**Process Design Document (PDD) - Sales Report Automation (RPA)**

**Introduction**

This document outlines the process of automating a sales report using Robotic Process Automation (RPA). The goal is to automate the extraction, validation, and consolidation of sales data to generate standardized reports and send emails with the final and error documents.

**Step 1: Data Processing and Validation**

**1.1. Data Extraction**

1. The process must extract data from the "Sales List.pdf" file.

**1.2. Excel File Preparation**

1. After extraction, the process will create or use an Excel spreadsheet and add the following 7 new columns to enrich and validate the data:
   * **Unit Cost (BRL)**
   * **Total Price (BRL)**
   * **Exchange Conversion Date/Time**
   * **Address**
   * **Neighborhood**
   * **Location/State**
   * **Errors Found**

**1.3. Data Enrichment**

1. **Currency Conversion:** The values in the **"UNIT COST"** and **"TOTAL PRICE"** columns must be converted to **BRL**. The current exchange rate should be obtained using the following API:
   * URL: http://economia.awesomeapi.com.br/json/last/USD-BRL
   * The value from the **"bid"** field will be used for the conversion.
2. **Address Lookup:** To find the complete address of the vendors, the process should use the following website:
   * URL: https://buscacepinter.correios.com.br/app/endereco/index.php?t

**1.4. Validation Rules**

The process must adhere to the following validation rules. If any rule is not met, the error must be logged in the **"Errors Found"** column.

* Final sales reports should only be generated for vendors who have the status **"Checked"** in the **"Vendor List.xlsx"** file.
* The format of the **"VENDOR ID"** field must respect the standard **“AA000000”** (two letters followed by six numbers).
* Only **INVOICES issued between the years 2018 and 2021** will be considered.
* The **"Invoice Number"** must contain **only numbers**.

**Step 2: Report Generation and Distribution**

**2.1. Sales Report Generation**

1. At the end of the analysis, the process will generate a report for each vendor that meets the established rules.
2. The report will be built using the **“Sales Report\_Template.xlsx”** file.
3. The template variables will be replaced with the information generated in Step 1, considering the following rules:
   * **Discount:** If the total sales value is **greater than 2 MM Reais**, a **10% discount** will be applied.
   * **Taxes:** The following taxes will be applied based on the vendor's state:
     + **São Paulo:** 5%
     + **Rio de Janeiro:** 2%
     + **Minas Gerais:** 1%
   * **Deadline:** Invoices must be generated by **D+30**.

**2.2. File Conversion and Protection**

1. After completing the sales report for each vendor, the Excel file will be converted to a **PDF file with a password**.
2. The PDF password will be the **last 6 digits of the "Vendor ID"** (Example: if the ID is DE325476, the password will be 325476).

**2.3. Email Communication**

1. At the end of the process, an email will be sent (it can be to the bot's own email) with the following attachments and information:
   * **Attachment 1:** A report of errors found during the validation of the **“Sales List.pdf”** file.
     + This document can be generated in any format (**xlsx, pdf, docx, txt**).
     + It must contain the columns: **Invoice Number**, **Vendor ID**, and **Errors Found**.
   * **Attachment 2:** The sales files generated for each vendor (password-protected PDFs).
   * **Email Body:** The body of the email can include any necessary follow-up information.