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INVOICE GENERATION FOR IA2

Aniruddha Ray

Contents

Version Control

Date	Version	Name	Role	Comments
3/10/2022	1.0	Aniruddha Ray	Author	Created document
4/13/2022	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
RF002	Timesheets Email Sample	Aniruddha Ray	Contains a sample of the Body of the Timesheets Email sent to client.	Timesheets Email Sample_Body.docx

1. Document Overview

This document outlines the Invoice Generation for Client IA2 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

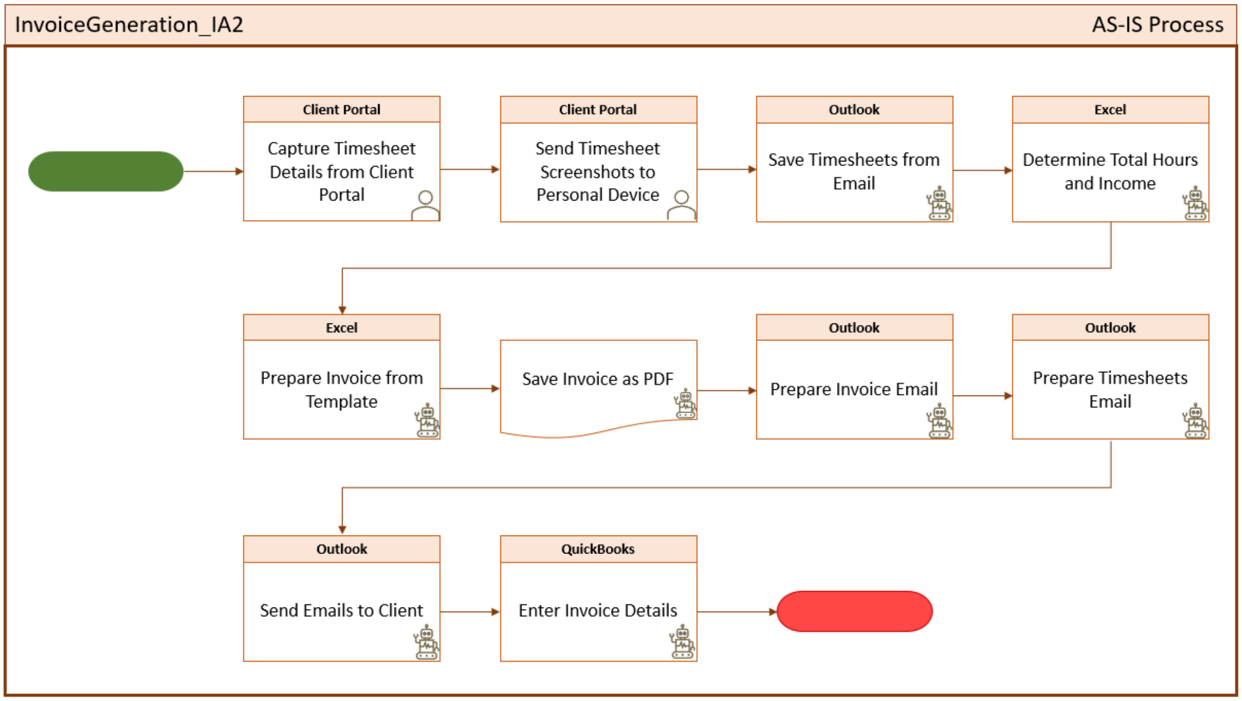
3. Process Definition

3.1 Application Details

Application	Application Use	Comments
Client Portal	Generate and capture timesheets	This is part of a client VDI; no automation is allowed on the portal
Outlook	Retrieve timesheet screenshots; prepare and send invoice and timesheet emails to client	
MS Excel	Calculate hours and income; prepare client invoice	
QuickBooks (web)	Enter invoice information for audit	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		Capture Timesheet Details from Client Portal
	1.1	Log in to Client Timesheet portal in Client VDI
	1.2	Take screenshots of weekly timesheets for the relevant month
	1.3	Save screenshots
2		Send Timesheet Screenshots to Personal Device
	2.1	Open Outlook in Client VDI
	2.2	Upload screenshots as attachments to a new email
	2.3	Send emails
3		Save Timesheets from Email
	3.1	Open Outlook
	3.2	Open email with subject: “Approved Timesheets for MMM”
	3.3	Save attachments to folder: \IA2\Invoices\MMM YYYY\

Process Step	Process Sub-step	Step Description
4		Determine Total Hours and Income
	4.1	Open file: \Time Tracker.xlsx
	4.2	Go to tab: Hours
	4.3	Get total hours under field: “MMMYY_Total”, corresponding to the relevant project codes
	4.4	Go to tab: Project_Details
	4.5	Get Rate under field: “Rate (hr)”, corresponding to the relevant project codes
	4.6	Get Project details under field: “Project”, corresponding to the relevant project codes
5		Prepare Invoice from Template
	5.1	Open Invoice template: \IA2\Invoices\Invoice_MMMM_Aniruddha Ray.xlsx
	5.2	Update ‘Date’ value (cell F3) to date of run
	5.3	Increment ‘Invoice #’ value (cell F4)
	5.4	Enter the ‘Invoice Period as “[Invoice Month Start Date {M.d.yyyy}] – [Invoice Month End Date {M.d.yyyy}]” (cell F5)
	5.5	Add the hours and rate values for each project code (columns A and E resp.)
	5.6	Add description for each project code with the following format: “RPA Services: [Project Details]” (column B)
6		Save Invoice as PDF
	6.1	Save Invoice as pdf to path: \IA2\Invoices\MMM yyyy\Invoice_MMMM_Aniruddha Ray.pdf
7		Prepare Invoice Email
	7.1	Create new email
	7.2	Set Subject as: “Invoice Submission / [Client Name] / [Vendor Name] / Aniruddha Ray / [Invoice Month {MMMM}]”
	7.3	Set Recipients
	7.4	Attach Invoice (pdf) to email
	7.5	For the Body, refer to the reference attachment, Ref. ID: RF001
8		Prepare Timesheets Email
	8.1	Create new email

Process Step	Process Sub-step	Step Description
	8.2	Set Subject as: “Timesheets / [Client Name] / [Vendor Name] / Aniruddha Ray / [Invoice Month {MMMM}]”
	8.3	Set Recipients
	8.4	Attach Timesheet screenshots to email
	8.5	For the Body, refer to the reference attachment, Ref. ID: RF002
9		Send Emails to Client
	9.1	Send out emails to respective recipients
10		Enter Invoice Details in QuickBooks
	10.1	Launch QuickBooks
	10.2	Login
	10.2.1	Enter User ID
	10.2.2	Enter Password
	10.2.3	Click ‘Sign In’
	10.3	Navigate to Invoices tab
	10.3.1	Go to: Invoices → Invoices
	10.4	Create Invoice
	10.4.1	Click ‘Create Invoice’ button
	10.5	Enter Invoice Details
	10.5.1	Set Customer field to Client
	10.5.2	Set Invoice #
	10.5.3	Set Due Date to Run Date + 45 days
	10.5.4	Enter Services for each Project Code
	10.5.4.1	Click ‘Add product or service’
	10.5.4.2	Enter Service = “RPA Services_” + Project Details associated with the Project Code
	10.5.4.3	Select “By hour” option from the Rate Type drop-down menu
	10.5.4.4	Enter Hours

Process Step	Process Sub-step	Step Description
	10.5.4.5	Enter Rate
	10.5.5	Save Invoice
	10.6	Logout
	10.6.1	Click on profile button
	10.6.2	Click 'Sign out'

3.3 Automation Scope

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

- Process Steps 3-10

3.4 Automation Out of Scope

The activities not in scope of automation are as follows:

- Process Steps 1-2
- 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
BE001	Timesheets Email Not Found	The Bot cannot find the email containing the timesheets for the relevant month	3	Log exception in error log; notify user of missing timesheets; end process

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	10.2	Determine login failure reason; log exception in error log; notify user; end process
AE002	QuickBooks Unresponsive	QuickBooks site freezes/becomes unresponsive	10	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