Process Design Document – Generate Yearly Report

**UiPath Automation**

**Property Search Automation**

**Process Design Document History**

Students: Elena-Maria Brusturean, Giorgiana-Carina Ciubancan

Coordinator: Julia Egri

### Table of Contents

1. [Introduction 3](#_bookmark0)
   1. [Purpose of the document 3](#_bookmark1)
   2. [Objectives 3](#_bookmark2)
2. [AS IS Process Description 4](#_bookmark4)
   1. [Process overview 4](#_bookmark5)
   2. [Detailed Process map 6](#_bookmark6)
   3. [Detailed Process Steps 7](#_bookmark7)
   4. [Exceptions handling 10](#_bookmark8)
   5. [In-Scope application details 12](#_bookmark10)
3. [TO BE Process Description 12](#_bookmark11)
   1. [Process overview 12](#_bookmark12)
   2. [Detailed Process Steps 12](#_bookmark13)
   3. [Exceptions Handling 13](#_bookmark14)

# Introduction

## Purpose of the document

The Process Design Document describes the business processes chosen for automation using the UiPath Robotic Process Automation (RPA) technology.

This document describes the sequence of steps performed as part of the process, as well as the conditions and requirements prior to its automation. This design document serves as a base documentation for developers to collect the details required for robotic automation of the same business process.

## Objectives

The process has been selected for RPA as part of the larger project initiative conducted within Fortech.

The objective of this process automation is linked to the project business case and is mainly intended to:

* Deliver faster processing
* Reduce the duration of time-consuming activities.
* Leverage automation to improve the overall performance and reliability of the task.

# AS IS Process Description

## Process overview

General information about the process selected for RPA, prior to its automation:

|  |  |
| --- | --- |
|  | **AS IS process details** |
| Process full name | Generate property report with given inputs and send email with all the property links that suits the filter attributes |
| Function | Data extraction, Email send |
| Process short description (operation, activity, outcome) | Introduce the filter inputs and search for all the properties that suits them. Select all results and put the data in an data table. Finally, send an email containing a file with all the property's links that suits the given input. |
| Role required for performing the process | System 1 User |
| Process schedule | No process schedule |
| Peak period (s) | No peak period |
| No. of activities | 3 |
| Input data | City, For sale/For rent, Type |
| Output data | Excel Table  File sent via email |

* + 1. **In scope for RPA**

The activities and exceptions in this process that are in the scope for RPA, are listed below

* + - * Open Browser
      * Search after the user's input
      * Select all the properties that match the filter
      * Extract all properties to an Excel File
      * Send an email containing a file with all the links of the properties that match the filter
    1. **Out of scope for RPA**

The activities that are out of scope for RPA, are listed below

* + - * Search after property ID is not relevant because it only provides details about one property that matches the given ID, so no data table is required in this scope

* 1. **Detailed Process map**

This chapter presents the chosen process in detail, which enables the developer to build the automated process.

Search after " https://www.blitz.ro/cluj-napoca"

Open the Browser

START

Write an email that contains the file

Copy all the links that match the searched properties in a file

Paste the information in the excel file

For each property that has result from the search, copy the information

Click "CAUTA"

Select the fields that match your filter attributes

## Detailed Process Steps

The complete set of steps in the process, including keystrokes and clicks, are to be deﬁned with screenshots.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Step action**  **description** | **Screenshot** | **Expected**  **result** | **Remarks** |
| **1.1** | Open the Browser |  | Browser is opened |  |
| **1.2** | Search after " https://www.blitz.ro/cluj-napoca" |  | Access to the page |  |
| **1.3** | Select the fields that match your filter attributes |  | Filter fields are selected |  |
| **1.4** | Click "CAUTA" |  | The display of properties that match the filter fields |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.5** | Copy all the data that have resulted after the filtered search |  | Obtain all the properties that match the filter attributes |  |
| **1.5.A** | Paste the information in the Excel File |  | Excel File |  |
| **1.5.B** | Copy all the links that match the searched properties in a file |  | Text File |  |
| **1.5.C** | Write an email that contains the file |  | Email sent |  |

## 2.4 Exceptions handling

The types of exceptions identiﬁable in the automation process can be classiﬁed according to the table below.

|  |  |  |
| --- | --- | --- |
| **Area** | **Known** | **Unknown** |
| **Business** | Previously encountered situation. A possible scenario is deﬁned with clear actions and workarounds are provided for each case. | A situation never encountered before – it should not really happen. It can be caused by external factors. |

There are no business errors that can appear during the manual process.

## 2.5 In-Scope application details

The table below lists all the applications that are used as part of the automated process.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **#** | **Application name &**  **Version** | **Syst. Lang.** | **Login module** | **Interface** | **Environment/ Access method** | **Comments** |
| **1** | Chrome Browser | EN | Web | Web | Web Browser |  |
| **2** | Microsoft Excel | EN | n/a | Client | Local desktop |  |
| **3** | Gmail | EN | Web | Web | Web Browser |  |
| **4** | Text File | EN | n/a | Client | Local Desktop |  |

# 3. TO BE Process Description

## 3.1 Process overview

General information about the process selected for RPA, after automation:

|  |  |
| --- | --- |
|  | **AS IS process details** |
| Process full name | Generate property report with given inputs and send email with all the property links that suits the filter attributes |
| Function | Data extraction, Email send |
| Process short description (operation, activity, outcome) | Request the filter attributes that are required for the search. Open browser, search for https://www.blitz.ro/cluj-napoca" extract the data into an excel file, extract the properties links into a text file and request the email address. Send an email with the text file. |
| Role required for performing the process | System 1 Robot |
| Process schedule | No process schedule |
| Peak period (s) | No peak period |
| No. of activities | 7 |
| Input data | City, For sale/For rent, Type, Email address |
| Output data | Excel Table  File sent via email |

## 3.2 Detailed Process Steps

The complete set of steps in the process, including keystrokes and clicks, are to be deﬁned with screenshots.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Step action**  **description** | **Screenshot** | **Expected**  **result** | **Remarks** |
| **1** | Request City attribute from the user |  | Input Dialog Multiple Choice |  |
| **2** | Request For Sale/For Rent attribute from the user |  | Input Dialog Multiple Choice | If we select For Rent we won't have "Teren" field in the next select box |
| **3** | Request for Type attribute from the user |  | Input Dialog Multiple Choice |  |
| **4** | Open Browser |  | Browser is opened |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **5** | Search after " https://www.blitz.ro/cluj-napoca" |  | Access to the page |  |
| **6** | Select the fields that match the input data |  | Filter fields are selected |  |
| **7** | Click "CAUTA" |  | The display of properties that match the filter fields |  |
| **8** | Data Scraping on the result |  | Select all the properties that match the filter attributes |  |
| 9 | Write the results to an Excel File |  |  |  |
| 10 | Read Range from Excel File to obtain the URLs to all the properties that are saved in the Excel File |  | Obtain the URLs from all the properties that match the filter and save them in an text file |  |
| 11 | Request the email address of the user |  | Obtain the email address | The email is being validated |
| 12 | Send the email containing the text file with the properties URLs to the given address |  | The user receives the email |  |

## 3.3 Exceptions handling

The types of exceptions identiﬁable in the automation process can be classiﬁed according to the table below.

|  |  |  |
| --- | --- | --- |
| **Area** | **Known** | **Unknown** |
| **Business** | Previously encountered situation. A possible scenario is deﬁned with clear actions and workarounds are provided for each case. | A situation never encountered before – it should not really happen. It can be caused by external factors. |

Based on the above criteria the table below should reflect all the known exceptions identified throughout the process and map the expected action the robot needs to take in each case.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Exception name** | **Step where**  **exception is encountered** | **Parameters** | **Action to be taken** |
| **1** | Select box for city | Step #**1** | Input "city" | If nothing is selected the robot will throw a warning message in which the user will be asked to select an item. |
| **2** | Select box for "De inchiriat/ De vanzare" | Step # **2** | Input "De inchiriat"/"De vanzare" | If nothing is selected the robot will throw a warning message in which the user will be asked to select an item. |
| **3** | Select box for type | Step #**3** | Input "apartament" | If nothing is selected the robot will throw a warning message in which the user will be asked to select an item. |

# 