Introduction to
Robotic Process Automation

Title of the Project

form filling bot

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Abstract

The Form-Filling Bot is an automated solution created using UiPath to streamline the process of completing and submitting forms. It addresses common challenges such as repetitive manual entry, errors, and delays. By extracting data from structured sources like spreadsheets or databases, the bot efficiently populates fields in online or desktop forms with high accuracy.The automation incorporates error-handling mechanisms to manage issues such as missing or invalid data, ensuring consistent performance. After completing its tasks, the bot generates detailed reports summarizing the status of each submission and highlighting any errors encountered. With scheduling capabilities provided by UiPath Orchestrator, the bot can operate autonomously, minimizing human intervention. This project highlights the potential of RPA to enhance productivity, reduce errors, and save time, making it a practical solution for organizations seeking to automate routine administrative tasks and improve efficiency in workflows.

Need for the Proposed System

The proposed system introduces an automated solution using UiPath to streamline the form-filling process. The Form-Filling Bot extracts data from structured sources like databases and accurately populates fields in web-based or desktop forms. The bot handles scenarios, such as missing or incorrect data, and generates real-time status reports for form submission. By automating this workflow, the system reduces manual effort reduce errors, and ensures faster, more accurate form submissions. Additionally, with UiPath Orchestrator, the bot can be scheduled to run autonomously, improving efficiency and consistency across large-scale or recurring tasks. The proposed system also includes a logging mechanism to track the success or failure of each task, providing transparency accountability. By automating the entire process, the system enhances productivity, operational costs, and ensures timely completion of tasks, making it a reliable solution for businesses with high-volume form-filling needs.

Advantages of the Proposed System

1. Automates the job of form filling which reduces time.

2. Reduces manual error and typing error.

3. Large sets of data can be entered without heavy workload.

4. confirmation of the submission of form by receiving the mail acknowledgement.

Literature Survey

1.Wang, S., Zou, Y., Keivanloo, I., Upahyaya, B. and Ng, J. (2017) 'An intelligent framework for auto-filling web forms from different web applications'. Int. J. Business Process Integration and Management, Vol. 8, No. 1, pp.16–30.

ADVANTAGES:

1.Efficiency and automation.
2.Accuracy in standardised tasks.

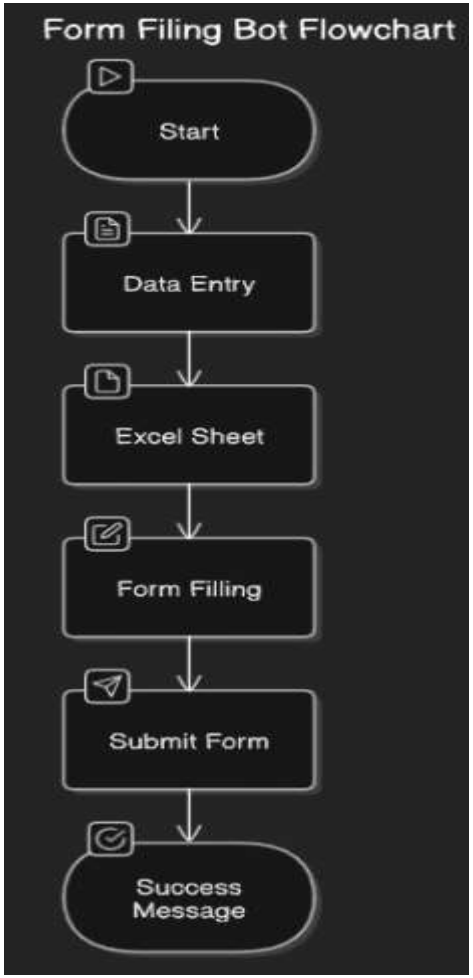
DISADVANTAGES:

1.Data integrity issues.
2.Security risks.

Main Objective

The Form-Filling Bot is an automation solution developed using UiPath for data entry processes. It eliminates repetitive manual tasks by extracting data from sources like Excel or databases and populating forms accurately. This project enhances efficiency, reduces errors, and demonstrates the potential of RPA in optimizing routine administrative workflows. It eliminates repetitive manual tasks by extracting data from sources like Excel or databases and populating forms accurately.This also helps us to know the status of the form submission via email acknowledgement.

Architecture



System Requirements

- **Hardware**

  1.A device with uipath studio.

  2.Network connection.

- **Software**

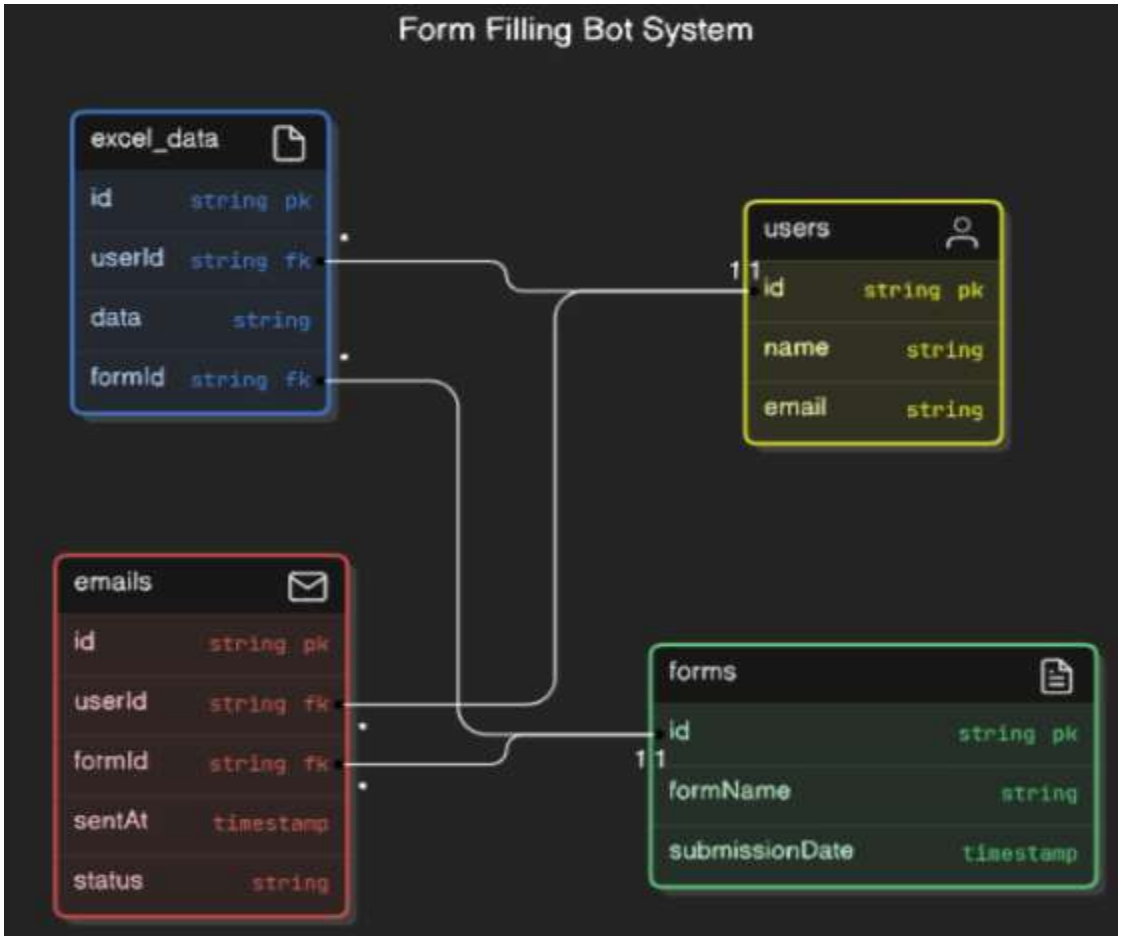
  1.uipath studio.

Functional Description

Form Population: Once the data is validated, the bot automatically fills the fields of web-based or desktop forms. It eliminates manual typing, ensuring that data is entered without errors.

Report Generation: After form submission, the bot generates detailed status reports, summarizing the results of the form-filling process and any errors encountered. These are saved for further reference and analysis.

Table Design



Process Design

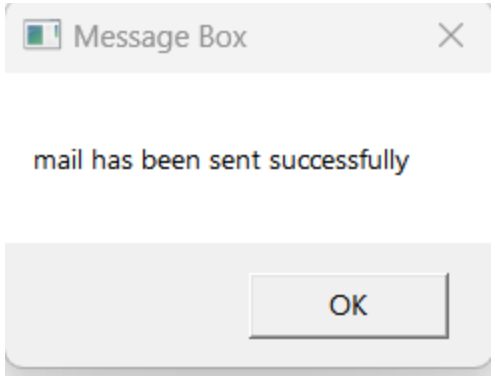
Main Process

To submit the form by importing the details from the excel sheet and after submitting the form the user gets the mail that the form has been submitted successfully.

sub process

use excel related activities to import the data from the excel to the form and use the click activity to specify the fields in which the data to be entered and also the submit button and use the smtp activity to receive the mail message and finally a message box to display the success message.

Testing



me **mail acknowledgement** - your form has been submitted successfully

me **mail acknowledgement** - your form has been submitted successfully

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Conclusions

The Form-Filling Bot project successfully automates the data entry and form submission process, significantly improving efficiency and accuracy in handling repetitive tasks. By leveraging UiPath's Robotic Process Automation (RPA) technology, the bot extracts data, fills forms, handles errors, and generates reports, eliminating manual intervention. This automation not only reduces human errors but also saves time, cuts costs, and enhances operational productivity. The system’s integration with email notifications and database storage further streamlines communication and record-keeping. Ultimately, the Form-Filling Bot provides a reliable, scalable, and cost-effective solution for businesses seeking to optimize their workflow. By leveraging UiPath's Robotic Process Automation (RPA) technology, the bot extracts data, fills forms, handles errors, and generates reports, eliminating manual intervention. This automation not only reduces human errors but also saves time, cuts costs, and enhances operational productivity. The system’s integration with email notifications and database storage further streamlines communication and record-keeping.

Future Enhancement

1. **Integration with AI/ML**

2. **Enhanced Bot Detection**.

3. **Security Measures**.

4. **User Experience Improvements**

5. **Multi-Language Support**

References

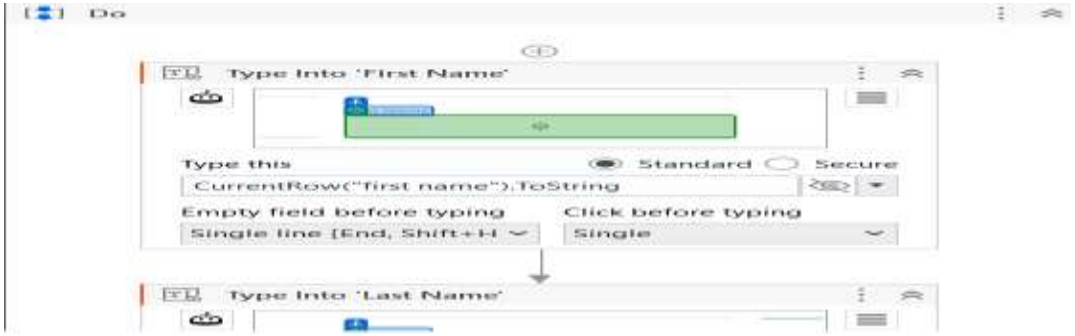
1. Avasarala, V. (2019). Robotic Process Automation: The Next Transformation in Digital Transformation. International Journal of Advanced Research in Computer Science, 10(3), 5-12.

2. Lacity, M. C., & Willcocks, L. P. (2016). A Survey on Robotic Process Automation in Business. Journal of Information Technology, 31(2), 174- 183.

Queries


Use Excel File
Excel file *
"D:\220701002\Book1.xlsx"
Reference as
Excel
Save changes
Create if not exists
Read formatting
Same as project
Template file
Do
For Each Excel Row


For Each Excel Row
For each
CurrentRow
In range *
Excel.Sheet("Sheet1")
Has headers
Save after each row
Do
Use Browser Chrome: Rpa Challenge
Browser URL *


Do
Type Into 'First Name'
Type this
Standard
Secure
CurrentRow("first name").ToString
Empty field before typing
Single line [End, Shift+H
Click before typing
Single
Type Into 'Last Name'


Click 'Submit'
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Single
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Thank You