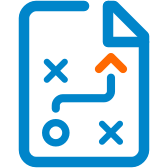
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|  |  |
| --- | --- |
|  |  |



Process Definition

Document

Inventory Automation PDD

This is the Process Definition Document for the Inventory automation use case.

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# INTRODUCTION



## 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.

## 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%.
* Better Monitoring of the overall activity by using the logs provided by the robots.

## Key Contacts

Add here any stakeholders that need to be informed or to approve changes to the process:

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Name | Contact Details (email, phone number) | Notes |
| Delivery Head | Vajrang Billakurthi | vb@gmail.com |  |
| Automation Lead | Chetan Patil | cp@gmail.com |  |
| RPA Developer | Prathyusha Reddy | pr@gmail.com |  |
| SME | MuraliKrishna Surve | mks@gmail.com |  |
| BA | Satish Burra | sb@gmail.com |  |

## Minimum Pre-requisites for the Automation

1. Filled in Process Definition Document
2. Test Data to support development
3. User access and user accounts creations (licenses, permissions, restrictions to create accounts for robots)
4. Credentials (user ID and password) required to logon to machines and applications

# AS IS Process description

1. User will launch the Pega application using chrome browser and will access it using valid set of credentials
2. Upon successful login, user will navigate to ‘Inventory’ screen and will extract the Inventory table and store the same in ‘Inventory’ sheet in an excel file
3. In similar fashion user will extract the tabular data from ‘Beverages’, ‘Seasonings’ and ‘Store Listing’ screens and will paste into ‘Beverages’, ‘Seasonings’, and ‘Store’ sheets
4. User will then create two new columns ‘New Price’ and ‘Address’ in the inventory sheet
5. Data in the ‘New Price’ will be populated from ‘Beverages’/’Seasonings’ sheet. Since Product ID is the common column in all the three sheets
6. Data in the ‘Address’ column will be populated from ‘Store’ sheet. For that user need to identify the city name from ‘On Hand’ column from Inventory sheet and search into the ‘City’ column in Store sheet. Once matched user needs to concatenate the address fields from ‘Store’ sheet
7. User will then sort the data in descending order based on ‘New Price’ column
8. Top three records will then be populated to word template



## Process Overview

Section contains general information about the process before automation.

|  |  |
| --- | --- |
| Item | Description/Answer |
| Process Full Name | Inventory\_Automation\_PDD |
| Process Area | Order Reconciliation |
| Department | Inventory Management |
| Short Description (operation, activity, outcome) | This is the Process Definition Document for the Inventory automation use case. AS IS state of a process is presented in this document |
| Role(s) required in applications to perform the process | ‘Pega Admin user’ |
| Process schedule and frequency | Daily at 07:00 AM IST (Except on Sunday) |
| Number of times the process is ran by selected frequency | - |
| Process execution time | 1 min. 26 sec. |
| Process Restrictions | ‘Pega’ application will be down i.e., on maintenance daily between 00:00 to 00:30 Hrs. |
| Peak Period (s) | Every first day of the month will have high number of records in the Inventory section |
| Peak Volume Approximate increase | Approximate 500 to 800 records were observed on every first day of the month |
| Number of persons performing the process | 2 |
| Expected Volume increase during next periods | **10 %** |
| Percentage Un-handled exceptions | - |
| Input data description | Orders placed by the users from Page application |
| Output Data description | Details of the top three orders of the day |

\*Add more rows to the table to include relevant data for the automation process. No fields should be left empty. Use “n/a” for the items that don`t apply to the selected business process.

## Applications Used

The table includes a comprehensive list of all the applications that are used as part of the process to be automated to perform the given actions in the flow.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Application Name | Version | Application Language | Thin/Thick Client | Environment/ Access method | Comments |
| Pega application (Chrome) | 1.0.1 | - | Thick | Dev |  |
| Microsoft Excel | - | - | Thick | Dev |  |
| Microsoft Word | - | - | Thick | Dev |  |

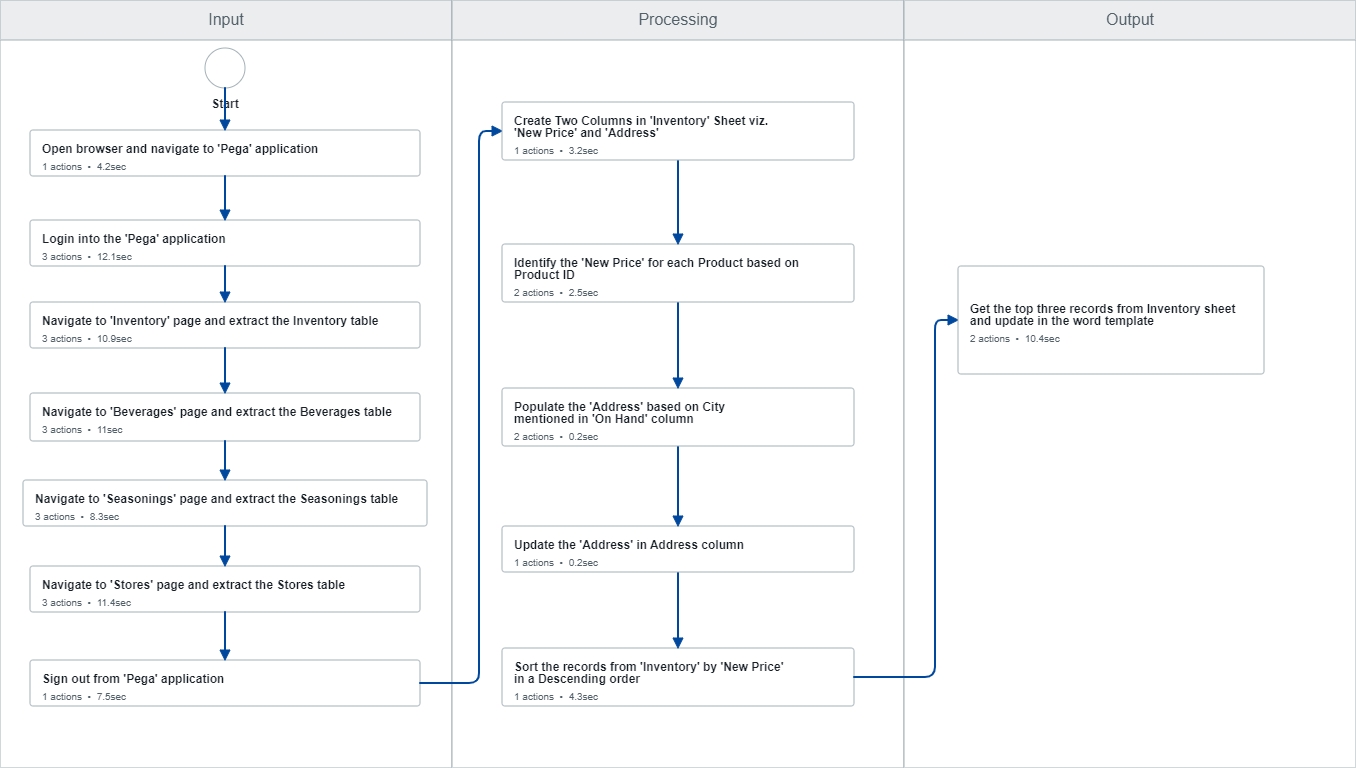
\*Add more rows to the table to include the complete list of applications.

## AS IS Process Map

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

### 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.



### Detailed Level Process Map

Same as Above.

## Process Statistics

**High Level statistics**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Processes | Windows | Actions | Mouse clicks | Keys pressed | Text entries | Hotkeys used | Time |
| 3 | 9 | 26 | 26 | 0 | 0 | 0 | 1 min. 26 sec. |

**Detailed statistics**

|  |  |  |  |
| --- | --- | --- | --- |
| Window name | Mouse clicks | Text entries | Key pressed |
| Sign In | Pega Studio Training Web Application - Google Chrome | 4 | 0 | 0 |
| Home | Pega Studio Training Web Application - Google Chrome | 1 | 0 | 0 |
| Inventory | Pega Studio Training Web Application - Google Chrome | 2 | 0 | 0 |
| Beverages | Pega Studio Training Web Application - Google Chrome | 2 | 0 | 0 |
| Seasonings | Pega Studio Training Web Application - Google Chrome | 2 | 0 | 0 |
| Store Listing | Pega Studio Training Web Application - Google Chrome | 2 | 0 | 0 |
| Inventory\_automation - Copy - Excel | 11 | 0 | 0 |
| Inventory\_automation - Excel | 1 | 0 | 0 |
| Top\_Inventory\_Details - Word | 1 | 0 | 0 |
|  |  |  |  |
|  |  |  |  |

## Detailed As Is Process Actions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| #Action | Input | Description | Details (Screen/Video Recording Index) | Exceptions Handling | Possible Actions |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |
| --- | --- |
| 1. Open browser and navigate to 'Pega' application | |
|  | **Est. time: 4.2 sec.** |

|  |  |
| --- | --- |
| * 1. Navigate to 'Pega' application |  |
| Navigate to 'Pega' application | Est. time: 4.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Login into the 'Pega' application | |
|  | **Est. time: 12.1 sec.** |

|  |  |
| --- | --- |
| * 1. Enter username |  |
| Enter username | Est. time: 5.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Enter password |  |
| Enter a valid password | Est. time: 2.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Click Sign In |  |
| Click on Sign In button | Est. time: 4.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Navigate to 'Inventory' page and extract the Inventory table | |
|  | **Est. time: 10.9 sec.** |

|  |  |
| --- | --- |
| * 1. Click on 'Inventory' |  |
| Click on 'Inventory' link to navigate to Inventory page | Est. time: 2.6 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Extract Inventory table |  |
| Extract the Inventory table | Est. time: 6.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Paste the data in Inventory sheet |  |
| Create an excel file and paste the extracted Inventory data into the Inventory sheet | Est. time: 1.10 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Navigate to 'Beverages' page and extract the Beverages table | |
|  | **Est. time: 11.0 sec.** |

|  |  |
| --- | --- |
| * 1. Click on 'Beverages' |  |
| Click on Beverages under Products to navigate to Beverages page | Est. time: 5.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Extract Beverages table |  |
| Extract the Beverages table | Est. time: 3.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Paste the data in 'Beverages' sheet |  |
| Paste the extracted data in 'Beverages' sheet | Est. time: 2.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Navigate to 'Seasonings' page and extract the Seasonings table | |
|  | **Est. time: 8.3 sec.** |

|  |  |
| --- | --- |
| * 1. Click on 'Seasonings' |  |
| Click on Seasonings link to navigate to Seasonings page | Est. time: 4.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Extract 'Seasonings' table |  |
| Extract the Seasonings table | Est. time: 2.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Paste the data in 'Seasonings' sheet |  |
| Paste the extracted data in Seasonings sheet | Est. time: 2.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Navigate to 'Stores' page and extract the Stores table | |
|  | **Est. time: 11.4 sec.** |

|  |  |
| --- | --- |
| * 1. Click on 'Store Listing' |  |
| Click on 'Store Listing' link to navigate to Store Listing page | Est. time: 3.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Extract the 'Store Listing' table |  |
| Extract the Store Listing table | Est. time: 2.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Paste the data in 'Store' sheet |  |
| Paste the extracted data in the 'Store' sheet | Est. time: 5.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Sign out from 'Pega' application | |
|  | **Est. time: 7.5 sec.** |

|  |  |
| --- | --- |
| * 1. Click On 'Sign Out' |  |
| Click on 'Sign Out' link | Est. time: 7.5 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Create Two Columns in 'Inventory' Sheet viz. 'New Price' and 'Address' | |
|  | **Est. time: 3.2 sec.** |

|  |  |
| --- | --- |
| * 1. Create two new columns ('New Price' and 'Address' ) |  |
| Create two new columns ('New Price' and 'Address' ) | Est. time: 3.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Identify the 'New Price' for each Product based on  Product ID | |
|  | **Est. time: 2.5 sec.** |

|  |  |
| --- | --- |
| * 1. Product ID from Inventory sheet is matching with Product ID from Seasonings sheet |  |
| Identify and match the Product ID from Inventory sheet in Seasonings and Beverages sheets | Est. time: 2.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Identify the 'New Price' based on Product ID from Beverages and Seasonings sheet |  |
| For a given 'Product ID' identify the 'New Price' based on 'Price' from Seasonings or Beverages sheet | Est. time: 0.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Populate the 'Address' based on City  mentioned in 'On Hand' column | |
|  | **Est. time: 0.2 sec.** |

|  |  |
| --- | --- |
| * 1. Identify the 'City' from the 'On Hand' column |  |
| Identify the 'City' from the 'On Hand' column | Est. time: 0.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Locate the City name and get the address (Street + State + ZIP Code + Telephone)) |  |
| Locate the City name and get the address (Street + State + ZIP Code + Telephone) | Est. time: 0.0 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Update the 'Address' in Address column | |
|  | **Est. time: 0.2 sec.** |

|  |  |
| --- | --- |
| * 1. Fill the 'Address' |  |
| Address will be derived from Store Sheet (Street + State + ZIP Code + Telephone) | Est. time: 0.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Sort the records from 'Inventory' by 'New Price'  in a Descending order | |
|  | **Est. time: 4.3 sec.** |

|  |  |
| --- | --- |
| * 1. Sort 'New Price' in Descending order |  |
| Sort 'New Price' in Descending order | Est. time: 4.3 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Get the top three records from Inventory sheet and update in the word template | |
|  | **Est. time: 10.4 sec.** |

|  |  |
| --- | --- |
| * 1. Get the top 3 records |  |
| Get the top 3 records from Inventory sheet | Est. time: 3.9 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Paste the output in the word template |  |
| Paste the output (top 3 records from Inventory sheet) in the word template | Est. time: 6.5 sec. |
| image | Action: Click |

## Exceptions Handling

1. ‘Pega’ application not responding
2. Credentials expired
3. Change in the structure of the tables

## 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\*? |
| Extract from ‘Pega’ application | Data from Inventory table | Tabular data | Inventory page | Yes | Yes |
| Extract from ‘Pega’ application | Data from Seasoning table | Tabular data | Seasonings page | Yes | Yes |
| Extract from ‘Pega’ application | Data from Beverages table | Tabular data | Beverages page | Yes | Yes |
| Extract from ‘Pega’ application | Data from Store table | Tabular data | Store Listing page | 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.*

# 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.**

## 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). |

## 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 |
|  |  |  |  |  |
|  |  |  |  |  |

## In Scope For RPA

The actions in scope for RPA should be listed below:

## Out Of Scope for RPA

The actions **out of scope** for RPA should be listed in the table below together with the reasoning.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity/Action\* | Reason for out of scope | Impact on the TO BE | Possible measures to be taken into consideration for future automation |
| *e.g. Action 3* | ***e.g.*** *Input is handwritten* | ***e.g.*** *after action 2 an e-mail is sent to the user to manually perform action 3* | ***e.g.*** *collect the input in pdf form and use electronic signature* |

\*Add more rows to the table to reflect the complete documentation provided to support the RPA process.

## 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.

### Known Business Exceptions

Details regarding how the robot should handle the exceptions.

|  |  |  |  |
| --- | --- | --- | --- |
| Exception Name | Action | Parameters | Action to be taken |
| *e.g. Employee ID <> 6 characters* | ***e.g****. Action 1* | ***e.g.*** *Employee ID* | ***e.g.*** *send an e-mail to* [*exceptions@company.com*](mailto:exceptions@company.com) *with the text: “Employee ID <> 6 characters”*  *Go to the next transaction* |

### 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:* [*exceptions@company.com*](mailto:exceptions@company.com) *with a screen shot and robot should proceed to next transaction.*

## 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.

### Known Applications Errors and Exceptions

Details regarding how the robot should handle the exceptions.

|  |  |  |  |
| --- | --- | --- | --- |
| Error/Exception Name | Action | Parameters | Action to be taken |
| *e.g. Application Crash* | ***e.g****. Any action* | ***e.g.*** *Error message* | ***e.g.*** *recover and retry 3 times* |
|  |  |  |  |

### 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.*

## 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 |
| *e.g. Process logs* | ***e.g.*** *Daily* | ***e.g.*** *How many times was this process run since the beginning of the month and what was the average run duration* | ***e.g.*** *Kibana* |
| *e.g Process logs* | ***e.g.*** *Monthly* | ***e.g.*** *How many robots worked on this process per each month?* | ***e.g.*** *Csv file posted daily on share drive* |
| *e.g Transaction logs* | ***e.g.*** *Daily* | ***e.g.*** *How many transactions were run by this process since the beginning of the month and what was the average transaction duration?* | ***e.g.*** *Kibana* |
| *e.g Error logs* | ***e.g.*** *Daily* | ***e.g.*** *Average number of errors by type per day* | ***e.g.*** *Kibana* |
| *e.g Error logs* | ***e.g.*** *Daily* | ***e.g.*** *All errors per month grouped by type* | ***e.g.*** *Csv file posted daily on share drive* |

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

# Other

## Additional sources of process documentation

If there is additional material created to support the process automation please mention it here, along with the supported documentation provided.

|  |  |  |
| --- | --- | --- |
| Additional Process Documentation | | |
| Video Recording of the process (Optional) | Acme-System1-Process-WI5-Manual-Walkthrough | Insert any relevant comments |
| Business Rules Library (Optional) | Insert link to Business rules library | Insert any relevant comments |
| Other documentation (Optional) | Insert link to any other relevant process documentation (L4, L5 process description, fields mapping files etc.) | Insert any relevant comments |
| Standard Operating Procedure(s) (Optional) |  | Insert any relevant comments |
| High Level Process Map (Optional) |  | Insert any relevant comments |
| Detailed level process map (Optional) |  | Insert any relevant comments |
| Work Instructions (Optional) |  | Insert any relevant comments |
| Input Files (Optional) |  | Insert any relevant comments |
| Output Files (Optional) |  | Insert any relevant comments |

\*Add more rows to the table to reflect the complete documentation provided to support the RPA process.

