

Build RPA Project

Which are the business process required in industry?

The business process are involved and required in industry are

- Linear Process
- Iteration Process
- Transaction Process

Linear Process:

It is Step by step process or one by one Process or for given one input and getting the response or for one request one output



Iteration Process:

Iteration is the repetition of a process in order to generate an outcome. The sequence will approach some end point or end value. Each repetition of the process is a single iteration, and the outcome of each iteration is then the starting point of the next iteration.



Transaction Process:

A type of processing in which the computer responds immediately to user requests.

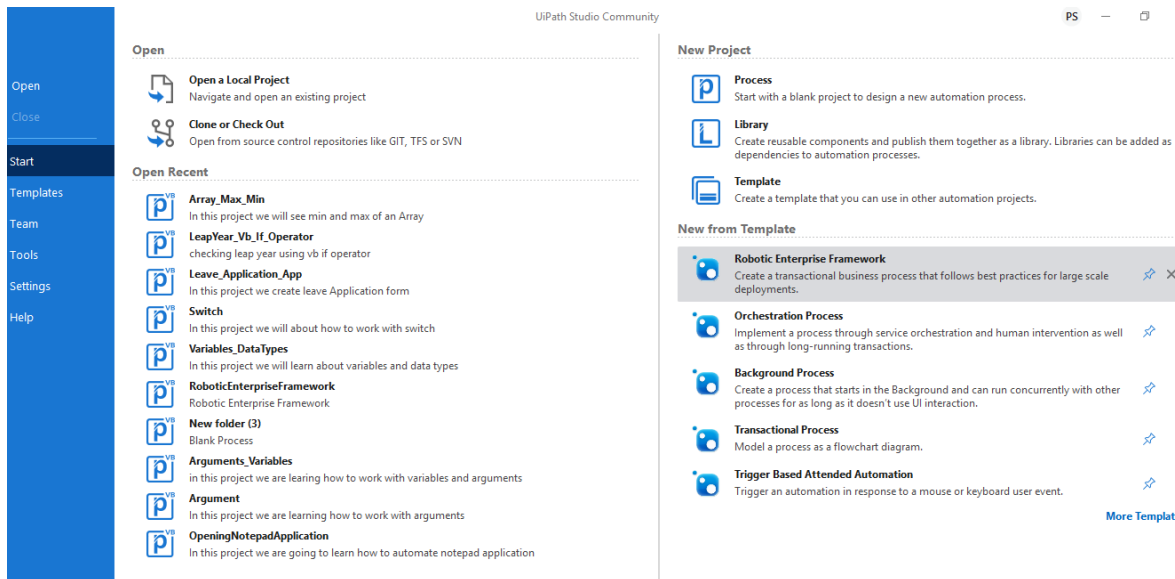
Each request is considered to be a transaction. Automatic teller machines for banks are an example of transaction processing.



Robotic Enterprise Framework

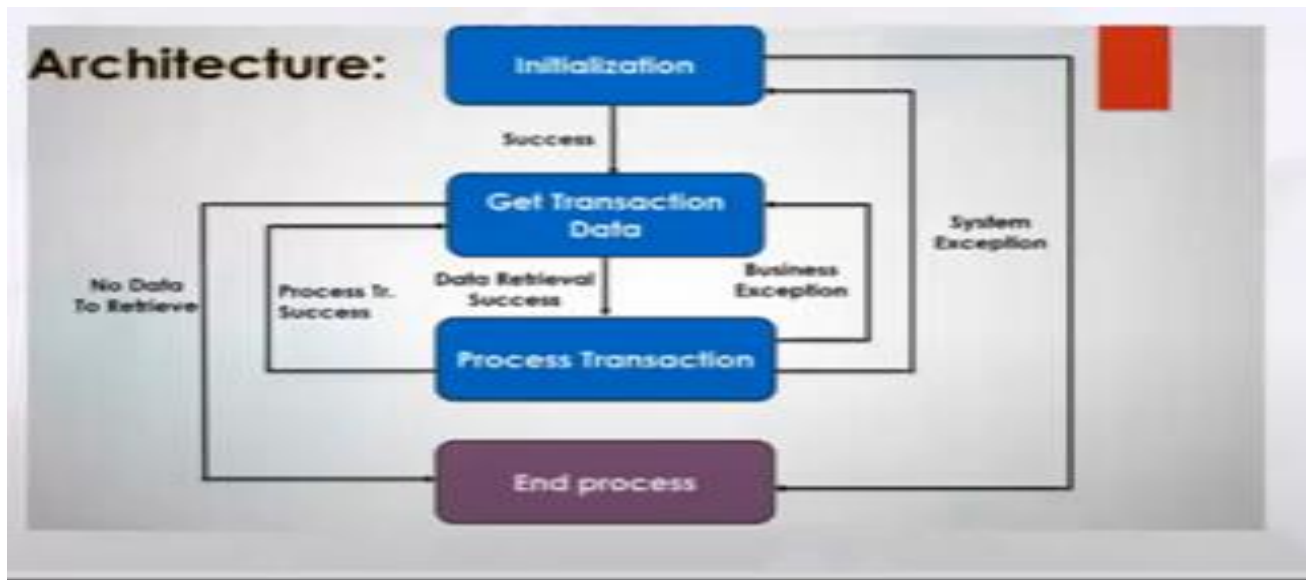
How we open Robotic Enterprise Framework?

In the home page of UiPath Studio we will have Robotic Enterprise Framework on the right side



What is Robotic Enterprise Framework?

The Re Framework is a framework which is developed by UiPath to help developers build processes rapid development and apply best practice principles. by using this framework we can customize and configure our fundamental code to create more powerful processes.



The Folder of the Robotic Enterprise Framework Project Contains

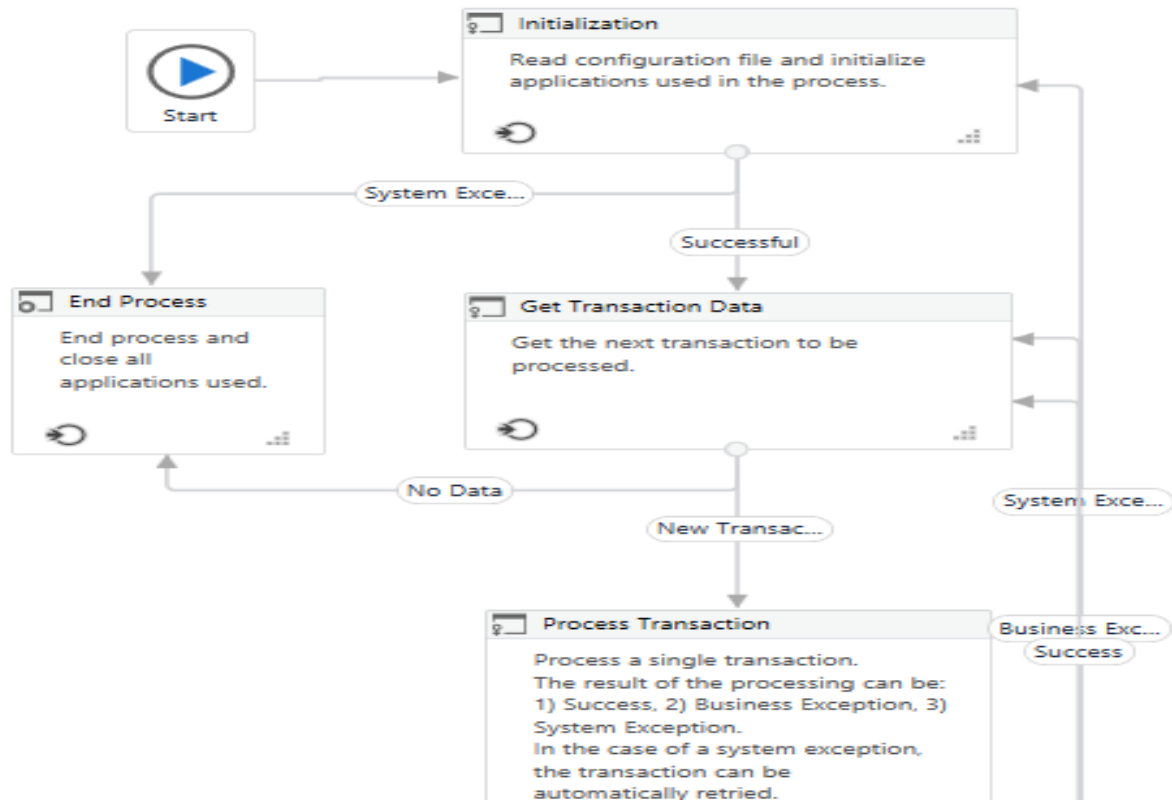
- Local
- Screenshots
- Setting
- Tmh
- Data
- Documentation
- Exceptions Screenshots
- Framework
- Tests
- Main

- Process
- Project.Json

What are the global variables used in Robotic Enterprise Framework?

Name	Data type	Is written in workflows	Is read in workflows
TransactionItem	QueueItem	GetTransactionData.xaml	Process.xaml SetTransactionStatus.xaml
SystemError	Exception	Main.xaml	Main.xlsx SetTransactionStatus.xaml
TransactionData		GetTransactionData.xaml	GetTransactionData.xaml
BusinessRuleException	BusinessRuleException	Main.xaml	Main.xaml Main.xlsx SetTransactionStatus.xaml
TransactionNumber	Int32	SetTransactionStatus.xaml	GetTransactionData.xaml
Config	Dictionary(x:String, x:Object)	InitAllSettings.xaml	InitAllApplications.xaml GetTransactionData.xaml Process.xaml SetTransactionStatus.xaml
RetryNumber	Int32	SetTransactionStatus.xaml	SetTransactionStatus.xaml
TransactionID	string	GetTransactionData.xaml	SetTransactionStatus.xaml
TransactionField1	string	GetTransactionData.xaml	SetTransactionStatus.xaml
TransactionField2	string	GetTransactionData.xaml	SetTransactionStatus.xaml

In Robotic Enterprise Framework we have 4 States



- Initialize process
- Get Transaction Data
- Process Transaction
- End Process

In Robotic Enterprise Framework we have 7 transactions

This all process are inbuilt in REframework for simplicity of code

Initialize process

firstly all the data which is written in config file is read and convert it into dictionary form as key value.

below are sub parts of Init.

Below are the sub components used for initialize the setting and kill the process after work done. Out put of this process will be in form of Config(Dictionary)

- 1). InitAllSettings
- 2).KillAllProcesses
- 3). InitAllApplication

Out Put: **Config(Dictionary)**

[GetTransaction Data:](#)

Get the config (Dict) file, also get the data from the data table, queue and spreadsheet.

Config(Dict)

Data Source (Datatable,Queue) -> GetTransactionData -> Transaction Item

The output will be the transaction item.

[Process:](#)

Here we can process the business data and get the completion status of the job.

Transaction Item -> Process -> Completion Status

Config

- 1).Process
 - a).SetTransactionStaus
 - b). TakeScreenShot
 - c). CloseAllApplications
 - d). KillAllProcesses

End Process :

Used for check the status(pass/fail) and according to it close it.

Status -> End Process -> Done

CloseAllApplications

KillAllProcesses

key points during developing the framework robot in UiPath

- Always try to open your applications in InitAllApplications.xaml workflow.
- Every time closes your applications in CloseAllApplications.XAML workflow.
- Every time kill your applications in the KillAllApplications.xaml workflow.
- The transaction number is the index that should be used to loop through Transaction Data and get our new Transaction Item. The looping will perform between the Get Transaction Data State and the Process State, and the system manages the incrementing of the index. All the developer needs to do is use it to fetch a new Item.
- The process ends when Transaction Item becomes Nothing , so it's the developer's accountability to assign the null pointer, Nothing, to the Transaction Item at the end of the process.

What are the Advantages of Robotic Enterprise Framework?

Low code structure : Code is written very clear ,proper commented and reusable functions for understanding to any developer.also Main.xaml bringing structure to the process design architecture

Re usability : Used code can be reused in any place because mostly used functions.It work for any type of process and independent of data sources(QueueItems, local excel files, Database data, API retrieved data).

Best Exception recovery and retry mechanism : Step by step exceptions is managed by the framework layer also we can easily configure retry rules.

Audit and logging mechanism : Step by step tracking the bot's work, with as much detail and privacy as you choose with the new workblock concept. we can configure log and generate the log for easily tracking activities of bot.

Maintain, extend and upgrade easily: we can easily maintain the coding structure . Extend to achieve process behavior by editing 6 empty workflows that connect to the Main.xaml in a standard way. Upgrade or extend framework independently of business code, by editing only one file, the Main.xaml in re framework.

Separation of concerns: Very good idea to separate from business logic code, allowing developers and SMEs alike to focus on building processes

For any RPA Implementations/ resources in your organization please reach out to
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