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Process Definition

Document

Smart Shopping Robot

This PDD is only for RPA Training Purposes

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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 |
|  | Hamdy Elasawy | Hamdy.elasawy@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

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.



## Process Overview

Section contains general information about the process before automation.

|  |  |
| --- | --- |
| Item | Description/Answer |
| Process Full Name | Smart Shopping Robot |
| Process Area | Competitive Fight Team |
| Department | Marketing |
| Short Description (operation, activity, outcome) | This is PDD is only for RPA Training Purposes |
| Role(s) required in applications to perform the process | NA |
| Process schedule and frequency | Weekly |
| Number of times the process is ran by selected frequency | 18 |
| Process execution time | 47 min. 8 sec. |
| Process Restrictions | **NA** |
| Peak Period (s) | ***NA*** |
| Peak Volume Approximate increase | ***NA*** |
| Number of persons performing the process | 1 |
| Expected Volume increase during next periods | ***NO*** |
| Percentage Un-handled exceptions |  |
| Input data description | ***User Product Search Keyword*** |
| Output Data description | **An Excel File that contains all the information** |

\*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 | Comments |
| Leaders | https://leaders.jo/en/ | Must be English.  *if website was opened in other language, robot must handle* |  |
| Jormall | https://jormall.net/ | Must be English.  *if website was opened in other language, robot must handle* |  |
| BMS | https://bmsmena.com/ | Must be English.  *if website was opened in other language, robot must handle* |  |
|  |  |  |  |

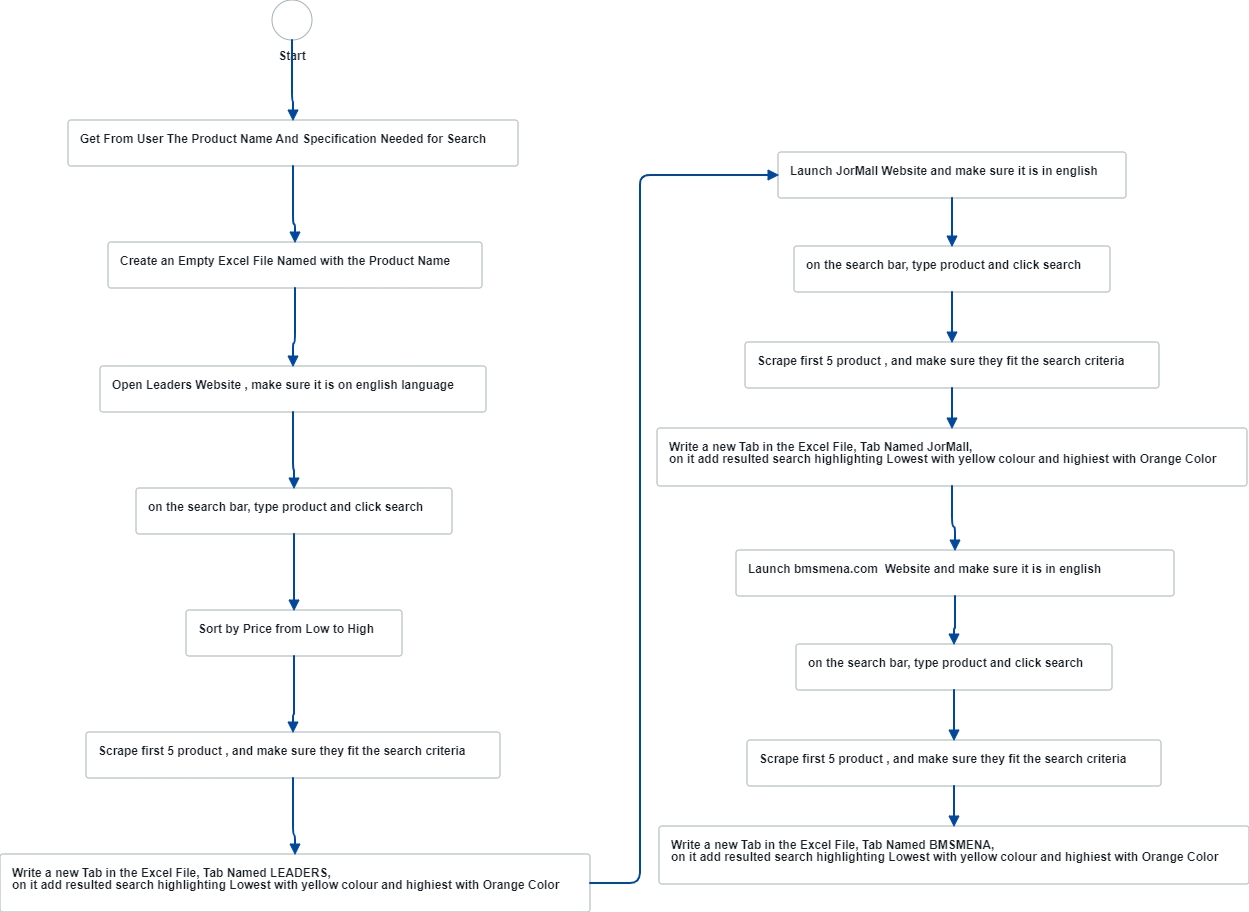
\*Add more rows to the table to include the complete list of applications.

## 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

This section describes the process at key-stroke level and is an essential part for the communication with the developers.

## Detailed As Is Process Actions

|  |  |
| --- | --- |
| 1. Get User Search Product | |
| Prompt User to Type a Product Query they want to search | **Est. time: 15.3 sec.** |
| 1. Get User Search Product | |
| Create an Excel File on Desktop Named with the User Search Keyword with an extension .xlsx | **Est. time: 15.3 sec.** |

|  |  |
| --- | --- |
| * 1. Launch Leaders Application |  |
|  | Est. time: 2.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. English Webpage |  |
|  | Est. time: 1.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Search Product |  |
| in Search bar, type into the user search | Est. time: 12.0 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Finalaize Search |  |
| Click Search Button to move to next page | Est. time: 0.0 sec. |
| image | Action: Hotkey |

|  |  |
| --- | --- |
| * 1. Sort Product Price From Low to High |  |
|  | Est. time: 5.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
|  |  |
|  | Est. time: 1.0 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Optional: Choose the list results |  |
| optional u can click on list view, to see products clearly | Est. time: 11.1 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Scrape Data Resulted |  |
| Scrape Data Resulted from Search, Make sure Scraped Data Titles has Searched Keywords.          Needed Information is  Title  Price  URL | Est. time: 7.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Update Leaders Range on the Excel File | |
| in the created Excel File, write only Top 5 result in a new range.   range Name should be same as the website.   Lowest price row should be colored with Yellow color  Highest Price row should be colored orange. | **Est. time: 0.0 sec.** |

|  |  |
| --- | --- |
| 1. JorMall's online store - Launch Website | |
|  | **Est. time: 8.0 sec.** |

|  |  |
| --- | --- |
| * 1. Open JorMall Website |  |
|  | Est. time: 1.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Make Sure English Language |  |
|  | Est. time: 1.2 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
|  |  |
|  | Est. time: 0.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Search Required Product |  |
| Type into User Search in Search Bar | Est. time: 3.5 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Click Search |  |
|  | Est. time: 0.9 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Scrape Top 5 Result |  |
| Scrape Top 5 Result and make sure all result have the **Searched Keywords contained in them.**    Needed Information is  Title  Price  URL | Est. time: 3.6 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Update Excel File , Jormall Range | |
| in a New Excel File, only Top 5 result in a new range.   range Name should be same as the website   Lowest price row should be colored with Yellow color  Highest Price row should be colored orange. | **Est. time: 0.0 sec.** |

|  |  |
| --- | --- |
| * 1. Launch BMS |  |
| Launch BMS and make Sure Language is English | Est. time: 1.4 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Search Product |  |
| Type into Product Name and click Search | Est. time: 0.3 sec. |
| image | Action: Hotkey |

|  |  |
| --- | --- |
| * 1. Click Search |  |
| Search Product | Est. time: 1.7 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| * 1. Scrape Data |  |
| Scrape Top 5 Data if Found and make sure they contain the keywords    Needed Information is  Title  Price  URL | Est. time: 12.9 sec. |
| image | Action: Click |

|  |  |
| --- | --- |
| 1. Update Excel File | |
| in a New Excel File, only Top 5 result in a new range.   range Name should be same as the website   Lowest price row should be colored with Yellow color  Highest Price row should be colored orange. | **Est. time: 0.0 sec.** |

|  |  |
| --- | --- |
| 1. Create Search Complete Range, And Highlight Prices combined | |
| by this Step you should Have 3 Different ranges named after each website that contains the required result and highlight the prices.   Now merge them all in a 4th Range Named "Complete Search"  Mark the Lowest price Product row with Green  Mark Highest Price with Red. | **Est. time: 0.0 sec.** |

## Exceptions Handling

In Case no products were found on the website, ignore the website and move to the next.

## 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\*? |
| User Search Keyword | Samsung tv QLED 65 inch | Prompt User | NA | YES | NO |

*\** ***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

All PDD Mentions are in Scope for RPA

## Out Of Scope for RPA

NA

## 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 |
| *History Search File* | ***Each Time Robot Run*** | ***On Each Run, Append Search Keyword with the lowest price details in History Search File*** | ***Search File Should be on desktop named SSR History.xlsx  if file not found robot should automatically create it.*** |

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

# Other

## Additional sources of process documentation

NA