

# Invoice Processing Using RPA

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**Abstract-** This paper presents a novel in developing a software which would automate the invoice processing. In RPA our focus is on pragmatic artificial intelligence (AI) and solve specific customer problems. Using AI to Automate Invoices Processing. Automating manual process aggravation, will enable organization to streamline their accounts payable and expense management process with AI. In this project we are trying to perform few of the basic invoice processing operations via chat bots. Downloading the invoice attachments, Extracting the details and generating the bill with UiPath leads to bring the trust to the customer. Invoices are often sent via email then the process usually begins when a customer's invoice is received. The different fields on an invoice can also be defined into the software so that it remembers which fields it should capture and register into the Excel Automation systems, for instance, the purchase amount, the quantity, the supplier name, the supplier code, and so on.

## I. INTRODUCTION

Automated invoice processing helps us to save a serious amount of time and money, compared with the manual paper invoice processing, creating efficiencies and increasing the accuracy of captured data. That's why Clear data is proud to offer this service to companies all over the World. With automation, the process was automatically triggered with the receipt or invoice of a vendor invoice. A UiPath Robot validated the eligibility of the claim against each line item of the invoice or receipt. Each line item of the invoice was processed against a predefined validation process. Exceptions were auto-routed and part-payments were released, and the vendor notified electronically through mail operation. Automating manual process aggravation, will enable organization to streamline their accounts payable and expense management process with AI.

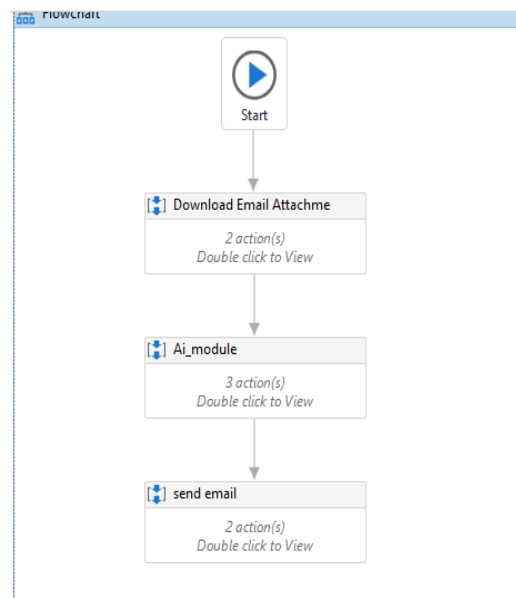
### The basics three main components

**UiPath Studio** – a tool that authorizes you to design automation processes in a graphical manner, throughout flowcharts. UiPath Studio has an ample variety of characteristics which can easily incorporate with any language and stimulate ease of use, competence, efficient and scalability.

**UiPath Robot** - implements the processes built in Studio, as a human would. The Robot will commence executing the business activities with perfect precision. All robots required are a perfectly predefined rule and set of accurate data.

**UiPath Orchestrator** - a Web/Server-based application that enables you to organize, schedule, supervise and handle Robots and processes. It acts as a middle platform in managing the overall performance of the automation. The Orchestrator runs on a server to hook up all robots to this server and passes instructions on different events such as whether to attend, unattended, or be idle for a particular event.

### Workflow in UIPATH



## II. PROBLEM STATEMENT

The existing system provide only the data is extracted or captured from the invoice the data is sent into the system for automatic matching against the purchase order. This invoice matching process can compare the invoice data with that shown on the purchase order or unpurchased order can be expanded to include a deeper level that looks at the receiving documents. Workflow steps can be configured such that the responsible person will then receive an email alert so that he or she can download the invoice. If there are other people

involved in the approval workflow, email alerts for them will also be automatically generated. The typical workflow is a four-step process beginning with the 1. Receive images through scanning or email, 2. Identification of the vendor and business unit associated with the invoice process, 3. Data extraction, and 4. Export of the extracted data and images. Without the AI it works for only a specific Templates. In the existing software it has data scrapping, screen scrapping and OCR for extracting the data.

### III. PROPOSED SYSTEM

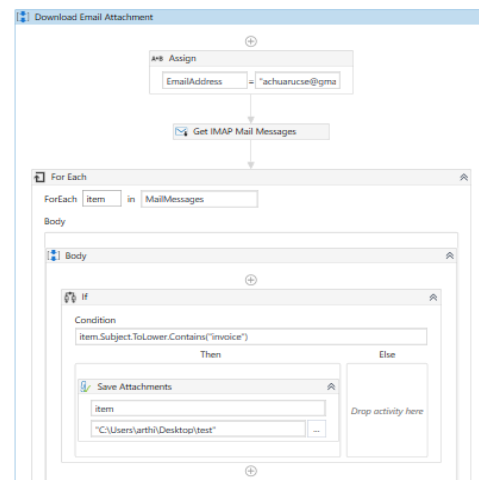
The proposed system is invoice processing automation uses an artificial intelligent develop for getting the data in the invoice. This new AI activity will enable UiPath Robots to read invoices and help automate customers invoice payable and expense compliance processes. It is no longer necessary to create multiple layouts manually. Some companies have attempted to address this by creating a large number of static “templates” meant to address each invoice or receipt layout, one by one. These layouts help to point the OCR to the correct location in that page, so that it can find and extract the required information. While this method works when the number of layouts is small, it can quickly become unmanageable. The documents of the robot will encounter are often ‘noisy’ – meaning they have a lot of real-world complexity making them hard to read. Sometimes it can be scanned together with other non-invoice documents.

### IV. INVOICE PROCESSING SYSTEM:

The Invoice and Receipt AI can be accessed directly in the UiPath Studio. This can drag and drop the Artificial Intelligence activity directly into the workflows and also the Machine Learning package in the Manage Packages and seamlessly integrate with other critical document processing such as Taxonomy Manager. By using the UiPath. Machine Learning Extractor package in the Manage packages in UiPath Studio, it can process ‘template less’ function to the documents. This allows the integrated human-in-the-loop validation of the extracted information. We can easily send the robots to input the extracted data stored into the back-end systems to complete the end-to-end automation of the processes. After the back-end process the result is notified to the client. This model is a self-learning and will improve over time as more users interact with them and use them in the workflows.

### V. ACTIVITY OF WORKFLOW

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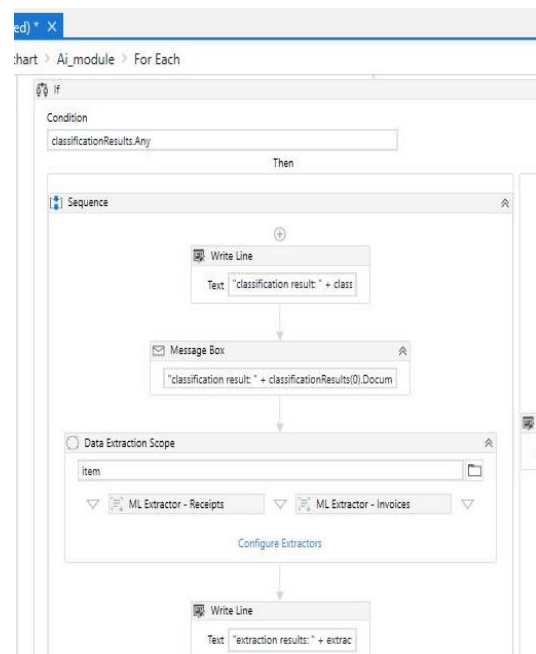
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bono.jpg	JPG File	700 KB	No	883 KB	12%	24-05-2019 11:51
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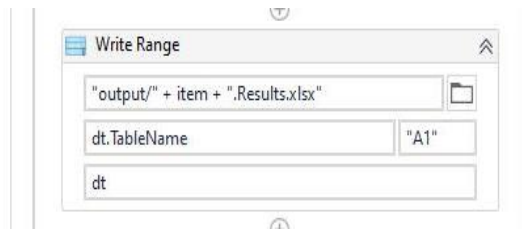
#### Document Understanding

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## VI. CONCLUSIONS

The Invoice processing automation will be more efficient while it is been put into practice and it helps the company to easily perform the company's invoice. It offers attractive benefits for the financial services industry, particularly in automating back-office operation. The key is focusing on innovation within the company to cut unnecessary details and improve results. Our AI can automatically find the location of critical information that needs to be extracted from the document, even if the format changes. It is no longer necessary to create multiple layouts manually. We are improving our Artificial Intelligence to handle the complexities found in real world documents.

## REFERENCES

- [1] J. R. Oliver and P. Damaskopoulos, "SME eBusiness Readiness in Five Eastern European Countries: Results of a Survey", *Proc. of the 15th Bled Electronic Commerce Conference*, pp. 584-599, 2002.
- [2] C. Tanner, R. Wölfle, P. Schubert and M. Quade, "Current trends and challenges in electronic procurement: an empirical study" in *Electronic Markets*, Routledge, an imprint of Taylor & Francis Books, vol. 18, no. 1, 2008.
- [3] M. P. Papazoglou and P. Ribbers, *e-Business: organizational and technical foundation*, John Wiley and Sons, 2006.
- [4] Y. Kabak and A. Dogac, "A Survey and Analysis of Electronic Business Document Standards" in *ACM Computing Surveys (CSUR)*, New York, NY, USA:ACM, vol. 42, no. 3, pp. 11-41, 2010.
- [5] S. Suwisuthikasem and S. Tangsripairoj, "E-Tax Invoice System Using Web Services Technology: A Case Study of The Revenue Department of Thailand", *Ninth ACIS International Conference on Software Engineering Artificial Intelligence Networking and Parallel/Distributed Computing*, pp. 937-942, 2008.
- [6] Y. Li and B. Liu, "A normalized levenshtein distance metric", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 29, no. 6, 2007.
- [7] H. Hamza, Y. Belar'd and A. Belar'd, "Case-based reasoning for invoice analysis and recognition" in , Berlin Heidelberg:Springer, pp. 404-418, 2007.
- [8] B. Klein, A. R. Dengel and A. Fordan, "smartFIX: An adaptive system for document analysis and understanding", *Reading and Feaming*, pp. 166-186, 2004.
- [9] M. A. Fischler and R. A. Elschlager, "The representation and matching of pictorial structures", *IEEE Transactions on Computers*, vol. 22, no. 1, pp. 67-92, 1973.
- [10] U. S. Ünal, E. Unver, T. Karakaya and Y. S. Akgul, "invoice Content Table Detection and Analysis with Feature Fusion", *SIU 2015*.
- [11] M. Netter, E. B. Fernandez and G. Pernul, "Refining the pattern-based reference model for electronic invoices by incorporating threats", *ARES'10 International Conference on Availability Reliability and Security*, pp. 560-564, 2010.