A project report on “Email Automation”

Implemented as a part of RPA-Build-A-Thon

Submitted by

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1.Introduction

A robot is a machine that mimics the human user in performing various tasks, such as clicks, navigations, typing, etc. Sequence of meaningful activities that may involve multiple systems or applications make up a process. Automation is the sequence of steps which are performed without any human interference (once configured).

Robotic Process Automation

Robotic process automation (RPA) allows using software robots instead of people to drive the business. It is used to automate regular tasks so the user can concentrate on accomplishing complex tasks rather than routine work manually. This would in turn reduce the human errors.

1.1Overview

Automation describes a wide range of technologies which reduce human intervention in processes. Human intervention is reduced by predetermining decision criteria, subprocess relationships, and related actions — and embodying those predeterminations in machines.

As a marketer or business owner, you'd like to stay connected to your customers. Email automation is a powerful marketing automation tool that lets you send the right message to the right people at the right time, using automated workflows, which is extremely effective for lead nurturing, and ultimately, to drive sales from potential customers as well as existing ones

1.2Purpose

Email automation is a way to create emails that reach the right people with the right message at the right moment—without doing the work every time, sending automated messages leveraging a marketing automation tool.

When you link your website analytics with your email marketing platform, you can target people based on behaviour, preferences, and previous sales. Then you can personalize each customer's experience and increase the relevance of your automated campaigns.

2. Literature Survey

2.1 Existing Problem

If we see the manual working process it requires the lots of human efforts and for each and every task needs human intervention. If we consider the example of any business which we operate manually it requires a human to push it through every step and know whom to send it to. Must be sent by a human to everyone. If we want to collect information about particular thing then need to physical or digital forms are kept in disparate places. All fields must be completed manually. Must send messages to others to determine where items are. Completion events are easy to falsify and might miss information. The manual process create to much complications and very tedious process for the business owner.

2.2. Proposed Solution

To make the things are simpler and easier we have used the robot process automation (RPA) The use of predefined rules to trigger email messages and personalize your messages based on specific actions customers take—or don’t take, using email or marketing automation software. Some examples include when you automate welcome emails sent when a customer signs up for a mailing list, similar product recommendations after a user has bought from your site, or a quick reminder that the customer placed something in their cart but never finished checking out. Email automation takes repetitive tasks off your to-do list to free up your time for other valuable tasks, such as responding to customer questions. It can help customers learn more about your brand, encourage them to keep coming back, or remind them of why they bought from you in the first place.

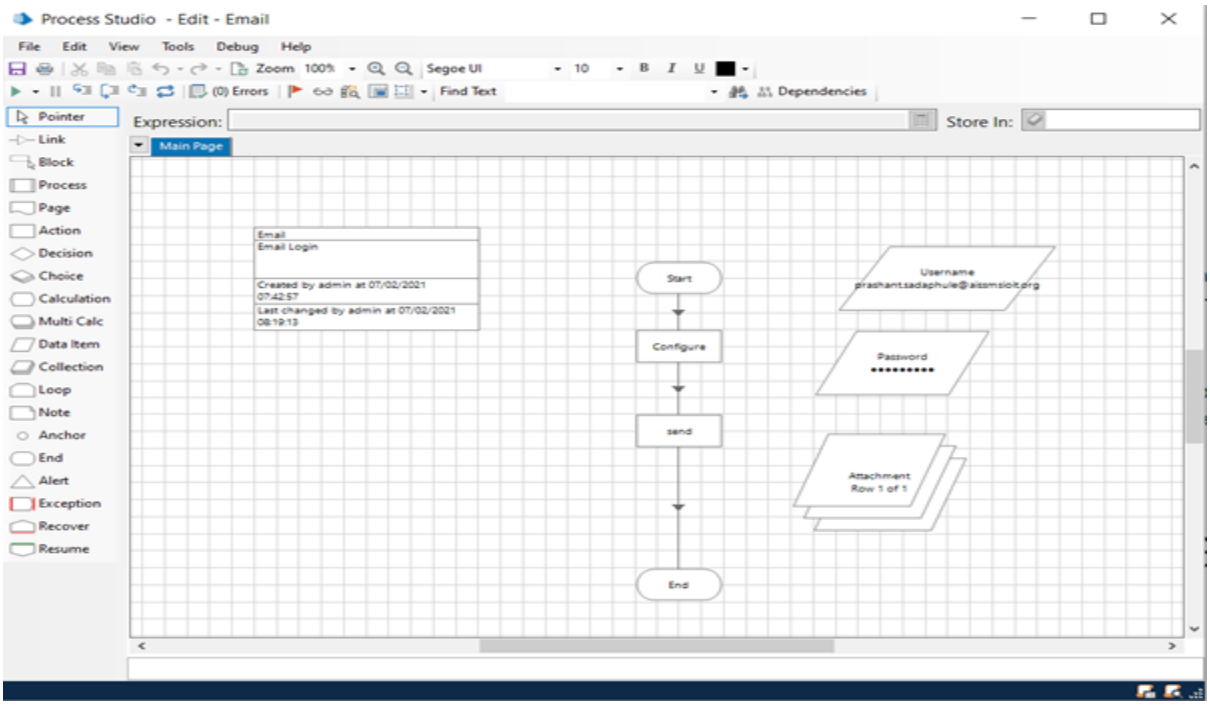


Fig.1. Email Automation Login to mail and sending mail to another mail with mail attachment process stage

3. Theoretical Analysis

3.1 Block Diagram

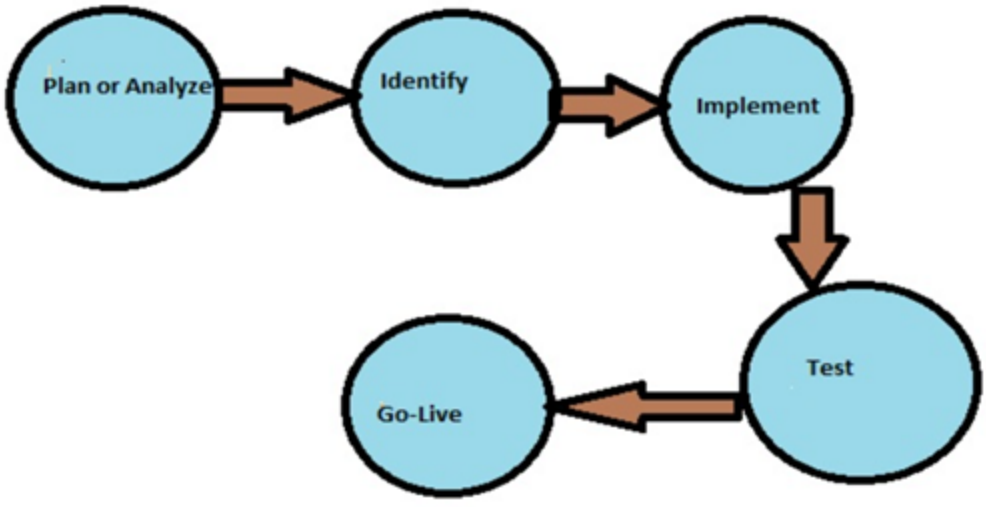


Fig. 2. RPA Life Cycle

Life Cycle of RPA

Analyze and Identify

Step one of RPA life cycle is to analyze a business problem for RPA development. This is usually done by business analysts and RPA architects. Processes which can be automated are identified, timelines for the development are decided, approach is documented, and approval is obtained from stakeholders to start the development.

Implement

RPA developers work on the requirements in development environment to automate the manual processes. Development is done in wizard and these is a limited requirement to perform coding in developing the bots.

Testing

In this phase, bots are tested to evaluate the quality and to correct errors if any.

Go Live

After the bot is tested thoroughly, it would be deployed into the live environment where users start using it. It enters maintenance phase where support and change requests for the bot are entertained and defects are fixed with immediate effect.

3. 2 Hardware and Software Designing

Blue prism is a UK-Based Software Company and is one of the leading robotic process automation tools. It is used to automate mundane tasks such that they could operate without any manual intervention. Blue prism has gained edge over its competitors as it has better security, flexibility, scalability, compliance, and resilience.

Pre-requirements for Blue Prism

The following are the pre-requisites for the Blue Prism. It is the only software which −

- Creates and supports a digital workforce of industrial strength and enterprise scale
- Does not require IT skills to implement
- Can be implemented in sprints of 4 to 8 weeks (Start to finish)
- Is very low cost compared to the TCO of alternative solutions
- Provides tremendous payback with self-funding returns and an ROI that has been as high as 80%
- Can be managed within IT infrastructure and processes

Installation of Blue Prism

The following are the installation requirements for Blue Prism −

- Windows 10 (Preferred) OS, 64 bit
- Blue prism installation Software, 64 bit
- Blue Prism License File
- SQL Server Express Edition, 64

4. Experimental Investigation

To implement a Gmail automation project requires the following things such as:

1. **Allow access to gmail account less secure app access permission should be 'ON'.**
2. **Gmail server configuration details**
3. **User login id**
4. **User password**
5. **Email attachment**

Email sending

To send emails using Gmail server enter these details:

SMTP Host: **smtp.gmail.com**
SMTP Port: **587**
SSL Protocol: OFF
TLS Protocol: **ON**
SMTP Username: (your Gmail username)
SMTP Password: (your Gmail password)

POP3 fetching
To fetch mail from Gmail server enter these details:

POP3 Host: **pop.gmail.com**
POP3 Port: **995**
TLS Protocol: **ON**
POP3 Username: (your Gmail username)
POP3 Password: (your Gmail password)

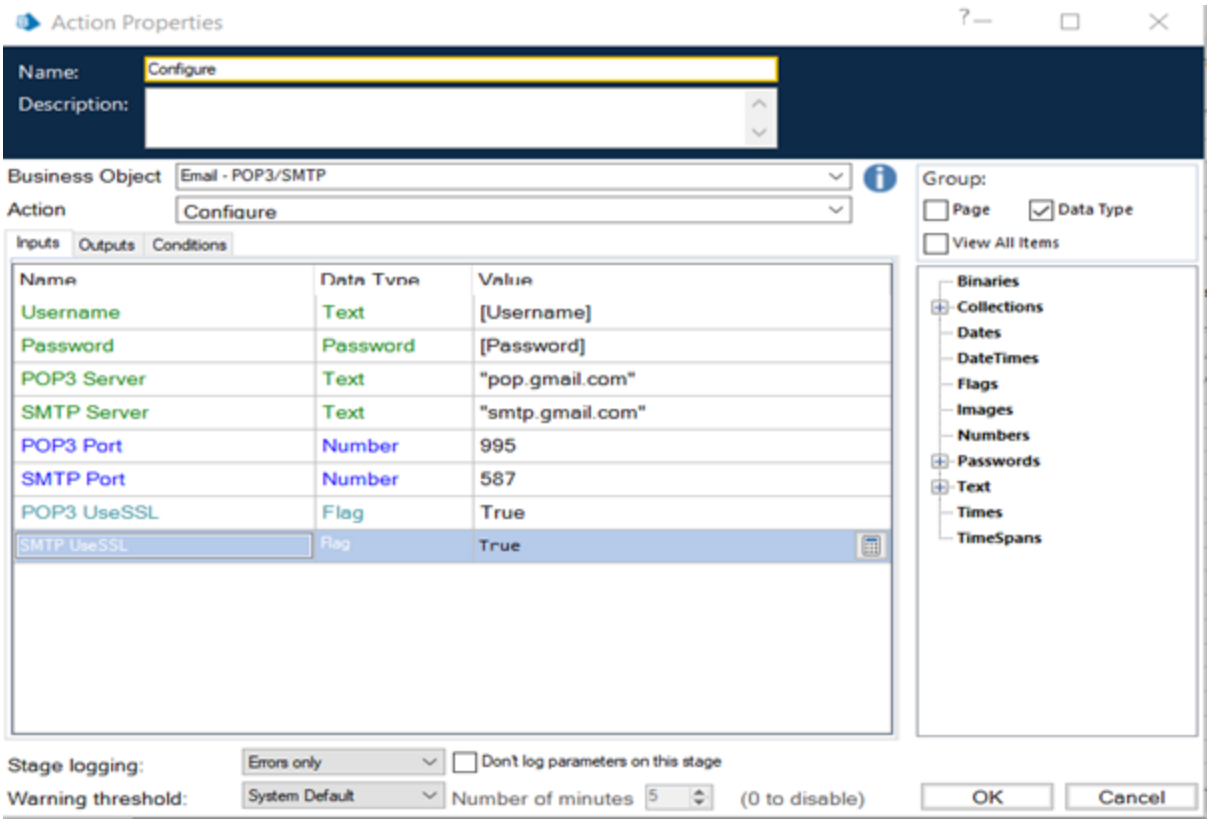


Fig.3. Configure action properties

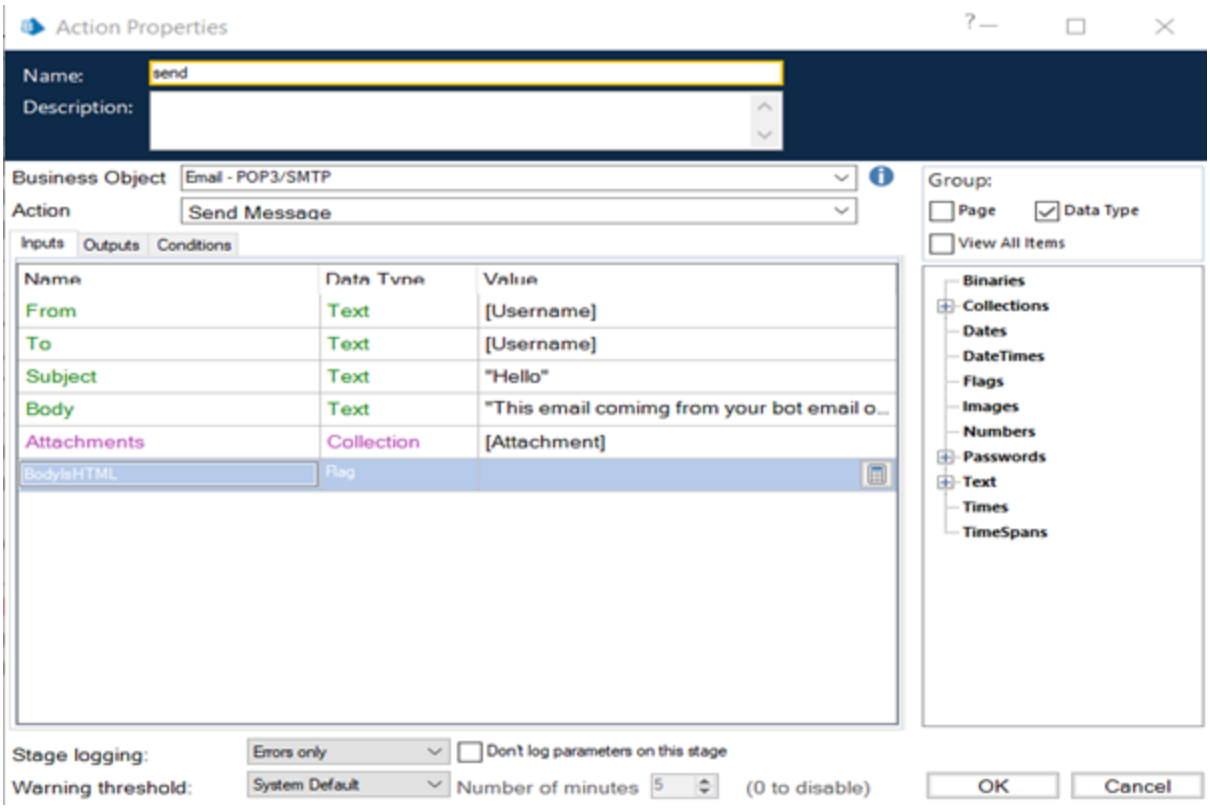
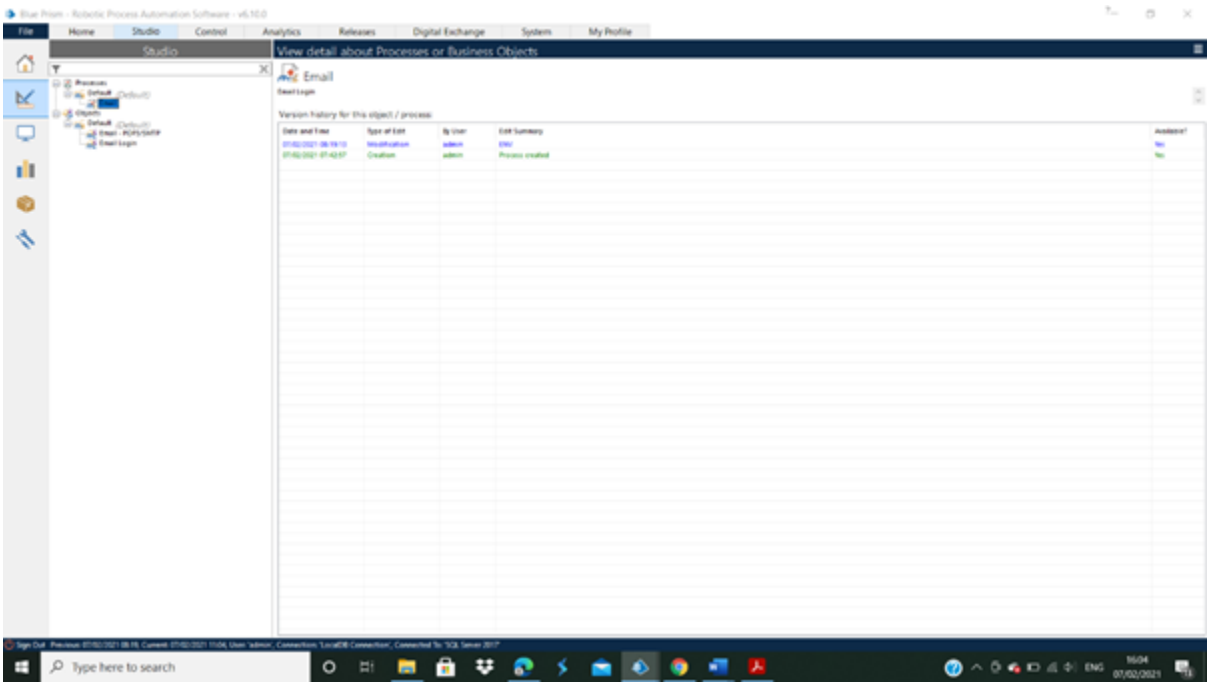


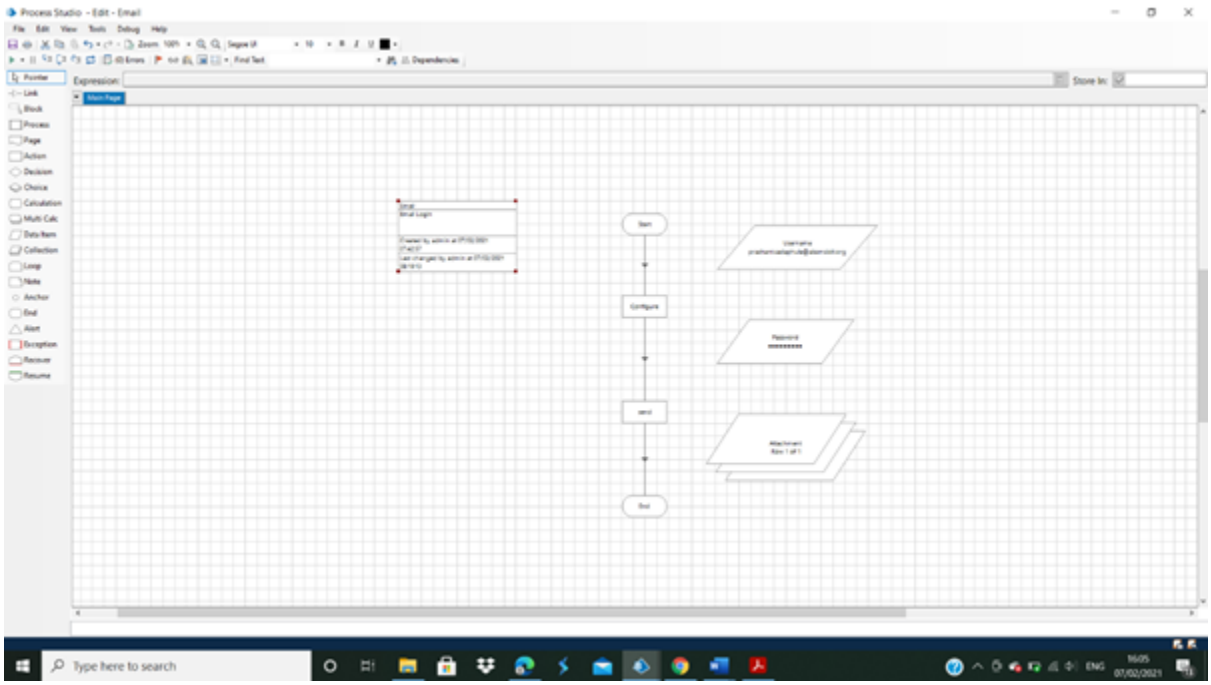
Fig.4. Send action properties

5.Results

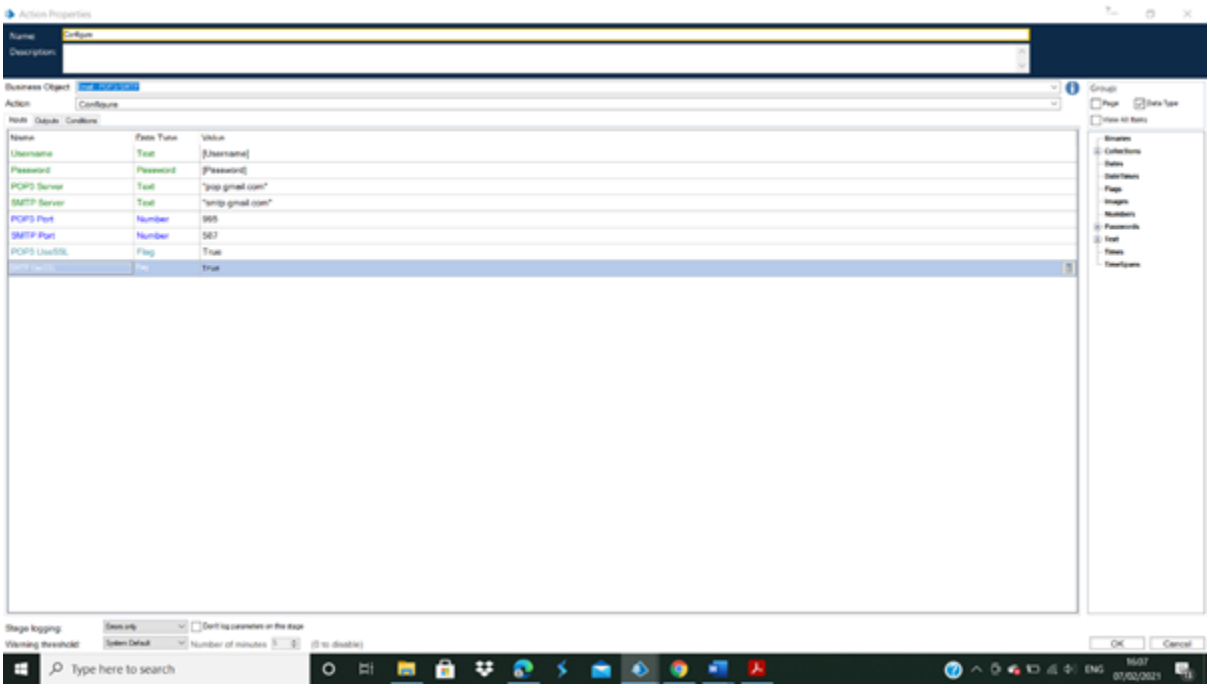
Email process creation



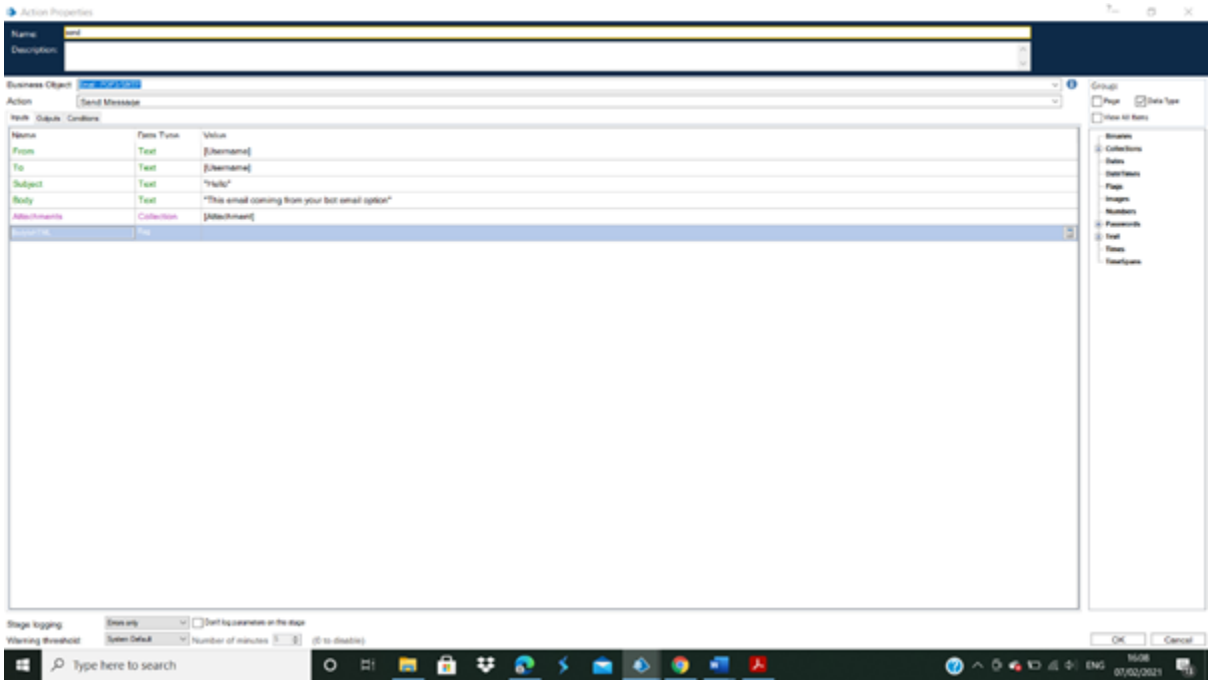
Creation of Email automation process in Blueprism



Email automation configuration stages



Configure action properties



Configure send action properties

6.Advantages and Disadvantages

RPA Benefits

The following are the advantages of RPA −

- Building a unified view of the customer
- Increased customer satisfaction
- Increased employee productivity
- More accuracy and quality
- Cost effective
- Up to 80% reduction in AHT (Average Handle Time)
- Up to 90% reduction in ART (Average Resolution Time)
- Increased ROI (Return on Investment) within 3 months on an average.

7.Applications

1. **Dual data entry scenarios**

Data manually entered in one system need not be reentered into another system. RPA replaces such dual human effort since invoices are indexed in the workflow and then manually reentered in ERP.

2. **Straight-through processing**

Inputs arriving from various systems such as web pages for customer orders, workflow for invoices, emails or excel files must be entered into ERP. However, if the input is clean and the rules are well laid out that data entry can be done through RPA.

3. **Virtual integration between different systems**

Standalone, Legacy, ERP or workflow systems often do not communicate with one another and

integrating them would cost millions of dollars and precious IT time, RPA can provide light weight integration connecting disparate systems at the user interface level.

4. **Responding to data extraction and responding requests**

When data and report requests come from multiple process owners, vendors, and even end customers, employees log into a system to extract the data, format it, and send an email to the requestor. RPA lends itself well to such rule-based tasks.

5. **Rule based decision making**

RPA can execute decision-based tasks provided the rules driving those decisions are well laid out. For instance, on an invoice coming from a utility vendor, RPA can change payment terms to "immediate" from whatever is on the invoice.

8. Conclusion

The Gmail automation project successfully implemented using Blueprism automation tool. Also learn the process studio, object studio, application modeller and various tools available in Blueprism.

9. Future Scope

We have used the robotic process automation (RPA) in various business sectors to improve the business growth. Robotic process automation (RPA) allows using software robots instead of people to drive the business. It is used to automate regular tasks so the user can concentrate on accomplishing complex tasks rather than routine work manually. This would in turn reduce the human errors.