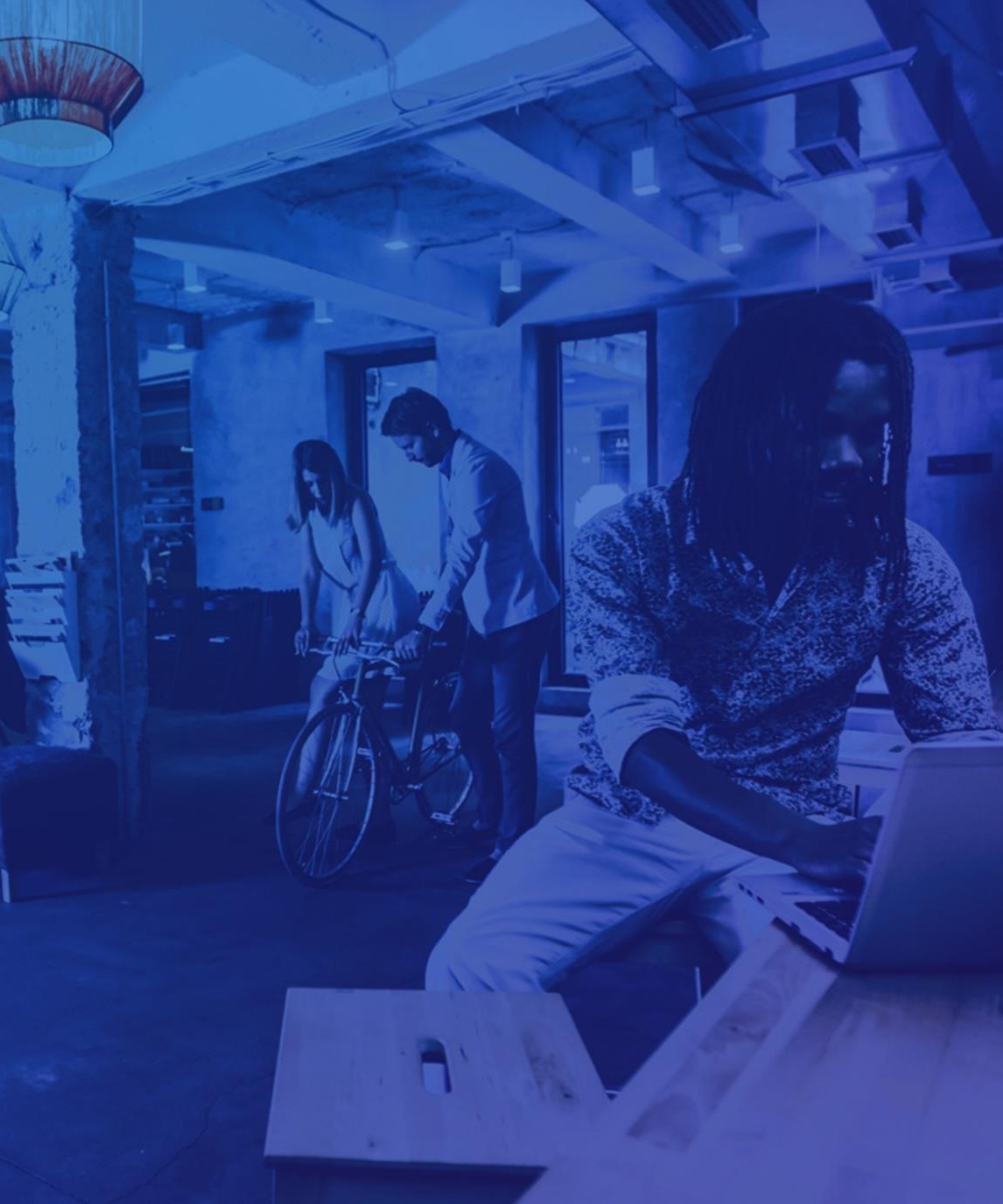
Process Design Document

\*Payslip Utility- Group3 Batch14\*



Process Design Document History

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Version** | **Role** | **Name** | **Organization** | **Function** | **Comments** |
| 09.03.2022 | 1.0 | Author | 1.Najma  Fathima  2.Shradha Sarap  3.Neha Natesh | H S I . | RPA Trainee | Creation v 1.0 |
|  |  |  |  |  |  |  |

**Date Version Role Name Organization Function Com**

**ments**

Table of Contents

1. Introduction ...............................................................................................................................................3

1.1 Purpose of the document..................................................................................................................3

1.2 Objectives.............................................................................................................................................3

2. AS IS Process Description.........................................................................................................................4

2.1 Process overview.................................................................................................................................4

2.2 Detailed Process map.........................................................................................................................6

2.3 Detailed Process Steps .......................................................................................................................8

2.4 Exceptions handling......................................................................................................................... 11

2.5 Error mapping and handling .......................................................................................................... 12

2.6 In-Scope application details............................................................................................................ 12

2.7 Reporting

3. Development details.............................................................................................................................. 13

3.1 Prerequisites for development ...................................................................................................... 13

3.2 Password policies............................................................................................................................. 13

3.3 Credentials and asset management ............................................................................................. 13

4. Document Approval Flow...................................................................................................................... 13

5. Appendix ................................................................................................................................................. 14

* 1. UiPATH automated process details............................................................................................... 14

# 1 Introduction

* 1. **Purpose of the document**
* The Process Document describes the business processes chosen for automation using UiPath Robotic Process Automation (RPA) technology.
* The document describes the sequence of steps performed as part of the process, the conditions and rules of the process prior to automation
* This design document serves as a base documentation for the developers to collect the details required for robotic automation of the same business process.

* 1. **Objectives**

The process has been selected for RPA as part of the larger project initiative

conducted within H S I Trainee Program., HR department.

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

it is mainly intended to:

➢ Deliver faster processing of pay slips

➢ Reduce duration of time-consuming activities

➢ Leverage automation to improve the department`s overall performance and

reliability.

# 2 AS IS Process Description

**2.1 Process Overview**

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

|  |  |
| --- | --- |
| **AS ISprocessdetails** | |
| **Process full name** | Payslip Generation Utility |
| **Process short description**  (operation,activity,outcome) | This process reads the employee’s salary details from the employee salary excel sheet. It automates the generation of payslip for each employee in the form of word document and converts it to pdf format. It then sends email to the individual employees |
| **Role required for performing the process** | RPA developer |
| **Process schedule** | Monthly, Day 27th of every month Time: 5pm |
| **# of items processes/month** | ~10 |
| **Average handling time peritem** | 10min/ Employee |
| **Peak period(s)** | End of month,usually from 20th to28th day of each month |
| **# of FTEs supporting this activity** | 1 |
| **Level of exception rate** |  |
| **Input data** | Input is in the form of excel sheet with complete employee payroll  details |
| **Output data** | Payslips in Microsoft word(.docx) and pdf formats generated.  Emails are sent to individual employees to their email IDs taken  from the input excel sheet. |

2.1.1 In scope for RPA

The activities and exceptions are in scope for RPA, in this automation workflow/sequence are listed here:

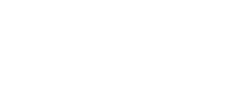
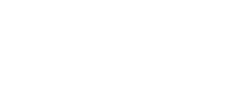
➢ Full Scope of the process for RPA - to be 100% automated

2.1.2 Out of scope for RPA

The employee salary details excel file used as input is out of scope of automation.

2.2 Detailed process map

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



START

Read the Excel Payslip data File

Fill the word template using the excel data

Save the document

Convert the document to a pdf file

Email the pdf to respective employees.

END

|  |  |
| --- | --- |
| **Step** | **Short Description** |
| **1.1** | Read the excel file containing the payroll details ( “Payslip Headers.xlsx “) and convert it to Datatable |
| **1.2** | Use the datatable and edit the "Payslip Template.docx" |
| **1.3** | Save it to employee name.docx file in “./ Payslips Output/.docx” folder |
| **1.4** | Convert and save the document in pdf format to employee name.pdf file in “./ Payslips Output/.pdf” folder |
| **1.5** | Email the pdf files to respective employees using the email IDs from the input excel sheet. |
| **1.6** | Repeat steps 1.2 to 1.5 for all the employees from the input sheet |

2.3 Detailed Process Steps

Complete and concrete process steps at keystroke level or clicks to be defined with screenshots. (If there are any data restrictions, mask important data like Policy Number, Customer ID, bank account etc).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S T E**  **P** | **Step action description** | **Screenshot** | **Expected result** | **Remarks** |
|  |  |  |  | **Possible** |
| **1.1** | Open the Pay Slip Header.xlsx file  Use Excel application scope | Testing of Excel successful if excel application scope works | **exception:**  - Handle exception if *excel is not installed* |
|  |  |  |  | **Possible** |
|  |  |  | **exception:** |
| **1.2** | Read the excel file containing the payroll details ( “Payslip Headers.xlsx “) and convert it to Datatable |  | *-* Handle exception if  *Account number in the excel is empty or invalid* |
|  |  |  |  |
| **1.3** | Copy the Payslip Template file from folder: "\Inputs\Payslip Template.docx" to current working directory for editing |  | Copied Successfully | **Possible**  **exception:**  *-* Handle possible error if  *Payslip Template file already exists* |
| **1.4** | Edit the Payslip Template file in current working directory. Edit all the entries taken from Excel file into the template |  | Edited Successfully | **Possible**  **exception:** |
| **1.5** | Save it to employee name.docx file in “./ Payslips Output/.docx” folder |  | Saved Successfully | **Possible**  **exception:**  **File already exists** |
| **1.6** | Convert and save the document in pdf format to employee name.pdf file in “./ Payslips Output/.pdf” folder |  | Saved Successfully | **Possible**  **exception:**  **If word version is 2007. Saving to pdf will not work properly** |
| **1.7** | Email the pdf files to respective employees using the email IDs from the input excel sheet. |  | Email received in employee inbox | **Possible**  **exception:**  **Email ID does not exists** |

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, and clear actions and workarounds areprovided for each case.

A situation never encountered before. 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.

Insert as many rows as required in the table, to capture all exceptions in a comprehensive list.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **E#** | **Exceptionname** | **Stepwhere**  **exception isencountered** | **Parameters** | **Actiontobetaken** |
| **1** | Excel Error | Step #**1.1** | If Account number is left empty for cash payment employees | Log the outcome in the log message and add a Log column in the input excel sheet. |
| 2 | Excel Error | Step #**1.1** | If Account number has an invalid entry | Log the outcome in the log message and add a Log column in the input excel sheet. |
| 3 | System.netsockets.socketexception |  |  |  |
| 4 | System Exception |  |  | Exceptions missed by process |
| 5 | System.IO.FileNotFoundException |  |  | If Input folder has problem or the file to be copied is not available in it |
| 6 | System.Runtime.InteropServices.COMException |  |  | If word version is 2007 |
|  |  |  |  | Possible errors are the file may be already being used or it is protected or it is not being shared |

**Exception**

**#**

A comprehensive list of all the errors, warnings, or notifications should be consolidated here with the description and action to be taken by the Robot in each case.

The errors identified 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 happen independent of the applications used in the process.

Based on the above criteria, the table below should reflect all the identifiable errors in the process, and map the expected action of the Robot in each case.

Insert as many rows as required in the table, to capture all the errors in a comprehensive list.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **E#** | **Error**  **name** | **Step whereerror isencountered** | **Parameters** | **Actiontobetaken** |
|  | Application Crash /InternalServerError | Anystep | Errormessage | Refresh/ Retry  Send email with screenshot to  Closeapplication and runthesequenceagain |
|  | Applicationunresponsive / pagenotloading | Anystep | No response /blankpage | Wait5minutesandretry2 times.  Closeapplicationand runthesequenceagain |

**Step where**

**Parameters Action to be taken**

**2.6 Inscope Application Details**

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **#** | **Application name**  **& Version** | **System Lang.** | **Login module** | **Interface** | **Environment/**  **Access method** | **Comments** |
| 1 | Microsoft Word | EN | N/A | Client | Local  desktop | Version 2007 is not compatible |
| 2 | Microsoft Excel | EN | N/A | Client | Local  desktop |  |
| 3 | Chrome for gmail | EN | N/A | Client | Local  desktop |  |
| 4 | Orchestrator |  |  |  |  |  |
| 5 | Acrobat Reader |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Report # | Report Type | Update Frequency | Details |
|  |  |  |  |
|  |  |  |  |

**Application**

**# name & Version**

2.7 Reporting

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

3. Development details

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



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

3.3 Credentials and asset management

Log on details (user IDs and passwords) should be stored under “Windows Credential Manager” or “UIPath Orchestrator Assets”

4. Document Approval Flow

**Version Flow Role Name Organization Signature/Date**

1.0

**Si**

**and Dte: Signature**

5. Appendix



**Note: this step is to be filled in after automation process is complete**

**Automation overview**: (time to dev, test, etc)

**Robots type**: Back Office Robot

**Level of human intervention required**:

**Use of Orchestrator**:

**Exceptions recorded in automation process:**

**Errors identified in the automation process**:

**Challenges identified in the automation process**:

**Lessons Learned**:

**Any adjustments** done in the automation process to facilitate (steps tweaked from the human way of working to an automatic programing way of working).All activities which have been performed to tweak the as is process to enable higher rates of automation on the process.

* Process Assumption
* Input data assumption
* Number or types of input to be received
* Skip logon interface and collect back end details
* Extract data from backend without opening the file…
* Data conversion / formatting

**Reporting:** The details and format of the logging available in the workflow must be specified here. (Whether it is creating local log reports or Orchestrator logs).

The format should be specified by the business users.

**Workflow and scripts:** A brief of each workflow and the sequence in which are executed should be described here.