Solution Design Document

UiPath

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I. PURPOSE

Outlines the major components of the Master Project (the overall output of the development, containing one or multiple projects that together cover the scope of the robotic process automation) taking into account all the business restrictions (scheduling, peaks, future increases in volume etc.). The focus of the Solution Architect will be on:

- *Robustness;*
- *Scalability;*
- *Efficiency;*
- *Replicability;*
- *Reusability of component*

The information herein is targeted primarily at the developers that will initially implement the solution and subsequently at the support developers in case of change requests.

II. AUTOMATED PROCESS DETAILS

Details filled in need to reflect the actual information for the Master Project released

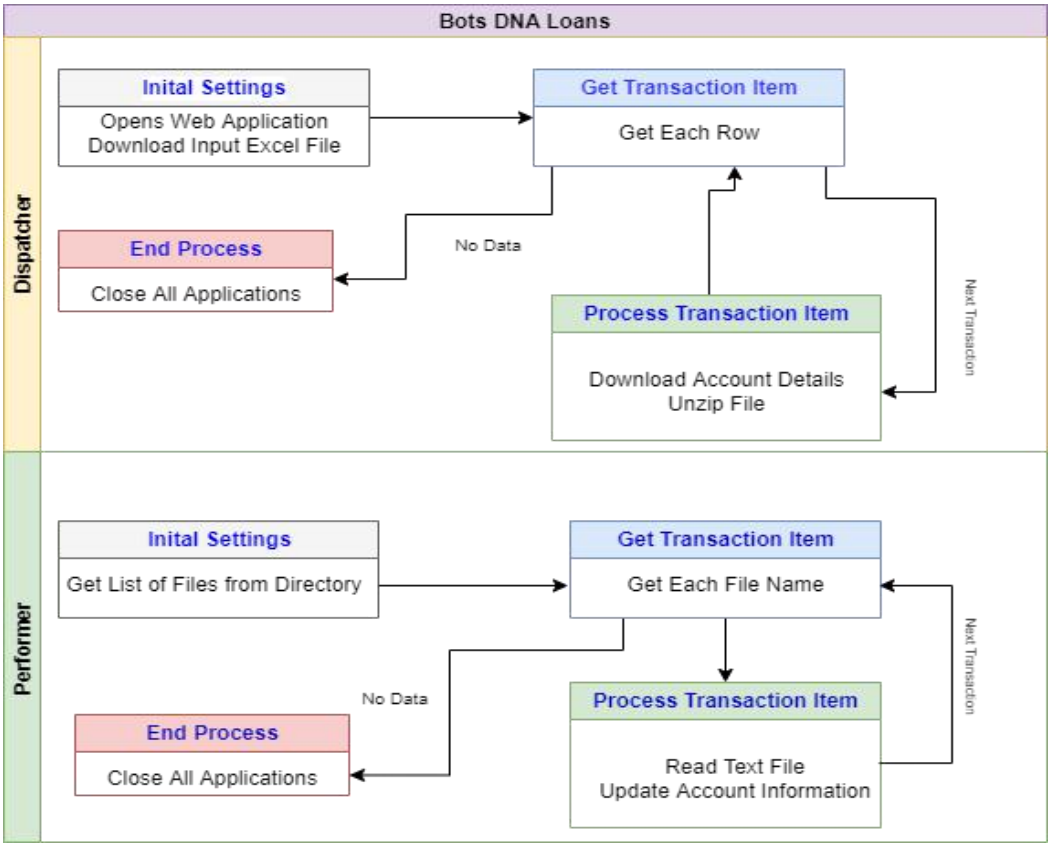
Item	Description
Master Project Name	BotsDNA_Loans
Robot Type	Foreground Unattended
Orchestrator used?	No
Scalable	Yes
UiPath version used	2021.10.4

for production. The following table will be populated:

2 RUNTIME GUIDE

2.1 Architectural structure of the Master Project

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



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	*NA*
Prerequisites to run	*Acess to UI, Windows OS*
Input Data	*Excel File and Notepad Text File.*
Expected output	*Excel File with Account Details*

How to start the automated process	Accessing to URL
Reporting	NA
(queues reporting, Kibana or another platform)	NA
How is Orchestrator used?	NA
Password policies	NA
(mention any specific compliance requests)	NA
Stored credentials	NA
(Never use hardcore credentials in the workflow!)	Not Used
List of queues names	NA
(Naming convention: ProcessName_QueueName)	NA
Schedule Details	Weekly
Multiple Resolutions Supported? (in case of image automation / Citrix and VDI)	NA
Recommended Resolution	NA

2.3 Project name 1

ITEM NAME	DESCRIPTION *Fill in each section - empty fields are not allowed. If the section does not apply to your automation then mark as n/a.*
Environment used for development (name, location, configuration details etc)	*Dev_Env_User1*
Environment prerequisites (OS details, libraries, required apps)	*Windows 8, Studio Licencse,Backoffice.*
Repository for project (where is the developed project stored)	*GitHub*
Configuration method (assets, excel file, Json file)	*Excel*
List of reused components	*NA*

List of new reusable components	*NA*

Add tables for as many projects as you need and fill them in.

2.4 Project(s) workflows

Workflows specific to: Specify Project Name from section above

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

Dispatcher Process

Workflow Name	Description	Input Parameters	Output Parameters
Seq-Get_Input_Data	*Dowlnloads the input excel file using Http Request and move to desiered file path.*	*in_EndPoint* *io_InputFilePath*	*NA*
Seq-Read_InputData	*Reads the Input Excel File.*	*in_FullFilePath*	*out_AccountData*
Seq-Get_AccountsFile	*Downloads the account details file using Http Request , Unzips the file and move to desired filepath*	*in_EndPoint_URL* *in_AccountFilePath*	*NA*

Performer Process

Workflow Name	Description	Input Parameters	Output Parameters
Seq-Get_Input_Data	*Reads the Input Excel file of Dispatcher*	*in_InputFilePath*	*io_dt_Accounts*
Seq-Get_AccountFilesFromDirectory	*Get the List of all text files from a directory*	*in_DirectoryPath*	*out_AccountFiles*
Seq-Read_AccountFile	*Reads the Account Text File*	*in_AccountFileName*	*out_AccountDetails*
Seq-Update_AccountInformation	*Update the Account Details to Input Excel file*	*in_InputExcelPath* *io_dt_Accounts*	*NA*

2.5 Packages

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

Package Name	Description
NA	NA

2.6 Architectural structure of the Master Project

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

3 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 Zendesk.*

The Zendesk generated data is always 1 day old.

4 GLOSSARY

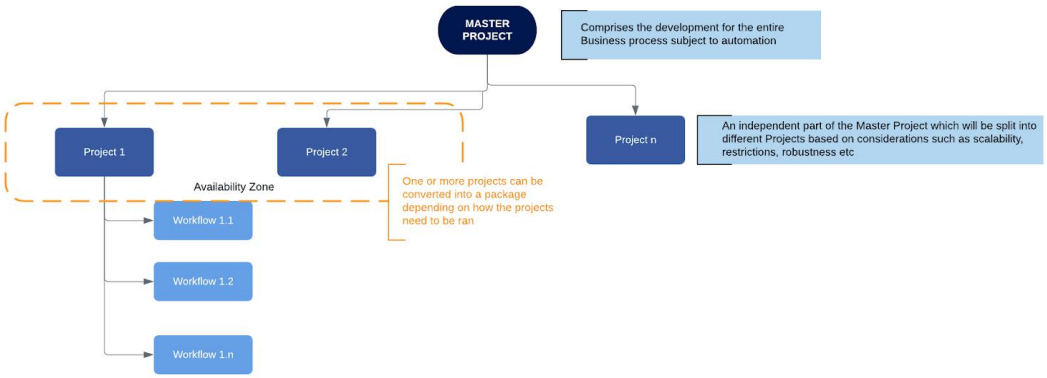
The main terms used in the Solution Architecture Document are defined below:

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.



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.