

**BIRTHDAY REMINDER BOT**

**A PROJECT REPORT**

*Submitted by*

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**BONAFIDE CERTIFICATE**

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**Internal Examiner**

**External Examiner**

## **ABSTRACT**

The Birthday Reminder Bot is an efficient automation solution designed to ensure that no birthday goes unnoticed. Built using UiPath, this bot seamlessly integrates data management, notification systems, and QR code technology to provide a comprehensive birthday reminder service.

The bot starts by reading an Excel file containing names and birthdates of individuals. It compares the current date with the dates in the Excel sheet. For every match, it identifies the person whose birthday falls on the current day. Even if multiple birthdays are on the same date, the bot processes each entry sequentially, displaying a personalized birthday message for each person in a pop-up message box.

Taking the process a step further, the bot generates a dynamic QR code for each individual with a default message: "Happy Birthday!" This QR code, when scanned, provides the option to send greetings via SMS or WhatsApp. By selecting the sender's contact name, shown alongside the QR code, users can personalize the greeting further and easily initiate the sending process.

This innovative solution combines automation and personalization to simplify the task of remembering and sending birthday greetings. By integrating Excel data management, real-time notifications, and modern messaging capabilities, the Birthday Reminder Bot enhances user experience, ensuring timely and thoughtful birthday wishes. Its QR code feature adds versatility by allowing users to choose their preferred communication channel, making it a practical and user-friendly too.

## ACKNOWLEDGEMENT

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**Madhu Preetha A(220701152)**

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# CHAPTER 1

## INTRODUCTION

### 1.1 INTRODUCTION

Remembering and acknowledging birthdays is a thoughtful way to maintain personal and professional relationships. However, in the hustle and bustle of daily life, it is easy to miss such important occasions. The **Birthday Reminder Bot with QR Code Integration**, designed using UiPath, is a highly effective automation solution to ensure that no birthday is overlooked. This project combines automation, real-time reminders, and QR code functionality, making it a convenient and user-friendly tool for managing birthday greetings.

#### **The Need for a Birthday Reminder Bot**

Birthdays are special occasions that strengthen bonds among friends, family, and colleagues. While traditional methods like setting manual reminders or using digital calendars exist, these often require time and effort. Moreover, managing birthdays for large groups or organizations can be challenging. This is where automation plays a crucial role. The Birthday Reminder Bot leverages the capabilities of UiPath to provide an intelligent and systematic approach to birthday management. It reads a pre-configured Excel sheet containing names and birthdates, automatically compares these dates with the current date, and notifies the user about upcoming birthdays.

#### **Core Features of the Birthday Reminder Bot**

The bot is designed with a user-friendly interface and a sequence of automated tasks.

**Excel Integration:** The bot reads data from an Excel file that contains names, birthdates, and other relevant information. This allows users to input and manage a comprehensive list of contacts effortlessly.

**Date Matching and Notifications:** By comparing the current date with the dates in the Excel file, the bot identifies whose birthday it is today. A personalized birthday greeting is displayed for each individual through a message box, ensuring the user doesn't miss anyone's special day. If multiple people share the same birthday, the bot processes them one at a time.

**QR Code Generation:** For every birthday match, the bot generates a unique QR code containing a default greeting message: "Happy Birthday!" When scanned with a mobile device, the QR code offers options to send birthday wishes either via SMS or WhatsApp.

**Message Personalization:** The message box displays the recipient's name and allows the user to select the contact to whom the greeting should be sent, adding a personal touch to the automated process.

The Birthday Reminder Bot with QR Code Integration is an innovative solution that combines automation and technology to simplify the task of remembering and celebrating birthdays. By merging UiPath's automation capabilities with QR code functionality, the bot enhances the experience of sending greetings in a thoughtful, efficient, and modern way. This project not only solves the challenge of forgetting birthdays but also introduces a fun and interactive element through the use of QR codes, making it a valuable tool for both individuals and organizations.



## **1.2 OBJECTIVE**

The objective of the Birthday Reminder Bot implemented in UiPath RPA is to automate the process of identifying and celebrating birthdays by integrating intelligent workflows with modern communication tools. The bot ensures no birthdays are missed by comparing current dates with an input Excel sheet containing user data. For each match, it generates a personalized message in a pop-up and creates a dynamic QR code with a default "Happy Birthday!" message. This QR code can be scanned to send greetings via SMS or WhatsApp, providing flexibility in communication. By leveraging UiPath's automation capabilities, the project aims to simplify birthday management, reduce manual effort, and enhance user engagement with timely, personalized reminders. This efficient, scalable, and user-friendly solution is ideal for both personal and professional applications.

## **1.3 EXISTING SYSTEM**

The existing system for managing birthday reminders often involves manual effort or reliance on basic tools like calendars or spreadsheets. Users must manually check dates, remember to send greetings, and compose messages individually for each birthday. In cases where there are multiple birthdays on the same day, this becomes cumbersome and prone to oversight. Communication methods such as SMS or WhatsApp require additional effort to draft and send messages manually. These systems lack automation and integration, leading to inefficiencies and a higher likelihood of missed birthdays.

## **1.4 PROPOSED SYSTEM**

The proposed system, implemented using UiPath RPA, offers a fully automated Birthday Reminder Bot. It reads an Excel sheet containing user data, checks for birthdays matching the current date, and generates personalized birthday greetings.

For each match, the bot displays a message box with the user's name and dynamically creates a QR code containing a default "Happy Birthday" message. This QR code can be scanned to send greetings via SMS or WhatsApp with minimal effort. The system is efficient, scalable, and eliminates manual intervention, ensuring no birthdays are missed while enhancing user convenience and interaction.

The proposed system leverages UiPath RPA to automate the process of birthday reminders and greetings, streamlining the entire workflow. It dynamically fetches data from an Excel sheet to identify individuals whose birthdays match the current date. Upon identification, the bot sequentially displays personalized messages for each person in a user-friendly manner. Furthermore, the system generates a QR code pre-configured with a default birthday greeting, enabling users to send wishes through SMS or WhatsApp instantly by scanning the code. This approach minimizes manual effort, reduces the chance of human error, and provides a seamless, tech-driven solution to ensure every birthday is acknowledged promptly and thoughtfully.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Automation in Personal Event Management**

Automation technologies have significantly influenced personal event management by streamlining repetitive tasks such as reminders and greetings. According to research, tools like calendar applications and notification systems have been integrated into personal devices to help users manage birthdays, anniversaries, and other significant events. However, traditional tools rely heavily on manual data entry and lack dynamic interaction. Robotic Process Automation (RPA), as demonstrated in UiPath, introduces a transformative approach by automating the extraction of data, matching conditions, and generating notifications or greetings autonomously. This not only enhances efficiency but also ensures that events are never overlooked, offering a personalized and proactive experience.

#### **2.2 QR Code Technology in Communication**

QR codes have emerged as versatile tools for simplifying communication processes. Studies show their widespread application in marketing, payments, and data sharing. In the context of event reminders, QR codes bridge the gap between automated systems and end-user interaction by enabling instant message sharing through scanned codes. For example, systems like the proposed birthday reminder bot employ QR codes pre-embedded with birthday greetings. By scanning the code, users can directly send personalized messages via SMS or messaging apps like WhatsApp, eliminating the need for manual text entry. The convenience and adaptability of QR codes make them a valuable addition to modern communication workflows.

## **2.3 Enhancing Workflow Efficiency with RPA**

Robotic Process Automation has redefined the way repetitive tasks are handled, particularly in scenarios requiring data comparison, notifications, and dynamic decision-making. A study on UiPath's capabilities highlights its efficiency in automating workflows involving Excel integration, date comparisons, and real-time user notifications. For instance, the proposed birthday reminder bot demonstrates RPA's ability to process large datasets, identify specific conditions (like matching dates), and dynamically execute subsequent tasks, such as displaying greetings or generating QR codes. By eliminating manual intervention, RPA ensures greater accuracy, consistency, and scalability, showcasing its potential to revolutionize personal and professional task management.

## **2.4 Summary: Intersection of Automation in Personal Event Management, QR Code Technology, and RPA**

The convergence of personal event management, QR code technology, and Robotic Process Automation (RPA) offers a powerful and efficient solution for enhancing user experience in task automation. Personal event management systems, though effective in maintaining reminders, often fall short in user interaction and dynamic messaging. By incorporating QR code technology, these systems enable seamless communication, allowing users to share pre-generated messages directly through a quick scan.

Robotic Process Automation, exemplified by tools like UiPath, ties these components together by automating data handling, such as extracting user information from Excel, comparing dates, and triggering appropriate actions like generating birthday greetings or QR codes. This integration significantly reduces manual intervention while ensuring accuracy and scalability. The birthday reminder bot exemplifies this intersection, as it combines the organizational strength of personal event management, the versatility of QR codes, and the

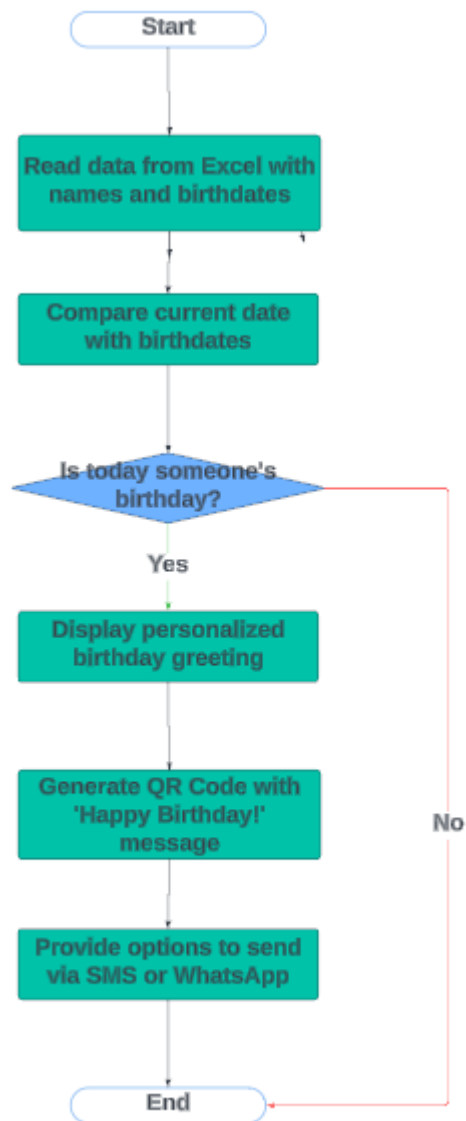
efficiency of RPA. Together, these technologies pave the way for smart, automated solutions that simplify workflows and enhance user engagement.

The integration of personal event management, QR code technology, and Robotic Process Automation (RPA) creates a comprehensive and efficient solution for automating routine tasks. Personal event management systems help track important dates, but they often lack interactivity and personalization. QR codes bridge this gap by enabling quick, user-friendly communication for sending messages or sharing information. When combined with RPA, these technologies streamline processes such as fetching data from Excel, comparing dates, and triggering automated actions like generating birthday messages or QR codes. This seamless collaboration reduces manual effort, improves accuracy, and enhances scalability. The birthday reminder bot highlights the synergy between these technologies, offering an innovative way to manage events, interact with users, and deliver personalized greetings with minimal intervention.

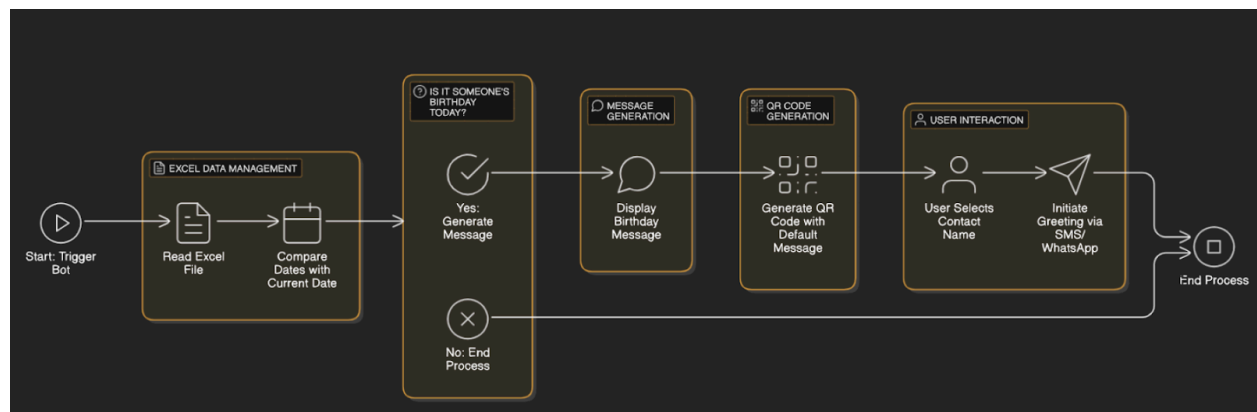
## CHAPTER 3

### SYSTEM DESIGN

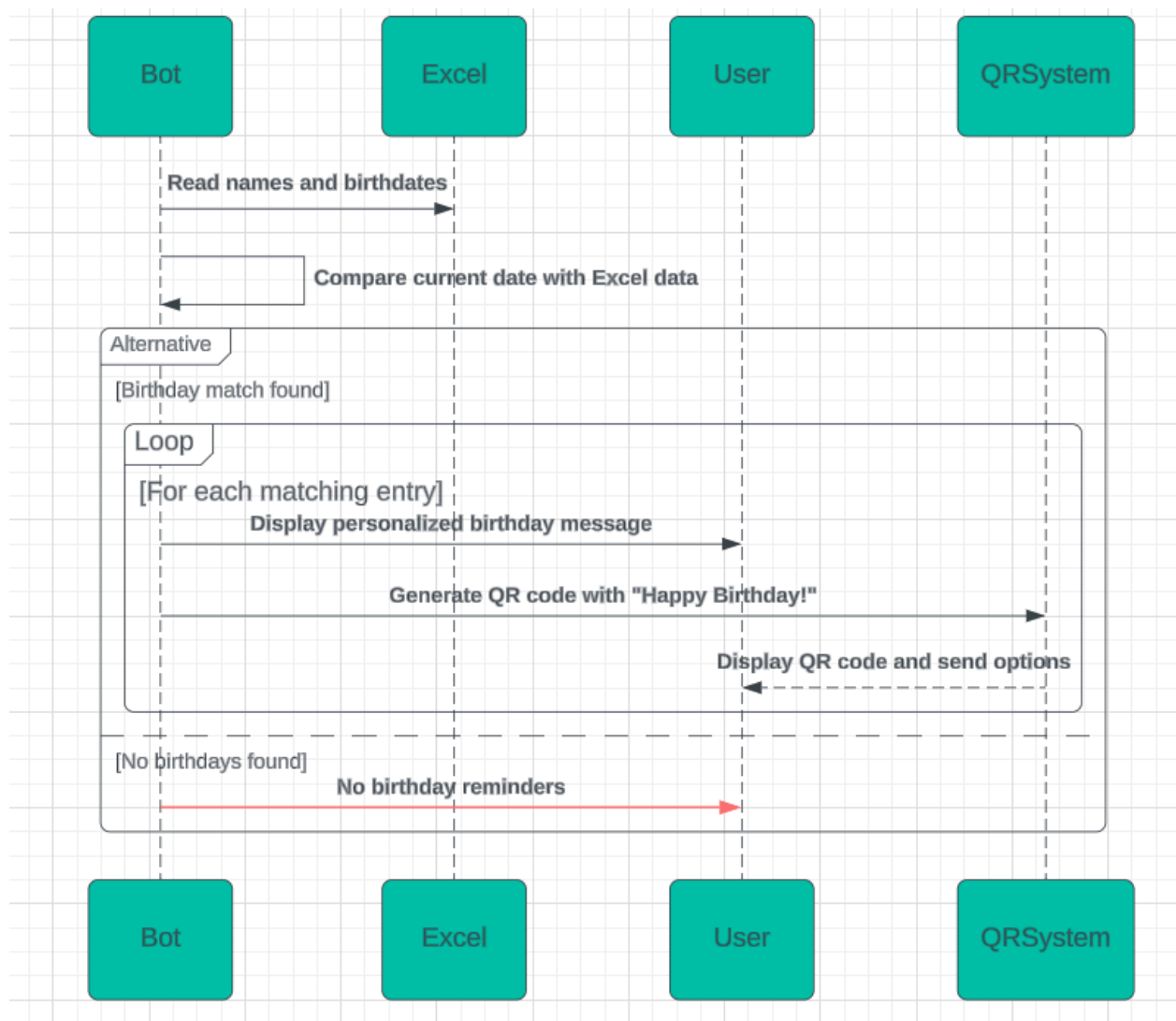
#### 3.1 SYSTEM FLOW DIAGRAM



## 3.2 ARCHITECTURE DIAGRAM



### 3.3 SEQUENCE DIAGRAM





## **CHAPTER 4**

### **PROJECT DESCRIPTION**

The Birthday Reminder Bot automates the process of sending birthday greetings by comparing the current date with birthdates stored in an Excel sheet. If a match is found, the bot displays a message box wishing the respective person a happy birthday. The bot then generates a QR code with a default birthday message. By scanning the QR code, the user can select a sender's contact and send the message via SMS or WhatsApp. The solution integrates RPA with Google Calendar for event management and uses QR code technology to enable quick and easy communication. This system reduces manual effort and ensures timely birthday greetings.

#### **4.1 MODULES**

##### **4.1.1 Excel Data Handling Module:**

- **Objective:** This module manages the input data, i.e., reading the Excel file containing names and birthdates. The bot extracts and processes this information to check for birthdays on the current date.
- **Activities:** Uses UiPath Excel activities like Read Range, For Each Row and If conditions to match the current date with the birthdate from the sheet.
- **Key Features:**
  - Reads birthdates and names from an Excel file.
  - Compares the system date with the birthdates.
  - Identifies users with birthdays on the current date.

#### 4.1.2 Birthday Notification and Message Display Module:

- **Objective:** This module triggers the display of a birthday greeting in a message box for each person whose birthday matches the current date.
- **Activities:** Utilizes UiPath's Message Box activity to show a personalized birthday message for each identified individual.
- **Key Features:**
  - Displays birthday greetings sequentially for multiple people having a birthday on the same day.
  - Ensures that all birthdays are acknowledged through a simple UI interaction.

#### 4.1.3 Dynamic QR Code Generation Module:

- **Objective:** This module generates a QR code that contains a default "Happy Birthday" message, allowing users to scan it and send greetings.
- **Activities:** Uses Generate QR Code activity and formats it to include a default birthday message.
- **Key Features:**
  - Generates a unique QR code for each user whose birthday is on the current date.
  - The QR code includes a personalized or default birthday message that can be shared across communication channels

#### 4.1.4 SMS and WhatsApp Integration Module:

- **Objective:** This module enables sending the birthday message via SMS or WhatsApp after scanning the QR code.
- **Activities:** Integrates with APIs like Twilio for SMS or WhatsApp API for WhatsApp messaging, using HTTP Request or Send WhatsApp Message activity.
- **Key Features:**
  - Allows users to send birthday greetings via SMS or WhatsApp.

- User selects the sender's contact name from the displayed message box to personalize the message.
- Integrates with messaging platforms to automate the process of sending birthday greetings.

#### **4.1.5 User Interface and Contact Selection Module:**

- **Objective:** This module enables users to select the contact for sending birthday greetings when they scan the QR code.
- **Activities:** Displays the contact selection interface and allows users to choose their preferred sender.
- **Key Features:**
  - Displays sender contact names alongside the QR code.
  - Allows users to select their contact and initiate the sending process via SMS or WhatsApp.

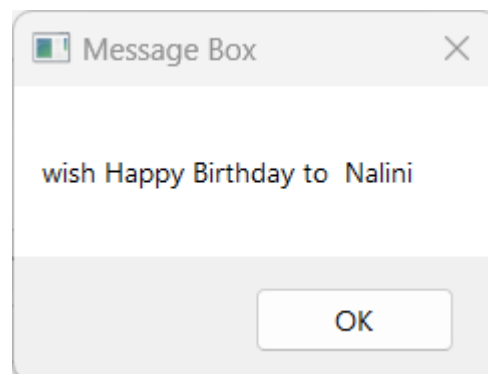
#### **4.1.6 Notification Module:**

- **Objective:** Ensures the bot notifies the user when a birthday is detected.
- **Activities:** Uses UiPath notification activities or system alerts to notify the user about the birthday event.
- **Key Features:**
  - Sends pop-up notifications when birthdays are detected.
  - Reminds users of pending birthdays, ensuring timely greetings.

## CHAPTER 5


### OUTPUT SCREENSHOT


	A	B	C	D	E	F
1	Name	Birthdate	Phone Number			
2	Enos	01-01-1995	+903688392681			
3	Hilos	12-06-2006	+903421381838			
4	Bilos	25-12-2023	+905459416411			
5	Elos	18-11-1975	+904888931152			
6	Memos	06-12-1978	+903623489304			
7	Madhu	18-11-2005	9.19445E+11			
8						
9						
10						





## QR Code Generator - Create QR Codes for Free


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Link phone number to send a text message quicker





Phone number  
9186547892



Add message

Happy Birthday!



To enable tracking, [create a Dynamic QR Code](#)






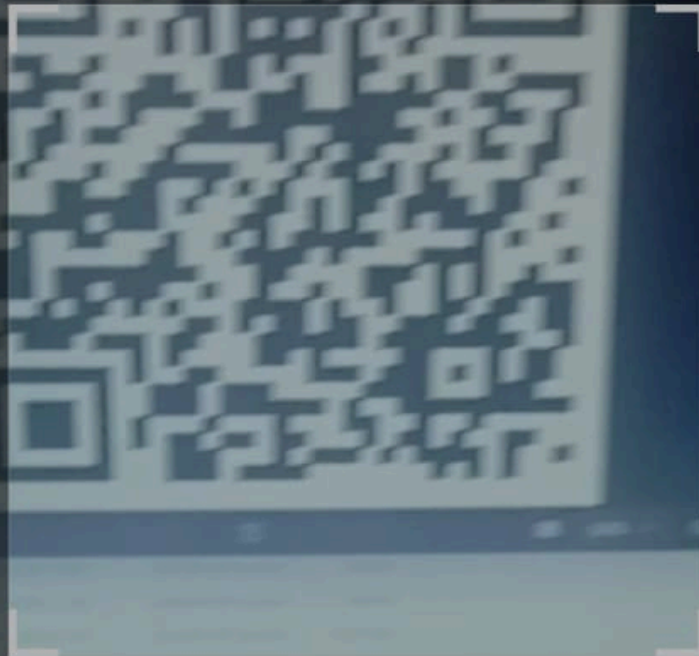


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9:58 PM



Place the code inside the frame

## Open with

PERSONAL

WORK



Messaging



WhatsApp

9:52 PM



# New message

**Recipient: Amma**



Happy Birthday!



## **CHAPTER 6**

### **CONCLUSION**

The Birthday Reminder Bot project successfully demonstrates how automation and personalization can work together to streamline the process of remembering and sending birthday wishes. By leveraging UiPath, this solution not only integrates data management through Excel but also incorporates dynamic QR code generation and real-time messaging capabilities, ensuring a seamless user experience.

This bot is designed to check for birthdays in an Excel sheet against the current date, and for every match, it generates a personalized birthday greeting, which is then displayed sequentially if there are multiple birthdays on the same day. By incorporating the dynamic QR code functionality, users can quickly scan and send the greeting message through SMS or WhatsApp, offering versatility and flexibility in communication.

One of the key strengths of this project lies in its integration of multiple technologies to create a streamlined birthday reminder system. The combination of Excel data handling, QR code generation, and messaging platform integration provides a holistic solution that can be easily implemented and customized to fit different use cases. Additionally, the optional Google Calendar integration further enhances the system by adding automated event reminders, ensuring that no birthday is overlooked.

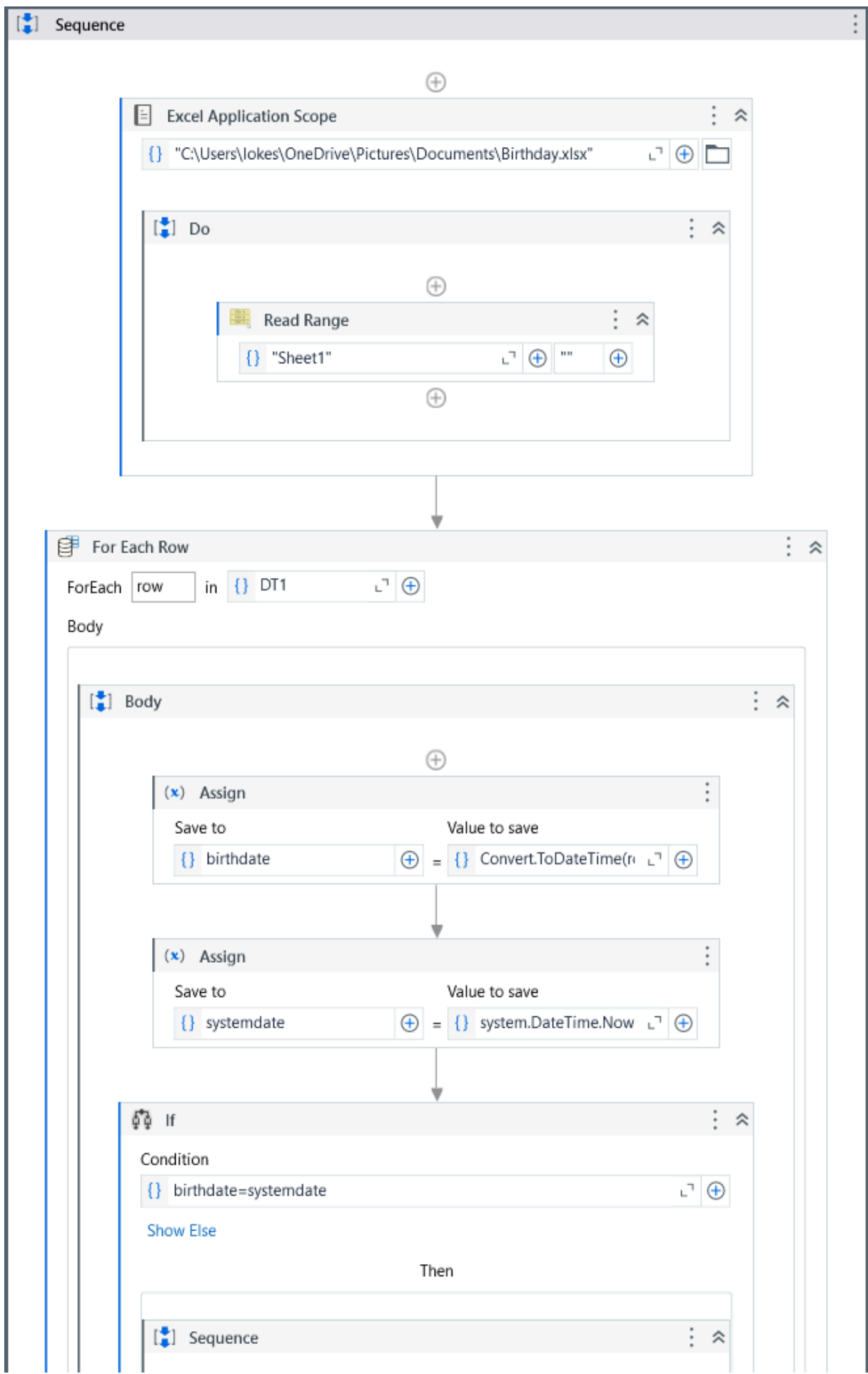
The Birthday Reminder Bot brings efficiency and convenience, eliminating the need for manual tracking and communication of birthdays. It enhances user interaction by allowing them to select the sender contact and choose between SMS or WhatsApp for sending their greetings. The automation ensures timely notifications, and the QR code generation feature makes it possible to interact with the system through mobile devices, adding an extra layer of convenience.



In conclusion, this project successfully integrates various technologies and methodologies to provide an innovative solution for automating birthday reminders and greetings. By using UiPath's RPA capabilities along with modern communication tools like QR codes and messaging platforms, this bot serves as a practical, user-friendly tool for individuals and businesses looking to streamline their birthday greeting processes. The flexibility of the system, combined with its automation capabilities, makes it an ideal solution for those looking to simplify the task of remembering and sending thoughtful birthday wishes.

## **APPENDIX**

### **PROCESS WORKFLOW**



## Use Browser Edge: QR Code Generator




Browser URL \*

{ } "https://www.the-qrcode-generator.com/"


[ ] Do

**Click 'SMS'**



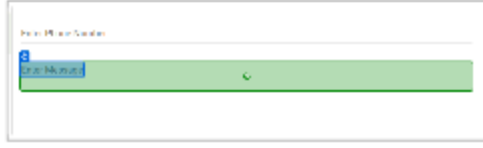
Click type: Single  
Mouse button: Left

**Type Into 'Enter Phone Number'**



Type this: Standard  
{ } in\_PhoneNumber  
Empty field before typing: Single line [End, Shift+H  
Click before typing: None

**Type Into 'Enter Message'**



Type this: Standard  
{ } BirthdayMessage  
Empty field before typing: Single line [End, Shift+H  
Click before typing: None

## REFERENCES

### 1. UiPath Documentation

UiPath Official Documentation provides a comprehensive guide on using UiPath features, including activities like "Excel Application Scope," "Message Box," and "Generate QR Code."

*Source:* UiPath Documentation

### 2. UiPath Forum

The UiPath Forum serves as a community hub for troubleshooting and sharing best practices for projects such as automating reminders and integrating third-party APIs like WhatsApp.

*Source:* UiPath Forum

### 3. Google Calendar API Documentation

The Google Calendar API documentation explains how to use APIs for creating, updating, and managing events programmatically, which is essential for adding calendar-based reminders.

*Source:* Google Calendar API

### 4. QR Code Generator Libraries

Guides and libraries for generating QR codes dynamically, such as ZXing.Net or UiPath's QR Code Activities package, are critical for implementing QR code functionality in the bot.

*Source:* [ZXing.Net Library](#)

### 5. Twilio Documentation for SMS

Twilio's SMS API documentation outlines how to send SMS programmatically, which could be adapted for the bot's feature to send greetings via SMS.

*Source:* Twilio SMS API

### 6. UiPath Marketplace

UiPath Marketplace provides various reusable components, including those for integrating external tools like WhatsApp and managing data from Excel.

*Source:* UiPath Marketplace