Booking	2007	Marcussen	The most commonly featured attributes are star rating, price, location/map, photographs of the rooms and the hotel, information about the rooms, and facilities, information on the surrounding area.

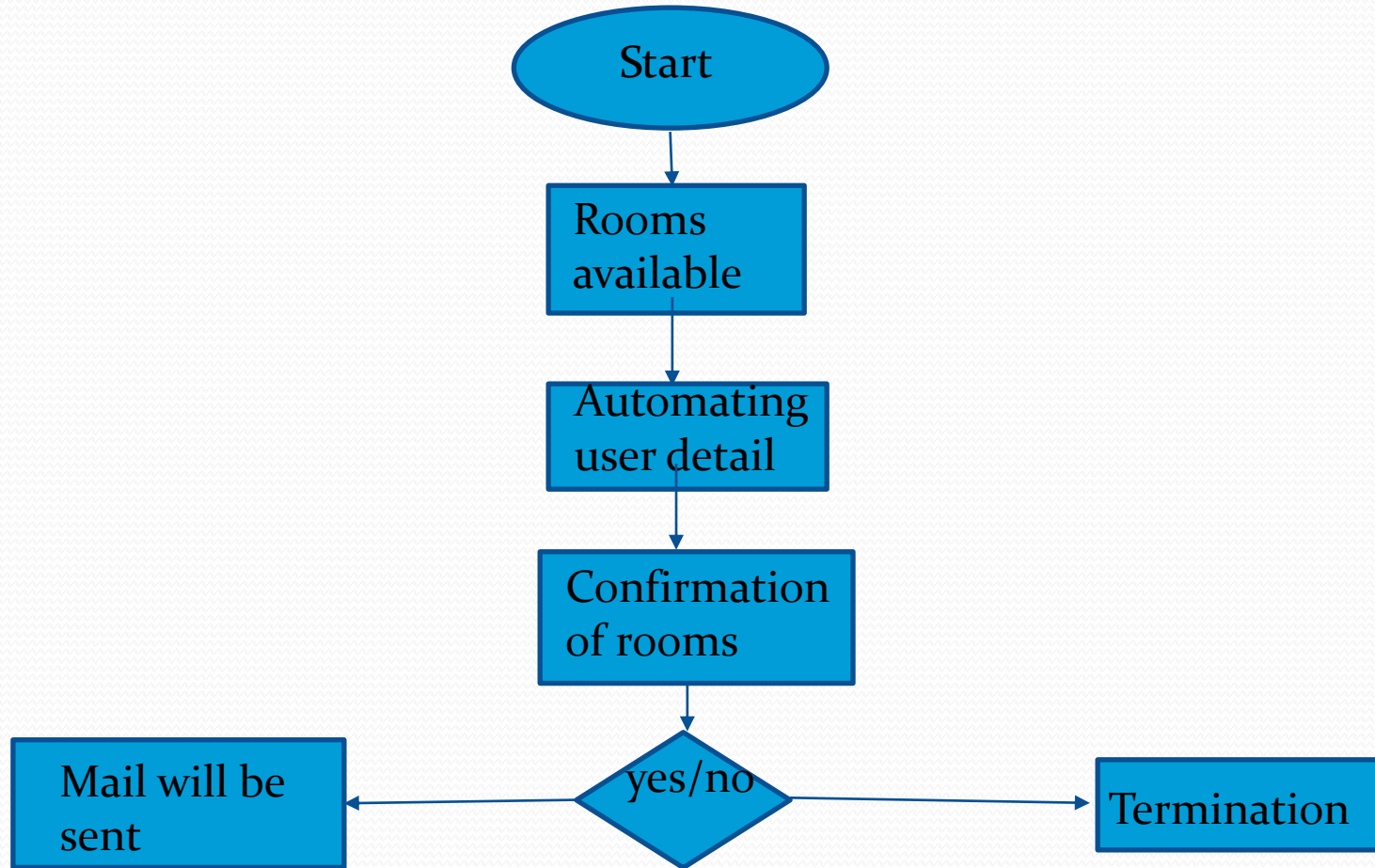


Consequences of Customer Confusion in Online Hotel Booking	2004	Mitchell	Relatively new concept in <b>consumer</b> behavior research. Increasingly, consumers get swamped by a large variety of opportunities to choose.
Online computerized Hotel Management System	2014	Ogirimsa	Booking a hotel online is not only fast as well as convenient but also very cheap.

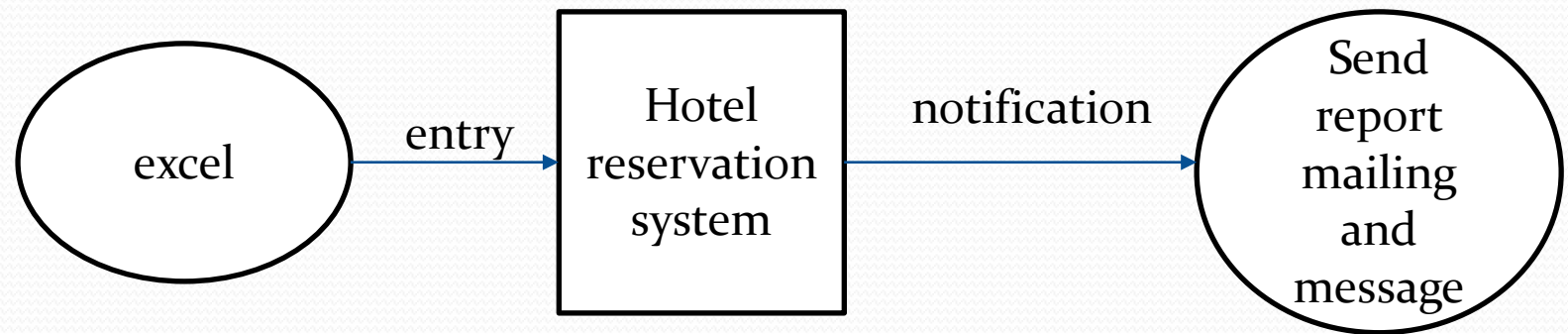
# Architectural Diagram



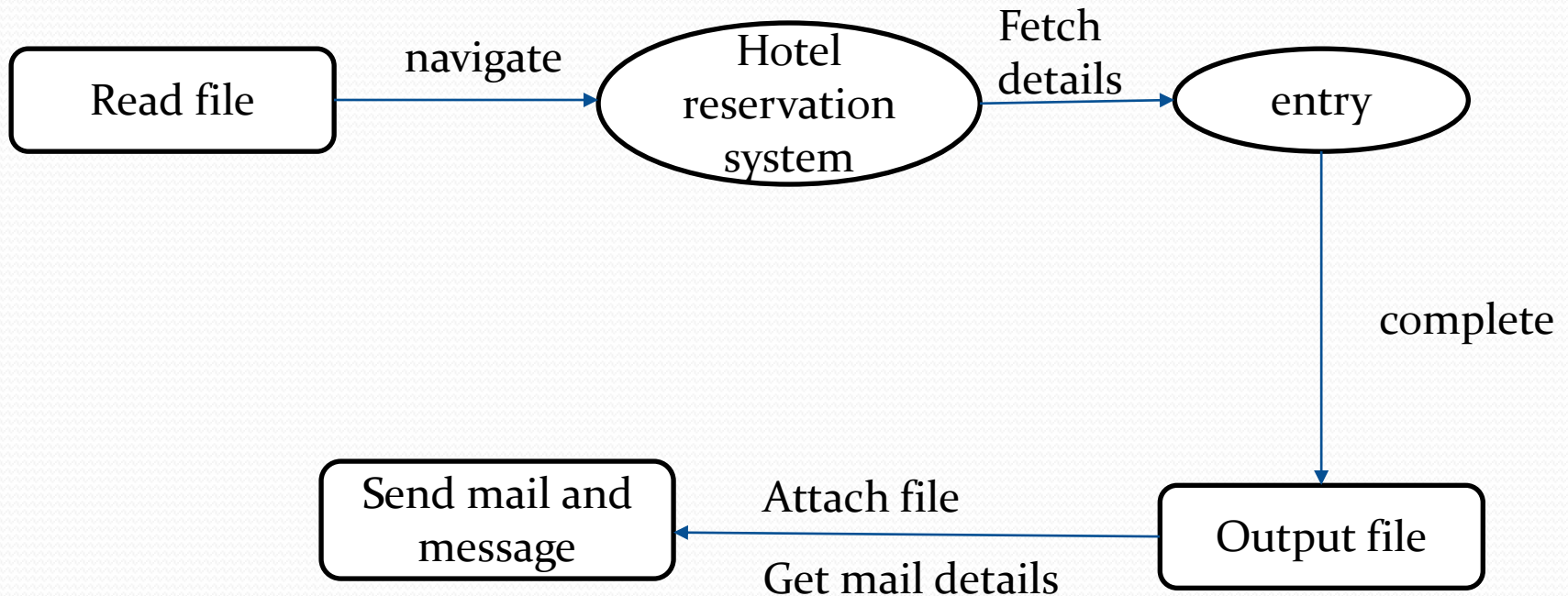
# Flow chart



# Data Flow Diagram Level 0



# Data Flow Diagram Level 1



# Proposed System

## **Advantages over existing methods:**

- ❖ propose a new technique for up to-date rooms available in various hotels.
- ❖ In addition, there is confirmation mails and which is sent after the confirmation of rooms booking.

## **Future enhancements:**

The user querying facilities about the hotels booking is automated and may with the voice automation.

# Literature Review

## **Drawbacks of existing methods**

- IT costs.
- Customer loyalty.
- Customer acquisition.

## **Reference:**

hotels.com

makemytrip.com

# Module Splitup

## Module 1:

- Get the user information using excel.

## Module 2:

- Filtering the contents and generate lists.

## Module 3:

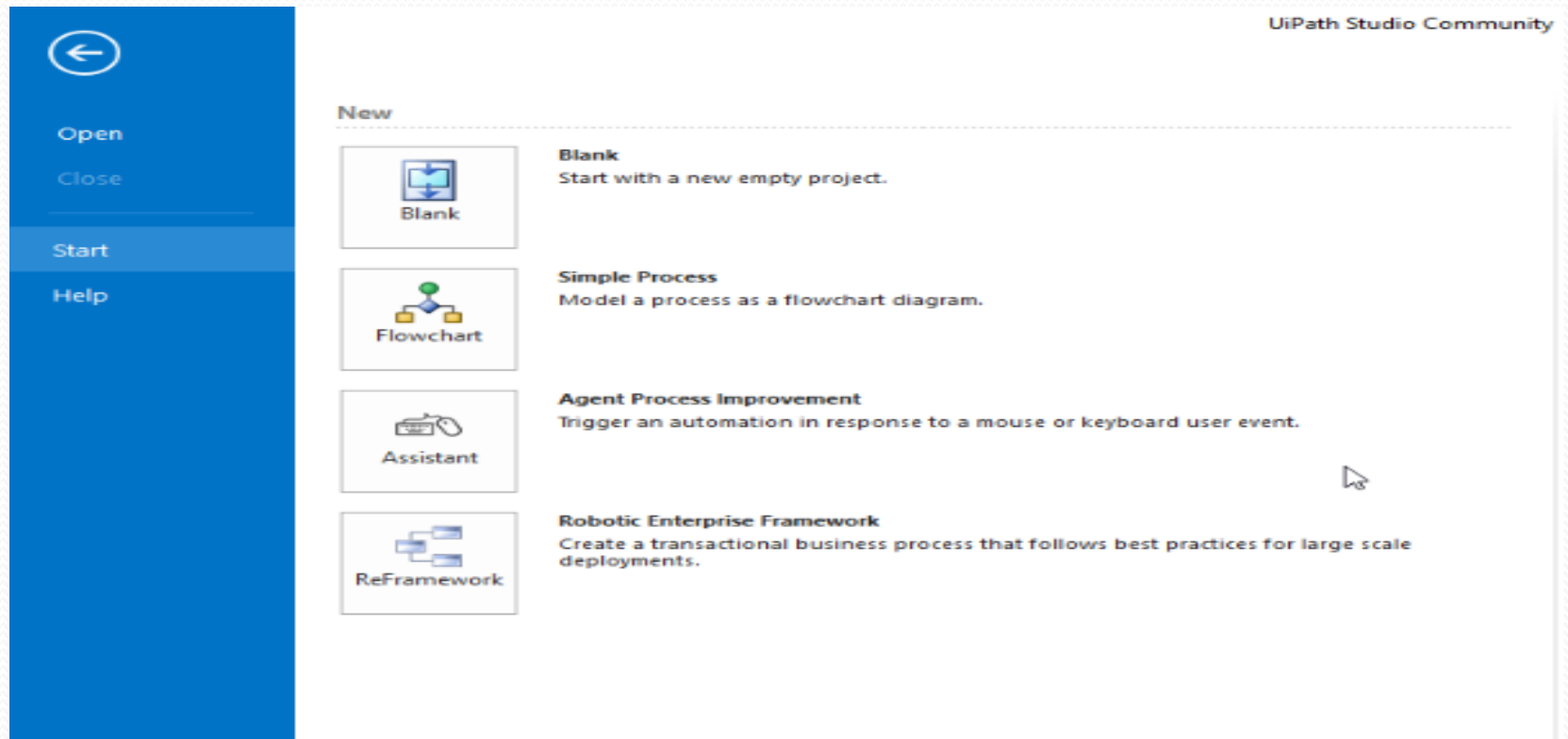
- Automating the booking process.
- Up to-date details of room availability.

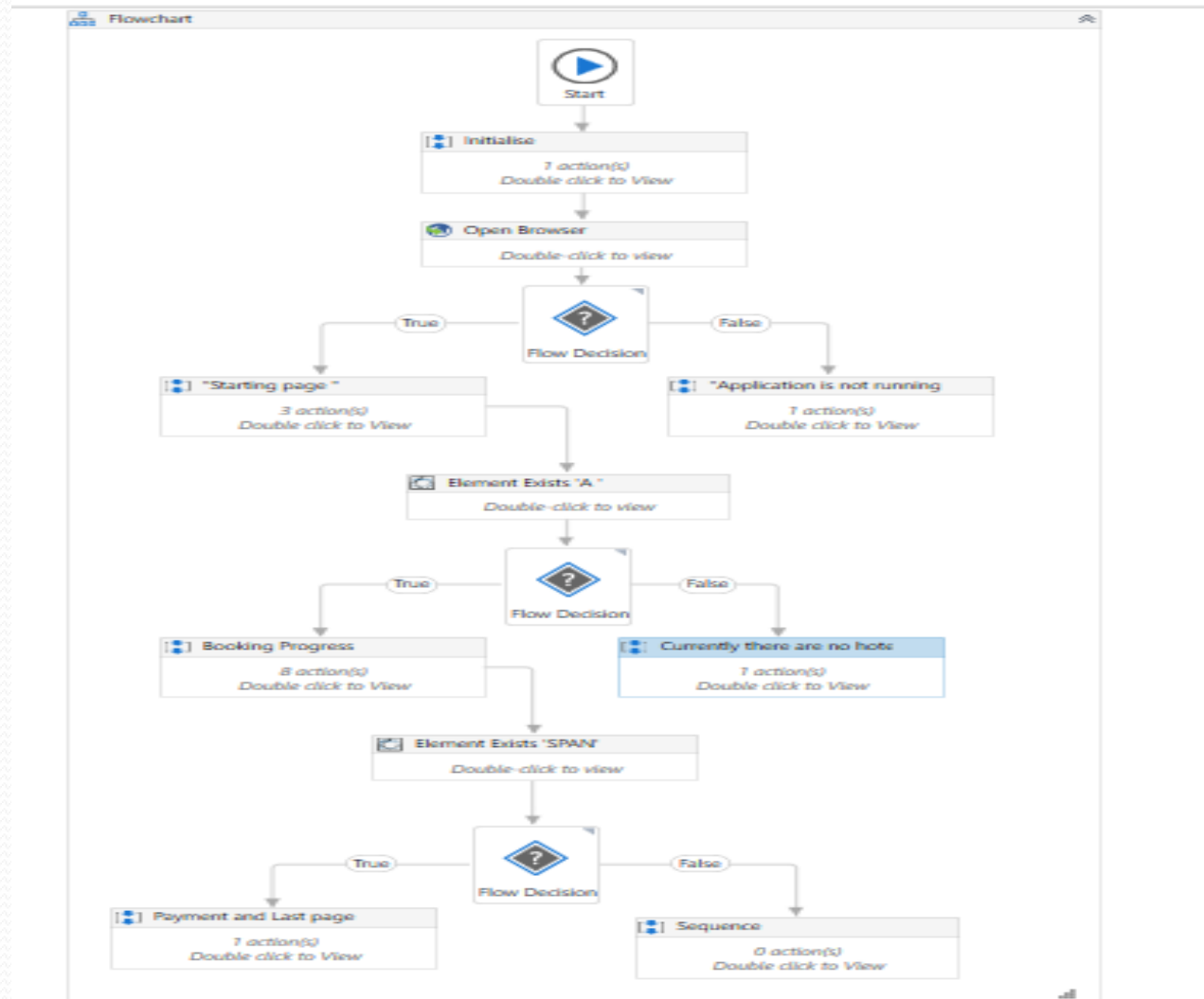
## Module 4:

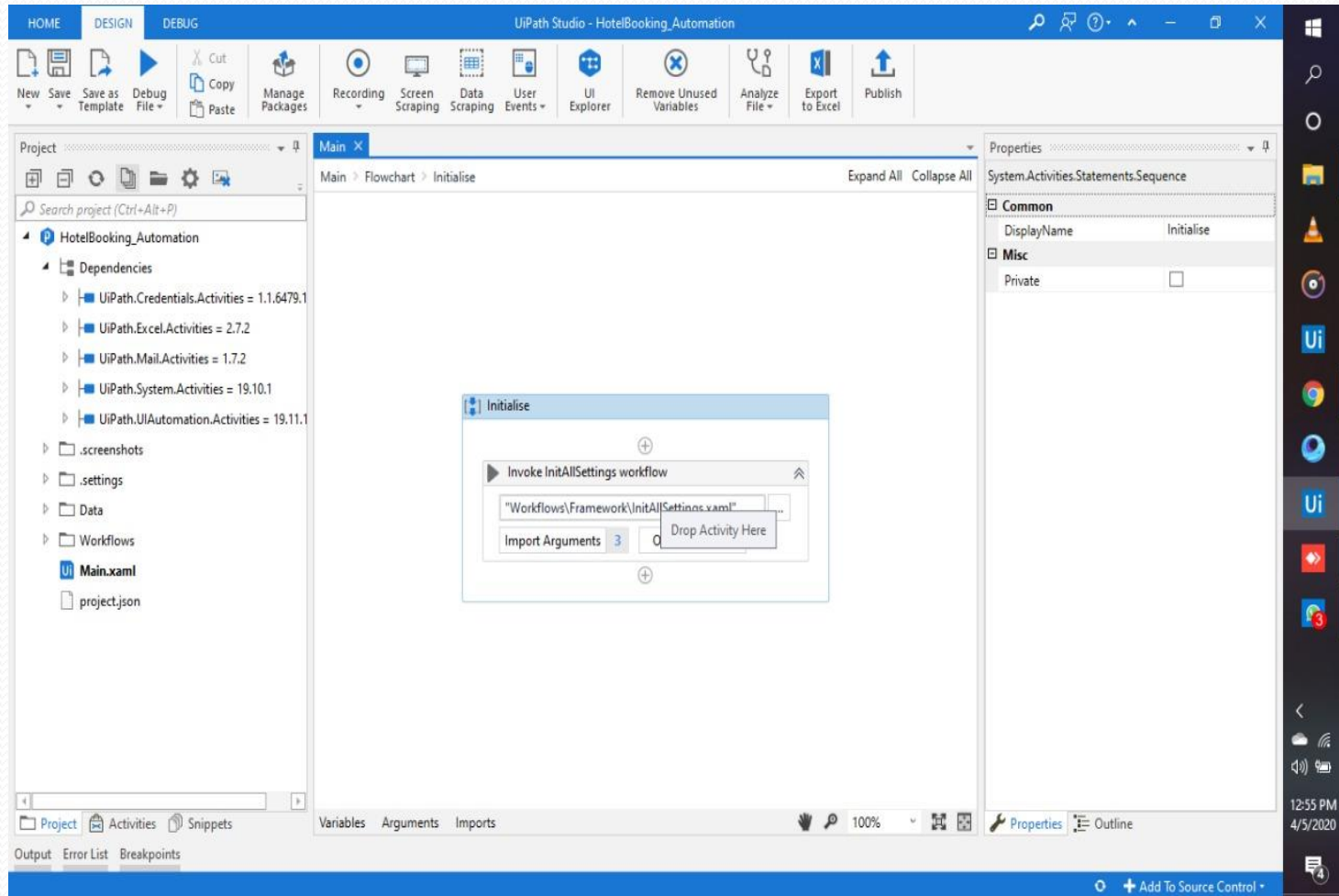
- Confirmation process .

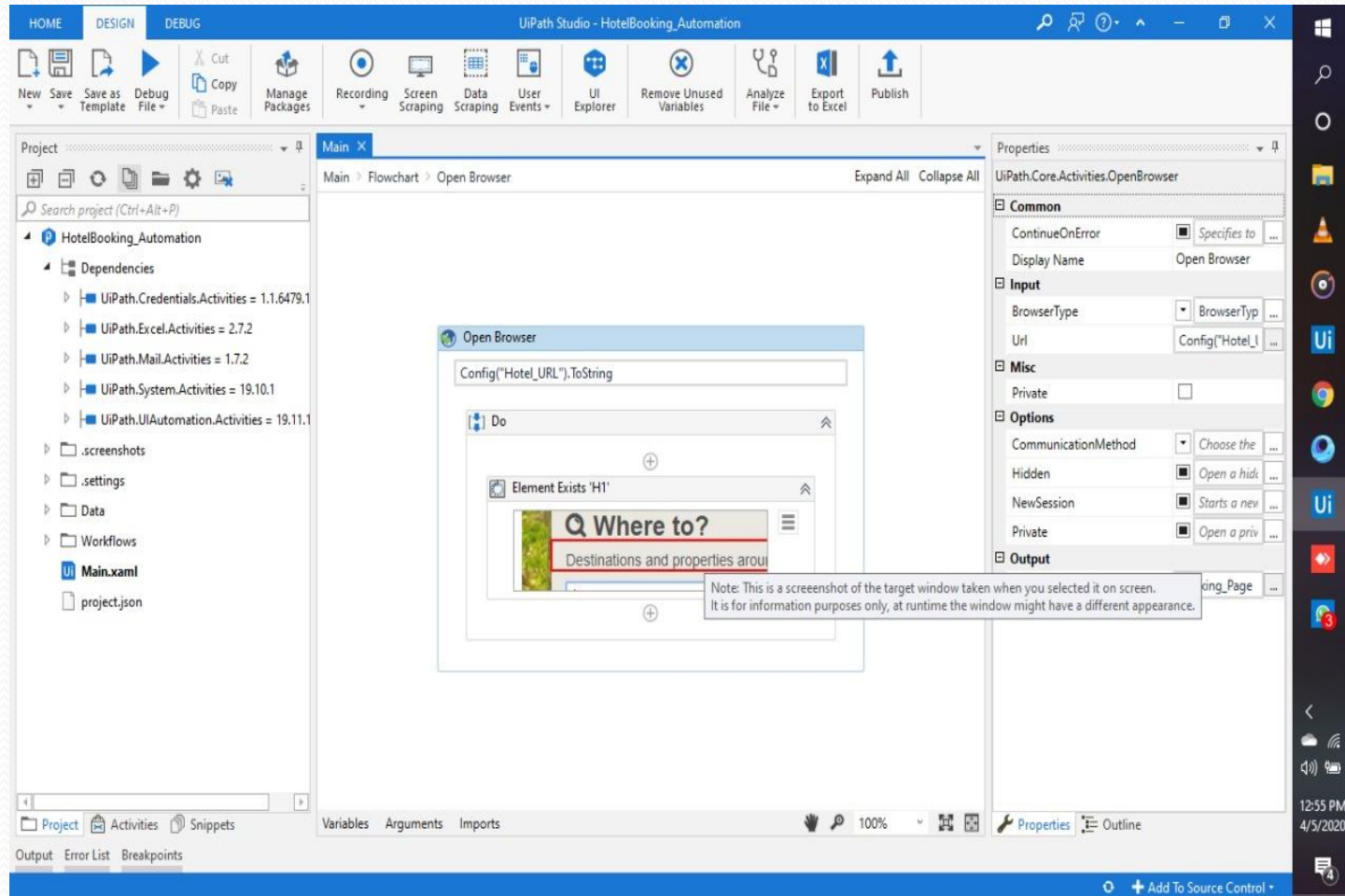


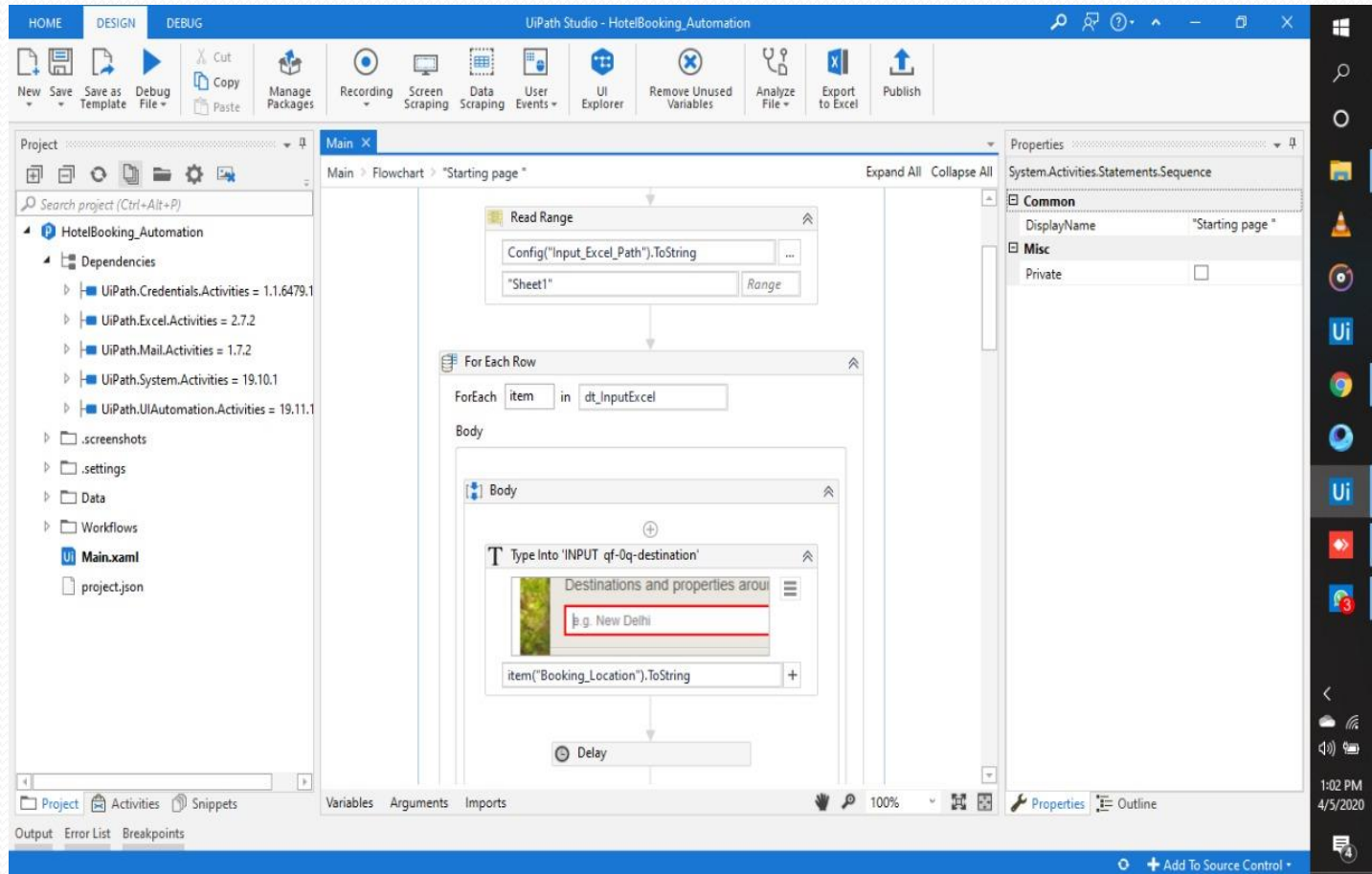
# Screenshot –UiPath studio

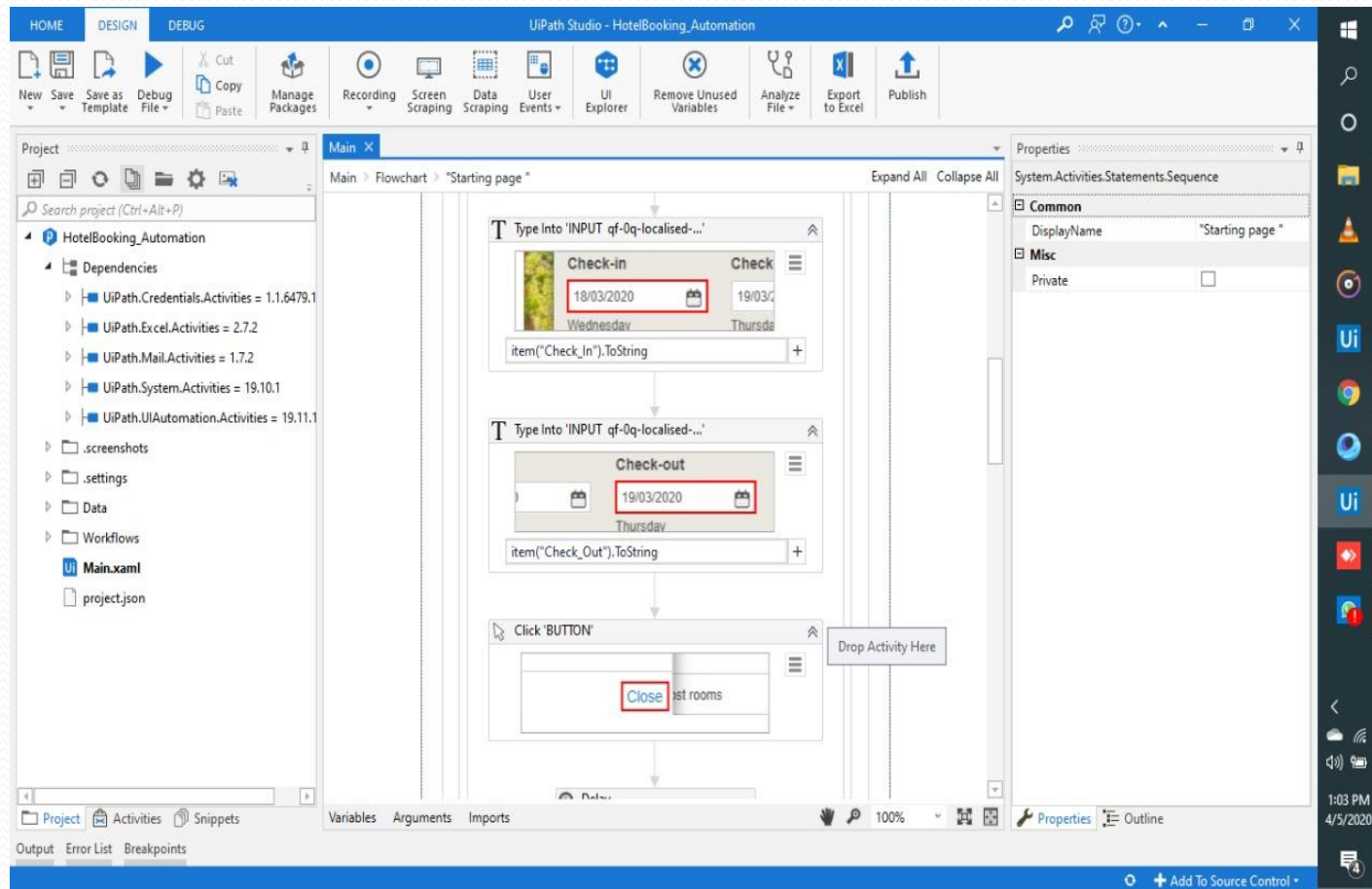


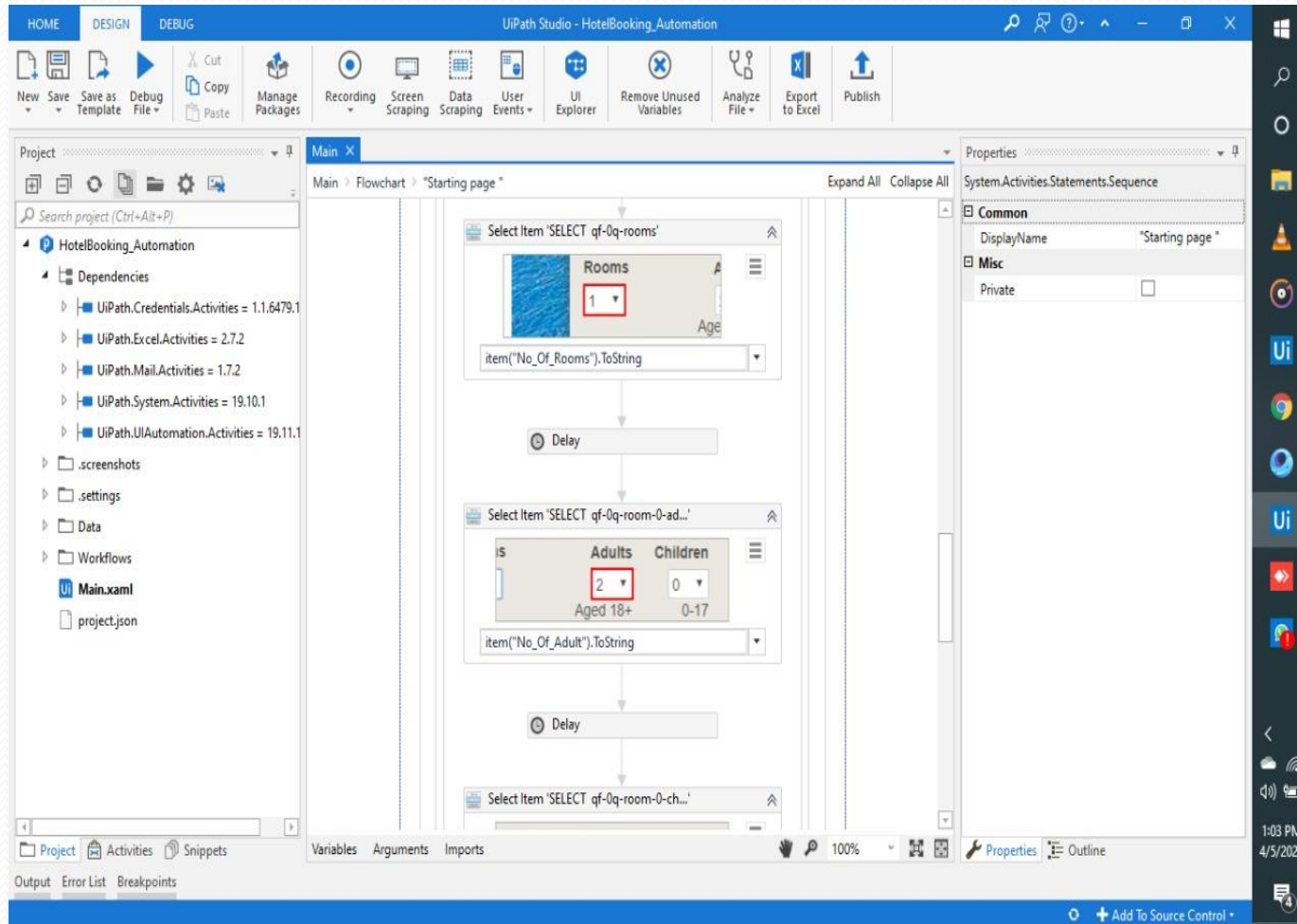




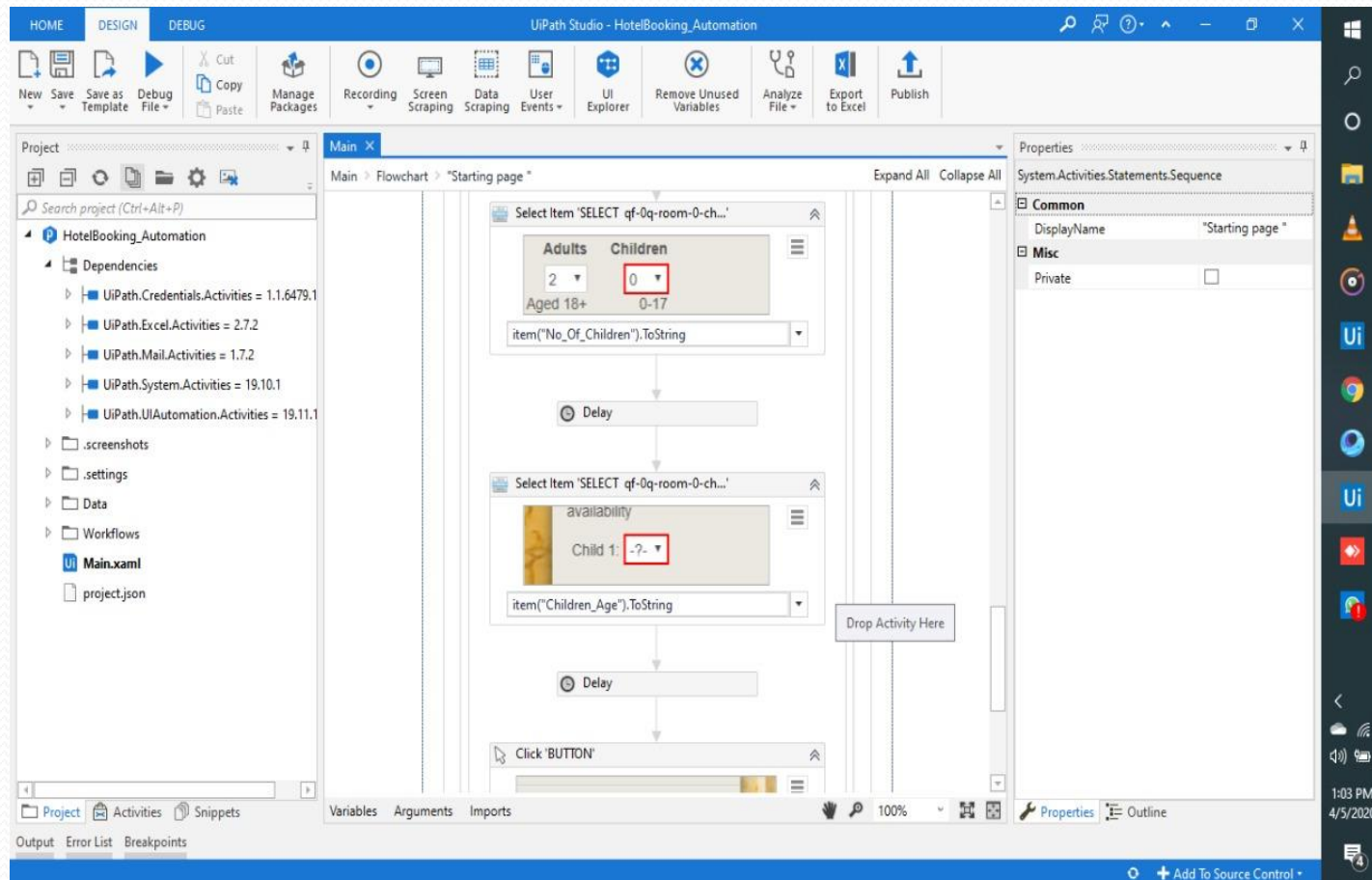




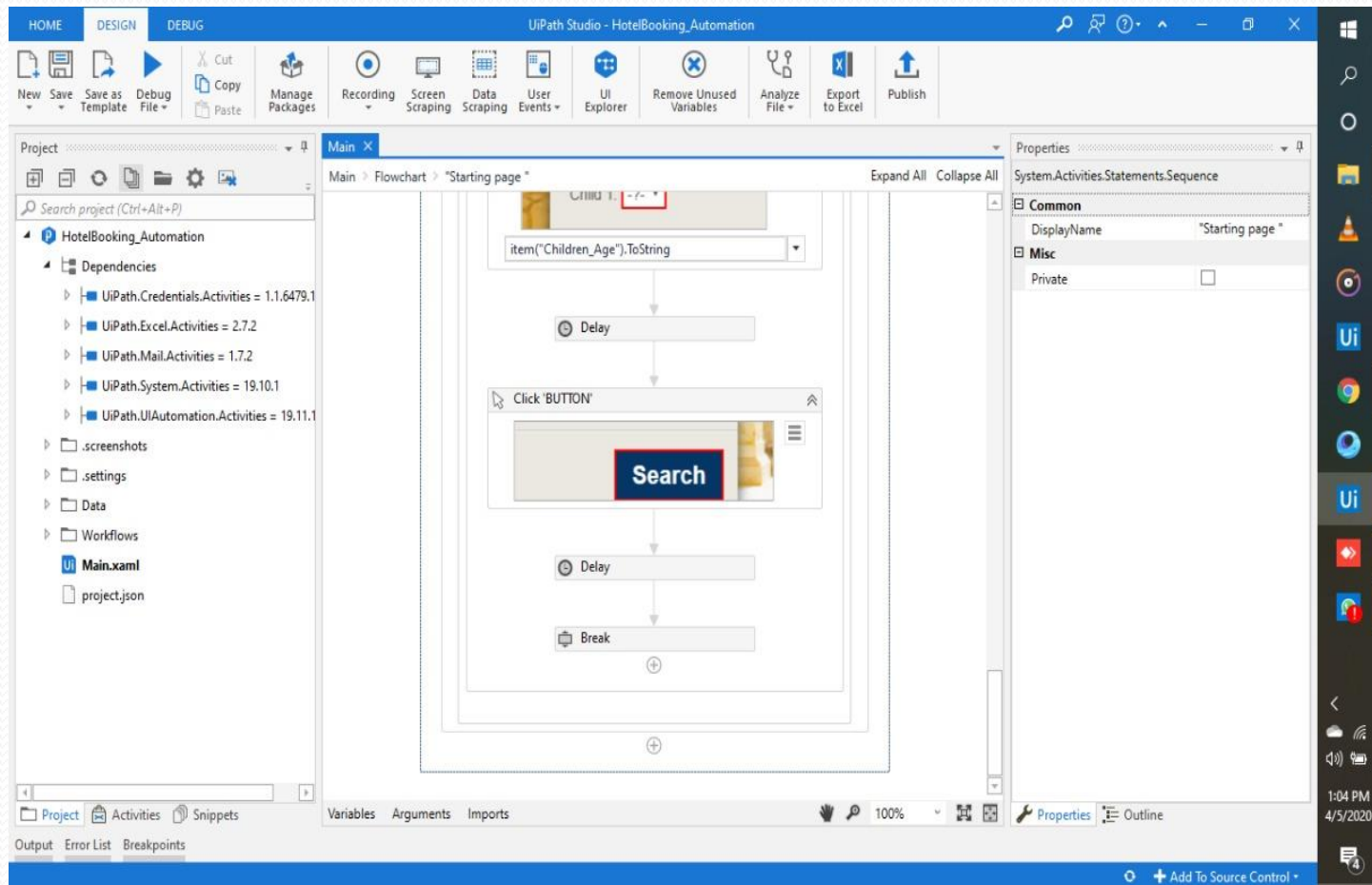


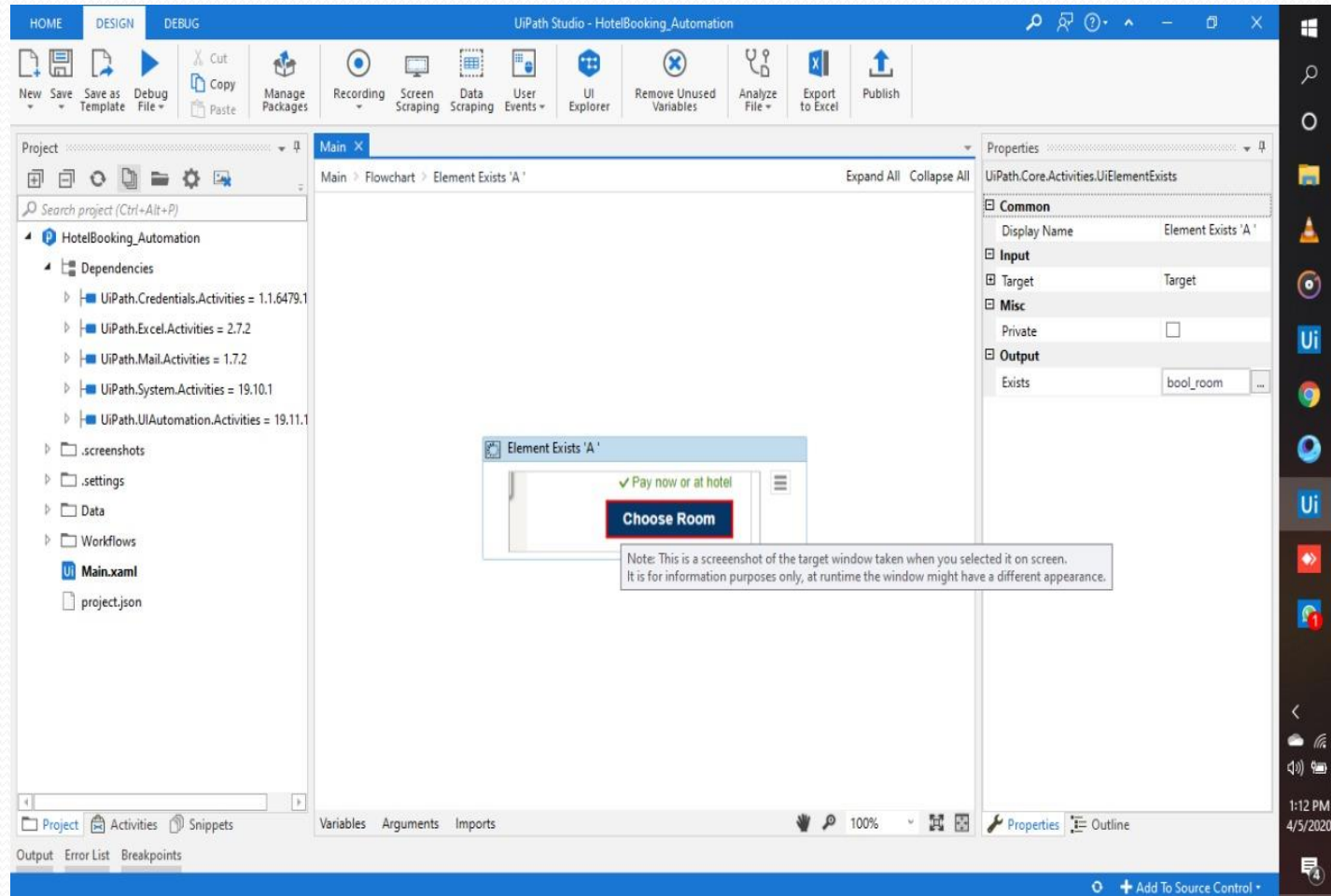


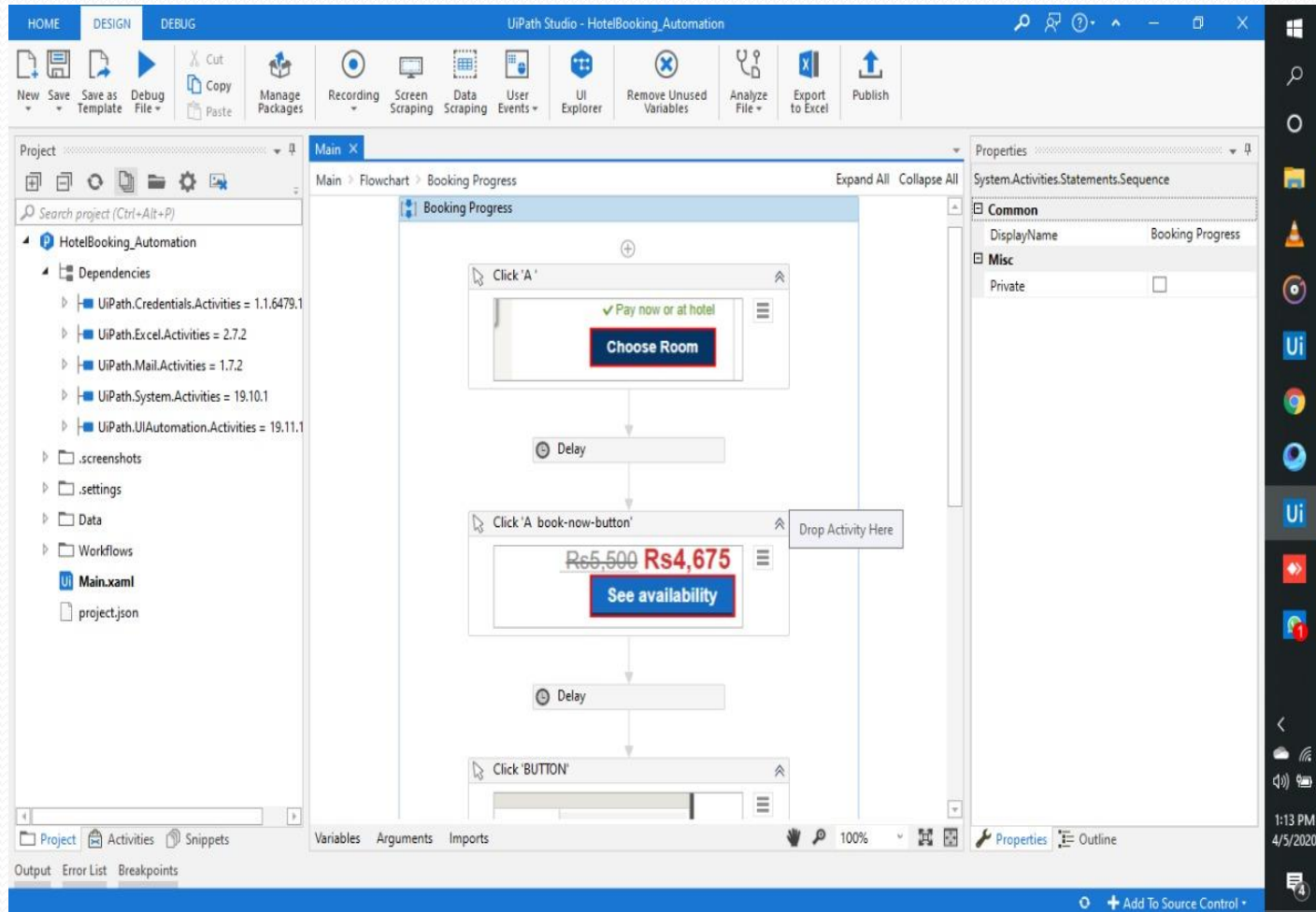


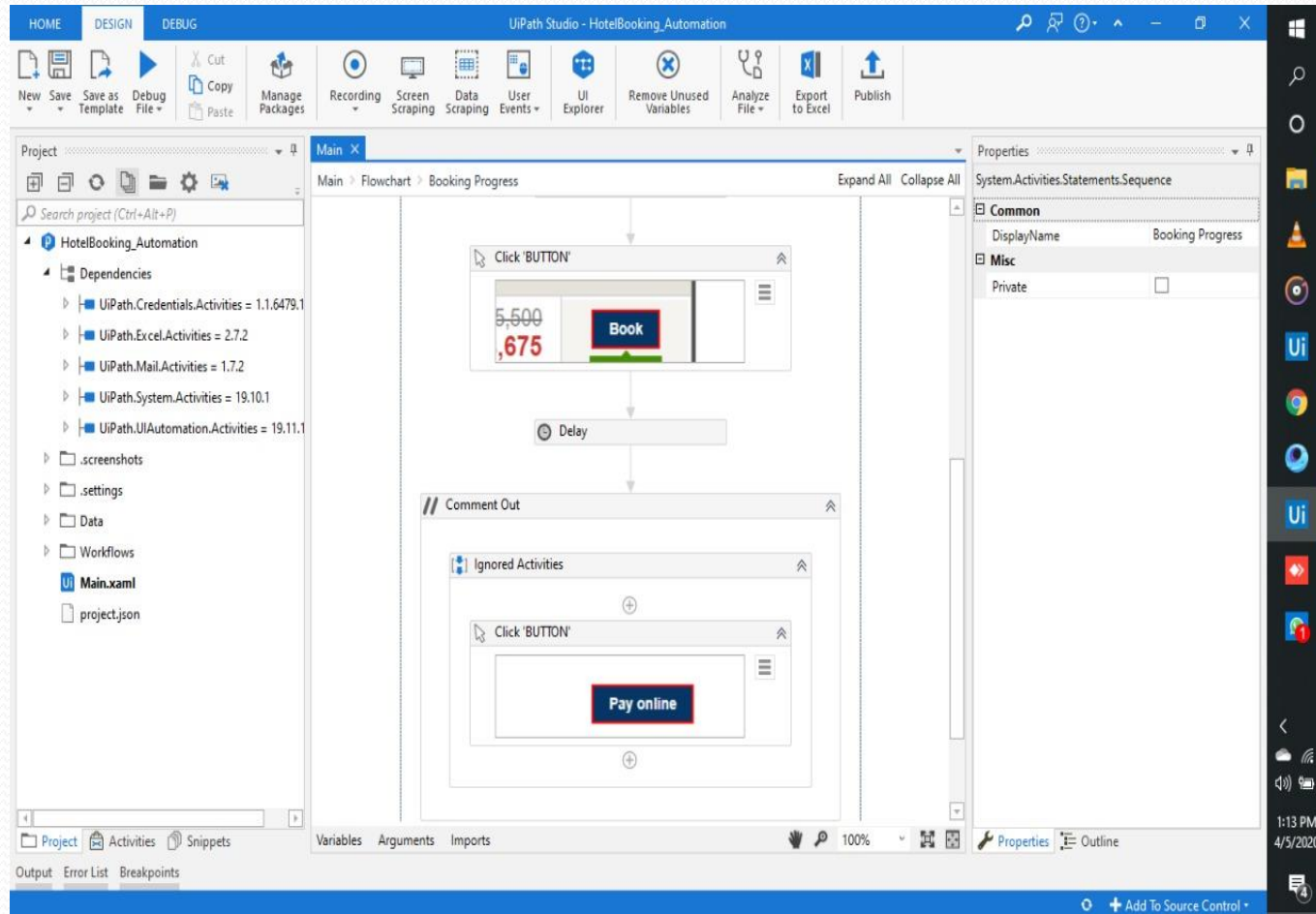


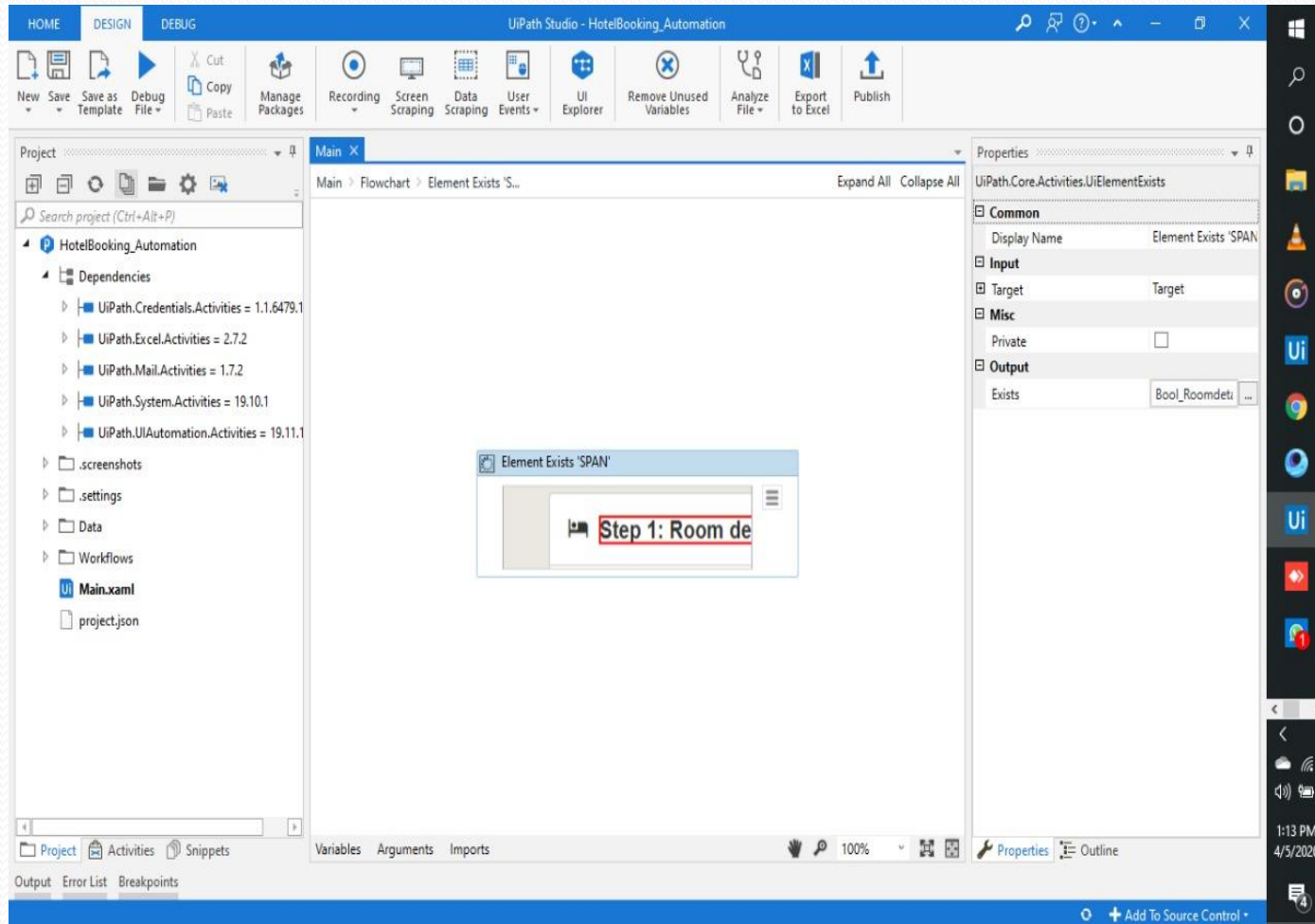


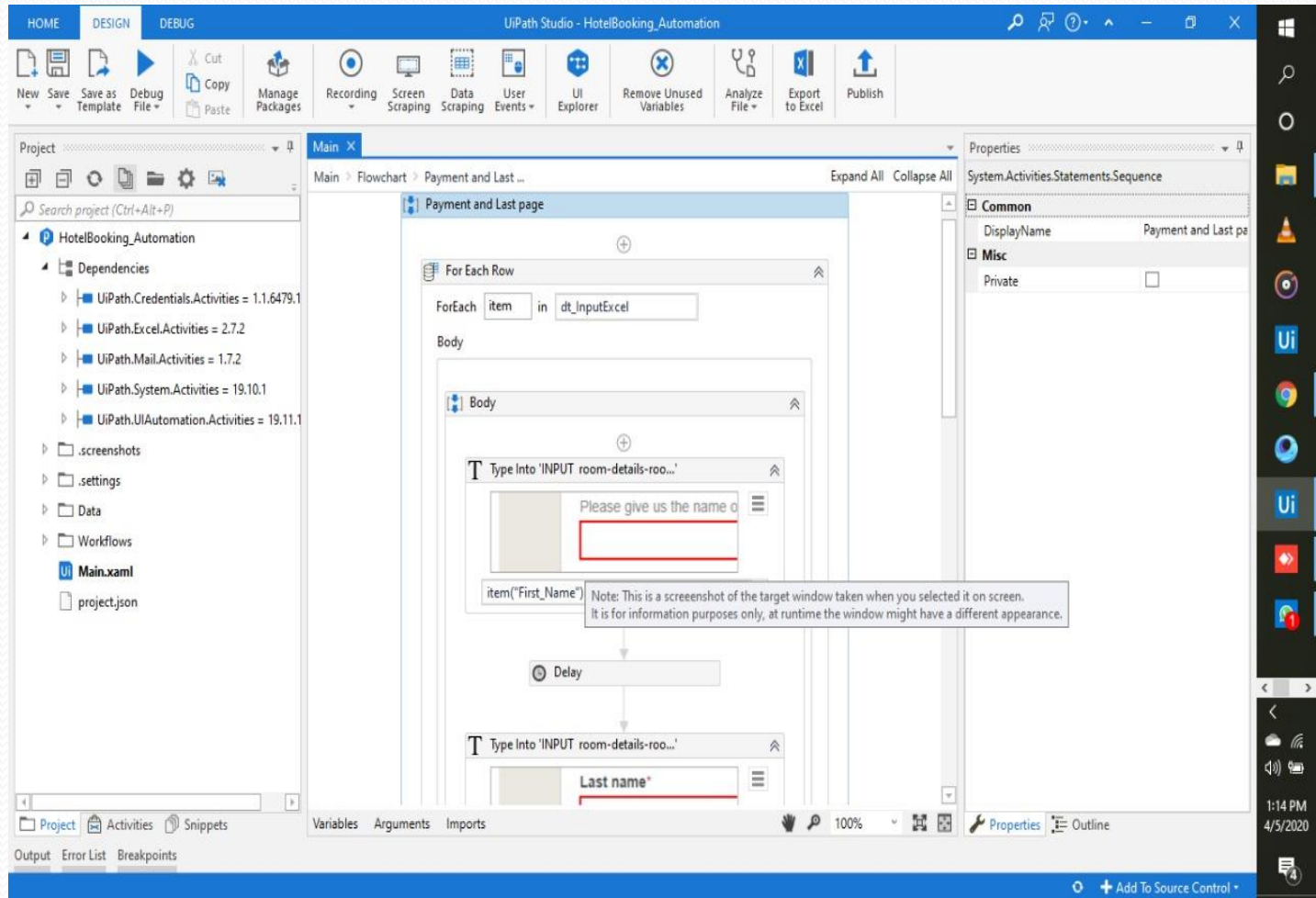




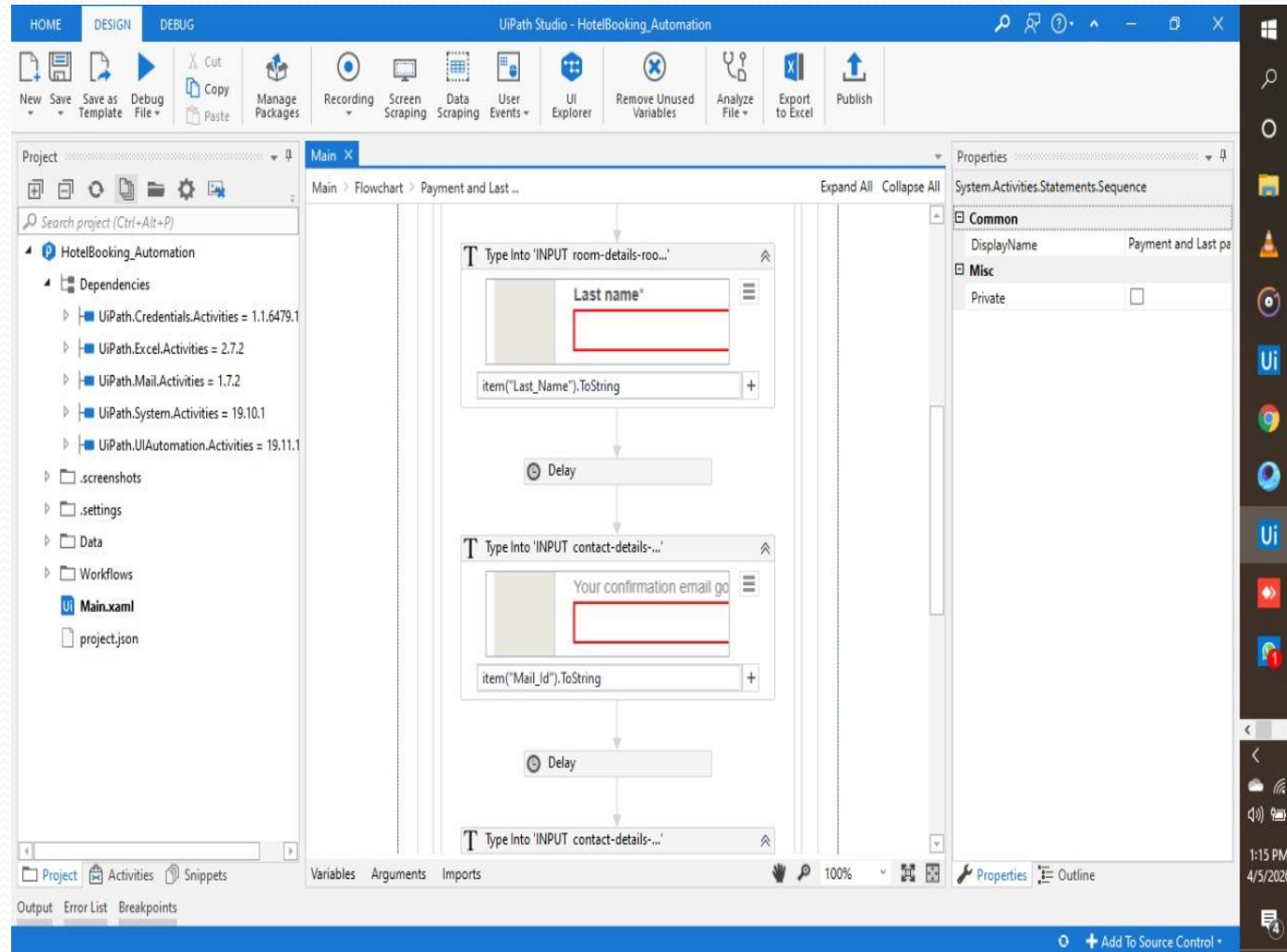


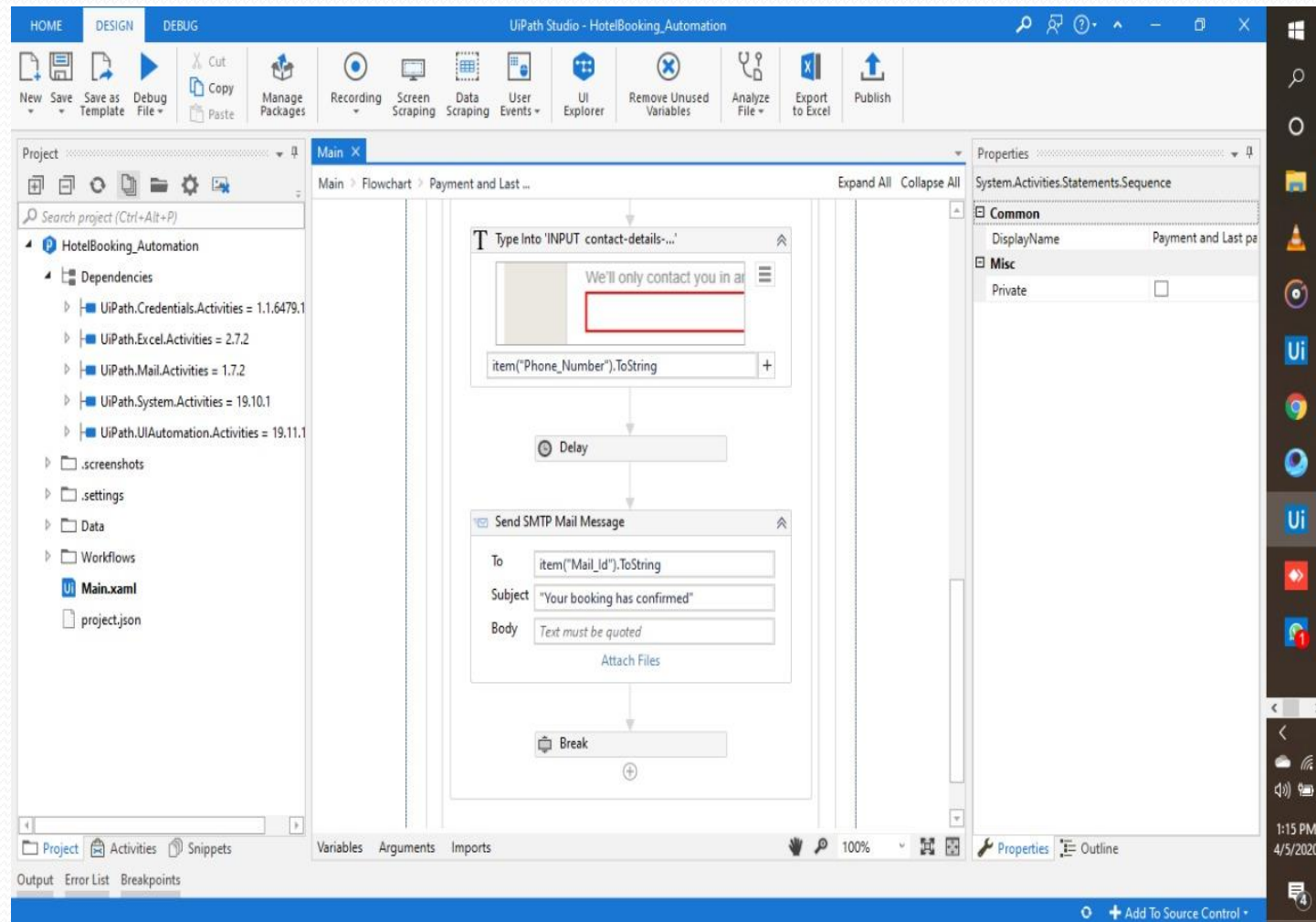

















# SCREENSHOT-OUTPUT:

← → ↻ in.hotels.com

Apps Gmail YouTube Maps Ui Example of Using D...



① **COVID-19 Travel Alert:** If you have an upcoming booking to change or cancel, check next steps and policies [here](#). Please only call if you are within 14 days of check-in so we can prioritise immediate bookings. Thank you.

**Hotels.com™**  INR  Help  Your bookings

List your property Hotels.com™ Rewards

**Q Where to?**  
Destinations and properties around the world...


**Check-in** **Check-out**

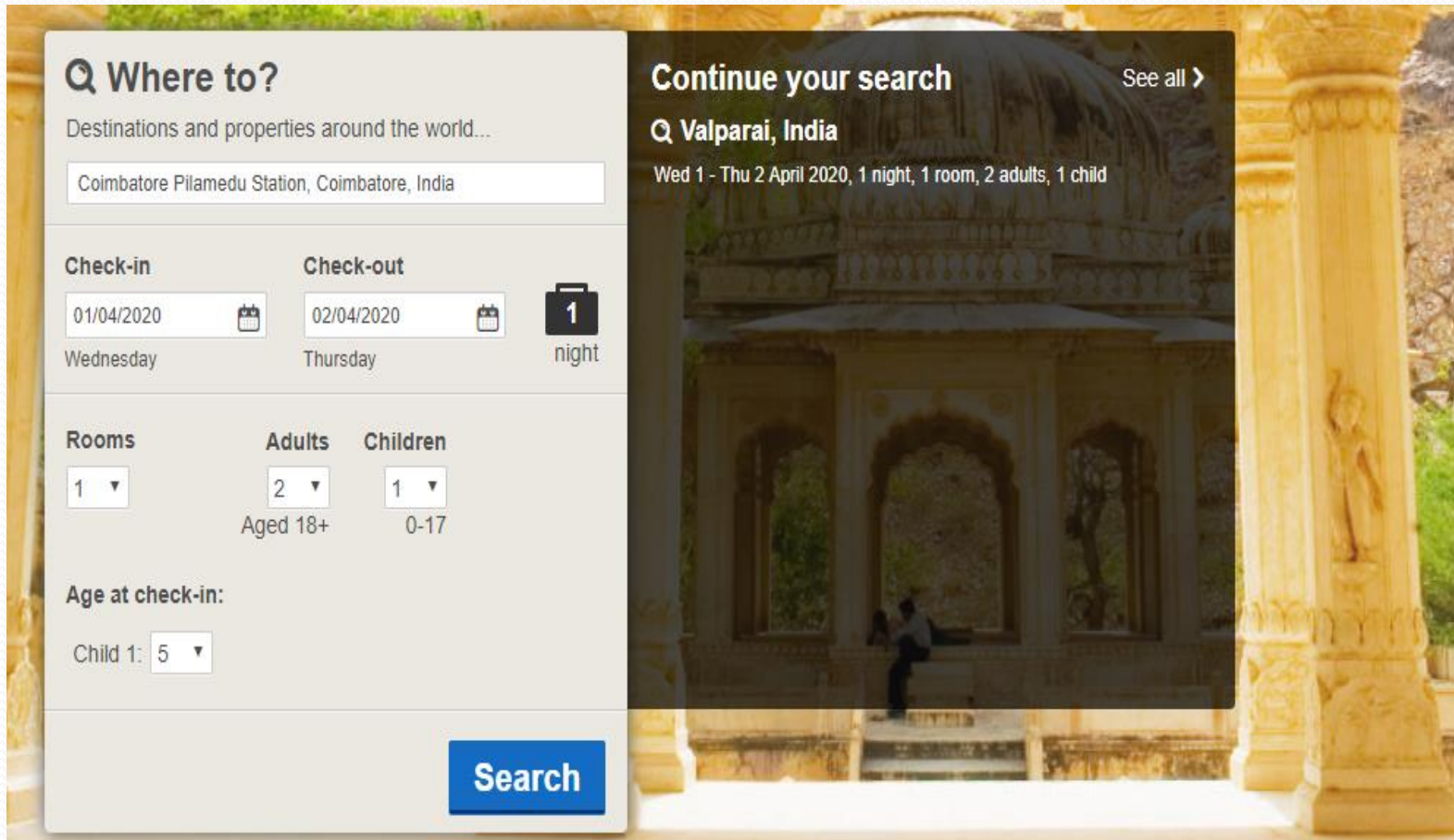
  

**Rooms** **Adults** **Children**

Aged 18+ 0-17

**Search**





### Where to?

Destinations and properties around the world...

**Check-in**  
  
Wednesday

**Check-out**  
  
Thursday

**1**  
night

**Rooms**

**Adults**  
  
Aged 18+

**Children**  
  
0-17

**Age at check-in:**  
Child 1:

**Search**

### Continue your search

**Valparai, India**  
Wed 1 - Thu 2 April 2020, 1 night, 1 room, 2 adults, 1 child

[See all >](#)

Hotels.com™
INR
Help
Your bookings
Create account

[List your property](#)
[Hotels.com™ Rewards](#)

Destination, property or landmark

Check-in  
   
Wednesday

Check-out  
   
Thursday

**1**  
night

Rooms

Adults  
   
Aged 18+

Children  
   
0-17

Search

Age at check-in:  
Child 1:

[View on map](#)

**Narrow results:**  
181 hotels, homes and apartments

Name contains

Popular filters

- ☐ Free Breakfast
- ☐ Pool
- ☐ Free wifi
- ☐ Free Parking
- ☐ Pet Friendly

Payment & cancellation

- ☐ Free cancellation

### Coimbatore Pilamedu Station, Coimbatore, India

Sort by

Featured ①

Star rating

Distance

Guest rating

Price

[Capital O 45454 Hotel The Spring](#)  
J S Arcade, 1, Avinashi - Rd, Park Avenue, Kumar Nagar., Tirupur, Tamil Nadu, 641603, India

Tirupur

- 38 km to Coimbatore Pilamedu Station
- 33 km to Coimbatore (CJB)

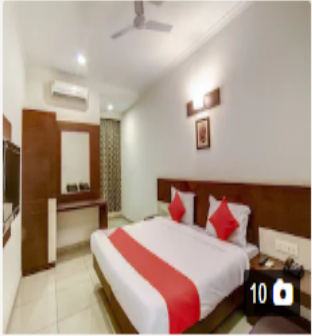


Collect nights

Bathtub Air Conditioning

**Exceptional 10.0**  
1 Hotels.com guest review

Choose Room

Great Rate  
~~Rs1,190~~ **Rs1,007**

Room type	Options	Hotels.com loyalty	Today's Price	
 <p><b>Deluxe Room</b></p> <p>Sleeps 3 people (including up to 2 children)</p> <p>Bed choices</p> <ul style="list-style-type: none"> <li>▪ 1 King Bed</li> </ul> <p><a href="#">Show room information</a></p>	<p><u>Non-refundable</u></p> <p> <u>Breakfast for 3 people</u></p>	<p> <b>Hotels.com™ Rewards</b></p> <ul style="list-style-type: none"> <li>✓ Collect</li> <li>✓ Redeem</li> </ul>	<p><b>Rs1,007</b></p> <p><a href="#">Book</a></p>	

## • Data Scraping:

### Step 1: Room details

**Adults: 2, Children: 1**

✓ Included in your room: King Bed, Non Smoking

Please tell us the name of the guest staying at the hotel as it appears on the ID that they'll present at check-in. If the guest has more than one last name, please enter them all.

**First name\***

Please give us the name of one of the people staying in this room.

Brindha



**Last name\***

Gunasakaran



› Any special requests?

› Any accessibility requests?

## Step 2: Your details

### Email address\*

Your confirmation email goes here

brindha.gunasekaran05@gmail.com













### Mobile number\*

We'll only contact you in an emergency

9685743210



- **Email Notification:**

		To: Brindha.gun. 3	Your booking has confirmed				
		To: kishoremani.	Your booking has confirmed				Mar 18
		To: Anitha1234	Your booking has confirmed				Mar 18



# Back-end (excel sheet)

Client\_Details - Excel (Product Activation Failed)

anithasaktivel123@gmail.com

	A	B	C	D	E	F	G	H	I	J
1	First_Name	Last_Name	Booking_Location	Check_In	Check_Out	No_Of_Adult	No_Of_Children	Children_Age	No_Of_Rooms	Mail_Id
2	Brindha	GunaSekaran	Coimbatore, India	01/04/2020	02/04/2020	1	1	5	1	Brindha.gunasekaran05@gmail.com
3	Anitha	Sakthivel	Guindy, Chennai, India	1/4/2020	2/4/2020	3	1	6	1	Anitha1234@gmail.com
4	kishore	Manikandan	Delhi Cantonment, New Delhi, India	3/4/2020	4/4/2020	4	1	5	1	kishorem mani98@gmail.com
5	karthi	SR	Coimbatore, India	5/5/2020	10/5/2020	3	1	5	1	karthi@gmail.com
6	Sankar	H	Guindy, Chennai, India	10/5/2020	11/5/2020	1	1	7	1	sankar@gmail.com
7	Boobal	Velu	Delhi Cantonment, New Delhi, India	1/6/2020	4/6/2020	3	1	5	1	boobal@gmail.com
8	Ajay	P	Coimbatore, India	10/6/2020	22/06/2020	2	1	8	1	ajay@gmail.com
9	Jaya	Durai	Guindy, Chennai, India	22/07/2020	24/07/2020	6	1	7	1	jd@gmail.com





THANK YOU!!!