**Process Definition Document:   
Invoicing Process**

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# Introduction

## Document purpose

The Process Definition Document is used for summarizing the invoicing process. It describes the sequence of executed actions, conditions, and process rules before automation. It aims to clarify how it is performed manually by the user on a click-by-click level, as well as how to handle the possible business exceptions that may occur.

## Objective

Automate the invoices creation process with an amount less than $30,000, which represents around 80% of the total number of invoices issued monthly.

The above aims to:

* Increase the availability of the resources assigned in the billing area.
* Mitigate the number of invoices issued erroneously.

## Automation pre-requisites

In order to automate the invoice-creation process the digital worker must have:

* An account created in the RPA Showcase web application.
* Credentials to access the email inbox account where the billing information is received.

# Process description (As Is)

The invoice-creation process is done manually by the billing team every Monday or the next closest business day. The team inputs the billing information from the previous week, downloads the PDF invoices, and sends an email to the finance team for a final review before issuing them to the clients.

The billing team is open for suggestions to **enhance and optimize** the process prior to its automation.

## Process summary

|  |  |
| --- | --- |
| Element | Description |
| Department | Billing |
| Description | Invoice-creation process on the RPA Showcase platform |
| Execution schedule | Every Monday or the next closest business day |
| Input data | List of purchase’s information received by email |
| Output data | PDF invoices created and ready to be reviewed before sending them to the client |

## Applications used

The following table includes a complete list of all the applications used during the execution of the automated process.

|  |  |  |  |
| --- | --- | --- | --- |
| Application name | Version | Access methods | Comments |
| RPA Showcase | N/A | User and password provided by the billing team |  |
| Email | N/A | User and password provided by the billing team |  |

## Process map

To improve the understanding of the process prior to its automation, this section includes a set of diagrams to provide a high-level and detailed explanation of the steps the billing team follows to perform it.

### High-level process map

You can find

### Detailed level process map

This section describes the process at the click level using a diagram. This part is essential for communication with developers.

## Detailed process actions

The following table contains the click-by-click process documentation.

|  |  |  |  |
| --- | --- | --- | --- |
| # | Description | Screenshot | Comments |
| 1 | Search in the email inbox for the message with the subject: "Invoicing Data [start date] - [end date]" |  | If the email is not found, send an email to the billing manager to notify him. |
| 2 | Download the attachment containing the invoicing data |  | If the attachment is not found. send another email to the billing manager requesting for it. |
| 3 | Open the RPA showcase page in a Chrome browser |  | Url: <https://rguzmanm.github.io/rpa-showcase-page/> |
| 4 | Enter the username and password |  | Click on the “Create an account” link to get the username and password |
| 5 | Click the “Log In” button |  |  |
| 6 | Wait for the main page to load and click in the “Invoicing” option from the top menu |  |  |
| 7 | Fill in the invoice form for each of the records in the attachment retrieved from the email |  |  |
| 7.1 | Select the Client from the dropdown menu |  |  |
| 7.2 | Fill in the Address field |  | This field supports 255 characters max. |
| 7.3 | Select the Payment Interval from the dropdown menu |  |  |
| 7.4 | Select the Voucher type from the dropdown menu |  |  |
| 7.5 | Fill in the Invoice Number field |  | The invoice number must have a valid format:  *[3 digits]-[3 letters]-[digits] (e.g. 234-THM-098)* |
| 7.6 | Fill in the Invoice Date field |  | Format: *mm/dd/yyyy* |
| 7.7 | Fill in the Due Date field |  | It must always be date after the Invoice Date.  Format: *mm/dd/yyyy* |
| 7.8 | Select the Payment Method from the dropdown menu |  |  |
| 7.9 | Select the Account from the dropdown menu |  |  |
| 7.10 | Select the Currency from the dropdown menu |  |  |
| 8 | For each product of the current invoice, enter the list of products considering the number of items and possible discounts. |  | The screenshot represents how the products table must look like after entering all the products. The Unit price and the Amount will be auto populated |
| 8.1 | Select the Product from the dropdown menu |  |  |
| 8.2 | Fill in the Items field |  | This field only supports values greater than 0 |
| 8.3 | If a discount is indicated apply it by selecting the right option from the dropdown menu |  |  |
| 8.4 | If there are more products in the invoice, click the “Add product” button below the table and repeat 8.1-8.3 steps |  |  |
| 9 | If the invoice doesn’t meet all validation conditions, discard the invoice by clicking the “Clear” button |  |  |
| 9.1 | Click “Ok” to confirm you want to discard the current invoice |  |  |
| 10 | If the invoice meets all validation conditions, click the “Submit” button |  |  |
| 10.1 | Click “Ok” to confirm you want to submit the invoice |  |  |
| 11 | Wait for the PDF invoice to be downloaded |  | If the File Explorer window appears, chose a name following the next convention:  [invoice number] [Client Name] [invoice date].pdf  234-THM-098 Cyberdyne Systems 05.08.2023.pdf |
| 12 | Update the “Status” and “Message” columns for the current invoice |  | The possible statuses are: “Success”, “Business Exception”, and “Failed” |
| 13 | Once all the invoices are processed, create a ZIP file with all of them and send an email to the billing manager with the files attached |  | Include the updated Excel document containing the invoices’ status.  Subject: Invoicing process finished [start date] – [end date] |
| 14 | Click the logout button from the RPA Showcase app |  |  |
| 15 | Accept the logout pop up |  |  |

## Business exceptions

Before submitting any invoice, make sure it does not fall in the following cases. Otherwise, take the actions described below.

|  |  |  |  |
| --- | --- | --- | --- |
| Exception name | | Description | Action to be taken |
| Max. number of products | Due to company policies, all invoices should contain 14 products maximum. The RPA Showcase app prevents adding more products once the limit is reached. | | Discard the invoice, as described in step 9, set the status as “Business Exception,” and add the message: “Invoice is not compliant with the max. number of products policy.” |
| Invoice max amount | Total invoice amount exceeds $30,000 regardless of currency | | Discard the invoice, as described in step 9, set the status as “Business Exception,” and add the message: “Invoice amount greater than $30,000.” |
| Due date | The due date is before the invoice date. | | Discard the invoice, as described in step 9, set the status as “Business Exception,” and add the message: “Invalid due date.” |
| Invoice number pattern | The invoice number doesn’t follow the convention described in step 7.5. | | Discard the invoice, as described in step 9, set the status as “Business Exception,” and add the message: “Invalid invoice number.” |
| Missing information | Any of the invoice fields is missing | | Discard the invoice, as described in step 9, set the status as “Business Exception,” and add the message: “Missing information.” |

# Additional Comments

* For demonstration purposes you can use **any email** as the billing manager contact.
* Use your imagination: Feel free to play with the input file to create new automation scenarios.

# Additional sources of documentation

|  |  |  |
| --- | --- | --- |
| Additional sources of documentation | | |
| Process recordings | N/A |  |
| High-level process map |  |  |
| Detailed level process map |  |  |
| Input files |  |  |
| Output files |  |  |