

# WEB AUTOMATION TO BOOK HOTELS USING RPA

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## ABSTRACT

*This paper presents a novel 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 confirmed and it is notified to the customers by agents. Then the email confirmation is sent to the customers through bot by UiPath tool. The Objective of the project is to develop a system that automates the process and activities of a hotel booking. Here the automation process is well defined source for booking the hotel rooms.*

**Keywords:** Bot, Hotels, RPA, Web Automation

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## I. INTRODUCTION

Web automation aims to see how a real person uses a web browser to automate repetitive scenarios. Website automation is powered by robotic process automation (RPA) software. RPA software robots can be programmed to duplicate the actions you'd take on a website like directing a browser window, clicking links and buttons, sending keystrokes, and more. You can use web automation for many responsibilities like scraping data from a website, entering information into an online form, and logging into a website. While these odd jobs seem simple, when you repeat these steps over and over, it can add up to a big amount of time. Any assignment that involves your communication with a web browser can be automated to save you time in your daily work so you can emphasis on more value-added activities. The Hotel Booking of web Automation is a Robotic Process Automation (RPA) Project. The Bot is majorly created to enter the user data automatically in the website like hotels.com, Trivago, etc. The user can give required place and can able to book the hotel, based on user convenience. The bot actually works on the user information and to list out the hotels and then to confirm the booking. The process is easy and highly based on cost and time efficient. The requirements of the user are obtained by predefined filter list and from that the user chooses based on budget and comfort, then the check for availability of the room is done by the agent and will be specified with email notification to particular customer.

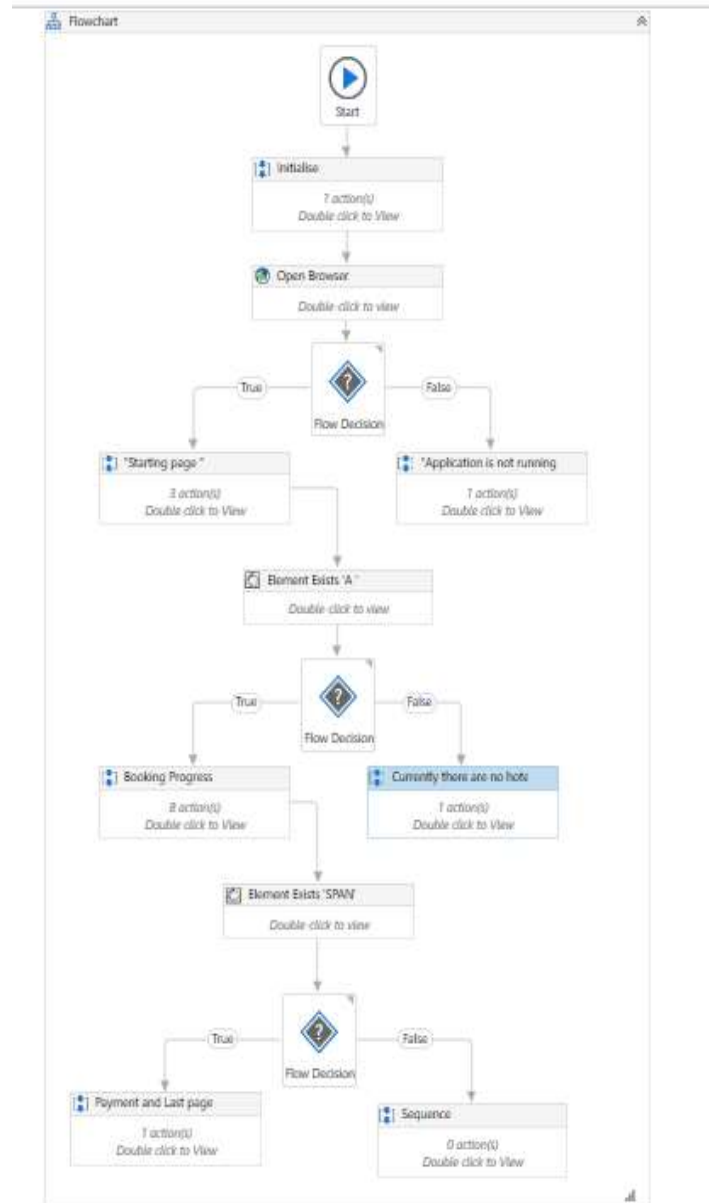
### The Various tasks like

1. **User**
  - a. Forms/register/login
  - b. Check availability of rooms
  - c. View ratings
  - d. Booking confirmation
  - e. Feedback
  
2. **Website**
  - a. Up to date checking
  - b. Validation

c. Filtering and manipulate

### A UiPath feature has three main products

- **UiPath Studio-** It designs automation process using diagrams, which are visually appealing
- **UiPath Robot-** Executes the UiPath Studio Processes
- **UiPath Orchestrator-** It is an application that deploys, manages, and monitors processes/robots



**Fig- 1: Workflow of UiPath**

## II. PROBLEM STATEMENT

Existing system controls booking management of rooms by using websites and applications, indeed it is a big process for booking rooms for multiple peoples .So here it is said to be a big sequence and it becomes a complication one and even for uneducated people it become a tedious task for them to book a room on website or apps. 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. Since the productivity is not functioned as much as they expect in existing system because of the population growth of people and availability of hotels is not shown on time. And many introductory phases is limited for the websites. A major focus on this research is to minimize the human effort and to book rooms for multiple users is highly manageable. We show that this may enhance many problem deductions and reduce it by the bot.

### III. PROPOSED SYSTEM

In this paper present for overcoming the existing system we use automation process. We introduce an automation system for doing the task easily in the websites for multiple users. Automation is a process of changing manual work into running sequence where there will be no human effort and bot will be doing all the flow of the process in the project .It increases overall workflow for bot and precise to all human efforts. We show that this will be great impact for humans to book a hotel system and highly possible for all websites but here we took one website as an example and we did the workflow of automation in booking hotel rooms. In existing system the mail confirmation is sent manually and filling of information is done by the users but here the bot will do the process and will send the mail automatically to each and every correspondent users. And here we use agent as a primary source for booking rooms for an event or for an organization. And the agent will get the information from user side and will be booking through web by system bot. Here we didn't use the application for booking. While undergoing this process we will not be able to stop the program other than terminating the running process. Excel sheet is used as the backend process for the project and we inherit the details by getting the user information and automating it. Then finally it sends an email confirmation to the users directly or those who are not using emails they will be sent a message through agent.

#### A. MULTIUSER BOOKING SYSTEM

Multi user system is used when we submit most responses of customers to the agent and we use this for overflow of details and bot will process the effort and it reduces human effort in nature. It reaches prominent way of exhibiting the data from user and then the agent will enter them in excel for automation for big process for booking. This system defines the effortless of human and brings different kinds of problem into clearance and edible way.

- IT costs
- Customer loyalty
- Customer acquisition

These are the drawbacks of the existing system and it is proposed by us in the new system. These are available for the website we proposed. UiPath is a free, fully-featured and extensible version of our automation tool. This platform delivers the fastest and most reliable RPA that enhances business performance at unlimited scale. It is easy to use, highly responsive, and instantly scalable to allow you to build the process. Feasibility is done for economic and social issues.



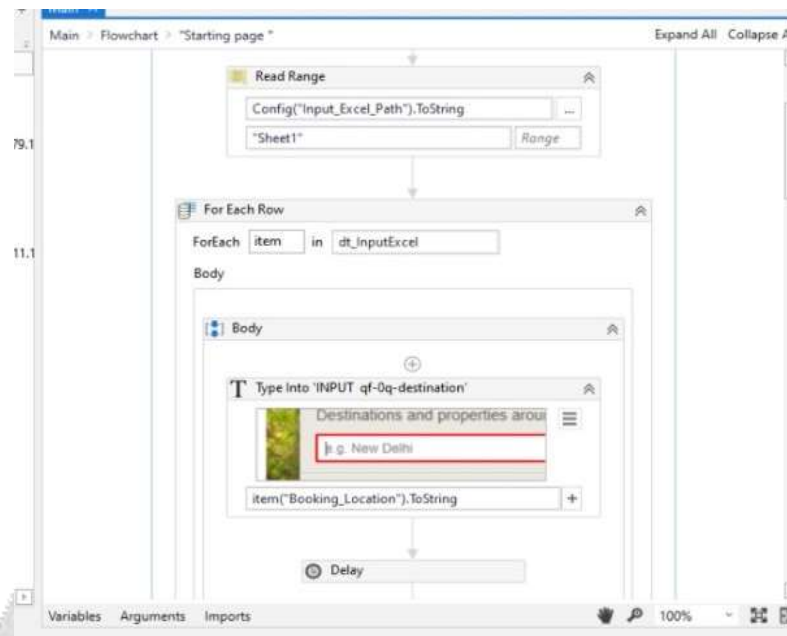


Fig-2: Activities of Workflow

The screenshot shows a web form titled 'Step 1: Room details'. It displays 'Adults: 2, Children: 1' and a green checkmark indicating 'Included in your room: King Bed, Non-Smoking'. Below this, there is a text prompt: '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.' The form has two input fields: 'First name\*' with the value 'Erindha' and 'Last name\*' with the value 'Gunasakaran'. Both fields have green checkmarks. At the bottom, there are two expandable sections: '> Any special requests?' and '> Any accessibility requests?'.

Fig-3: Data Scraping

To: Erindha.gun.1	Your booking has confirmed	10:10 AM
To: kishorenan	Your booking has confirmed	10:10 AM
To: Anitha 234	Your booking has confirmed	10:10 AM

Fig-4: Automatic Email Notification

#### IV. CONCLUSION

In Hotel Booking process, we get customer details via agent like what are the specifications they need and what type of rooms they need based on the cost. After that agent will upload their information in excel to automate. If any changes needed, it is said to the agent and then to the customer. Bot will enter the customer details in web and then it will be given certain range of cost to estimate in the web. It will specify the hotels in the web based on the requirements and it will book automatically. For multiple customers it will book automatically in the web without help of humans. It is useful for human effort and peoples those who are not educated and they want to book a room in specific place they can trust the agent to book this process and for agent it will not be difficult to book line by line using this web automation. Finally, after booking of rooms the respective customers will receive mail or message through automation and those who are not having mail or phone, agent will contact them with this confirmation of booking. Uipath and excel automation is done. As the world is now full of Automation and AI it is mandatory to be functioned most of process in this technique. Web automation for booking hotels via Bot is done by using the UiPath tool with the respective packages. We planned for voice recognition as future development and without any help of excel or agent. By using voice automation the rooms will be booked through the details given by the customer themselves and then confirmation mail will be sent automatically through voice specification. But the UiPath voice recognition is not yet enabled for booking process.

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