4/16/2022

INVOICE GENERATION FOR IA1

Aniruddha Ray

Contents

Version Control

Date	Version	Name	Role	Comments
4/16/2022	1.0	Aniruddha Ray	Author	Created document
4/17/2022	1.0	Aniruddha Ray	Author	Completed v1.0

References

Ref. ID	Name	Author	Details	Attachment
RF001	Invoice Email Sample	Aniruddha Ray	Contains a sample of the Body of the Invoice Email sent to client.	Invoice Email Sample_Body.docx

1. Document Overview

This document outlines the Invoice Generation for Client IA1 business process chosen for automation using UiPath Robotic Process Automation (RPA) technology.

The document describes the sequence of steps performed as part of the business process.

2. Business Objectives

The business objectives and benefits expected by the Business Process Owner after automation of the selected business process are:

- Reduced manual effort
- Quicker realization of income by way of earliest dispatch of invoice to client

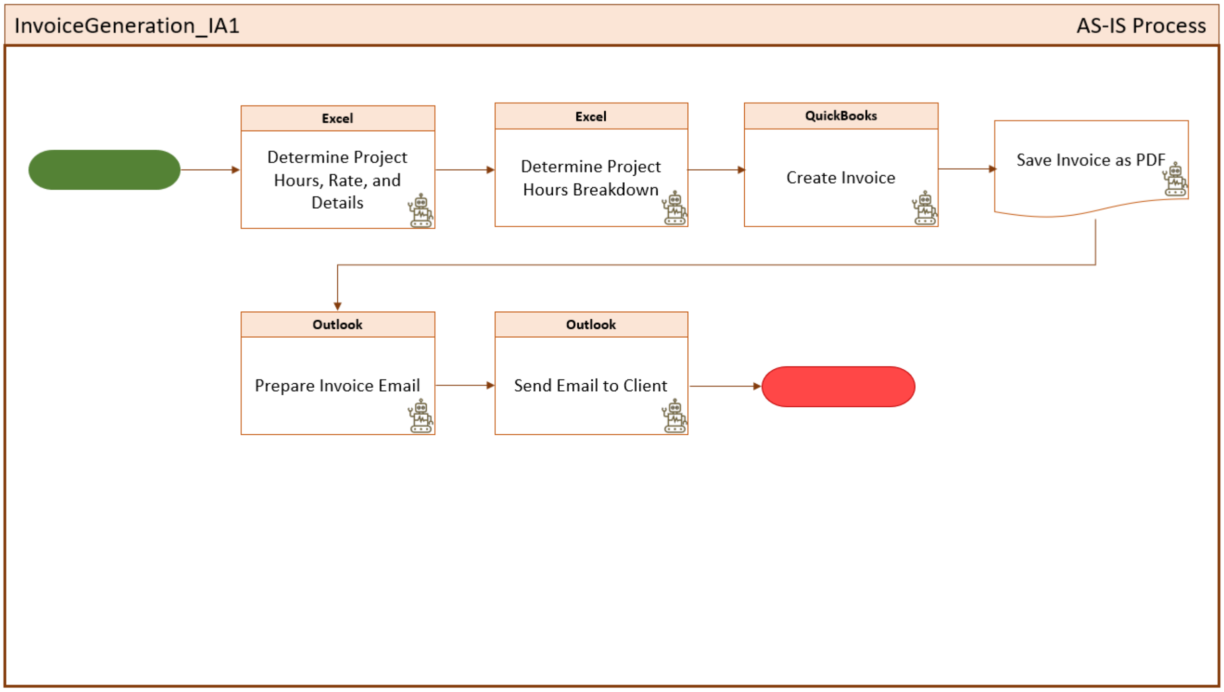
3. Process Definition

3.1 Application Details

Application	Application Use	Comments
Outlook	Prepare and send invoice email to client	
MS Excel	Determine Project Hours, Rate, and Details; Prepare Project Hours breakdown	
QuickBooks (web)	Prepare client invoice	https://selfemployed.intuit.com/

3.2 AS IS Process Map

The AS IS business process is depicted to enable the developer to build the automated process.



The detailed steps corresponding to the above process map are as follows:

Process Step	Process Sub-step	Step Description
1		Determine Project Hours, Rate, and Details
	1.1	Open file: \Time Tracker.xlsx
	1.2	Go to tab: Hours
	1.3	Get hours under fields: first two **visible** "Week_Total" columns, corresponding to the relevant project codes
	1.4	Go to tab: Project_Details
	1.5	Get Rate under field: "Rate (hr)", corresponding to the relevant project codes
	1.6	Get Project Details under field: "Project", corresponding to the relevant project codes
2		Determine Project Hours Breakdown
	2.1	Go to tab: IA1_Breakdown
	2.2	Copy the first four **visible** columns of the sheet
	2.3	Close file: \Time Tracker.xlsx
	2.4	Create a new Excel file: \IA1\Invoices\yyyy\IA1 Hours Breakdown_MM.dd.yyyy-MM.dd.yyyy.xlsx*

Process Step	Process Sub-step	Step Description
		** MM.dd.yyyy-MM.dd.yyyy is the placeholder for the invoice period*
	2.5	In the new file, paste copied values
	2.6	Add the total hours per line item
	2.6.1	Create a new column, “Total_Hours”
	2.6.2	Set “Total_Hours” = Sum of Week_Total 1 and Week_Total 2 hours
	2.7	Delete irrelevant rows and columns
	2.7.1	Delete the two “Week_Total” columns
	2.7.2	Delete all line items with “Total_Hours” = 0
	2.8	Set Subtotals on the dataset
	2.9	Set Subtotals visibility to level 2
	2.10	Save and close file
3		Create Invoice in QuickBooks
	3.1	Launch QuickBooks
	3.2	Login
	3.2.1	Enter User ID
	3.2.2	Enter Password
	3.2.3	Click ‘Sign In’
	3.3	Navigate to Invoices tab
	3.3.1	Go to: Invoices → Invoices
	3.4	Create Invoice
	3.4.1	Click ‘Create Invoice’ button
	3.5	Enter Invoice Details
	3.5.1	Set Customer field to Client
	3.5.2	Set Invoice #
	3.5.3	Set Due Date to Monday of the following week
	3.5.4	Enter Services for each Project Code

Process Step	Process Sub-step	Step Description
	3.5.4.1	Click ‘Add product or service’
	3.5.4.2	Enter Service = Project Details associated with the Project Code
	3.5.4.3	Select “By hour” option from the Rate Type drop-down menu
	3.5.4.4	Enter Hours
	3.5.4.5	Enter Rate
	3.5.5	Save and Close Invoice
4		Save Invoice as PDF
	4.1	In QuickBooks, for the invoice created, select Action → Export as PDF
	4.2	Save invoice as pdf to path: \IA1\Invoices\yyyy\IA1_Invoice_MM.dd.yyyy.pdf* ** MM.dd.yyyy is a placeholder for the <u>last day</u> of the invoice period*
	4.3	Logout of QuickBooks
	4.3.1	Click on profile button
	4.3.2	Click ‘Sign out’
5		Prepare Invoice Email
	5.1	Create new email
	5.2	Set Subject as: “Payment for Services- MM.dd.yyyy”* ** MM.dd.yyyy is a placeholder for the <u>last day</u> of the invoice period*
	5.3	Set Recipients
	5.4	Attach Invoice (pdf) to email
	5.5	Attach Project Hours Breakdown file (xlsx) to email
	5.6	For the Body, refer to the reference attachment, Ref. ID: RF001
6		Send Email to Client
	6.1	Send out email to recipients

3.3 Automation Scope

The activities in scope of the RPA project are listed as follows:

- Process Steps 1-6

3.4 Automation Out of Scope

The activities not in scope of automation are as follows:

- Any steps not captured in section 3.2

4. Known Exceptions Handling

A known exception is one that has been previously encountered in the business process. Such exceptions usually have defined workarounds.

4.1 Business Exceptions

The table below reflects all the business process exceptions captured during the process evaluation and documentation. These are known exceptions, met in practice before. For each of these exceptions, a corresponding expected action that the robot should complete if it encounters the exception is defined.

Exception Ref. #	Exception Name	Exception	Step	Action to be Taken

4.2 System Exceptions

The table below reflects all the application/system exceptions/errors that may be encountered during the process. For each of these exceptions, a corresponding expected action that the robot should complete if it encounters the exception is defined.

Exception Ref. #	Exception Name	Exception	Step	Action to be Taken
AE001	QuickBooks Login Failure	Login to QuickBooks fails, maybe due to password expiry	3.2	Determine login failure reason; log exception in error log; notify user; end process

Exception Ref. #	Exception Name	Exception	Step	Action to be Taken
AE002	QuickBooks Unresponsive	QuickBooks site freezes/becomes unresponsive	3	Log error in error log; reopen QuickBooks; retry steps

5. Unknown Exceptions Handling

An unknown exception is one that has not been previously encountered in the business process. Such exceptions cannot be predicted with precision; however, if they occur, they must be communicated to the business.

For all the unanticipated or unknown business/application exceptions/errors, the bot should:

- Notify the business by way of email
- Log the exception in the Error Log
- Take a snapshot of the screen