

# **EVALUATION OF INTERNSHIP REPORT**B.Tech: III Year

**Department of Computer Science & Information Technology** 

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Year 2022-23

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#### ACROPOLIS INSTITUTE OF TECHNOLOGY & RESEARCH, INDORE

Department of Computer Science & Information Technology

# **CERTIFICATE**

Certified that training work entitled "Robotic Process Automation" is a bonafide work carried out after fourth semester by "Kunal Pratap Singh Pawar" in partial fulfilment for the award of the degree of Bachelor of Technology in Computer Science and Information Technology from "Prof. Simarjeet Singh Bhatia" Acropolis Institute of Technology and Research during the academic year 2022-23.

Name and Sign of Training Coordinator

Name & Sign of Internship Coordinator

ACROPOLIS INSTITUTE OF TECHNOLOGY & RESEARCH, INDORE

Department of Computer Science & Information Technology

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Kunal Pratap Singh Pawar

0827CI201099

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#### INTRODUCTION

Robotic process automation (RPA) is a software technology that makes it easy to build, deploy, and manage software robots that emulate humans actions interacting with digital systems and software. Just like people, software robots can do things like understand what's on a screen, complete the right keystrokes, navigate systems, identify and extract data, and perform a wide range of defined actions. But software robots can do it faster and more consistently than people, without the need to get up and stretch or take a coffee break.

Robotic process automation streamlines workflows, which makes organizations more profitable, flexible, and responsive. It also increases employee satisfaction, engagement, and productivity by removing mundane tasks from their workdays.

RPA is noninvasive and can be rapidly implemented to accelerate digital transformation. And it's ideal for automating workflows that involve legacy systems that lack APIs, virtual desktop infrastructures (VDIs), or database access.

In order for RPA tools in the marketplace to remain competitive, they will need to move beyond task automation and expand their offerings to include intelligent automation (IA). This type of automation expands on RPA functionality by incorporating sub-disciplines of artificial intelligence, like machine learning, natural language processing, and computer vision.

Intelligent process automation demands more than the simple rule-based systems of RPA. You can think of RPA as "doing" tasks, while AI and ML encompass more of the "thinking" and "learning," respectively. It trains algorithms using data so that the software can perform tasks in a quicker, more efficient way. As artificial intelligence becomes more commonplace within RPA tools, it will become increasingly difficult to differentiate between these two categories.

### **OBJECTIVES**

- 1. To prepare students with the technical knowledge and skills needed to automate therepeated tasks performed with the help of a software.
- 2. To prepare students that can plan, implement, and automate the mechanisms to reduce the workload of users.
- 3. To prepare students that can identify, analyze, and design the automation where the task is continuously repeated by a user.

#### PROJECT DETAIL

Project Proposal:- "DataExtractorBot"

### **Project Category:**

- a) Automation
- b) Desktop Application

#### **Problem Statement:**

Design a desktop application bot using RPA which reduces the manual work of filling the hand-written data from student admission to the excel sheet

#### Scope:

This bot can be used in schools and colleges to fetch out the hand-written data from admission form and insert them automatically into the excel file. The receptionist just have to scan that hand-written forms and then the important details of all those forms will be filled into a single excel sheet by the "DataExtractorBot".

#### **Specific Objectives:**

A software automation that extracts data from hand filled application forms, builds a excel file out of it and generates reports through analysis of the extracted data.

### **Stake Holders of Project:**

The receptionists who are filling the data manually into the excel from the handwritten forms.

### **Background:**

Normally a receptionist will manually read the data from admission forms and insert it into the particular column of excel sheet and repeat this process for all the fields and then for all the forms. The bot performs the same task first by reading scanned admission form and then performing OCR to extract data and store into data table then using excel automation, we fetch the collected data into excel sheet.

#### **Review of Literature:**

There is no previous published literature on this type of problem statement where RPA was used to automate the process of data reading and insertion into the excel sheet from hand written data in Admission forms.

Whether the Implementation and deployment of the project idea (yes/no)

- a) Has Social benefits. YES.
- b) Has Environmental Benefits. YES.
- c) Considers health, safety, legal and cultural issues. YES.
- d) Considers sustainable development (economic development that is conducted without depletion of natural resources). YES.
- e) Applies ethical principles while selecting project (not to steal other's project idea, code and documents). **YES.**
- f) Commits to professional ethics and responsibilities and norms of the engineering practice. **YES.**
- g) Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools. **YES.**
- h) Identify, formulate, review research literature, and analyze engineering problems reaching substantiated conclusions.  $-\mathbf{YES}$ .

#### **System Requirements:**

- Minimum Hardware Specifications Requirements:
  - $\triangleright$  Ram 4GB
  - ➤ Processor Intel i3 10TH Gen.
  - ➤ Internal space Minimum 4gb free required (for smooth experience).
  - Stable internet connection.
- **Technologies used:** RPA Excel Automation and Optical Character Reader(OCR).

unconventionally. RPA benefits not just large and medium bust also small-scale organizations. It can speed up tasks in a wide range of industries such as insurance,HR, finance, banking, CRM, BPO/KPO services, etc. Across these industries, organizations usually outsource such tasks to third parties/vendors. Outsourcing helps them mitigate risks in quality, time and employee-shortage.

### **Key Personnel and their expertise:-**

Student Name and Enrollment No.	Technical Expertise
Kunal Pratap Singh Pawar(0827CI201099)	RPA and OCR
Guide- Prof. Simarjeet Singh Bhatia	RPA Expert

#### Timetable:

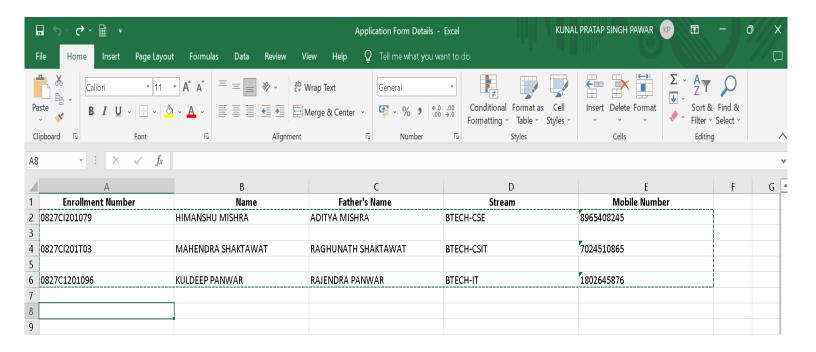
	Description of Work	Expected no. of weeks to complete the module
Module One	Resource collection and analysis of data.	1/2
<b>Module Two</b>	Data from OCR to data table.	1
Module Three	Various Operations which we can perform on the collected data using data analysis.	1

#### **Project Benefits:**

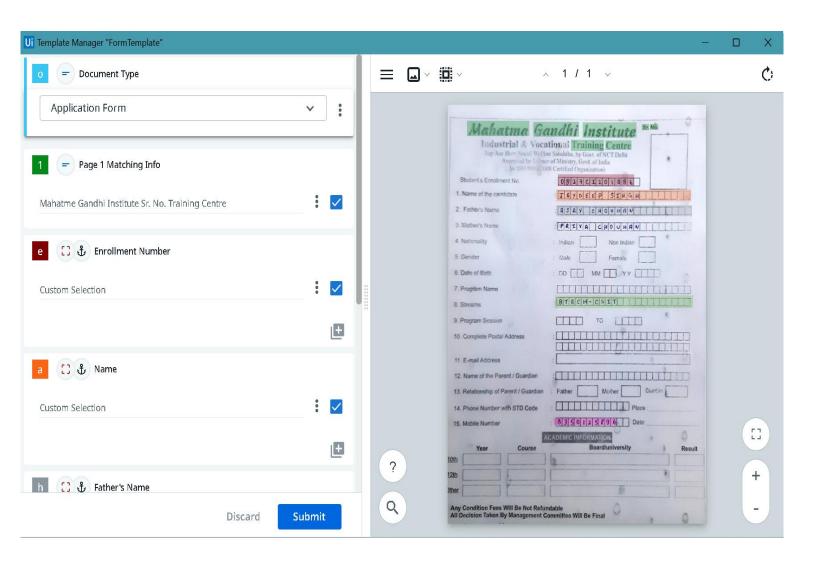
- Saves the time of receptionists who fill the data manually for hours to just few minutes.
- Reduces the workload of receptionists.
- Reduces the risk of filling up of wrong data.

#### **WORKING:-**

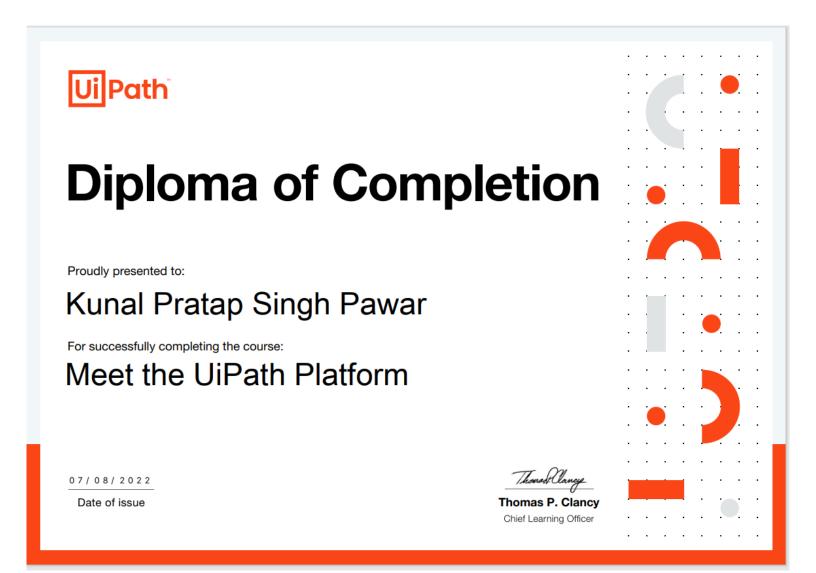
Excel file with extracted details:-



Template of the form and data extraction process:-



## **CERTIFICATE**



# **GITHUB LINK**

DataExtractorBot-Kunalpratap04/DataExtractorBot (github.com)

# **CONCLUSION**

With the influx of venture capital funds and the need for process owners tooptimize internal processes and to cut costs, RPA offers a low-hanging fruit solution. A lot of companies have done pilot RPA projects and some of them have scaled beyond that. This means that as a project manager you are very likely to come into contact with RPA bots directly or indirectly, especially as the field scales.

As we have seen RPA provides many opportunities and new backlog options for your projects. At the same time, it poses many challenges: from data corruption to the creation of legacy systems. As a project manager, you will have to be mindful of how to develop products or software that take RPA into consideration. Doing even a little bit of extra planning will save you a lot of headache down the road anddeliver the results your stakeholders are expecting.

# **REFERENCES**

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