Process Definition Document (PDD)

Process Name: *Event Registration Bot*

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Introduction

I. 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 with the details required for applying robotic process automation to the selected business process.

II. Objectives

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 ~ 90%
- Reduce redundant activities
- Improve overall performance and reliability

III. Process Key Contact

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 a set of process exceptions. The details are to be included in the table below.

Role	Name	Contact Details (email & phone number)	Notes
Process Owner	Muhammad Ahmed Naiem	abusenna44@gmail.com	
Business Analyst	Muhammad Ahmed Naiem	+201279095973	

IV. Minimum Prerequisites for Automation

Met (Y/N)	Prerequisites
Y	A filled in and completed Process Definition Document
Y	Closure of any open process questions

Y	Environment set up
Y	Test Data to support development and testing
Y	User access and creation of user accounts (licenses, permissions, restriction to create accounts for robots)

As-Is Process Description

I. Process Overview

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

#	Item	Description
1	**Process Full Name**	Event Registration Bot
2	**Process Area**	Event Organization
3	**Department**	Social
4	**Process Short Description (operation, activity, outcome)**	A Process that will: • fetch the user details from the queue which is populated using Online PHP form connected through the orchestrator API. • generate a QR code Containing the user details along with his custom ID for validation Purposes after. • Send an invitation Email along with the QR code image as an attachment for the user.
5	**Role(s) required for performing the process**	User who has access to official organization email account
6	**Process schedule and frequency**	Daily in every event period
7	**# of items processed /Day**	~50-100 Email
8	**Process execution time**	4 - 5 minutes / Email
9	**Peak period(s)**	First Day of every event annunciation
10	**Transaction Volume During Peak period**	200 Email
11	**Total # of FTEs supporting this activity**	3 Employees

12	**Expected increase of volume in the next reference period**	N/A
13	**Level of exception rate**	No Expected Exceptions
14	**Input data**	User Details from queue transaction
15	**Output data**	QR code Images sent to user via email

*Add more rows to the table to include relevant data for the automation process. No fields should be left empty. Use “n/a” for the items that don't apply to the selected business process.

II. Applications used in the Process

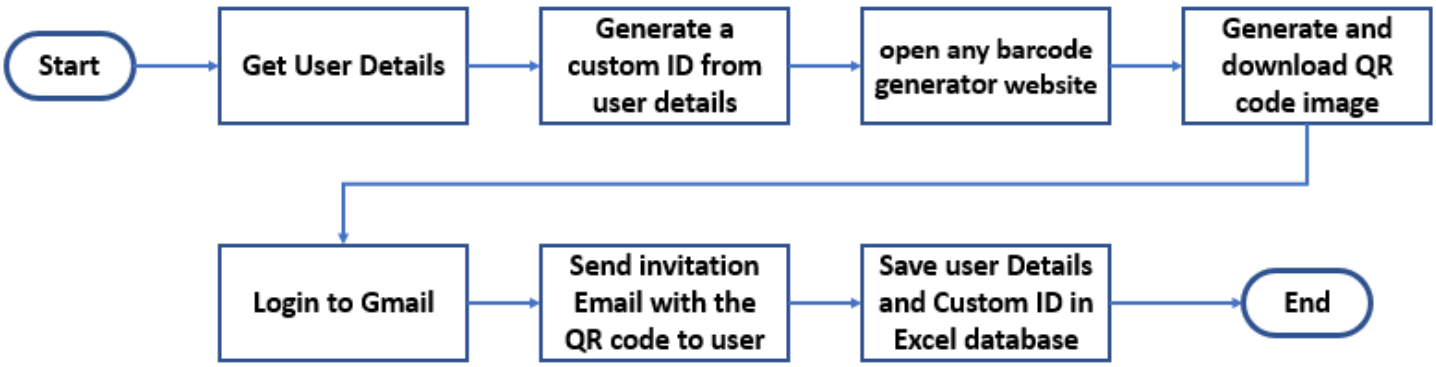
The table includes a comprehensive list of all the applications that are used as part of the process to be automated to perform the given steps in the flow.

#	Application Name & Version	System Language	Thin/Thick Client	Environment/ Access Method	Comments
1	Gmail	English	Thin	Gmail SMTP Server	Server: **smtp.gmail.com** Port: **465**
2	Microsoft Excel 2016	English	Thick	PC	Not essential for the execution flow (All steps can be performed using workbook activities) but it’s used to view the users Database stored on xlsx file.

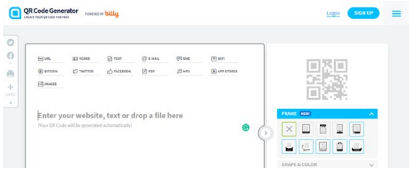
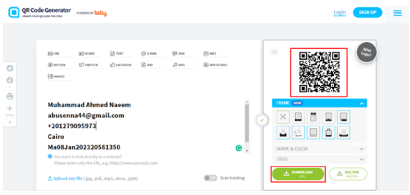
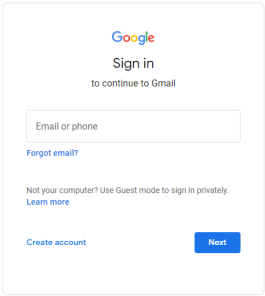
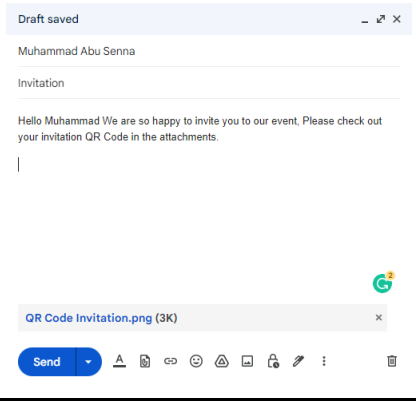
*Add more rows to the table to include the complete list of applications.

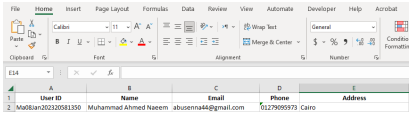
III. As-Is Process Map

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 Process Map: This chapter depicts the As-Is business process at a detailed view to enable process owners to document their process

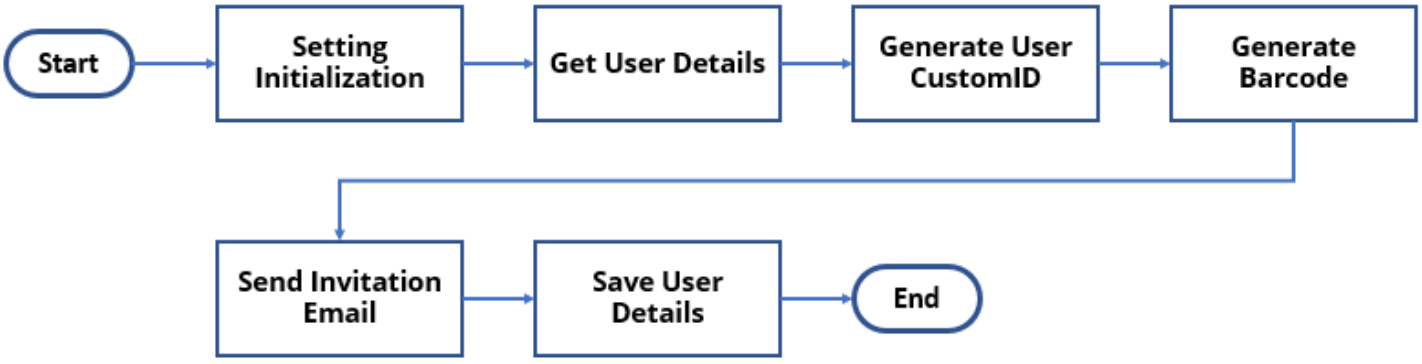
#	Step Action/Description	Screenshot	Remarks
1	**Get User Details:** those are User[Name, Email, Phone and Address] from wherever the method dedicated for the user to register his information (e.g., Google forms)	**N/A**	**N/A**
2	**Generate a custom ID:** to help in user validation when scanning the QR code during the event and compare it to the one that's stored in our database.	**N/A**	**Custom ID pattern**: User ({Name first letter}{Email first letter}{Date and Time Now}{3-4 random numbers})
3	**Open QR Code Generator website**		**URL:** https://www.qr-code-generator.com/
4	**Generate and download QR Code image:** encode the user details along with the generated custom ID in the QR Code image.		**N/A**
5	**Login to Gmail:** or any other email service the user is using.		Use organization official email address **Possible exception:** Handel exception incase of incorrect username and password
6	**Send Invitation Email:** Send a welcome message to inform the user about Event invitation and attach the QR code image to the Email.		**N/A**

7	**Save User Details:** open excel sheet which contains all the registered users and add the new user.		This excel sheet is the users database.

To-Be Process Description

I. Detailed Process Map

High Level To-Be Process Map: This chapter depicts the To-Be automation process at a High Level to enable developers/COE to have a high-level understanding of the to be developed process.



Detailed Process Map: This chapter depicts the To-Be automation process at a detailed view to enable developers/COE to see the workflows involved in the RPA solution

Workflow Name	Description	Pre-conditions	Post-actions	Arguments	Notes
SettingInitialization	This workflow will initialize, populates and outputs a configuration dictionary, Config, to be used throughout the project.	config.xlsx file exists in data folder.	out_config argument are populated with the data in config.xlsx file.	out_Config – Dictionary<String, object> in_ConfigFile – String in_ConfigSheets – String[]	Include all process settings in excel config file, don't hard code values
GetUserDetails	This workflow will fetch the user details from the orchestrator queue.	Queue holding users details is created and populated on orchestrator.	N/A	in_Config – Dictionary<String, object> out_UserDetails – QueueItem	Throw exception if no transaction were found

GenerateUserCustomID	This workflow will Generate a custom ID for the user to be stored along with his data and act as unique number for him.	User details are fetched from the orchestrator.	unique user ID is generated.	in_UserDetails – QueueItem out_UserCustomID - String	Check the pattern from As-Is detailed process map section step number 2
GenerateBarcode	This workflow will Generate a barcode containing user details and his unique custom ID.	User Details and his custom ID are generated.	Barcode image is generated.	in_Config – Dictionary<String, object> in_UserDetails – QueueItem in_UserCustomID - String	Use package from Marketplace to generate the QR Code
SendInvitationEmail	This workflow will Send invitation Email along with the QR code Image to the Email from user details.	QR code image are generated.	Email is sent to the user.	in_Config – Dictionary<String, object> in_UserDetails – QueueItem	Handel exception in case of wrong credentials for Gmail Account
SaveUserDetails	This workflow will Save the user data to the UsersDatabase.xlsx file.	User details exists and Custom ID is generated.	N/A	in_Config – Dictionary<String, object> in_UserDetails – QueueItem in_UserCustomID – String in_UsersDetailsSheet – String in_UsersDatabaseFile - String	N/A

II. Robot Type

#	Attended	Unattended	Trigger	Comments
1	Yes	Yes	Kicked off by user as needed	N/A

III. Business Exceptions Handling

The Business Process Owner and Business Analysts are expected to document below all the business exceptions identified in the automation process. These can be classified as:

Known Exceptions

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

BE #	Exception Name	Step	Parameters	Action to be Taken
1	No transaction found	2	Check if the queue item variable retrieved any data	Log Exception with warn level and terminate the process.
2	Incorrect Email or Password for Gmail account	5	N/A	Log Exception with fatal level and set transaction status for the item to failed.

Unknown Exceptions

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

- Redirect the error to Global Handler then it should:
  - Retry the failed activity for **two** times.
  - If it fails again log the error in **Exception_Messages** text file in **Exception_Messages** folder.
  - End the process.

IV. System Exceptions Handling

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

Errors identified in the automation process can be classified as:

SE #	Exception Name	Step	Parameters	Action to be Taken
1	System Exception	1	Check if the config dictionary initialized successfully	Log Exception with error level and terminate the process.

For all the other unanticipated or unknown system exceptions:

- Redirect the error to Global Handler then it should:
    - Retry the failed activity for **two** times.
    - If it fails again log the error in **Exception_Messages** text file in **Exception_Messages** folder.
    - End the process.

Other Observations

Include below any other relevant observations you consider needed to be documented here.

- This process is a Performer model, the orchestrator queue will be populated with user details using online PHP form that will be connected to the queue using orchestrator API.
- Details about connection between the orchestrator API and the PHP form will be included in other project resources.
- Future addition to trigger the robot to start if new item was added to the queue.
- Future addition to save the user data in an online database system.

Additional sources of process documentation

- Whiteboard - Event Registration Bot.
- Development Specifications Document (DSD) - Event Registration Bot.