“AUTOMATED WEBINAR MANAGEMENT BOT”

A PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report **"AUTOMATED WEBINAR MANAGEMENT BOT"** is the Bonafide work of **"SADHANA.A(220701235)"** who carried out the project work for the subject OAI1903-Introduction to Robotic Process Automation under my supervision.

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ABSTRACT

Managing webinars efficiently requires significant effort in coordinating registrations, sending reminders, tracking attendance, and following up with participants. This project automates these tasks to streamline the process and reduce manual intervention. Using an Excel sheet as the data source for registrations, the system sends immediate confirmation emails to participants upon registration.

To ensure attendees remain informed, the system checks the current time against the webinar schedule and sends timely reminder emails 24 hours before the event. Post-webinar, the application prompts the organizer via a pop-up to confirm whether the event has concluded. Based on attendance data updated in the Excel sheet, follow-up emails are personalized and sent to participants. Those who attended receive a thank-you message, while those who missed the event are sent an apology email along with the webinar materials.

The solution leverages **UiPath** for automation, with SMTP used for email communication and Excel for managing participant data. This project improves attendee engagement, minimizes manual errors, and saves time for organizers. Future enhancements could include SMS notifications, advanced reporting tools, and integration with webinar hosting platforms for a seamless end-to-end experience. This system is ideal for small to medium-scale webinars, offering a scalable and professional approach to event management.

ACKNOWLEDGEMENT

Initially we thank the Almighty for being with us through every walk of our life and showering his blessings through the endeavour to put forth this report. Our sincere thanks to our Chairman Thiru. S.Meganathan, B.E., F.I.E., our Vice Chairman Mr. M.Abhay Shankar, B.E., M.S., and our respected Chairperson Dr. (Mrs.) Thangam Meganathan, M.A., M.Phil., Ph.D., for providing us with the requisite infrastructure and sincere endeavouring in educating us in their premier institution.

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Sadhana.A (220701235)

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CHAPTER-I
INTRODUCTION

1.1 INTRODUCTION

Webinars have become an essential tool for knowledge sharing and professional interaction. However, managing webinars manually can be tedious and error-prone, involving tasks such as sending confirmations, reminders, tracking attendance, and sending follow-up emails. This project addresses these challenges by developing an automated system to handle these tasks efficiently. The system uses an Excel sheet as the central data source to manage registrations and integrates email automation for seamless communication with participants. The automated workflow includes sending confirmation emails upon registration, sending reminders 24 hours before the event, tracking attendance post-webinar, and sending follow-up emails to both attendees and non-attendees. This solution reduces the organizer's workload while enhancing the participant experience through timely and personalized communication.

1.2 OBJECTIVE

The primary objective of this project is to automate the end-to-end management process of webinars, focusing on communication and attendance tracking. By integrating an Excel-based data management system with email automation, the project ensures timely and accurate communication with participants. Specific objectives include:

- Sending confirmation emails immediately after registration to enhance participant confidence.

- Delivering reminder emails 24 hours before the webinar to improve attendance rates.
- Providing personalized follow-up emails: thank-you messages to attendees and apology emails with materials for non-attendees.

  The overall goal is to minimize manual effort for organizers, eliminate potential errors in communication, and provide a seamless experience for webinar participants.

1.3 EXISTING SYSTEM

In most cases, webinars are managed manually by organizers, who handle registrations, confirmations, and follow-up communication. Organizers often rely on manually crafted email lists and generic communication tools, which can lead to inefficiencies. Reminders are often missed or delayed, attendance tracking is cumbersome, and follow-ups lack personalization. These challenges result in higher administrative effort, inconsistent communication, and reduced participant engagement.

1.4 PROPOSED SYSTEM

The proposed system automates the entire workflow of webinar management. It leverages an Excel sheet as the data source for participant details, paired with a Python-based automation script. This system ensures:

- Automatic confirmation emails sent upon registration.
- Timely reminders sent 24 hours before the webinar, ensuring no participant misses the schedule.

- Personalized follow-up emails sent to attendees and non-attendees, tailored to their participation status.

  By reducing manual tasks, the system enhances efficiency, minimizes errors, and ensures a professional experience for all stakeholders involved in the webinar.

CHAPTER-II
LITERATURE REVIEW

[1]**"The Rise of Webinars: Thousands of Learners Looking for Professional Development"**

This study provides a comprehensive analysis of how webinars have evolved into essential platforms for learning and professional development. It emphasizes the challenges faced by organizers, particularly in managing large-scale events with hundreds or thousands of participants. The research highlights the effectiveness of Robotic Process Automation (RPA) tools, like UiPath, in streamlining these processes. Specific tasks automated include participant registration, sending confirmation and reminder emails, and post-event follow-ups. By reducing manual intervention, RPA significantly improves the efficiency and scalability of webinar management.

[2] **"Robotic Process Automation in Digital Communication Platforms"**

This paper delves into the broader applications of RPA in automating communication workflows. It specifically explores use cases such as sending real-time notifications, tracking attendance, and collecting feedback—elements critical to webinars. The integration of tools like UiPath with platforms such as Excel and email services is discussed, highlighting how RPA bridges gaps in traditional communication systems. The study demonstrates that automated workflows not only save time but also improve accuracy and participant engagement through personalized messages.

CHAPTER-III

SYSTEM DESIGN

3.1 SYSTEM FLOW DIAGRAM

Represents the overall workflow of the system, showing how data flows between components, such as reading participant details from Excel, sending emails, updating attendance, and triggering follow-up actions.

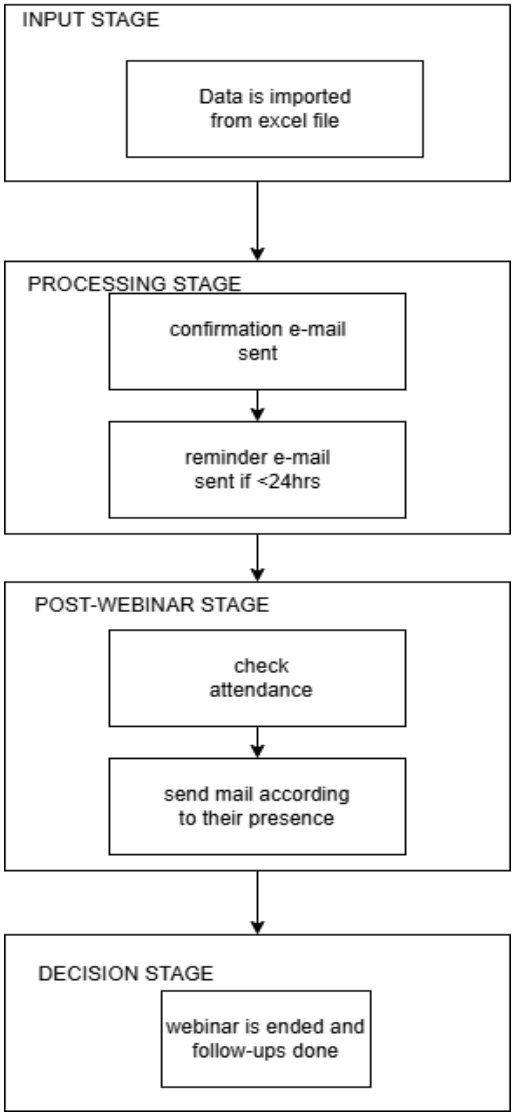


Fig.3.1 System flow diagram

3.2 ARCHITECTURE DIAGRAM

Depicts the structural design, showcasing components like UiPath, Excel for data storage, and email clients, along with their integration to automate webinar management tasks.

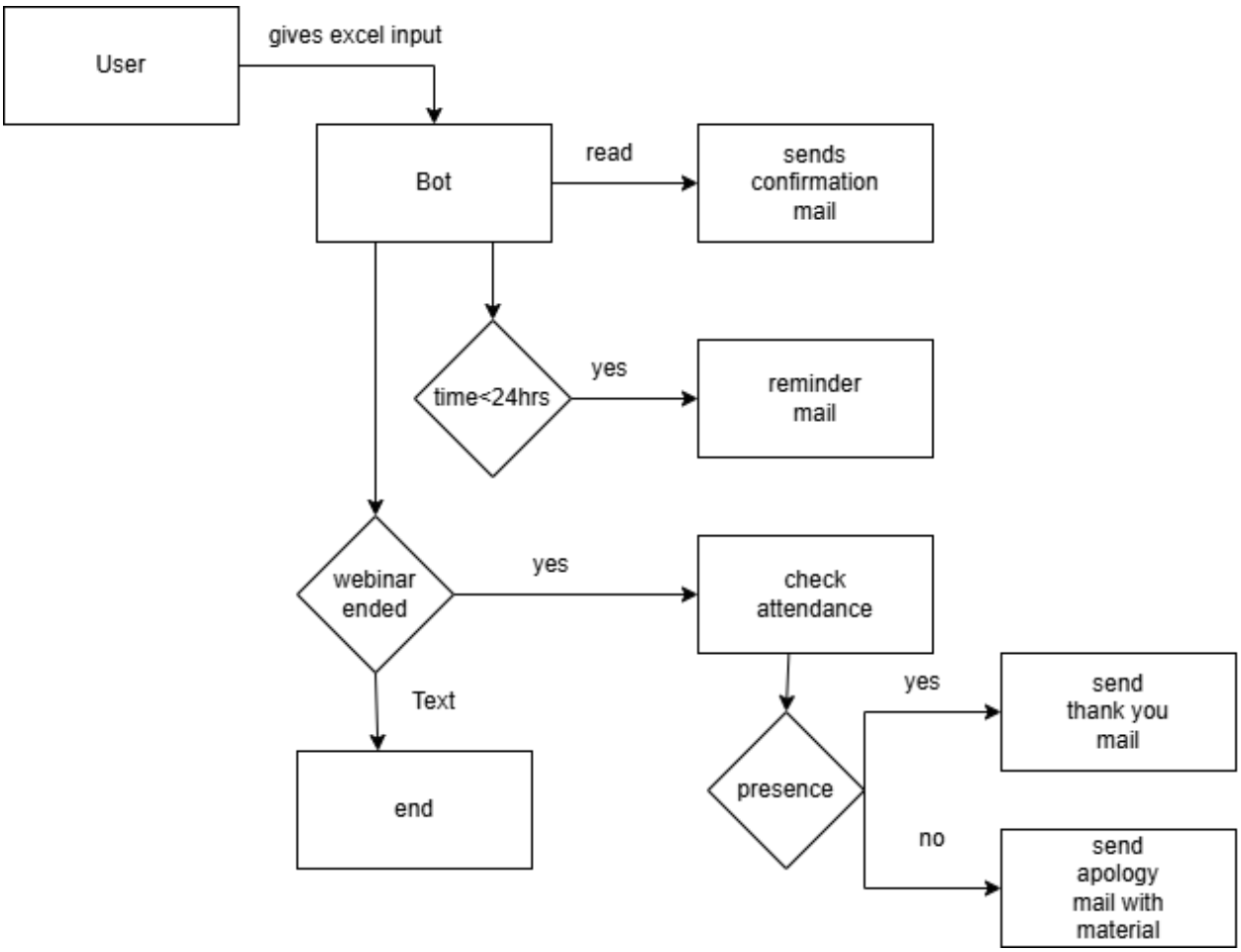


Fig3.2.Architecture diagram

3.3 SEQUENCE DIAGRAM

Illustrates the step-by-step interaction between actors (organizer, UiPath bot, email client, and Excel) to automate processes like confirmations, reminders, and post-webinar follow-ups.

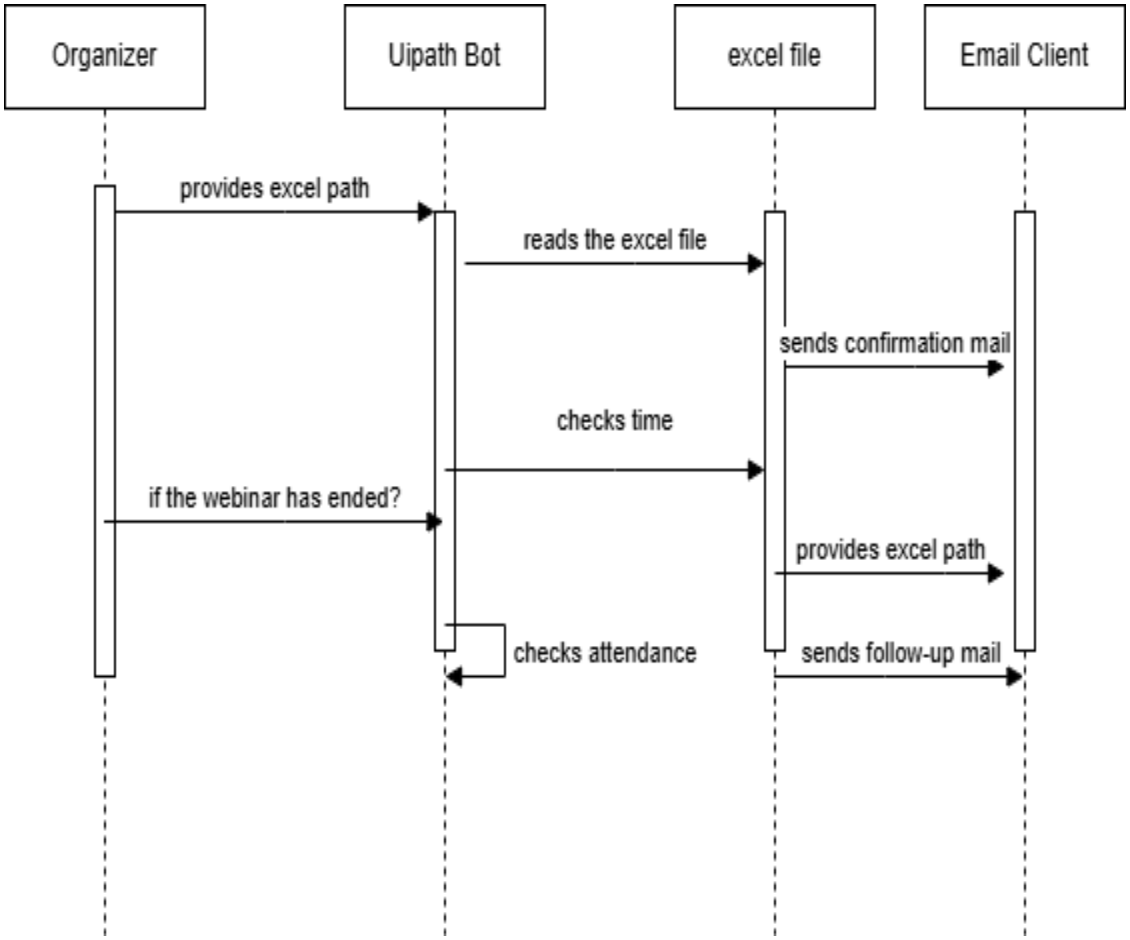


Fig3.3.Sequence diagram

CHAPTER-IV

PROJECT DESCEIPTION

This project focuses on automating the webinar management process using UiPath, a leading robotic process automation (RPA) tool. The system is designed to handle key webinar management tasks, such as sending confirmation and reminder emails to participants, tracking attendance, and generating follow-up emails based on attendee status. By integrating with Excel for data handling, the system ensures seamless data management and precise communication. It automates the entire process, including checking timelines for reminders and offering real-time updates during execution. This eliminates manual efforts, reduces errors, and enables scalability for organizations managing multiple webinars. Ultimately, the project delivers an efficient, reliable, and user-friendly solution for webinar management.

4.1. MODULES

4.1.1. INPUT HANDLING AND INITIALIZATION

4.1.1.1. Participant Data Input:

Functionality:

Accepts input from the user in the form of an Excel file containing the details of registered participants.

Features:

- Ensures compatibility with commonly used Excel formats.

- Reads and processes participant details such as name, email address, and registration status.
- Identifies and handles missing or incomplete data entries to ensure smooth workflow.

4.1.1.2. Email Setup:

- Configures email client details (e.g., SMTP settings) for automated communication.

4.1.1.3. Excel Data Verification:

- Ensures the accuracy of participant details in the Excel file, such as email addresses.

4.1.2. EMAIL AUTOMATION

4.1.2.1. Confirmation Email Sending:

- Automatically sends personalized confirmation emails to all registrants.

4.1.2.2. Reminder Email Sending:

Functionality:

Identifies webinars scheduled within the next 24 hours and sends automated reminders to all registrants.

Features:

- Incorporates timeline checks to ensure timely delivery of reminders.
- Supports dynamic email content, including webinar start time and a link to join.
- Logs reminder email delivery status for reference.

4.1.3. ATTENDANCE PROCESSING

4.1.3.1. Attendance Marking:

- Reads updated Excel data post-webinar to mark attendance.

4.1.3.2. Follow-Up Email Automation:

- Sends thank-you emails to attendees and apology emails with materials to absentees.

4.1.4. COMPLETION AND REPORTING

4.1.4.1. Status Updates:

Functionality:

Provides real-time progress updates during the execution of email automation and attendance processing tasks.

Features:

- Displays a progress bar or console messages to keep the user informed.
- Reports any errors encountered during the process with troubleshooting guidance.
- Allows users to pause or stop operations if needed.

4.1.4.2. Completion Notification:

- Displays a message indicating the successful completion of webinar tasks.

4.1.4.3. Final Report Generation:

- Generates a final Excel report summarizing participant attendance and email status.

CHAPTER-V

OUTPUT SCREENSHOTS

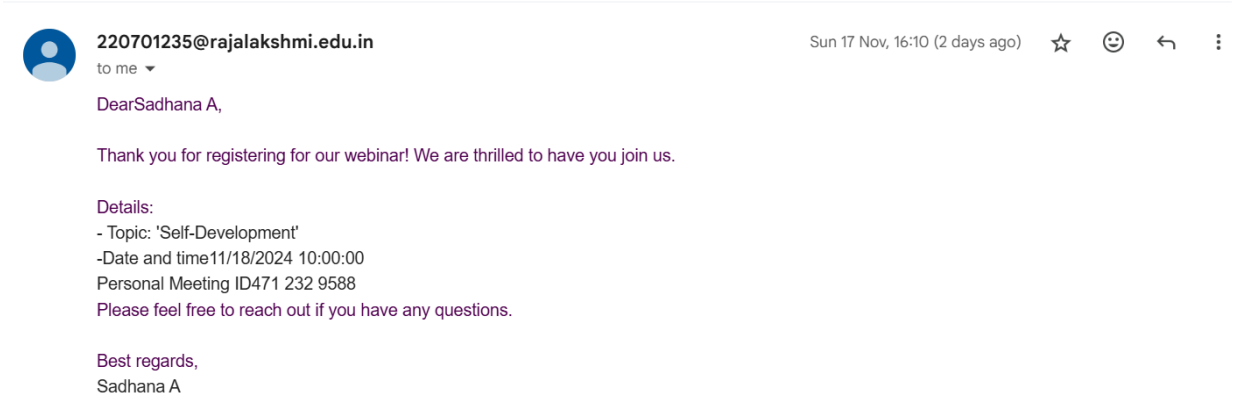


Fig.5.1Confirmation e-mail

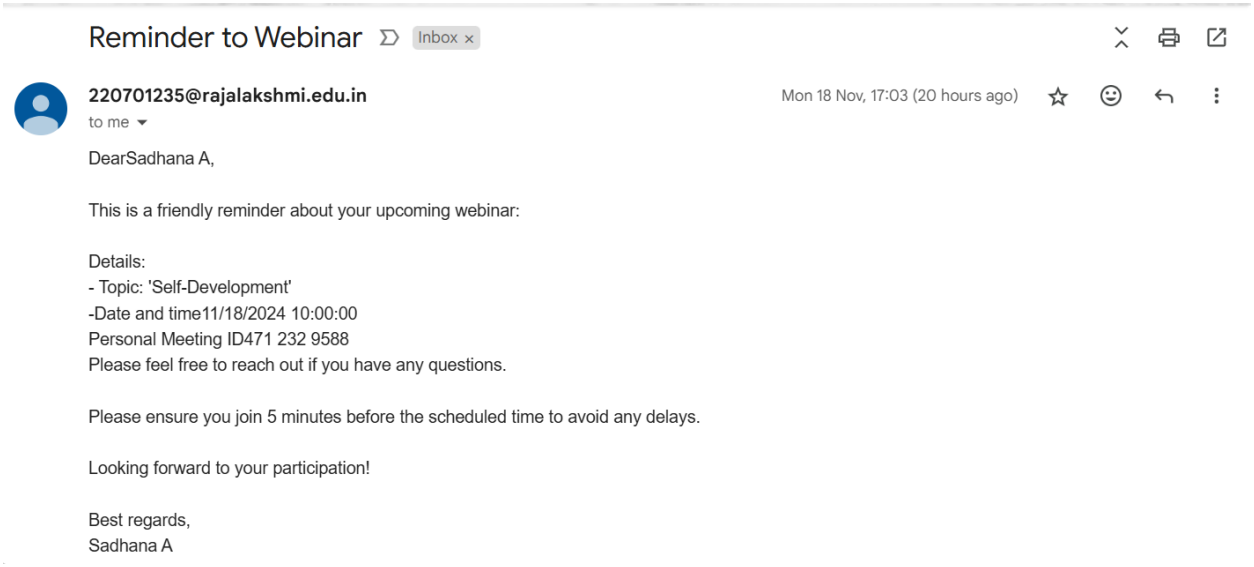


Fig.5.2Reminder e-mail

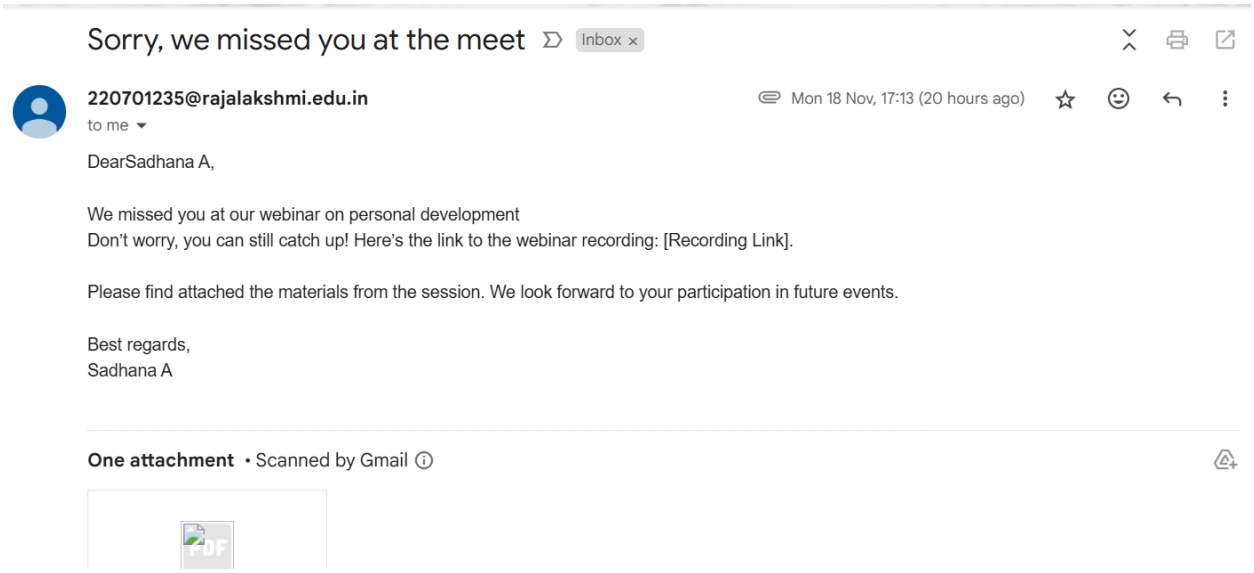


Fig.5.3Follow-up e-mail

CHAPTER-VI

CONCLUSION

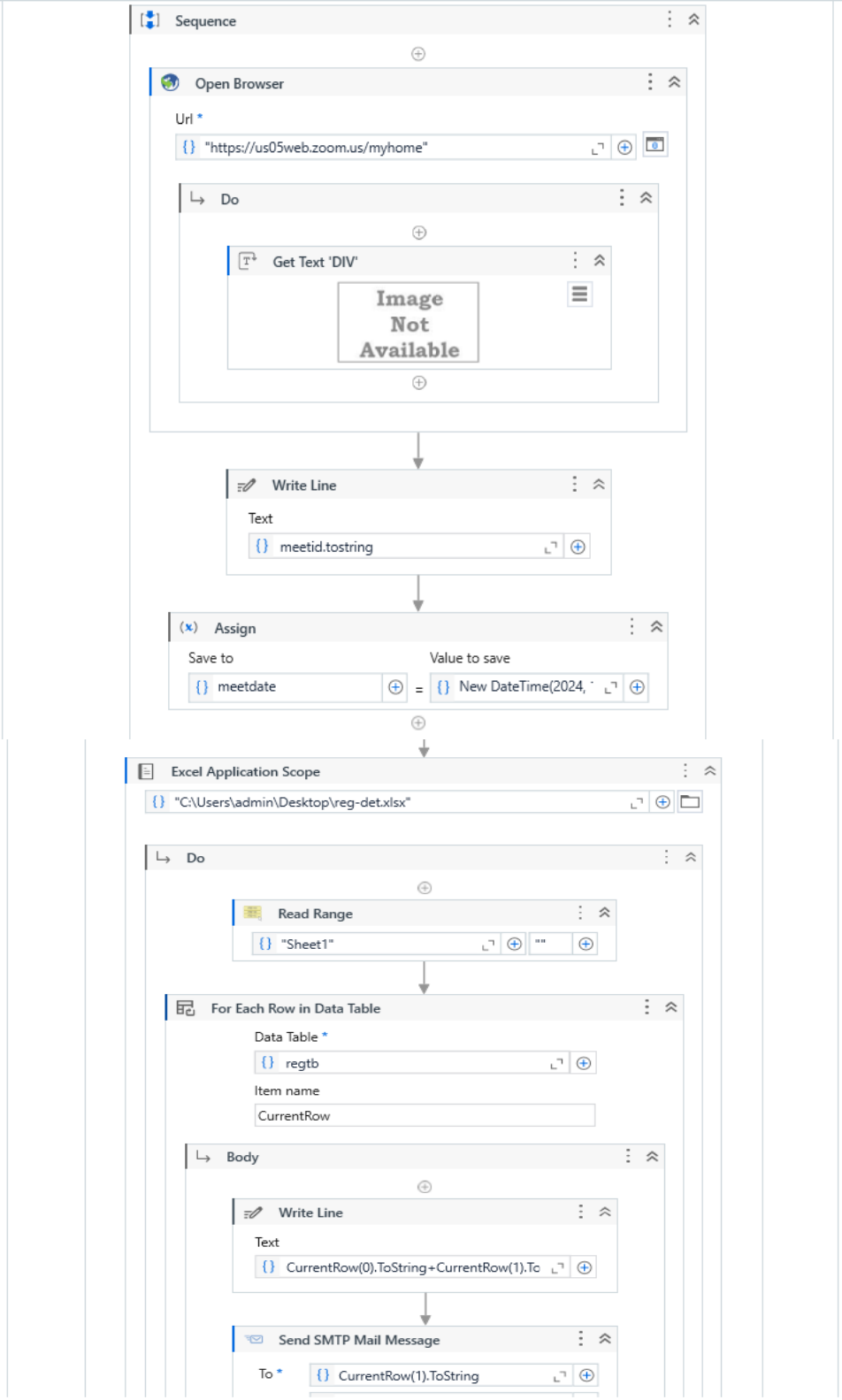
This project serves as a comprehensive solution for automating webinar management, addressing challenges related to repetitive tasks, time constraints, and efficient communication. By utilizing UiPath, the system ensures seamless integration of data processing, email communication, and attendance tracking, significantly reducing manual effort. Participants benefit from timely confirmation, reminders, and personalized follow-ups, enhancing their overall experience.

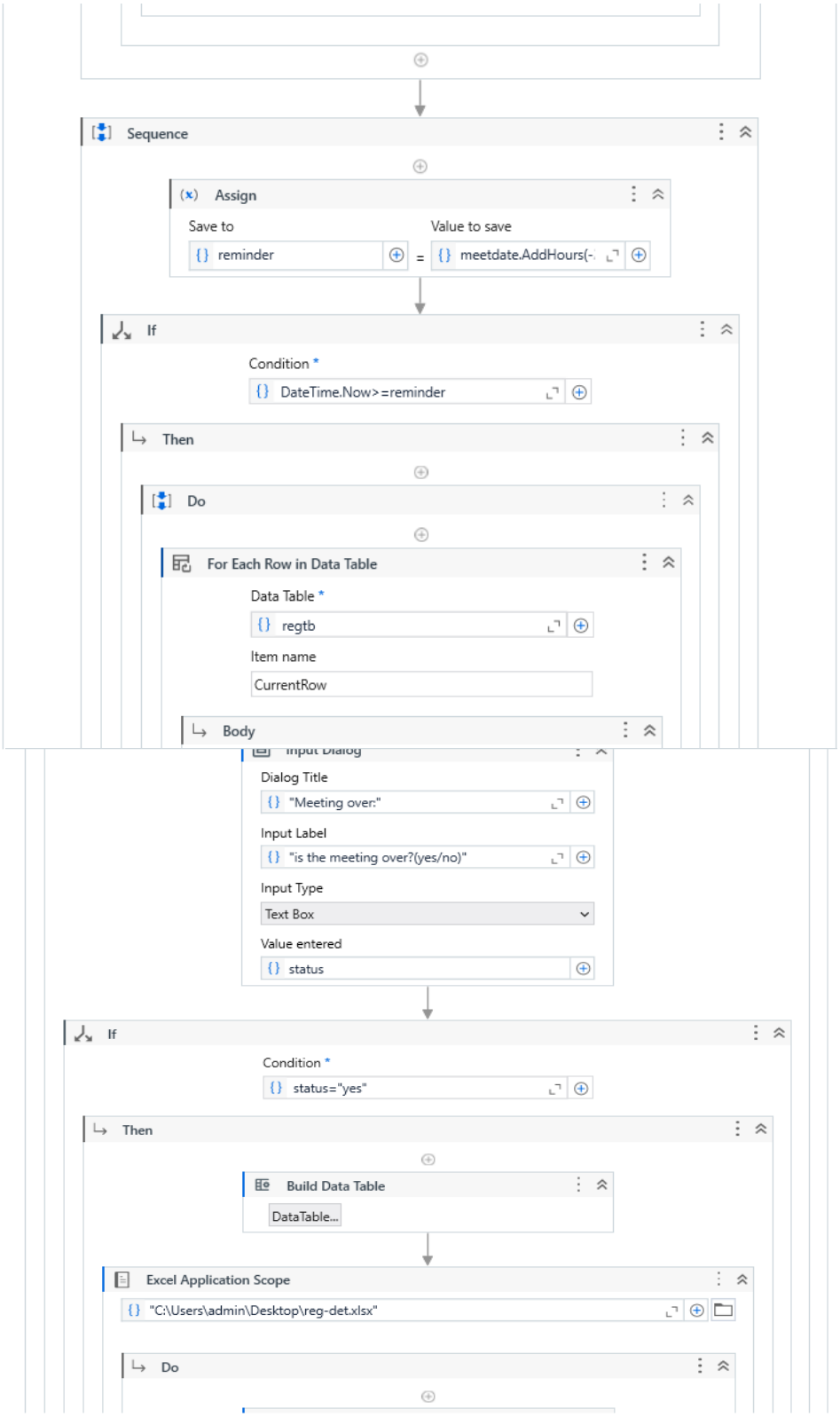
The use of Excel for data storage ensures reliability and ease of reporting, while the system's real-time updates keep users informed throughout the process. The modular design allows for scalability and adaptability, making it suitable for various webinar scales and formats.

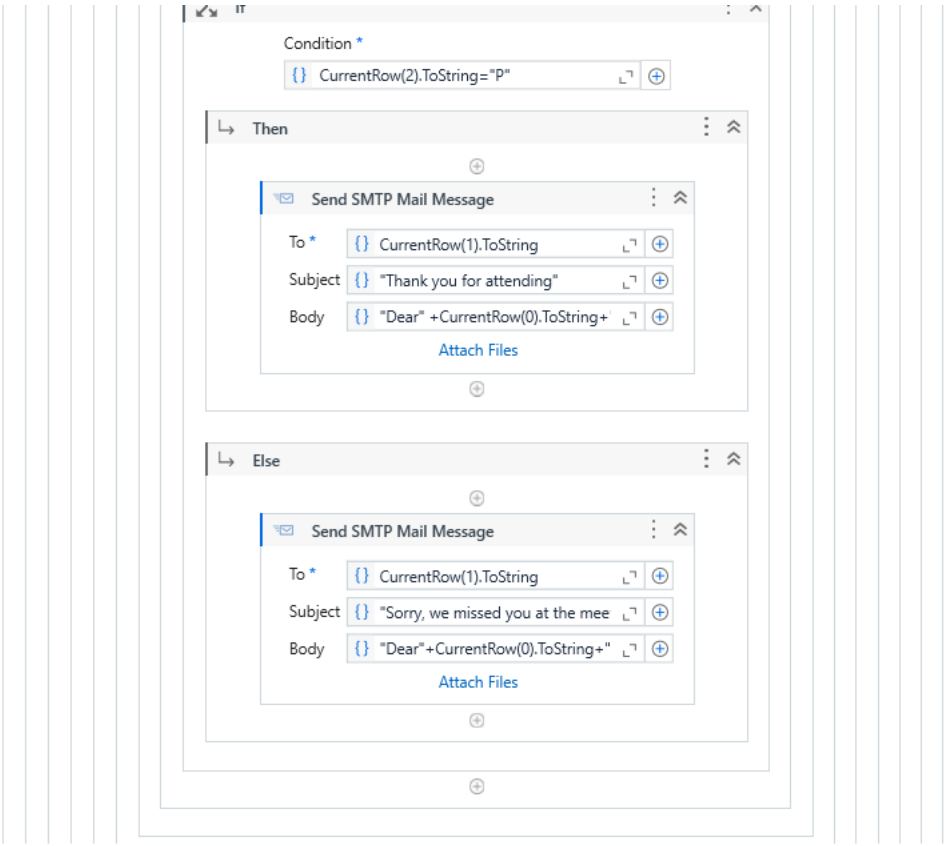
Furthermore, the project highlights the power of Robotic Process Automation (RPA) in streamlining operations and improving accuracy. It demonstrates how automation can not only save time but also foster professional and organized engagement with participants. Overall, the project sets a benchmark for leveraging RPA in modern webinar management solutions.

APPENDIX

PROCESS WORK FLOW




Sequence
Assign
Save to
reminder
Value to save
meetdate.AddHours(-
If
Condition *
DateTime.Now>=reminder
Then
Do
For Each Row in Data Table
Data Table *
regtb
Item name
CurrentRow
Body
Dialog Title
"Meeting over:"
Input Label
"is the meeting over?(yes/no)"
Input Type
Text Box
Value entered
status
If
Condition *
status="yes"
Then
Build Data Table
DataTable...
Excel Application Scope
"C:\Users\admin\Desktop\reg-det.xlsx"
Do


Condition *
CurrentRow(2).ToString="P"
Then
Send SMTP Mail Message
To *
CurrentRow(1).ToString
Subject
"Thank you for attending"
Body
"Dear" +CurrentRow(0).ToString+
Attach Files
Else
Send SMTP Mail Message
To *
CurrentRow(1).ToString
Subject
"Sorry, we missed you at the mee
Body
"Dear"+CurrentRow(0).ToString+"
Attach Files

REFERENCES

[1] **"The Rise of Webinars: Thousands of Learners Looking for Professional Development"**

This study explores the automation of large-scale webinars using tools like UiPath, focusing on streamlining tasks such as registration, reminders, and follow-up processes. It emphasizes how RPA can enhance efficiency and the overall participant experience.https://researchr.org/publication/Amado-Salvatierra20

[2] **"Robotic Process Automation in Digital Communication Platforms"**

This paper highlights the use of RPA in automating communication workflows, such as personalized notifications, reminders, and feedback collection, which are essential for managing webinars efficiently.https://www.researchgate.net/

[3] "**UiPath documentation**" provides comprehensive resources for understanding and implementing RPA solutions, covering topics like automation design, deployment, and best practices. It includes detailed guides, examples, and API references to help developers and businesses optimize automation workflows effectively.

https://docs.uipath.com/