Process Design Document (PDD)

User Review NLP Analysis

Version 1.0

Date: 20th January 2020

Table of Contents

I. Introduction

I.1 Purpose of the Document

The Process Definition Document outlines the business process chosen for automation using UiPath Robotic Process Automation (RPA) technology.

The document describes the sequence of steps performed as part of the business process, the conditions and rules of the process prior to automation and how they are envisioned to work after automating it, partly or entirely. This specifications document serves as a base for developers, providing them the details required for applying robotic automation to the selected business process.

I.2 Objectives

The process that has been selected for RPA is part of the larger project 'User Review NLP Analysis' conducted within the 'TechGig_Virtual_UserReviewNLPAnalysis'.

The business objectives and benefits expected by the Business Process Owner after automation of the selected business process are:

- *Reduce processing time per item by 30 % to 40 %*
- *Better Monitoring of the overall activity by using the logs provided by the robots*

I.3 Key Contacts

The specifications document includes concise and complete requirements of the business process and it is built based on the inputs provided by the process **Subject Matter Expert (SME)/ Process Owner.**

The **Process Owner** is expected **to review it and provide signoff for accuracy** and completion of the steps, context, impact and complete set of process exceptions. The names have to be included in the table below.

Role	Name	Contact details (email, phone number)	Notes
Process SME	Prathamesh Gharge	prathamesh.gharge@mastek.com	Point of contact for questions related to process details & exceptions
Process Reviewer	Krutika Kotkar Pranav Mehta	krutikakotkar@gmail.com pranavmehta100.pm@gmail.com	Point of contact for questions related to process details & exceptions
Process Owner/ Approver for production	Vipul Nikam	rajvipul75@gmail.com	Escalations, Delays etc.

I.4 Minimum Prerequisites for Automation

1. Filled in Process Design Document
2. Test Data to support development
3. User access and user accounts creations (licenses, permissions, restrictions to create accounts for robots)
4. Credentials (user ID and password) required to logon to machines and applications
5. Dependencies with other projects on the same environment

II. As-Is Process Description

II.1 Process Overview

General information about the process selected for RPA prior to automation.

#	Item	Description
1	**Process full name**	User Review NLP Analysis
2	**Process Area**	E-Commerce
4	**Process short description** (operation, activity, outcome)	User want to check the review of any particular product before purchasing. He needs to visit every site and read all the review comments one by one and based on the review he makes the decision.
5	**Input data**	Product name
6	**Output data**	Graphical User Interface (GUI) report based on the review comments from different web sites.

II.2. Applications Used in the Process

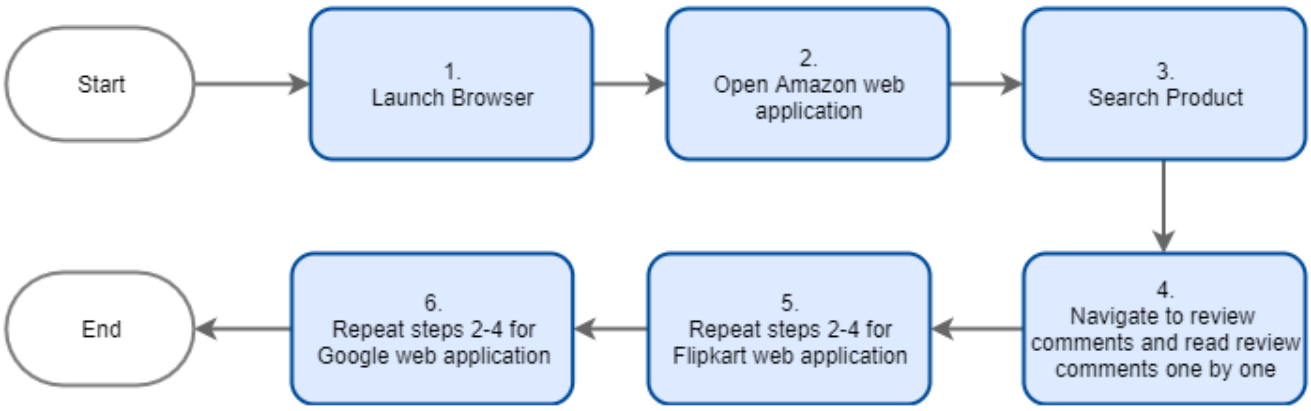
The table includes a comprehensive list all the applications that are used as part of the process automated, at various steps in the flow.

#	Application name & version	System Language	Thin/Thick Client	Environment/ Access method	Comments
1	Outlook	EN	Thick Client	Windows Application	Task management
2	Excel	EN	Thick Client	Windows Application	For bot configuration
3	Web sites	EN	Thin Client	Web Browser	
4	Microsoft text analysis API	EN	Thin Client	Web Application	NLP API

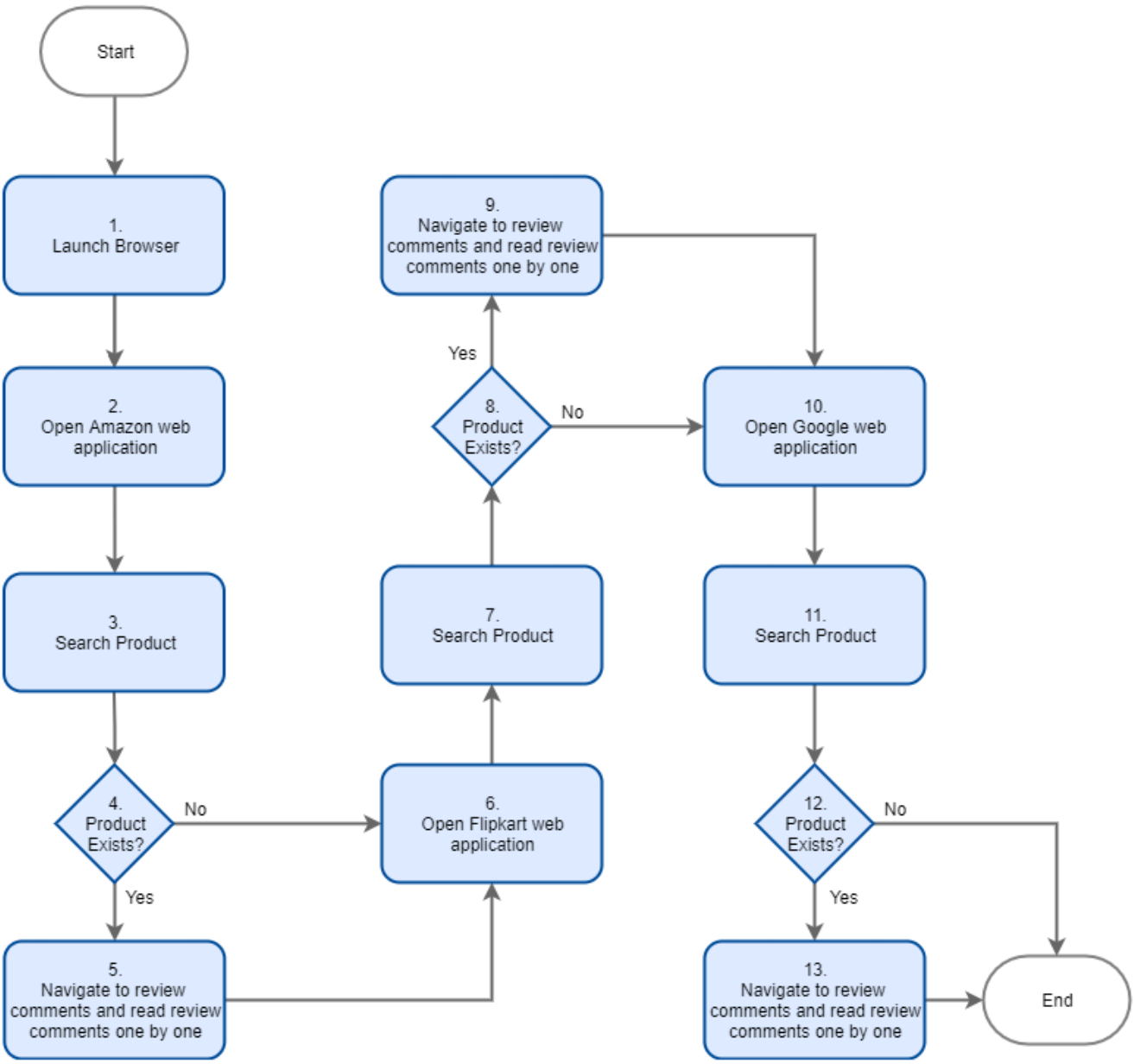
II.3 As-Is Process Map

High Level As-Is Process Map:

This chapter depicts the As Is business process at a High Level to enable developers to have a high-level understanding of the current process.



Detailed As-Is Process Map:



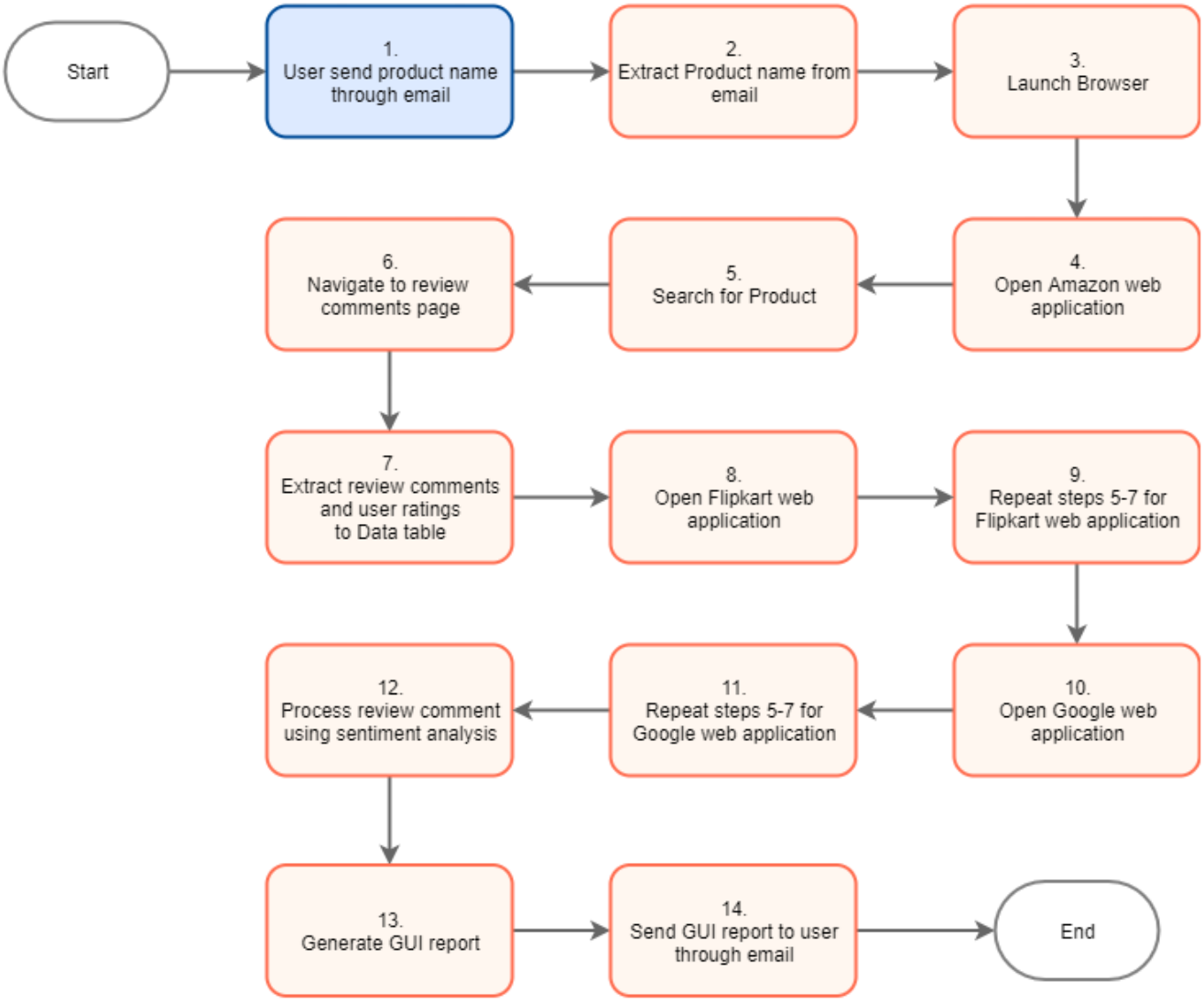
III. To-Be Process Description

This chapter highlights the expected design of the business process after automation.

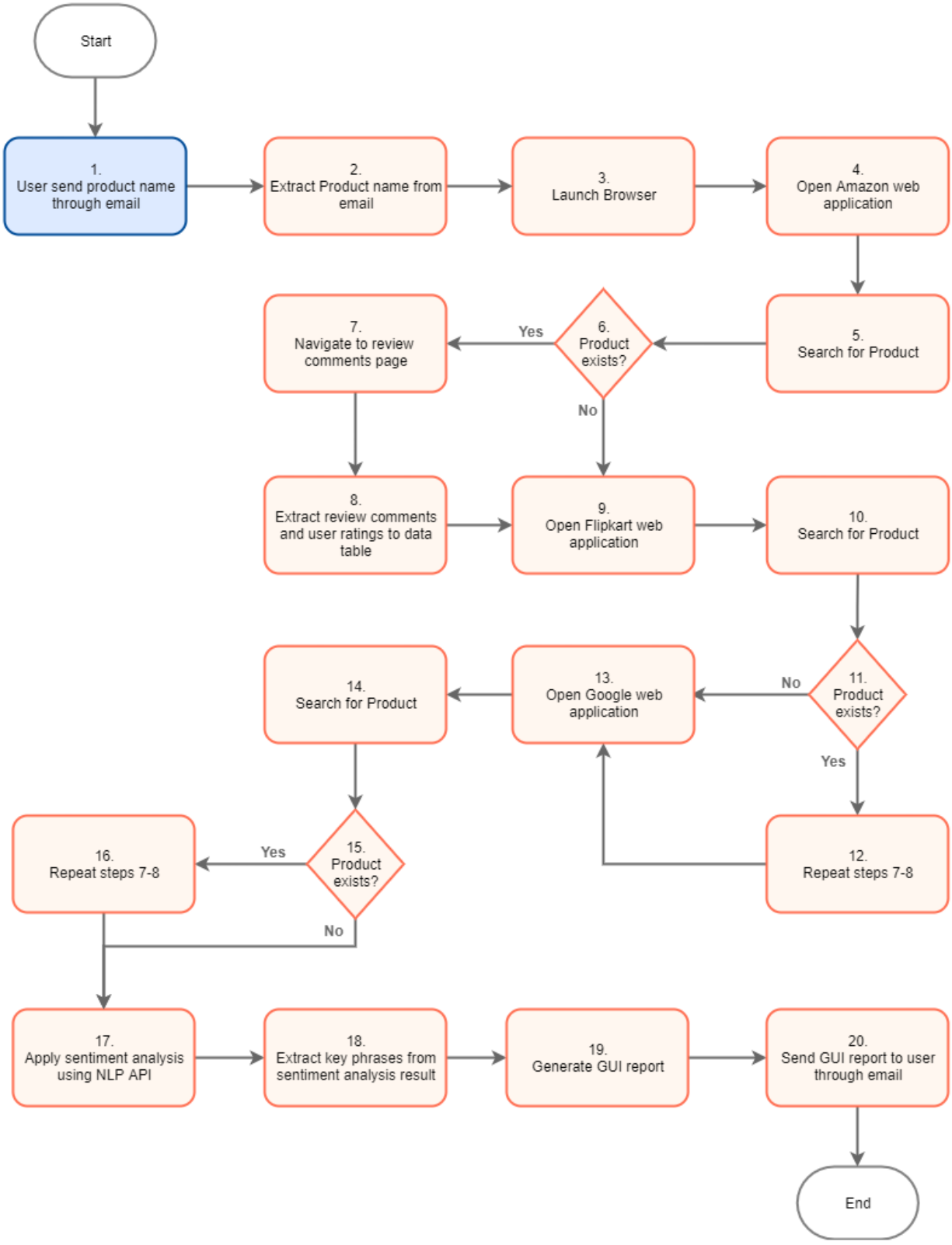
III.1 To-Be Process Map

High Level To-Be Process Map:

Highlight Bot interventions/ to-be automated steps with different legend/ icon (orange)



Detailed To-Be Process Map:



III.3 In Scope

The activities **In scope**, are listed here:

1. Automated solution is only for mobile products.
2. Review comments from Amazon, Flipkart and Google will be used for analysis.

III.4 Out of Scope

The activities **OUT of scope**, are listed here:

1. SMTP mail server will not be in scope currently.

III.5 Constrains

Constrains of scope, are listed here:

1. Changes in ecommerce web application might change the behavior of bot.
2. Generated sentiment analysis report and Key Phrase extraction is completely depends on NLP API used.

III.6 Future Scope

The activities that will be enhanced in **Future**, are listed here:

1. Reading the user request from received email using Natural language processing.
2. Multiple product reviews and presenting graphical review report for multiple products.
3. Automate solution process could be extended to cover more functional areas like Hotels, Companies etc.
4. On the basis of key phrases bot will suggest better options

III.7 Business Exceptions Handling

Known Exceptions

The table below reflects all the business process exceptions captured during the process evaluation and documentation. These are **known exceptions,** met in practice before. For each of these exceptions, define a corresponding expected action that the robot should complete if it encounters the exception.

BE #	Exception name	Action to be taken
1	Invalid NLP key	Ignore error, press the Continue button, fill in the data and Save.
2	Exception thrown by NLP API (Eg:- Error Code 404)	Ignore error, consider null values as a result from NLP API. Logs error message in log file.

Unknown Exceptions

For all the other **unanticipated or unknown business (process) exceptions**, the robot should:

Log file is updated with error details and saved in Orchestrator.

III.8 Application Error and Exception Handling

Know Errors or Exceptions

The table below reflects all the errors identifiable in the process evaluation and documentation.

For each of these errors or exceptions, define a corresponding expected action that the robot should complete if it is encountered.

#	Error name	Action to be taken
1	Application Crash/Internal Server Error	Close the applications and run the sequence again

Unknow Errors and Exceptions

For all the other **unanticipated or unknown application exceptions/errors**, the robot should:

Log file is updated with error details and saved in Orchestrator.

IV. Additional Sources of Process Documentation

If there is additional material created to support the process automation please mention it here, along with the supported documentation provided.

Additional Process Documentation		
1	**Video Recording of the process**	Project Walkthrough
2	**Use Case Document**	Problem statement and solution
3	**User Manual Document**	Step by step execution of process
4	**Design Specification Document**	Detail description of the developed process