Solution Design Document

**Job Research**

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# Introduction

## Document overview

The Solution Design Document describes the design and key features of an automated business process.

In an early stage of automation, it documents the high-level solution design. In this context, it is not necessary for all chapters to be updated. Subsequently, all chapters must be filled with detailed design information once the automated process moves into the testing phase.

## Document objectives

The finalized document shall:

* Provide a high-level overview of the automated business process using UiPath technology
* Describe the objects necessary for processing each business case
* List and describe the technical requirements for each object used
* List inputs and outputs of each part of the process
* Outline the unique points and peculiarities of the solution
* Mention potential risks regarding source data and results

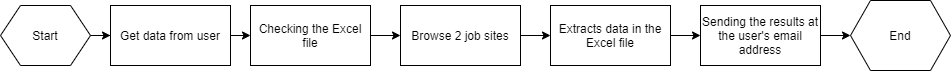
For every change the automated process undergoes, this document must be updated too.

# Definitions & abbreviations

|  |  |  |
| --- | --- | --- |
| # | Term/Abbreviation | Definition/Description |
| 1 | Element | A robot consists of several building blocks. These can be states, transition lanes or functions. A member of this group is called an Element. |
| 2 | Orchestrator | UiPath Orchestrator, part of the UiPath RPA suite, is used to manage releases, schedules, queues, assets, licensing, users, bots – a central management hub. |
| 3 | Package | The output of compiling a project, which is published to UiPath Orchestrator. |
| 4 | Project | A UiPath Studio project containing one or multiple workflow files. A project can be converted to a package and run independently. |
| 5 | Workflow | A component of a package. The workflow encapsulates a part of the logic. Workflows are of type sequence, flowchart or state machine. A Workflow is saved as an .xaml file inside the project folder. |

# Solution Overview

## Solution diagram of the process



## Solution description of the process

### Detailed workflow description

#### Workflow details of <package name>

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Element (Workflow file name) | Description | Input Arguments | Output Arguments |
| 1 | Input processing | Gets the input from the user(job description,city name,level of experience) | DescriptionInput  CityInput  experienceInput | n/a |
| 2 | Url\_and\_datatable\_initialization | Based on the user’s input, the robot creates the corresponding URL for eJobs and bestJobs | DescriptionInput  CityInput  experienceInput | DtOutput  EJobsUrl  BestJobsUrl |
| 3 | EJobs\_data\_processing | The robot extracts the  Information about the job from eJobs(address of the workplace, the platform, job’s URL) | eJobsUrl | dtOutput |
| 4 | BestJobs\_data\_processing | The robot extracts the information about the job from bestJobs (address of the workplace, the platform, job’s URL) | bestJobsUrl | dtOutput |
| 5 | Update\_excel | Deletes all the previous content from the Excel file(if there is any) and writes the information in it | dtOutput | n/a |
| 6 | Send\_email | The robot sends the Excel file to the user, at the specified email address | n/a | n/a |

# Process exceptions and checkpoints

Two different types of exceptions are treated within an automated process:

* Business exceptions, which are logged by the robot for human analysis, and which will cause the automated job to fail, with no retry
* Application exceptions, which undergo a retry as per the configured value

## Business exceptions

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Exception name** | **Step** | **Action to be taken** |
| 1 | Bad city name input | 3 | The robot requests the input city until is correct, by displaying a message. |
| 2 | Excel sheet needed for saving data is open | 4 | The robot displays the message that Excel is open until the user closes it. |
| 3 | Address of the company not found | 6 | The robot puts in the Excel file ‘not available’ in the Contact row |
| 4 | Bad email address | 7 | The robot requests the input email address until is correct, by displaying a message. |

## Application exceptions

* Browser might encounter an error
* The email server might crash
* Excel might crash

# Data storage

## Output data

* Excel file : results.xlsx
* An email with the Excel file attached sent to the user