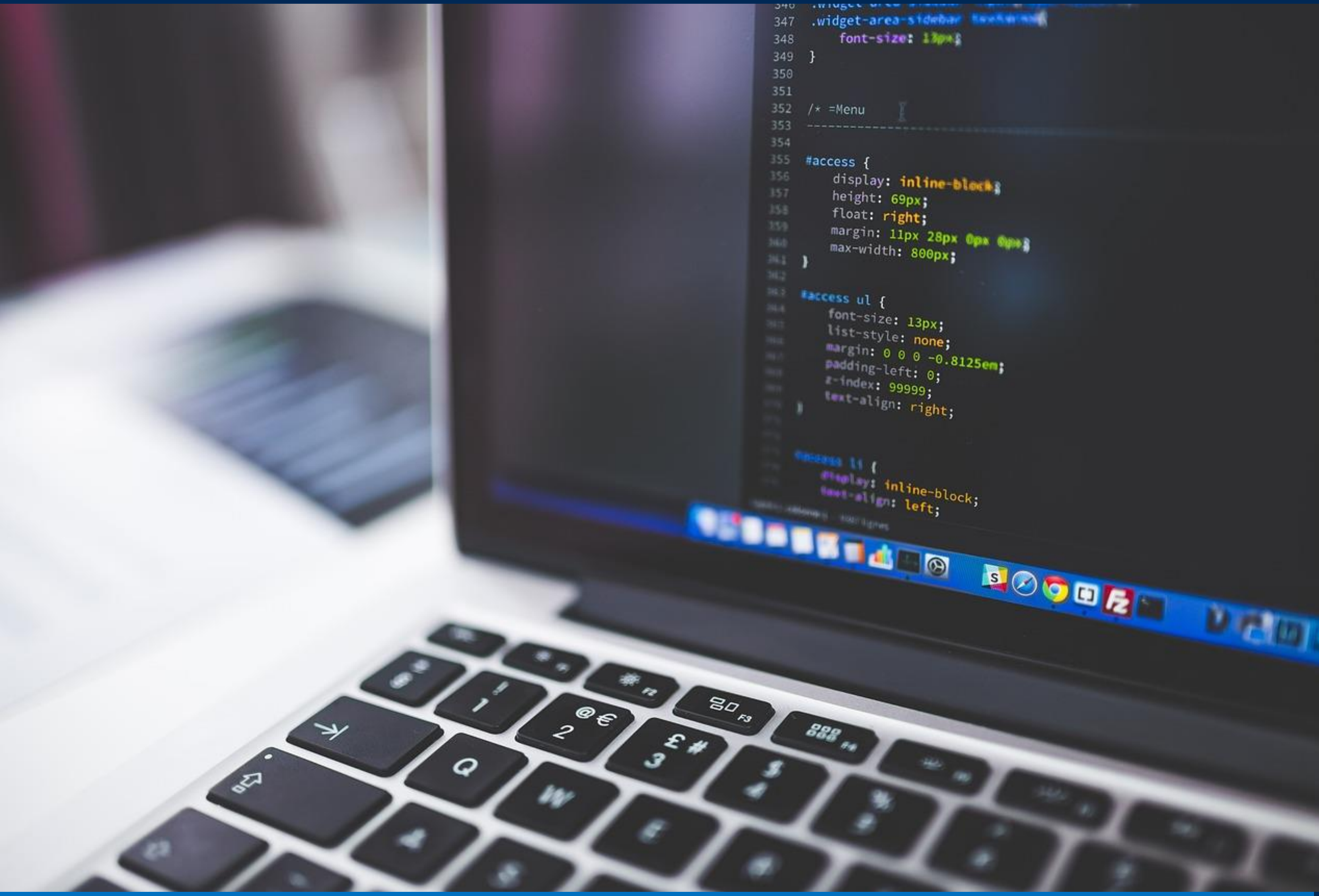


Solution Design Document

Invoice Generator

UiPath

TABLE OF CONTENTS

I. PURPOSE

The purpose of the Invoice Generating Product is to provide an automated solution for creating and managing invoices within an organization. This product streamlines the invoicing process, eliminates manual errors, enhances efficiency, and ensures timely and accurate billing.

The Invoice Generating Product is designed to cater to businesses of various sizes and industries, offering a flexible and customizable platform to meet specific invoicing needs. It leverages technology, such as Robotic Process Automation (RPA) or other automation tools, to automate the creation, formatting, and distribution of invoices.

Key features of the Invoice Generating Product include:

1. Invoice Creation: The product enables the automatic generation of professional invoices based on predefined templates or customizable formats. It extracts relevant information from internal systems or input provided by users, ensuring accuracy and consistency in invoice content.

2. Data Integration: The product integrates with relevant data sources within the organization, such as customer relationship management (CRM) systems, financial databases, or inventory management systems. This integration ensures that invoice details, including customer information, product or service details, and pricing, are up-to-date and synchronized.

3. Automation and Workflow: The product automates the invoicing workflow by applying business rules and predefined logic. It eliminates the need for manual intervention at various stages, such as invoice generation, approval processes, and delivery methods. This automation reduces processing time, minimizes errors, and improves overall efficiency.

4. Billing and Payment Management: The Invoice Generating Product includes functionality for tracking billing cycles, monitoring payment statuses, and generating reminders for overdue payments. It may also integrate with payment gateways or accounting systems to streamline the payment collection process.

5. Reporting and Analytics: The product provides comprehensive reporting and analytics capabilities, allowing users to gain insights into invoicing trends, customer payment behaviors, revenue analysis, and other key performance indicators. These insights help organizations make informed decisions and optimize their invoicing processes.

animesh

II. DOCUMENT HISTORY

Date	Version	Role	Name	Organization/ Department	Function	Comments
	1.0	Author			Developer	Initial Draft

animesh

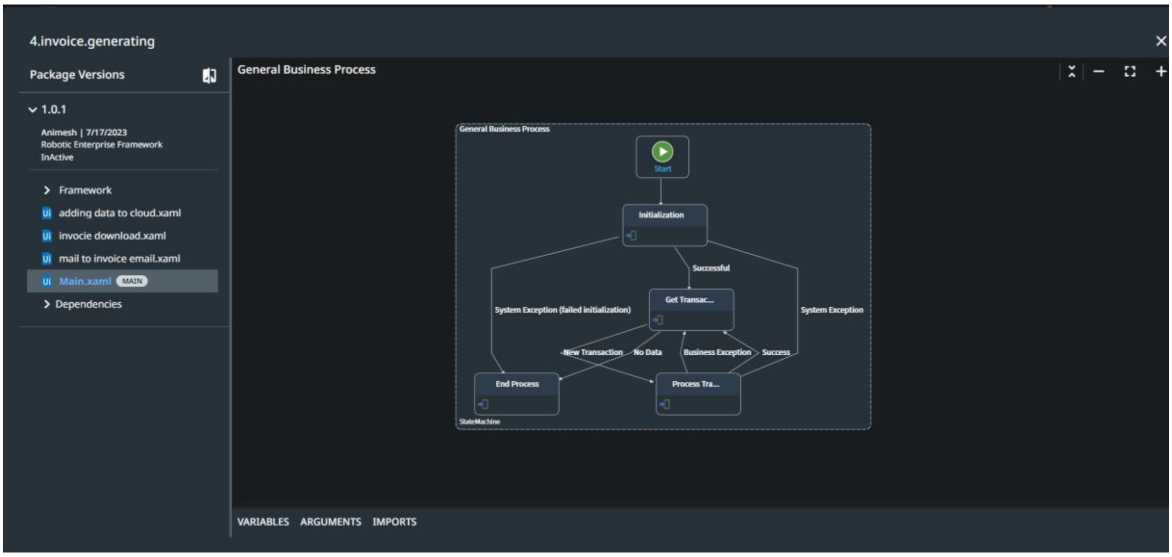
III. AUTOMATED PROCESS DETAILS

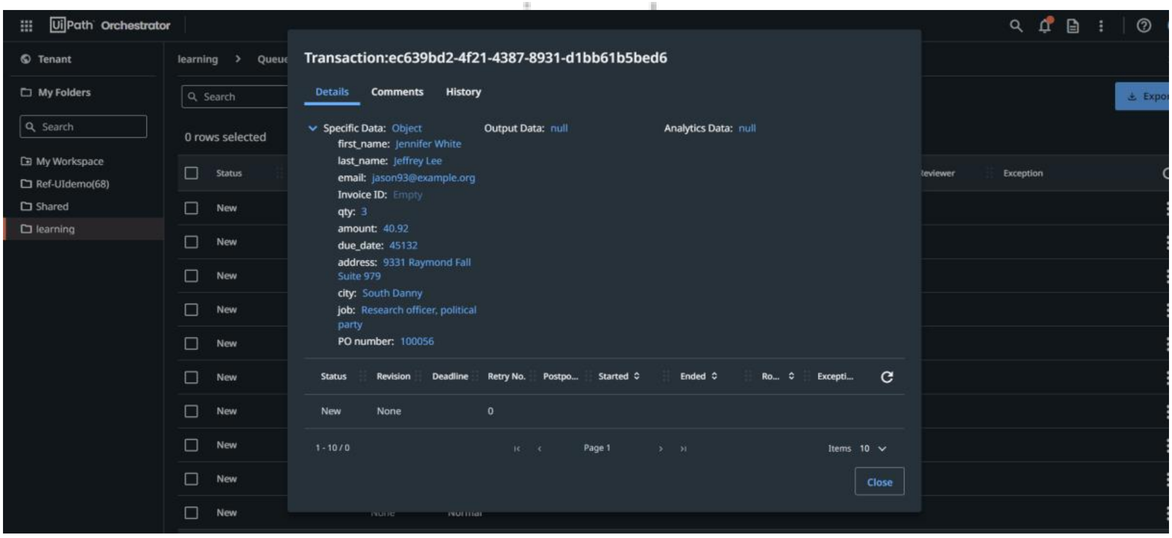
Details filled in need to reflect the actual information for the Master Project released for production. The following table will be populated:

Item	Description
Project Name	4 invoice generating
Robot Type	BOR, FOR or Mix
Is Background process? **(No click like UI interaction)**	No
Orchestrator used?	Yes
Scalable	e No
UiPath version used	23.6.1.0

2 RUNTIME GUIDE

2.1 Architectural structure of the Master Project





Transaction:ec639bd2-4f21-4387-8931-d1bb61b5bed6

Specific Data: Object
first_name: Jennifer White
last_name: Jeffrey Lee
email: jason93@example.org
Invoice ID: Empty
qty: 3
amount: 40.92
due_date: 45132
address: 9331 Raymond Fall Suite 979
city: South Danny
job: Research officer, political party
PO number: 100056

Output Data: null

Analytics Data: null

Status	Revision	Deadline	Retry No.	Postpo...	Started	Ended	Ro...	Excepti...
New	None		0					

1 - 10 / 0 Page 1 Items 10

2.2 Master Project Runtime Details

Outlines the details of the automated process by filling in the table below.

ITEM NAME	DESCRIPTION *Fill in each bolded section - empty fields are not allowed. If the section does not apply to your automation then mark as n/a.*
Production environment details	*Example: Running on Sparky , the virtual backoffice machine. Scheduled every night after the report is generated from X system.*
Prerequisites to run	*Example: Report was generated by X system* *Email received in bot.inbox@abc.com* *Having Excel on the machine*
Input Data	*Example: 3 valid CSV files* *2 source files in C:\BotReporting*
Expected output	*Example: 2 e-mails sent to e-mail address: management@abc.com*
How to start the automated process	*Example: 3 valid CSV files*
Reporting (queues reporting, Kibana, Excel or another platform)	*Example: <Kibana link>/ e-mail sent to e-mail address: management@abc.com*
How is Orchestrator used?	*Example: The process will be started from orchestrator server (demo.uipath.com)*
Password policies (mention any specific compliance requests)	*Example: Orchestrator used for scheduling and asset passwords.* animesh
Stored credentials (Never use hardcore credentials in the workflow!)	*Example: G-mail password only, not expiring.*
List of queues names	*Example: ProcessName_QueueName*
Schedule Details	*Example: Daily, 6 A.M CET*
Multiple Resolutions Supported? (in case of image automation / Citrix and VDI)	*Example: Yes, No or N/A*
Recommended Resolution	*Example: n/a*
Scalable	*Example: Yes*
Environment used for development (name, location, configuration details etc)	***Example:** DEV_Env1_EMEA (VM computer)*
Environment prerequisites (OS details, libraries, required apps)	***Example:** Windows 7, BackOffice&Studio license, Microsoft Excel*
Repository for project (where is the developed project stored)	***Example:** http://github.com/ProjectName*
Configuration method (assets, excel file, Json file)	***Example:** Assets*

List of reused components	***Example:*** *found via MyGo!*

2.3 Project(s) workflows

For the workflow files defined below please specify the input and output parameters.

Workflow file	Arguments	Description
adding data to cloud	in_datafilePATH in_sheetName argument1	
invocie download	in_url in_logopath in_fromName in_first_name in_shipAddress in_InTrans_number in_duedate in_PoNummber in_quantity in_amount in_taxconfig in_notesconfig in_invociepath in_sheetname out_invoiceID	
mail to invoice email	in_gmailserver in_gmailport in_mailrecieveremailid in_subjectmail in_mailBody attachfile_path	
Main	in_OrchestratorQueueName in_OrchestratorQueueFolder	
Main		

ParseXAML	in_XAMLContents out_XMLTree out_NamespaceManager	
CloseAllApplications		
GetTransactionData	in_TransactionNumber in_Config out_TransactionItem out_TransactionField1 out_TransactionField2 out_TransactionID io_dt_TransactionData	
InitAllApplications	in_Config	
InitAllSettings	in_ConfigFile in_ConfigSheets out_Config	
KillAllProcesses		
Process	in_TransactionItem in_Config in_transactionNumber	
RetryCurrentTransaction	in_Config io_RetryNumber io_TransactionNumber in_SystemException in_QueueRetry	
SetTransactionStatus	in_BusinessException in_TransactionField1 in_TransactionField2 in_TransactionID in_SystemException in_Config in_TransactionItem io_RetryNumber io_TransactionNumber io_ConsecutiveSystemExceptions	
TakeScreenshot	in_Folder io_FilePath	
GetTransactionDataTestCase		
InitAllApplicationsTestCase		

InitAllSettingsTestCase		
MainTestCase		
ProcessTestCase		
WorkflowTestCaseTemplate		

2.4 Packages

Include the list of packages and high-level description for each of them, to explain their purpose

Package Name	Description
UiPath.Database.Activities : [1.7.1]	
UiPath.Excel.Activities : [2.21.0-preview]	
UiPath.Mail.Activities : [1.20.2]	
UiPath.System.Activities : [23.6.0-preview]	
UiPath.Testing.Activities : [23.6.0-preview]	
UiPath.UIAutomation.Activities : [23.6.1-preview]	

2.5 Architectural structure of the Master Project

Display the interaction between components (package / robots, Orchestrator queues, and running order) in a diagram.

OTHER DETAILS

Future Improvements

Fill in any improvements that need to be considered for the future:

Example:

- *Optimize the processing algorithm*
- *Implement process error recovery (retry)*
- *Enable support for multiple template files*

Other Remarks

Please mention here any other points that you consider relevant for the automation process.

Example: The workflow should run every night at 7AM. Be careful not to schedule it before the report is generated by X system.

The system generated data is always 1 day old.

GLOSSARY

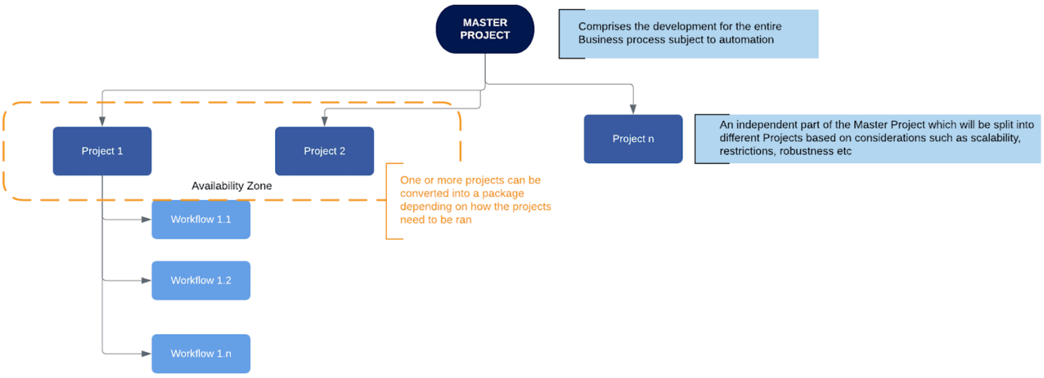
The main terms used in the Solution Architecture Document are defined below:

Master project - the overall output of the development, containing one or multiple projects that together cover the scope of the robotic process automation. There is a 1 to 1 connection between the Master Project and the Process to be automated (As presented in the PDD).

Project - an UiPath Studio project containing one or multiple workflow files. A project can be converted to a package and run independently, covering a particular scope within the master project. Or multiple projects can be converted into one package depending on the aims and restrictions of the automation. The project is used when defining the development and support phase of the automation.

Package - the output of compiling one or multiple projects. A package can be deployed on the robot machine and be executed by the robot service. Only one package can be executed at a given time by a robot. The package is used when defining the running phase of the automation.

Workflow - a component of the package, the workflow encapsulates a part of the project logic. The workflow can be of type: sequence, flowchart or state machine. A workflow is saved as an .xaml file inside the project folder. A workflow file can be invoked from another workflow and by default there is an initial workflow file that will run when executing the package.


MASTER PROJECT
Comprises the development for the entire Business process subject to automation
Project 1
Project 2
Availability Zone
Project n
An independent part of the Master Project which will be split into different Projects based on considerations such as scalability, restrictions, robustness etc
One or more projects can be converted into a package depending on how the projects need to be ran
Workflow 1.1
Workflow 1.2
Workflow 1.n

Activity - an action that the robot executes.

Sequence - a workflow where activities are executed one after another, in a sequential order

Flowchart - a workflow where activities are connected by arrows and the logic of the workflow can be easily followed in a visual manner. The flowchart can also be exported as an image from UiPath studio.

State machine - a more advanced way of organizing a workflow, similar to a flowchart.

BOR - Back office robot

FOR – Front office robot

Orchestrator – Enterprise architecture server platform supporting: release management, centralized logging, reporting, auditing and monitoring tools, remote control, centralized scheduling, queue/robot workload management, assets management.