

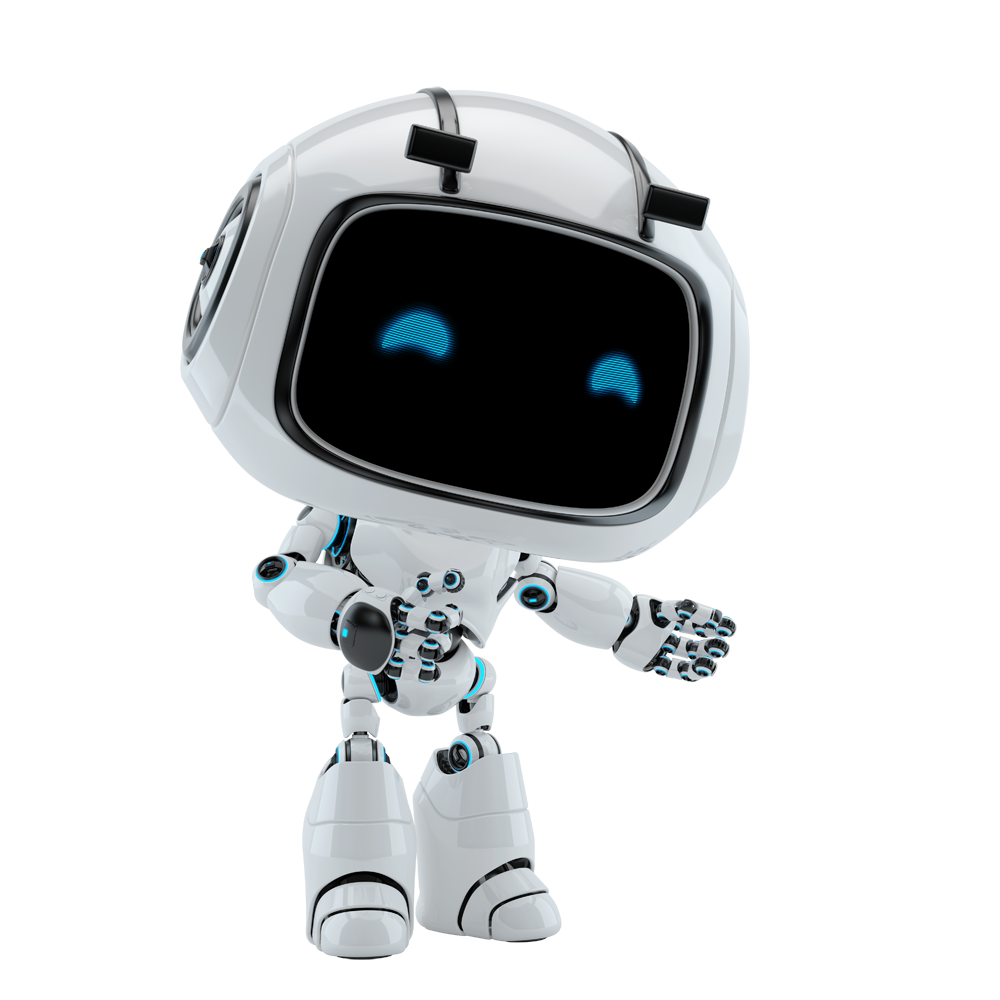
Process Design Document



[Date]

GRANDIDA LLC

[Company address]



# 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 outlines the process's step-by-step execution as well as the prerequisite conditions and specifications. Developers can use this design document as a starting point to gather the information needed for the robotic automation of the same business process.

## Objectives

This application targets small and medium businesses. It aims to help businesses track and manage interactions with customers and/or employees. It acts as the main place to keep all the information gathered throughout a business’ relationship with its clients.

The objective of this process automation is linked to the project business case and is mainly intended to act as a repository for all business’s customer contacts and data, which gets used by the sales and marketing departments to speed up the sales process and land more deals.

## Process Key Contacts

The specifications document was created using inputs from the process' Subject Matter Expert (SME)/Process Owner and offers clear and comprehensive requirements for the business process.

It is expected that the Process Owner will evaluate it, sign off on the steps' accuracy and completion, context, impact, and a list of process exceptions.

The table below should provide the specifics.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| DATE | VERSION | ROLE | NAME | ORGANIZATION | FUNCTION | COMMENTS |
| 09/07/2022 | 1.0 | Author | Testimony Adams | Grandida LLC | SME |  |

## Minimum Pre-requisites for automation

* Get temporary password for Gmail account from [here](https://myaccount.google.com/apppasswords).
* Gmail account and temporary password stored in Windows Credential as “Gmail\_Login”.
* UiPath account with data service enabled.

# AS IS PROCESS DESCRIPTION

## Process Overview

|  |  |
| --- | --- |
|  | **AS IS process details** |
| Process full name | Customer Shelf |
| Function | Storing data |
| Department | Customer Relationship Management |
| Process short description (operation, activity, outcome) | Stores customers’ information and employees’ information.  Sends emails. |
| Role required for performing the process | System 1 User |
| Process schedule | Daily |
| # of items processes/ month | <1000 customers |
| Average handling time per item | 1 minute per customer AND 20 seconds – 2 minutes per transaction. |
| Peak period (s) | No peak period |
| # of FTEs supporting this activity | 1 |
| Level of exception rate | Between 1 and 3 emails sent per month could be missing. |
| Input Data | UiPath Apps (in form of an executable) |
| Output Data | Folder containing excel files of customers’ and employees’ information.  Emails |

## In Scope for RPA

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

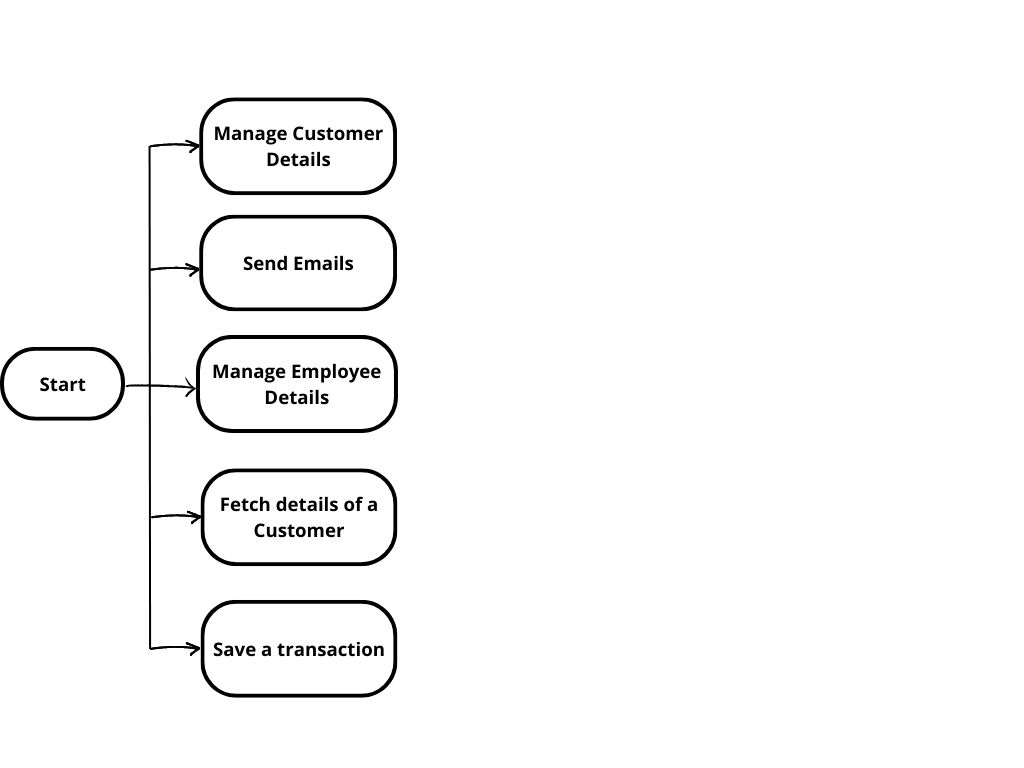
* Full Scope for RPA - the process is to be 100% automated

## 2.1.2 Out of Scope for RPA

There are no activities out of scope for RPA.

## Detailed Process Map

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



|  |  |
| --- | --- |
| StepShort Description | |
| **1** | To store a new customer’s information, open the excel file dedicated for storing customers’ information and add a new row containing details of the customer such as Name, Phone Number, Email, Address and so on. |
| **2** | To delete a customer’s information, open the excel file dedicated for storing customers’ information and delete the row containing details of that customer. |
| **3** | To store a new employee’s information, open the excel file dedicated for storing employees’ information and add a new row containing details of the employee such as Name, Phone Number, Email, Address, Role and so on. |
| **4** | To delete an employee’s information, open the excel file dedicated for storing employees’ information and delete the row containing details of that employee. |
| **5** | To save an email template for future use, open the excel file dedicated for storing email templates and add a new row containing the email subject and body. |
| **6.1** | To send an email, retrieve the email address of the recipient from either the excel file dedicated for storing customers’ information or for storing employees’ information. |
| **6.2** | Then if the template for the email to be sent has been stored in the excel file dedicated for storing email templates, then open the excel file and copy the email subject and body. Open the email app, create a new email then paste the copied contents into the subject and body.  If the email to be sent does not have a saved template, then open the email app, create a new email then type the subject and body. |
| **7** | To store the details of a transaction, open the excel file dedicated for storing transactions and add a new row containing the details of the transaction such as Customer’s Name, Item(s) Purchased and Date of Purchase. |
| **8.1** | To retrieve the detail(s) of a customer, open the excel file dedicated for storing customers’ information and get the detail(s) needed. |
| **8.2** | To retrieve the transactions made by a customer, open the excel file dedicated for storing transactions and get the transaction(s) needed. |
| **9** | To note down something for future reference, open the text file dedicated for noting down things and add to it. |

## Detailed Process Steps

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

|  |  |  |  |
| --- | --- | --- | --- |
| # | Step Action | Screenshot | Remarks |
| **1.1** | Open the excel file dedicated for storing customers information. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **1.2** | Enter a new row containing the customer’s data in the corresponding column (Name is compulsory).  Then save and close the excel file. |  |  |
| **2.1** | Open the excel file dedicated for storing customers information. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **2.2** | Right-click the row containing the details of the customer to be removed and delete.  Then save and close the excel file. |  |  |
| **3.1** | Open the excel file dedicated for storing employees information. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **3.2** | Enter a new row containing the employee’s data in the corresponding column (Name is compulsory).  Then save and close the excel file. |  |  |
| **4.1** | Open the excel file dedicated for storing employees information. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **4.2** | Right-click the row containing the details of the employee to be removed and delete.  Then save and close the excel file. |  |  |
| **5.1** | Open the excel file dedicated for storing email templates. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **5.2** | Enter a new row containing the subject and body in the corresponding column (Subject is compulsory).  Then save and close the excel file. |  |  |
| **6.1.1** | Open the excel file dedicated for storing customers or employees information. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **6.1.2** | Right-click the cell containing the email address and copy.  Then close the excel file. |  |  |
| **6.1.2** | If there is no email stored for the customer, abort mission. |  |  |
| **6.2.1** | Open the excel file dedicated for storing email templates. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **6.2.2** | Right-click the cell containing the template subject and template body and copy.  Then close the excel file. |  |  |
| **6.2.3** | Open the email app, click New mail to compose a new email and paste the template subject and body.  Send email after. |  | Possible exception:  - Handle exception if email isn’t sent. |
| **6.2.4** | If the email to be sent has no stored template, open the email app, click New mail to compose a new email and type the template subject and body.  Send email after. |  | Possible exception:  - Handle exception if email isn’t sent. |
| **7.1** | Open the excel file dedicated for storing transactions. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **7.2** | Enter a new row containing the transactions in the corresponding column (Name and Item purchased is compulsory).  Then save and close the excel file. |  |  |
| **8.1.1** | To retrieve the details of a customer, open the excel file dedicated for storing customers information. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **8.1.2** | Locate the row the customer’s details is stored by sending Ctrl + F and typing the Customer’s Name, then view corresponding cells. |  | Possible exception:  - Handle exception if customer’s name is not found. |
| **8.2.1** | To retrieve the details of the transactions made by a customer, open the excel file dedicated for storing transactions. |  | Possible exception:  - Handle exception if excel file does not exist. |
| **8.2.2** | Locate the row(s) the transactions is/are stored by sending Ctrl + F and typing the Customer’s Name, then view corresponding row(s). |  | Possible exception:  - Handle exception if no transaction is found. |
| **9.1** | Open the text file dedicated for storing notes. |  | Possible exception:  - Handle exception if text file does not exist. |
| **9.2** | Enter the details of what to note down  Then save and close the text file. |  |  |

## 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. |

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Exception name** | **Step exception is encountered** | **Action to be taken** |
| **1** | Excel file does not exist. | Step # **1.1, 2.1, 3.1, 4.1, 5.1, 6.1.1, 6.2.1, 7.1, 8.1.1, 8.2.1, 9.1** | Create a new file. |
| **2** | Email is not sent. | Step # **6.23, 6.24** | Notify admin. |
| **3** | Customer’s name not in the excel file dedicated for storing customers information. | Step # **8.1.2** | Customer’s name has not been added to the excel file dedicated for storing customers information. So, add the customer’s details. |
| **4** | Customer’s name not in the excel file dedicated for storing transactions. | Step # **8.2.2** | Customer has not made any transactions. |

For any other unanticipated or unknown exceptions, the robot should send an email notiﬁcation to [Testimony@Grandida.com](mailto:Testimony@Grandida.com).

## Error Mapping and Handling

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

|  |  |  |
| --- | --- | --- |
| **Area** | **Known** | **Unknown** |
| Technology | Previously encountered situation- action plan or workaround available. | A situation never encountered before, or may happened independent of the applications used in the process. |

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Error name** | **Step exception is encountered** | **Action to be taken** |
| **1** | Excel application not loading | Any step | Close application and re-run. |

## In-Scope Application Details

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Application name** | **Syst. Lang.** | **Interface** | **Access method** |
| **1** | Gmail App | EN | N/A | API |
| **2** | Microsoft Excel | EN | Client | Local desktop |

# DEVELOPMENT DETAILS

## Prerequisites for Development

* Development or testing environment will be provided for development.
* Development/testing environments are exact replicas of the production environment.
* Dedicated system and application access are given to developers with the adequate permissions.

## Password Policies

Users manage their own password. There are no special policies in place.

## Credentials and Asset Management

Log on details (user IDs and passwords) should be stored under Windows Credential Manager or UiPath Orchestrator Assets.

Gmail Login details should be stored in Windows Credential Manager as “Gmail\_Login”.

# DOCUMENT APPROVAL FLOW

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Version** | **Flow** | **Role** | **Name** | **Organization (Dept.)** | **Signature and Date:** |
| **1.0** | Document prepared by: | Developer | Testimony Adams | Grandida LLC |  |
| **1.0** | Document Approved by: | Business Process Owner | Name Surname |  |  |
| **1.0** | Document Approved by: | Dev/RPA Solution Architect | Name Surname |  |  |

# APPENDIX

## UiPath Automated Process Details

Automation overview: 2 weeks for development, 2 weeks for testing

Robots type: Front Oﬃce Robot

Level of human intervention required:

Use of Orchestrator: Storing data with Data Service and Storage Buckets.

Exceptions recorded in automation process: Email addresses stored could be invalid.

Errors identiﬁed in the automation process: No internet connection

Challenges identiﬁed in the automation process: Finding a free way to send messages. For the free version of UiPath license, each data field stored in an entity can accept a max of 200 characters.

Lessons Learned:

**Any adjustments** made to facilitate the automation process and any steps taken to shift from the human way of working to the automatic one. Any activity performed to improve the As Is process and to enable higher rates of automation of the process:

* Capability to group customers in order to send bulk emails.
* Using a user-friendly interface to consume data and output information.
* Extracting backend data without opening the excel file.

**Reporting:** The details and format of the logging mechanism available in the workflow have to be specified here, whether it is a local log report or the Orchestrator log).

The format should be specified by the business users.

**Workflow and scripts:** A brief overview of each workflow and the sequence in which it is executed should be provided here. 2 workflows were used:

* SendEmail\_DS: This workflow accepts 8 arguments. It sends emails to either a customer, an employee or a group of customers. If an attachment is to be sent with the email, it retrieves the attachment from the storage bucket and attaches it to the email.
* Download Sheets: This workflow accepts no argument. It collects the information to be contained in each excel file from the Data Service and stores it locally in the excel files.
* Send BirthDay Email Msg: This workflow accepts no arguments. It is scheduled to run daily at 8:00 am GMT +1 to read customers’ and employees’ database and check if it’s their birthday. If it is, an email is sent.
* UiPath Apps: This app is the interface the user interacts with.

