

Process Definition Document



Process Design Document for ACME Systems Inc., to compare the transactions of system 1 and system 3

TABLE OF CONTENTS

I.	INTRODUCTION	4
1.1	<i>Purpose.....</i>	4
1.2	<i>Objectives</i>	4
1.3	<i>Key Contacts</i>	4
1.4	<i>Minimum Pre-requisites for the Automation</i>	5
II.	AS IS Process description	5
2.1	<i>Process Overview</i>	5
2.2	<i>AS IS Process Map</i>	7
2.2.1	<i>High Level Process Map</i>	7
2.2.2	<i>Detailed Level Process Map.....</i>	7
2.3	<i>Process Statistics</i>	8
2.4	<i>Detailed As Is Process Actions.....</i>	8
2.5	<i>Input Data Description.....</i>	25
III.	TO BE Process description	26
3.1.	<i>Detailed TO BE Process Map</i>	26
3.2.	<i>Parallel Initiatives.....</i>	26
3.3.	<i>In Scope For RPA.....</i>	27
3.4.	<i>Exceptions Handling</i>	27
3.4.1.	<i>Known Business Exceptions</i>	27
3.4.2	<i>Unknown Business Exceptions.....</i>	27
3.5.	<i>Applications Errors & Exceptions Handling.....</i>	27
3.5.1.	<i>Known Applications Errors and Exceptions</i>	27
3.5.2.	<i>Unknown Applications Errors and Exceptions</i>	27
3.6.	<i>Reporting.....</i>	27

I. INTRODUCTION

1.1 Purpose

The Process Definition Document outlines the business process chosen for automation. The document describes the sequence of actions performed as part of the business process, the conditions and rules of the process prior to automation (**AS IS**) as well as the new sequence of actions that the process will follow as a result of preparation for automation (**TO BE**).

The PDD is a communication document between:

- The RPA Business Analyst and the SME/Process Owner. The goal is to ensure that the RPA Business Analyst has the correct understanding of the process and has represented it accurately.
- The RPA Business Analyst and the Development team (represented by the Solution Architect and RPA Development Lead). The goal is to ensure that the process is documented appropriately and to a sufficient level of detail so that the Solution Architect can then create the solution based on the PDD content.

1.2 Objectives

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

- Reduce processing time per item by 80%.
- Leverage automation to improve the department's overall performance and reliability.
- Better Monitoring of the overall activity by using the logs provided by the robots

1.3 Key Contacts

Role	Name	Contact Details (email, phone number)	Notes
Process SME	Ahmed Allam	ahmed.allam@gmail.com	Point of contact for questions related to business exceptions and passwords
Reviewer/ Owner	Ahmed Eldesoqy	a.desoqy@gmail.com	Point of contact for process exceptions.
RPA Analyst	Haidy Eldiasty	haidy.eldiasty@gmail.com	Identify, design and implement automation solutions to enhance operational efficiency.

1.4 Minimum Pre-requisites for the Automation

- a) Filled in Process Definition Document
- b) Test Data to support development
- c) User access and user accounts creations (licenses, permissions, restrictions to create accounts for robots)
- d) Credentials (user ID and password) required to login to machines and applications

II. AS IS PROCESS DESCRIPTION

In this section the Business Analyst will document the process. This section will serve as the starting point for the re-engineering and automation effort.

2.1 Process Overview

Section contains general information about the process before automation.

Item	Description/Answer
Process Full Name	Verify Account Positions
Process Area	
Department	Finance and Accounting department
Short Description (operation, activity, outcome)	Process Design Document for ACME Systems Inc., to compare the transactions of system 1 and system 3
Role(s) required in applications to perform the process	ACME System 1 and 3 - Microsoft Excel
Process schedule and frequency	Daily, Sunday to Thursday, 9 am – 6 pm
Number of times the process is ran by selected frequency	~22,500
Process execution time	7 min. 53 sec.
Process Restrictions	<p><i>e.g. This is necessary for the Solution Architect to decide how they will need to split the Master Project into smaller projects (the scheduling of the robots will depend on this)</i></p> <p><i>Example: The applications can be used only between 7 AM-8PM during work days and not allowed to be used during weekend.</i></p>
Peak Period (s)	<p><i>e.g. It is important to understand peaks in order to design a robust and scalable solution.</i></p> <p><i>Example: Beginning of month, usually from 28th to 30th day of each month</i></p>

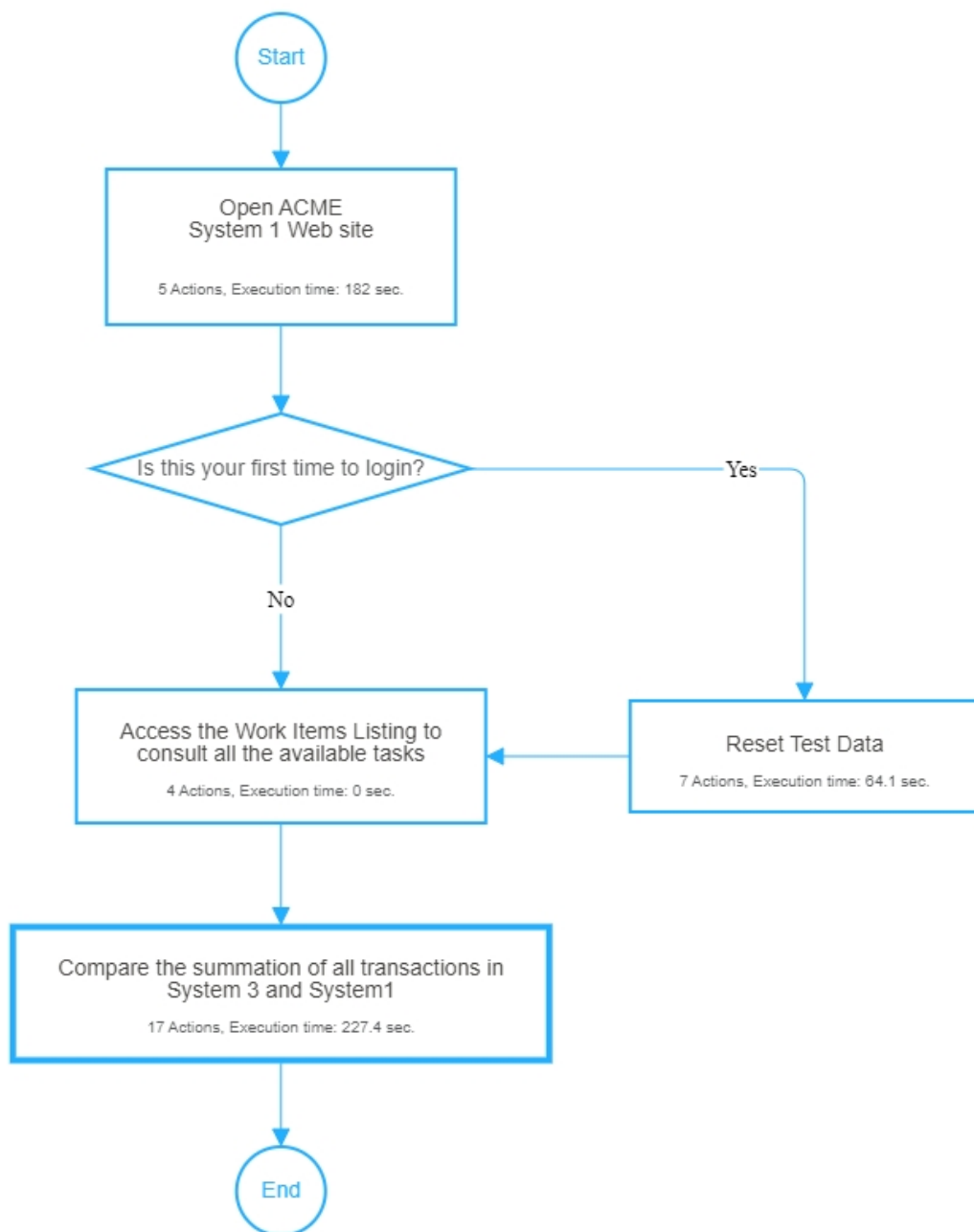
Peak Volume Approximate increase	<i>E.g. It is important to understand peaks in order to design a robust and scalable solution.</i> <i>Example: 600</i>
Number of persons performing the process	1
Expected Volume increase during next periods	<i>e.g. It is important to understand peaks in order to design a robust and scalable solution.</i> <i>Example: 10-20%</i>
Percentage Un-handled exceptions	5%
Input data description	<i>e.g.: pdf invoices from ~100 suppliers</i>
Output Data description	<i>e.g. posted invoices report in SAP</i>

2.2 AS IS Process Map

This section contains various process maps contributing to a better understanding of how the process is performed pre-automation.

2.2.1 High Level Process Map

This section is useful for the Business Analyst in presentations and discussions with management to underline areas of weakness, inefficiency or to demonstrate which actions could be in scope for automation.



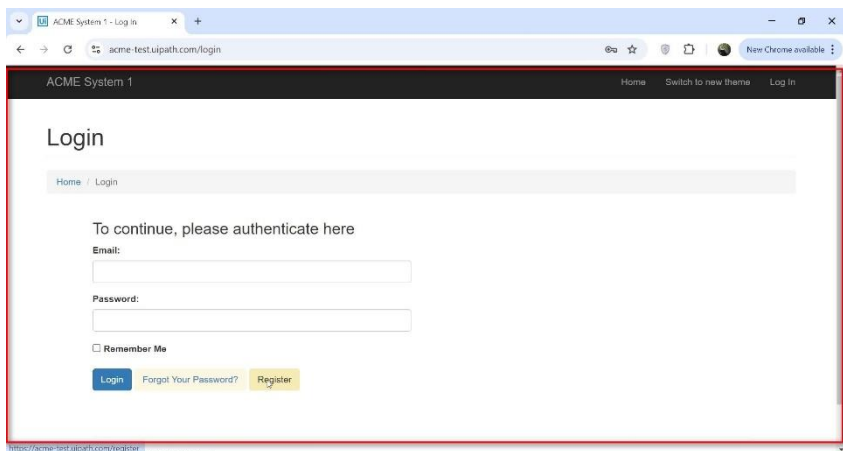
2.3 Process Statistics

High Level statistics

Processes	Windows	Actions	Mouse clicks	Keys pressed	Text entries	Hotkeys used	Time
3	10	33	28	1	1	1	7 min. 53 sec.

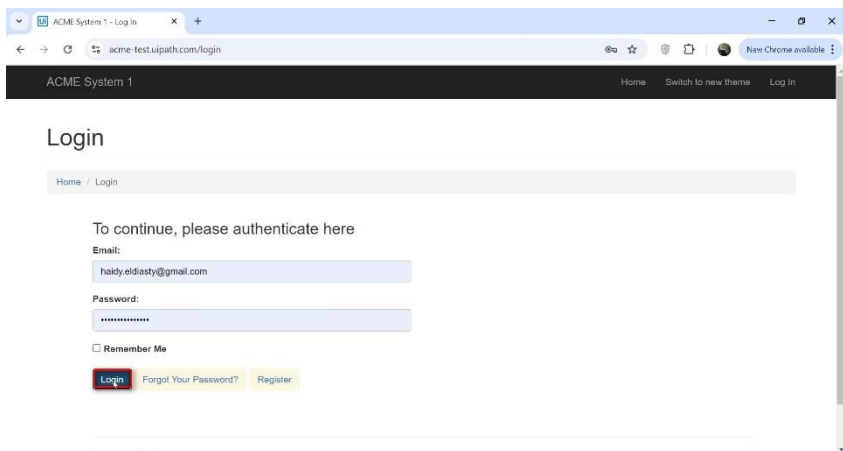
2.4 Detailed As Is Process Actions

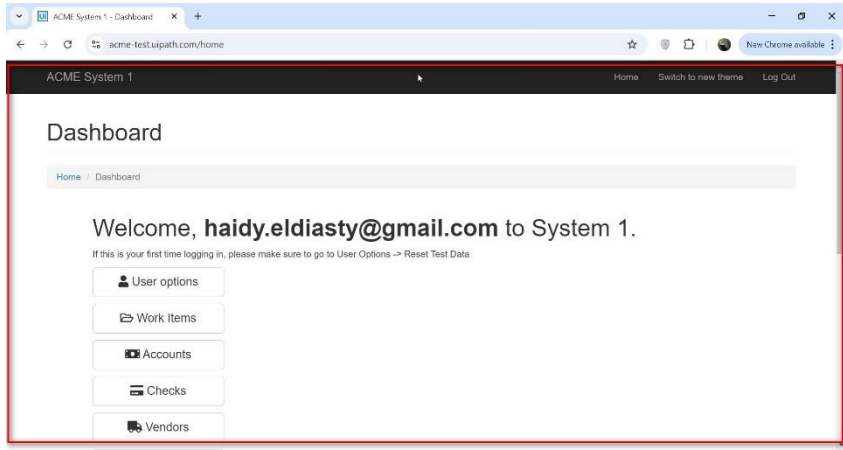
1. Open ACME System 1 Web site	
	Est. time: 3 min. 2 sec.

1.1 Open ACME System 1	
URL: https://acme-test.uipath.com/login	Est. time: 10.2 sec.
	Action: Click

1.2 Register a new account	
Click on "Register"	Est. time: 10.2 sec.
	Action: Click

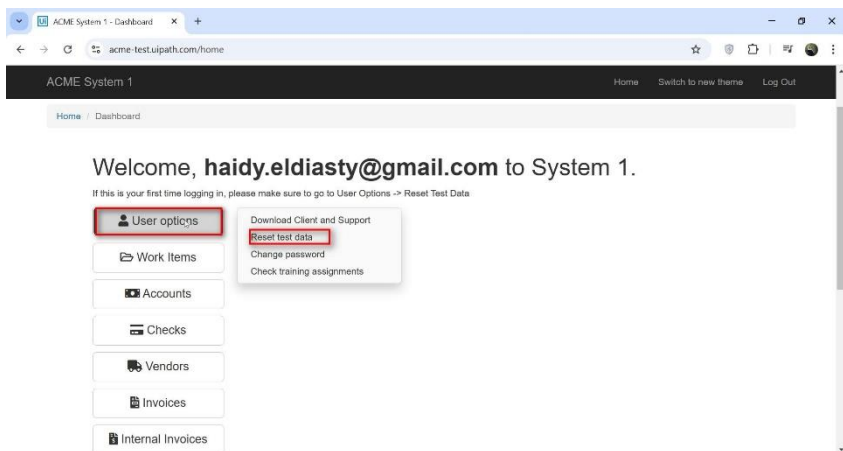
1.3 Fill in your "Credentials"	
Tick the marked boxes and then click "Register"	Est. time: 2 min. 24 sec.
	Action: Click

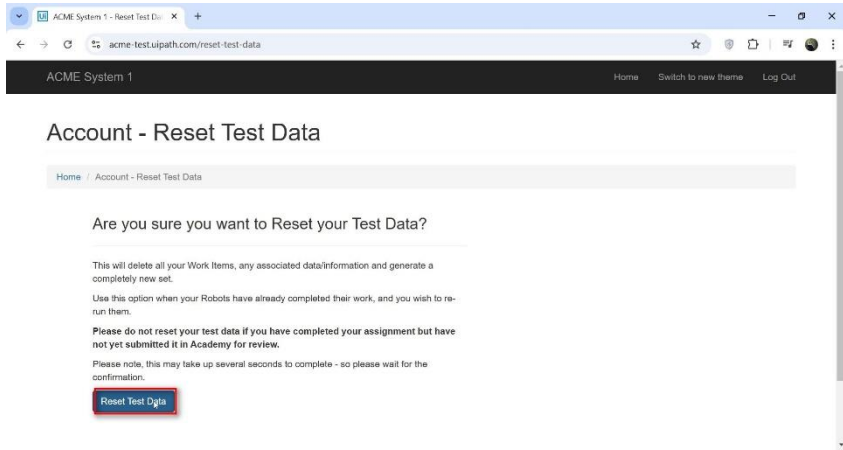
1.4 Go to "Login" page	
Fill in your "Credentials" and click "Login"	Est. time: 3.8 sec.
	
	Action: Click

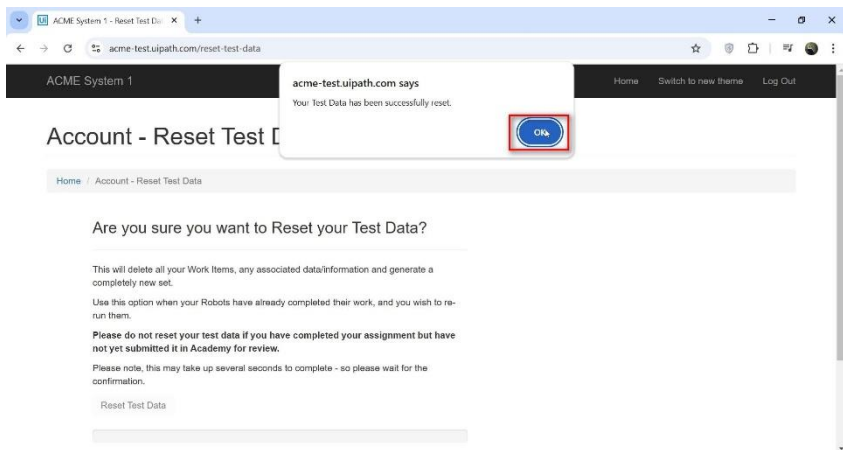
1.5 Access the ACME System 1 "Dashboard"	
	Est. time: 13.3 sec.
	
	Action: Click

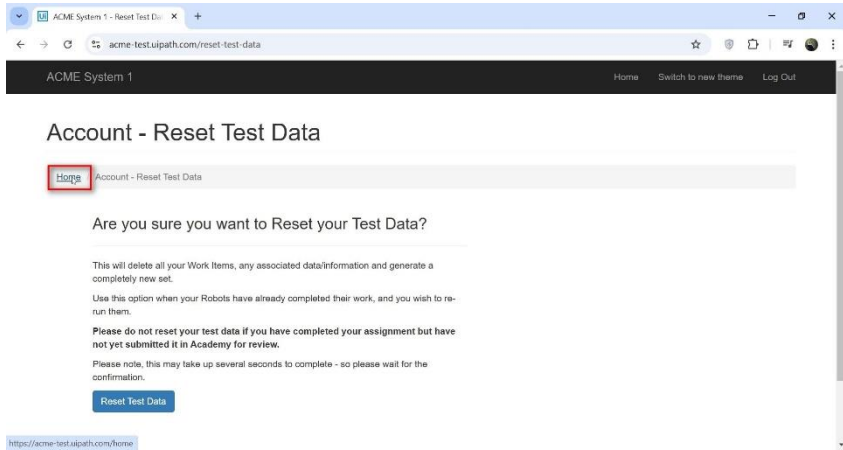
2. Is this your first time to login?	
If 'Yes' then go to '3. Reset Test Data' If 'No' then go to '6. Access the Work Items Listing to consult all the available tasks'	Est. time: 0.0 sec.

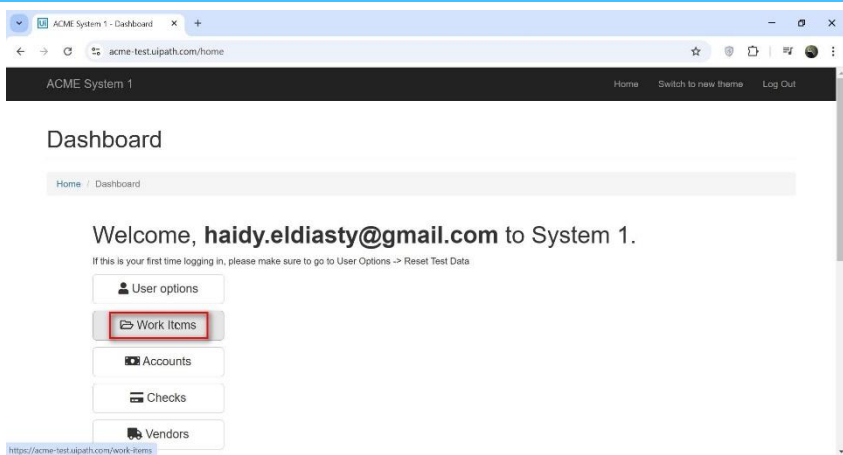
3. Reset Test Data	
	Est. time: 1 min. 4 sec.

3.1 Reset test Data	
Click on "User options" then click on "Reset test data"	Est. time: 24.8 sec.
	
Action: Click	

3.2 Reset test Data	
Click on "Reset Test Data"	Est. time: 4.5 sec.
	
Action: Click	

3.3 Reset test Data	
Click on "OK" in the pop-up menu	Est. time: 8.0 sec.
	
Action: Click	

3.4 Go to the "Home" page	
Click on "Home"	Est. time: 2.7 sec.
	Action: Click

3.5 Access the "Dashboard" page	
Click on "Work Items"	Est. time: 4.9 sec.
	Action: Click









3.6 Access the Work Items Listing

Click on the search icon besides "WI 1"

Est. time: 12.0 sec.

Search Results

Please find below your work items. They need to be completed in the order specified by your manager.

Actions	WIID	Description	Type	Status	Date
	104419733	Verify Account Position	WI1	Open	2017-08-27
	104419843	Calculate Client Security Hash	WI5	Open	2020-08-09
	104419884	Process Vendor Invoice	WI3	Open	2023-03-23
	104419831	Calculate Client Security Hash	WI5	Open	2023-10-27
	104419676	Research Client Check Copy	WI2	Open	2021-10-29
	104419714	Research Client Check Copy	WI2	Open	2022-10-17
	104419725	Verify Account Position	WI1	Open	2018-09-25
	104419706	Research Client Check Copy	WI2	Open	2024-12-10

<https://acme-test.upath.com/work-items/104419733>

Action: Click

3.7 Open the Details page for the selected activity

Copy "Client ID, Account Number and Account Amount"

Est. time: 7.2 sec.

Work Items - Work Item Details

Home / Work Items / Work Item Details

Verify Account Positions

Account Information Details

Client ID: EG75283

Account Number: 171327

Account Amount: 801422 CAD

Work Item Details

WIID: 104419733

Type: Verify Account Position

Status: Open

Date: 2017-08-27

[Update Work Item](#)

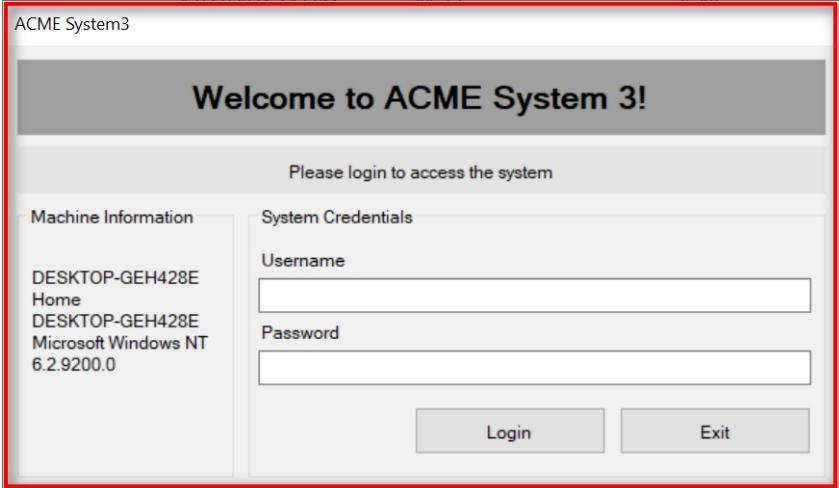
Action: Click

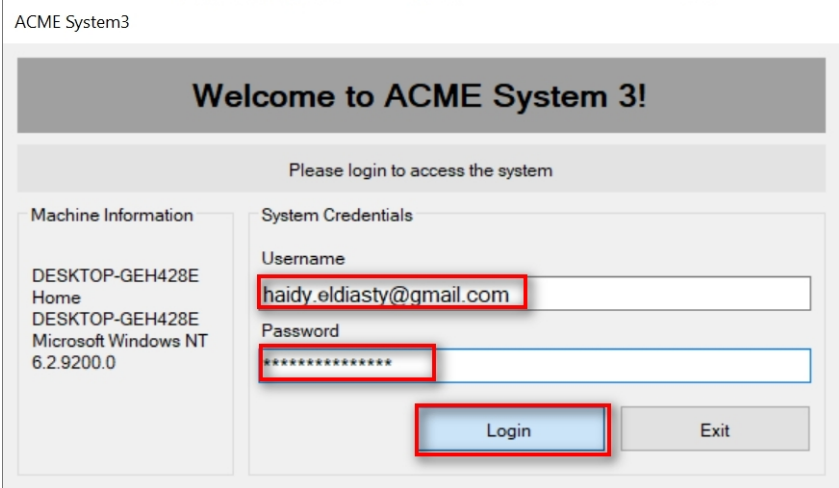
3.8 Go to: Access the Work Items Listing to consult all the available tasks

Est. time: 0.0 sec.

4 Compare the summation of all transactions in System 3 and System1

Est. time: 3 min. 47 sec.

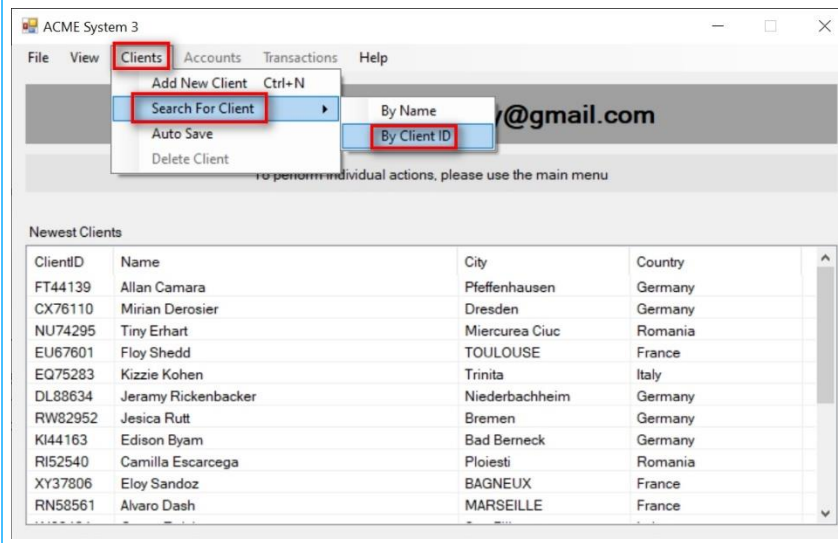
4.1 Open ACME System 3 Desktop Application	
	Est. time: 44.3 sec.
<p>ACME System3</p> 	Action: Click

4.2 Fill in the "Credentials"	
Type the same "Credentials" of System 1 and click on "Login"	Est. time: 2.1 sec.
<p>ACME System3</p> 	Action: Click

4.3 Access the "Main Menu"

Click on "Clients" then "Search for Client", finally, "By Client ID"

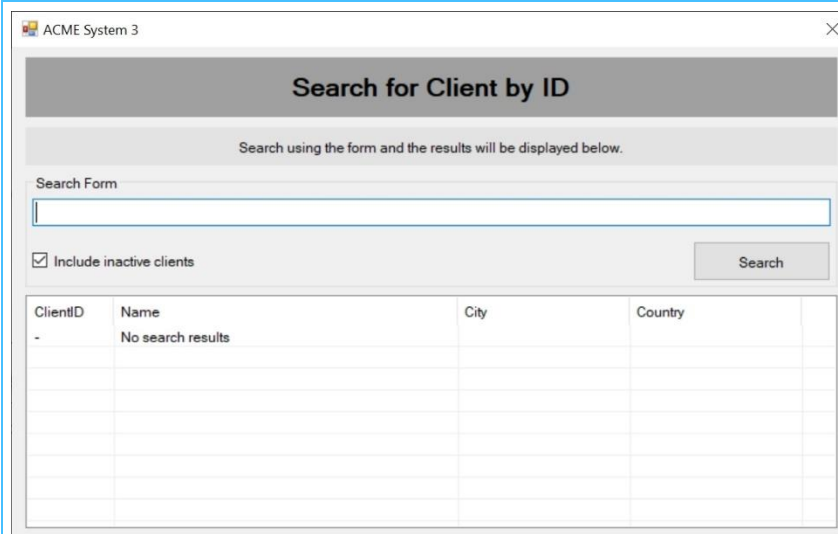
Est. time: 6.5 sec.



Action: Click

4.4 Access the "Search Window"

Est. time: 2.1 sec.

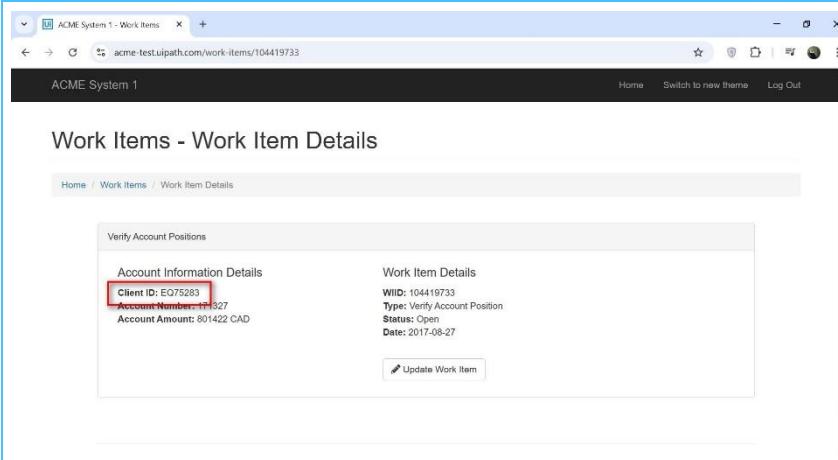


Action: Click

4.5 Go to "ACME System 1"

Copy the "Client ID"

Est. time: 2.6 sec.

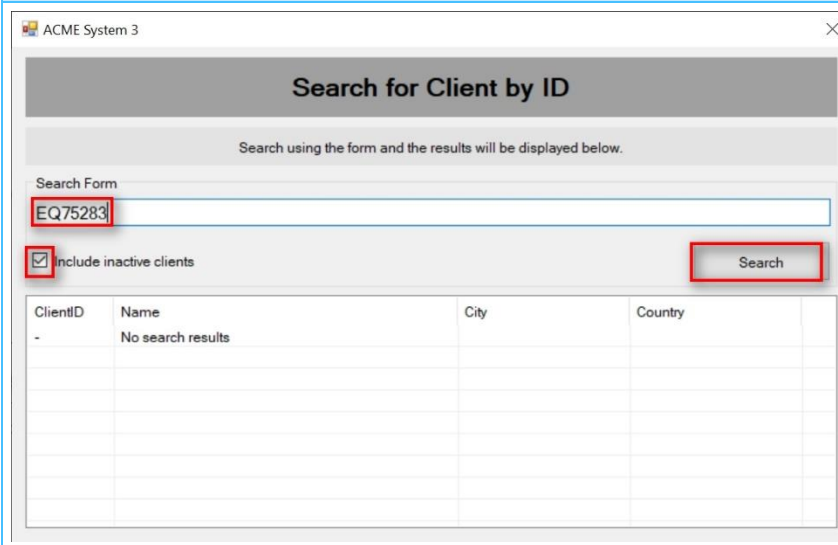


Action: Click

4.6 Access the "Search for Client by ID"

Paste the "Client ID" in the "Search Form" and Tick the box to "Include inactive clients", then click on the "Search" button

Est. time: 0.9 sec.



Action: Hotkey

4.7 Select the required "Client ID"

Click on the "Client ID Number"

Est. time: 57.5 sec.

ClientID	Name	City	Country
EQ75283	Kizzie Kohen	Trinita	Via Vipacco 136

Action: Double Click

4.8 Access the "Client Details" window

Click on "Clients Accounts"

Est. time: 4.4 sec.

Client Details

Kizzie Kohen
Address: Via Vipacco 136
City: Trinita
Country: Italy

Client Accounts Client Checks Change Client Details

Action: Click

4.9 Access the "Client Accounts" window

Click on the "Client Account Number" resulted in "ACME System 3"

Est. time: 10.5 sec.

Account	Last Transaction	Amount	Status
171327	10/9/2018 6:58:59 AM	559458 CAD	Active
904388	10/9/2018 6:58:59 AM	1232380 RON	Suspended

Action: Double Click

4.10 Access the "Account Movements" window

Adjust the "From - To dates" and then click on "Show all"

Est. time: 49.7 sec.

transactionID	transaction Date	Amount	Type
-	No search results		

Action: Click

4.11 Access the "Account Movements" window

Calculate the "sum" of all transactions for the specified account

Est. time: 3.2 sec.

transactionID	transaction Date	Amount	Type
74496952	9/2/2017 12:00:00 AM	239529	Offline
82958215	4/15/2017 12:00:00 AM	-162170	Online
17310262	12/28/2017 12:00:00 AM	-105406	Online
25937424	9/15/2017 12:00:00 AM	44213	Offline
65804300	2/25/2018 12:00:00 AM	145357	Online
41058375	8/14/2017 12:00:00 AM	40195	Online
75111811	2/9/2018 12:00:00 AM	196875	Online
29310728	6/18/2017 12:00:00 AM	274501	Online
20315103	12/18/2017 12:00:00 AM	100000	Online

Action: Click

4.12 Go back to the "Work Item Details" in "ACME System 1"

Click on "Update Work Item"

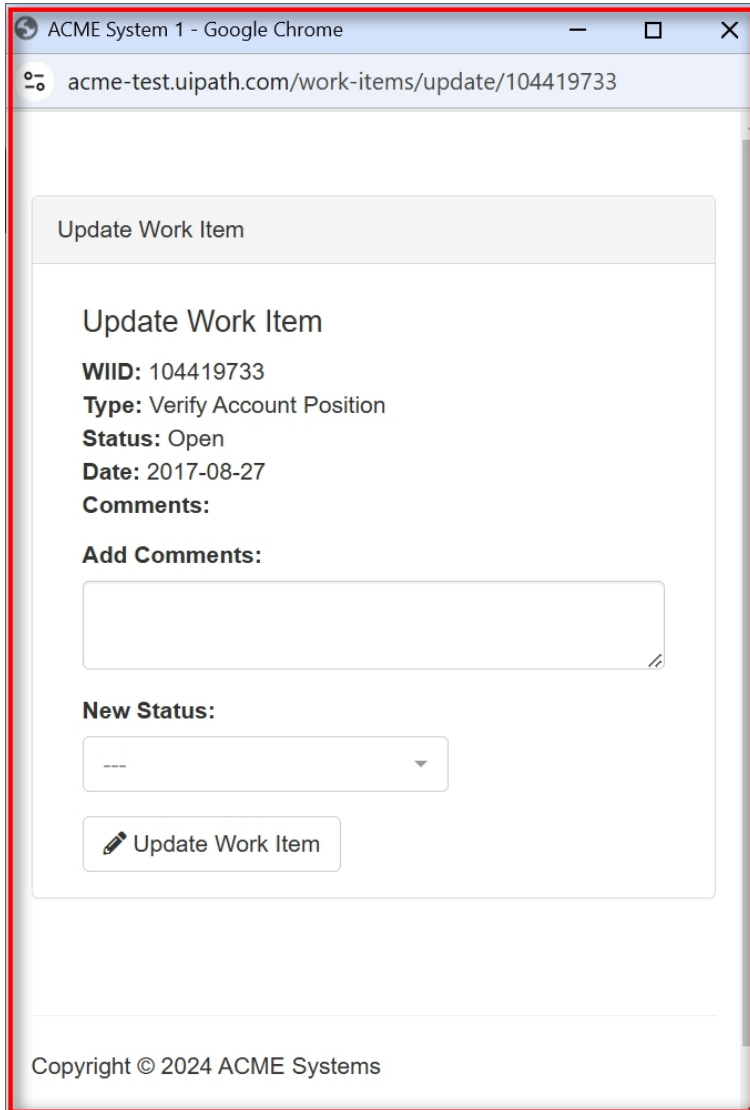
Est. time: 3.4 sec.

Action: Click

4.13 Access the "Update Work Item" window

Est. time: 7.9 sec.

Action: Click



ACME System 1 - Google Chrome

acme-test.uipath.com/work-items/update/104419733

Update Work Item

Update Work Item

WIID: 104419733

Type: Verify Account Position


Status: Open

Date: 2017-08-27

Comments:

Add Comments:

New Status:

 Update Work Item

Copyright © 2024 ACME Systems

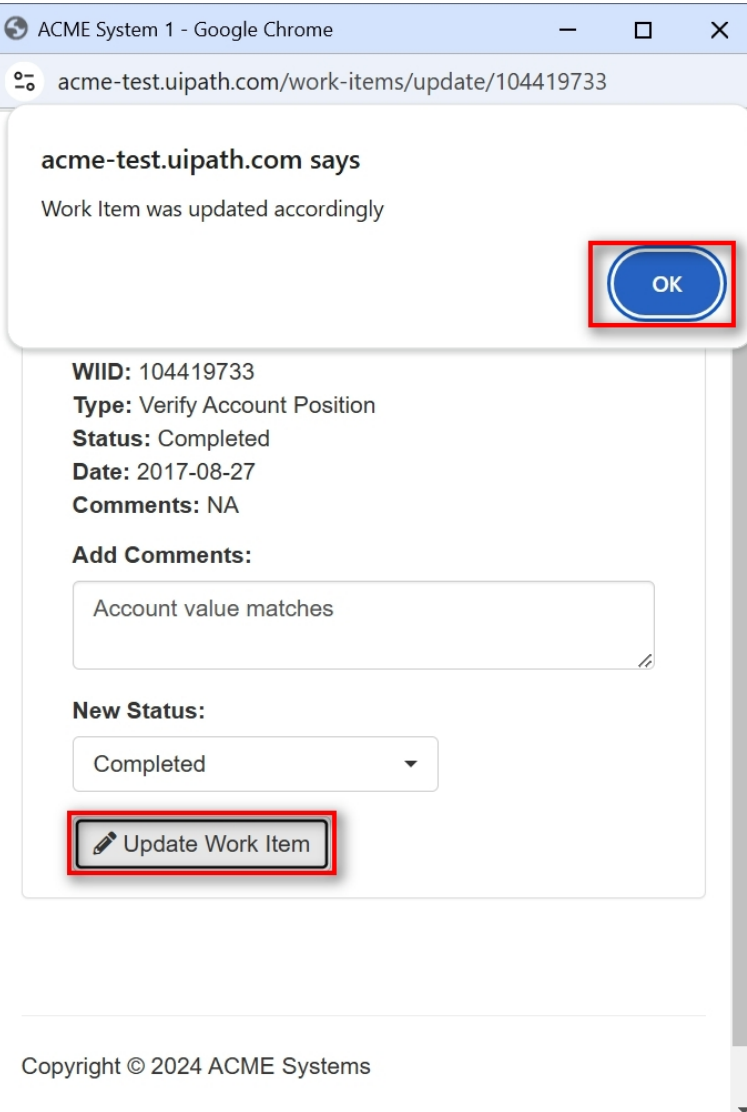
4.14 Update Work Item "Status"

Add a "comment" and select the work item "status" from the drop down menu
 ** If the sum of all transactions in System 3 is 'Equal' to the Account amount in System 1 add a comment: "Account value matches" and Set the status to "Completed"

Est. time: 8.4 sec.

** If the sum of all transactions in System 3 is 'Not Equal' to the Account amount in System 1 add a comment: "Account value doesn't matches" and Set the status to "Rejected"

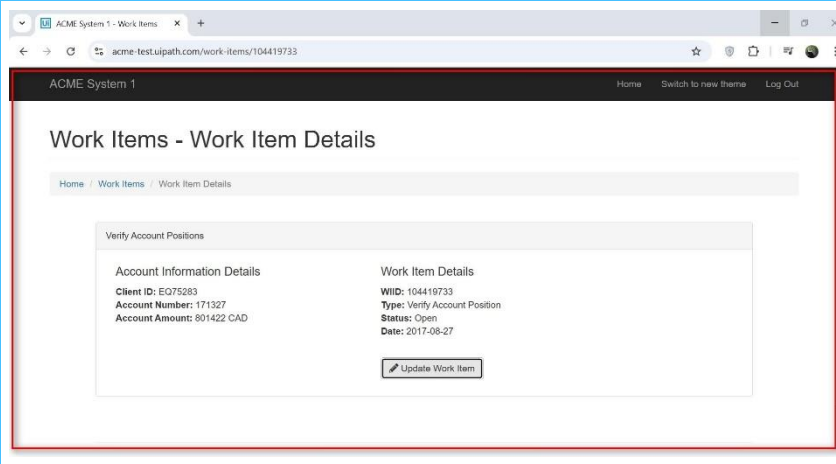
Action: Click

4.15 Finalize the update	
Click on "Update Work Item" then on "OK" in the pop-up menu resulted	Est. time: 4.3 sec.
	Action: Click

4.16 "Work Item Details" window

You will be re-directed to the "Work Item Details" window

Est. time: 3.4 sec.

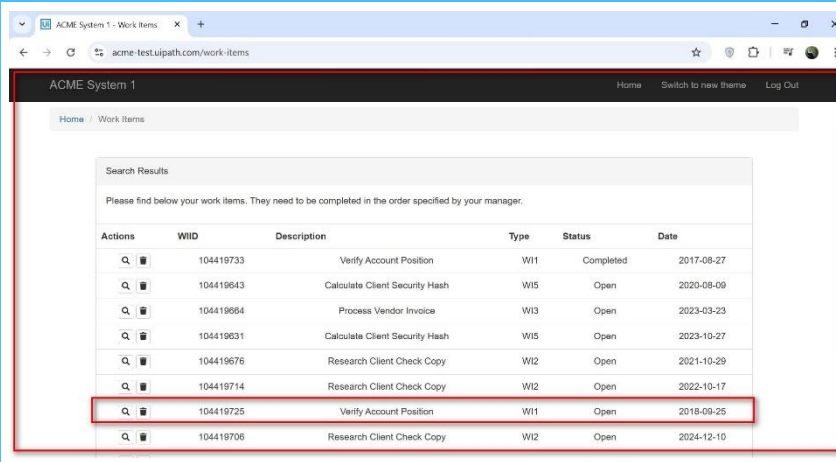


Action: Click

4.17 Go back to "Work Items" window

Click on the "Search icon" for another WI 1 item type to complete its status and repeat the process for them all

Est. time: 16.3 sec.



Action: Click

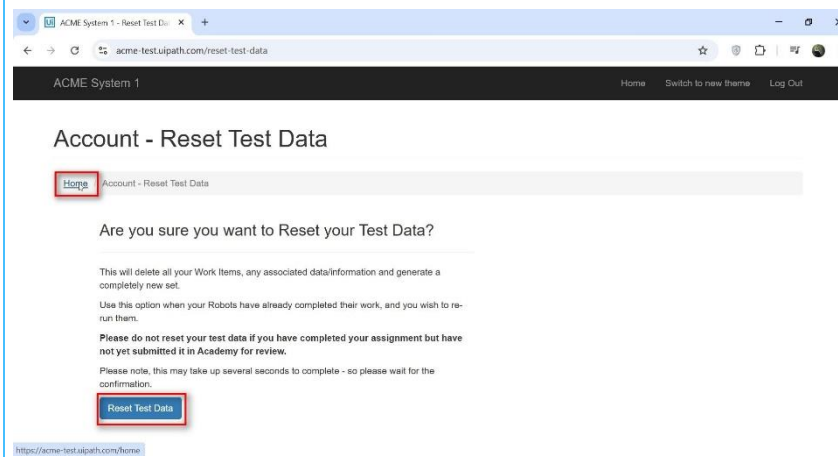
5 Access the Work Items Listing to consult all the available tasks

Est. time: 0.0 sec.

5.1 Reset Test Data

Click on "Reset Test Data" in the "Home" page

Est. time: 0.0 sec.

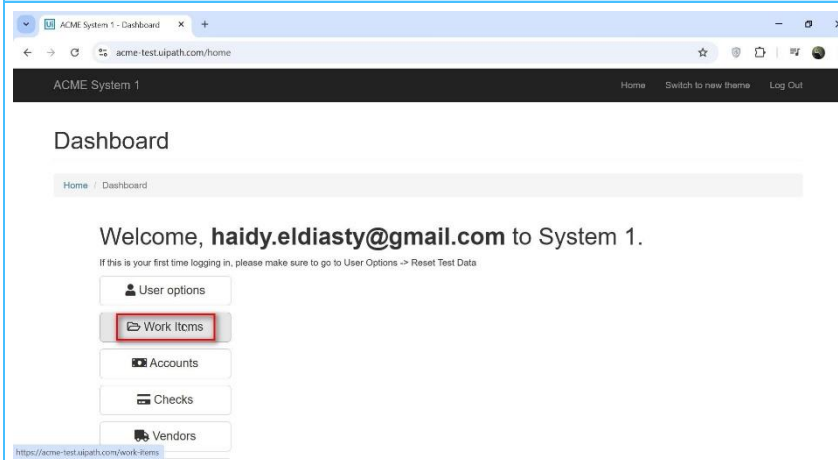


Action:

5.2 Access the "Work Items"

Click on "Work Items"

Est. time: 0.0 sec.

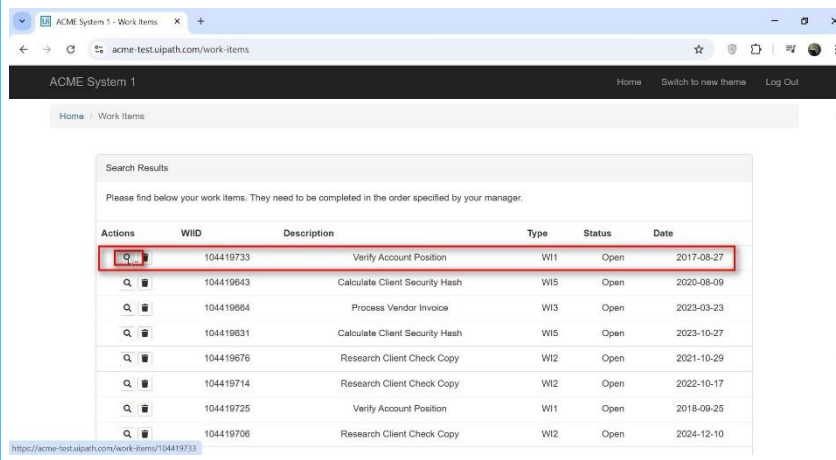


Action:

5.3 Access the "Work Items" window

Click on the "Search" icon for each activity of the type WI 1

Est. time: 0.0 sec.

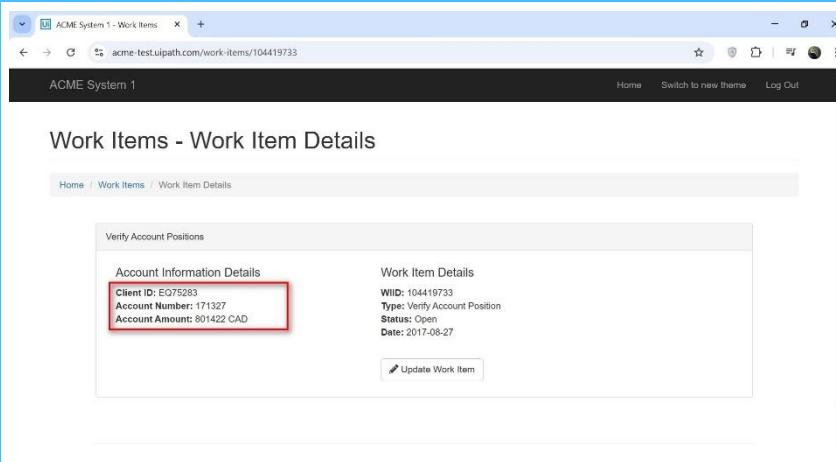


Action:

5.4 Access the "Work Item Details" window

Read the "Client ID", "Account Number" and "Account Amount" and take them into consideration

Est. time: 0.0 sec.



Action:

2.5 Input Data Description

The following table should contain details regarding the inputs that every action of the process takes.

#Action	Sample	Input Type	Location	Are inputs Natively Digital*?	Are the Inputs Structured*?
Client ID	EQ75283	Digits& Alphabets	ACME System 1	Yes	Yes
Client Account Number	171327	Digits	ACME System 1	Yes	Yes
Client Account Amount	801,422	Digits	ACME System 1	Yes	Yes

* Native Digital: This is data that was originally created digitally e.g. excel, database or application reports etc. The non-native digital inputs are usually scanned images.

* Structured Data: has a predictable format and exists in fixed fields (e.g. an excel cell or a field in a form) and is easily detectable via search algorithms.

III. TO BE PROCESS DESCRIPTION




In this section the proposed improvements to the process, actions to the process will be outlined as well as the actions proposed for automation and the type of robot required. **This will be cross-checked by the Solution Architect.**

3.1. Detailed TO BE Process Map

A detailed process map of the process as it will look like post-automation will be outlined here.

Highlight Bot interventions/ To-Be automated actions with different legend/ icon (purple).

Mention below if process improvements were performed on the To-Be design and provide details.

Legend	Description
	Action number in the process. Referred to in details or Exceptions and Errors table.
	This process action is proposed for automation.
	This process action remains manual (to be performed by a human agent).

3.2. Parallel Initiatives

The table below will capture the proposed Business, Process or Application changes to be made in the near future that would impact the process at hand (if any).

Initiative Name	Process Action(s) where it is identified	Impact on current Automation Request	Expected Completion Date	Contact Person

3.3. In Scope for RPA

The actions in scope for RPA should be listed below:

#	Application name & Version	System Lang.	Login module	Interface	Environment/ Access method	Comments
1	ACME System 1	English	Web	Web	Web Browser	
2	ACME System 3	English	App	Client	Local desktop	
3	Excel	English	App	Client	Local desktop	

3.4. Exceptions Handling

The Business Process Owner and Business Analysts are expected to document below all the business exceptions identified in the automation process. Exceptions are of 2 types and both need to be addressed:

Known exceptions = previously encountered. A scenario is defined with clear actions and workarounds for each case.

Unknown = New situation that was not encountered before. It cannot be predicted and in case it happens it needs to be flagged and communicated to an authorized person for evaluation.

3.4.1. Known Business Exceptions

Details regarding how the robot should handle the exceptions.

Exception Name	Action	Parameters	Action to be taken
<i>e.g. Employee ID <> 6 characters</i>	<i>e.g. Action 1</i>	<i>e.g. Employee ID</i>	<i>e.g. send an e-mail to ahmed.allam@gmail.com with the text: "Employee ID <> 6 characters" Go to the next transaction</i>

3.5.2 Unknown Business Exceptions

An umbrella rule that includes a notification needs to be designed for all other exceptions that could happen and cannot be anticipated.

e.g.: for all other cases which do not follow the rules defined an e-mail should be sent to: ahmed.allam@gmail.com with a screen shot and robot should proceed to next transaction.

3.5. Applications Errors & Exceptions Handling

A comprehensive list of all errors, warnings or notifications should be consolidated here together with the action to be taken for each by the Robot. There are 2 types of exceptions/errors:

Known = Previously encountered and action plan or workaround available for it (e.g. SAP unresponsive during peak times)

Unknown = these are exceptions and errors that cannot be anticipated but for which the robot needs to have a rule so that the RPA solution is sustainable.

3.5.1. Known Applications Errors and Exceptions

Details regarding how the robot should handle the exceptions.

Error/Exception Name	Action	Parameters	Action to be taken
<i>e.g. Application Crash</i>	<i>e.g. Any action</i>	<i>e.g. Error message</i>	<i>e.g. recover and retry 3 times</i>

3.5.2. Unknown Applications Errors and Exceptions

An umbrella rule that includes a notification needs to be designed for all other exceptions that could happen and cannot be anticipated.

e.g. robot should attempt to access the application 3 times then it should terminate thread.

3.6. Reporting

In this section all the reporting requirements of the business should be detailed so that when the RPA solution is moved to production the administrators can track the performance of the solution.

Report Type	Update frequency	Details	Monitoring Tool to visualize the data
<i>e.g. Process logs</i>	<i>e.g. Daily</i>	<i>e.g. How many times was this process run since the beginning of the month and what was the average run duration</i>	<i>e.g. Kibana</i>
<i>e.g. Process logs</i>	<i>e.g. Monthly</i>	<i>e.g. How many robots worked on this process per each month?</i>	<i>e.g. Csv file posted daily on share drive</i>
<i>e.g. Transaction logs</i>	<i>e.g. Daily</i>	<i>e.g. How many transactions were run by this process since the beginning of the month and what was the average transaction duration?</i>	<i>e.g. Kibana</i>
<i>e.g. Error logs</i>	<i>e.g. Daily</i>	<i>e.g. Average number of errors by type per day</i>	<i>e.g. Kibana</i>
<i>e.g. Error logs</i>	<i>e.g. Daily</i>	<i>e.g. All errors per month grouped by type</i>	<i>e.g. Csv file posted daily on share drive</i>

** For complex reporting requirements, include them into a separate document and attach it to the present documentation*