JOB SEARCHING PORTAL AND RESUME REVIEW BOT

A PROJECT REPORT

Submitted by

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OAI1903 - INTRODUCTION TO ROBOTIC PROCESS AUTOMATION

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THANDALAM

CHENNAI – 602 105

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RAJALAKSHMI ENGINEERING COLLEGE

CHENNAI - 602105

BONAFIDE CERTIFICATE

Certified that this project report **"JOB SEARCHING PORTAL AND REVIEW BOT"** is the bonafide work of **"KEERTHIKA S (220701127)"** who carried out the project workfor the subject OAI1903-Introduction to Robotic Process Automationunder my supervision.

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Submitted to Project and Viva Voce Examination for the subject

OAI1903-Introduction to Robotic Process Automation held on_____.

ABSTRACT

The Job Finder and Resume Review System is an advanced robotic process automation (RPA) solution designed to simplify and optimize the job search and resume evaluation processes. Aimed at addressing the challenges of manual job hunting and ineffective resume assessments, this project caters to job seekers looking to save time and improve their job application success rate. The system automates the retrieval of job postings from various websites based on user-defined criteria, such as job role and location. Extracted details—including job title, company name, location, and application link—are organized into an Excel sheet, which is then sent to the user via email for easy review. Additionally, the system features a Resume Review module that allows users to upload a resume in PDF format. The bot extracts the resume's content, evaluates it against predefined job-related keywords, and generates a score indicating how well the resume aligns with the target job profile. With built-in customization options, users can refine job searches and receive feedback to enhance their resumes. The system includes robust error-handling mechanisms and ensures reliable performance throughout its operations. This project eliminates repetitive manual efforts, reduces human error, and streamlines the job application process. It offers a scalable and user-friendly tool for job seekers striving to find the right opportunities and improve their chances of success in a competitive job market.

ACKNOWLEDGEMENT

Initially we thank the Almighty for being with us through every walk ofour life and showering his blessings through the endeavour to put forth this report. Our sincere thanks to our Chairman **Thiru. S.Meganathan, B.E., F.I.E.,** our Vice Chairman **Mr. M.Abhay Shankar, B.E., M.S.,** and our respected Chairperson **Dr. (Mrs.) Thangam Meganathan, M.A., M.Phil., Ph.D.,** for providing us with the requisite infrastructure and sincere endeavouring in educating us in their premier institution.

Our sincere thanks to **Dr. S.N.Murugesan, M.E., Ph.D.,** our beloved Principal for his kind support and facilities provided to complete our work in time. We express our sincere thanks to **Dr. P.Kumar, M.E., Ph.D.,** Professor and Head of the Department of Computer Science and Engineering for his guidance and encouragement throughout the project work. We convey our sincere and deepest gratitude to our internal guides, **Mrs. J. Jinu Sophia, M.E., (Ph.D.),** Assistant Professor (SG), Department of Computer Science and Engineering for their valuable guidance throughout the course of the project. We are very glad to thank our Project Coordinators, **Dr. N.Durai Murugan, M.E., Ph.D.,** Associate Professor, and**Mr. B.Bhuvaneswaran, M.E.,** Assistant Professor (SG), Department of Computer Science and Engineering for their useful tips during our review to build our project.

KEERTHIKA S (220701127)

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INTRODUCTION

1.1 GENERAL

Finding a job and tailoring a resume to match job requirements can be time-consuming and frustrating. Job seekers often spend hours browsing multiple websites, searching for suitable job roles, and refining their resumes manually to meet job expectations. This process is repetitive, prone to errors, and can make the overall experience inefficient.

To solve this, the **Job Finder and Resume Review System** automates these tasks. The system helps users find jobs faster by collecting job postings from multiple websites and organizing them into an easy-to-use Excel file. Additionally, it evaluates resumes by comparing their content to job-related keywords, offering feedback on how well the resume matches the job.

This system saves time, reduces human errors, and makes the job application process smoother and more effective.

1.2 EXISTING SYSTEM

Currently, job searching involves manually visiting multiple websites, entering job criteria, and comparing the results. Similarly, resume optimization requires users to research keywords and manually adjust their resumes. This approach is:

- Time-consuming and repetitive.
- Prone to mistakes, such as missing important keywords or overlooking better job opportunities.
- Inefficient for those managing multiple job applications.

1.3 PROPOSED SYSTEM

The proposed **Job Finder and Resume Review System** automates the job search and resume review process using UiPath. Key features include:

- **Job Searching**: Users enter the desired role and location. The bot scrapes job details from websites and organizes them into an Excel file, which is sent via email.
- **Resume Review**: Users upload their resume, and the bot compares it with job-related keywords, providing a matching score to suggest improvements.

This system simplifies job hunting, saves time, and enhances resume effectiveness by automating the tedious parts of the process.

CHAPTER 2

LITERATURE REVIEW

2.1 GENERAL

Automation has transformed how repetitive tasks are handled across various industries, including job searching and resume optimization. Tools like UiPath are widely used for automating processes like data extraction and analysis.

In job hunting, automated systems have proven effective in gathering job data and organizing it for users. Research by experts has shown that integrating web scraping and automation tools significantly reduces the time spent searching for jobs and improves results by organizing data systematically.

Previous systems have used automation to scrape job postings and analyze resumes. However, many lack essential features, such as:

- Integrating keyword-based resume analysis.
- Automatically emailing job search results.
- Providing a user-friendly interface for easy access and customization.

The **Job Finder and Resume Review System** aims to fill these gaps by offering a complete solution that combines job scraping, resume evaluation, and email automation. This system makes job searching smarter and more efficient, improving the overall experience for job seekers.

CHAPTER 3

SYSTEM DESIGN

3.1 SYSTEM FLOW DESIGN

A flowchart is a type of diagram that represents an algorithm, workflow or process. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem.

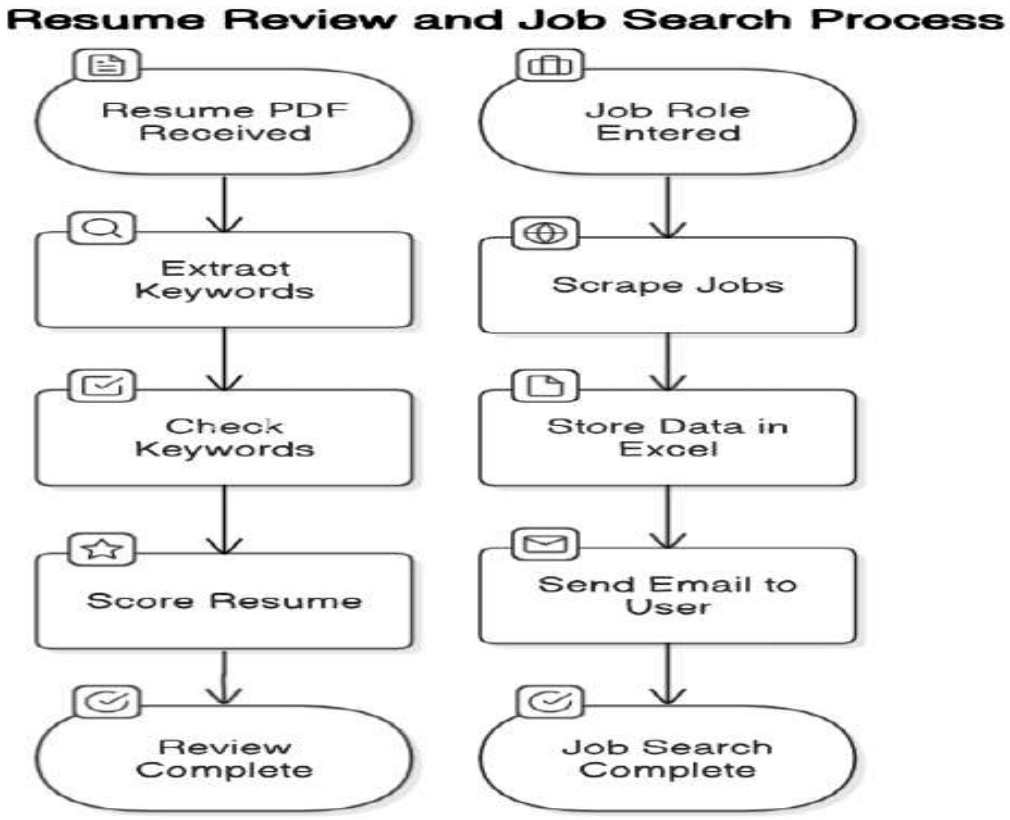


Fig 3.1 System Flow Design for job finder

3.2 ARCHITECTURE DIAGRAM

The Job Finder and Resume Review System is designed to simplify and speed up the job application process. It automates job searches by collecting listings from multiple websites and organizing them into a structured format. Additionally, it helps users improve their resumes by analyzing them against job-related keywords, providing a score that reflects how well the resume matches a specific job. This system saves time, reduces manual effort, and increases the chances of securing the right job by making the search and application process more efficient and effective.

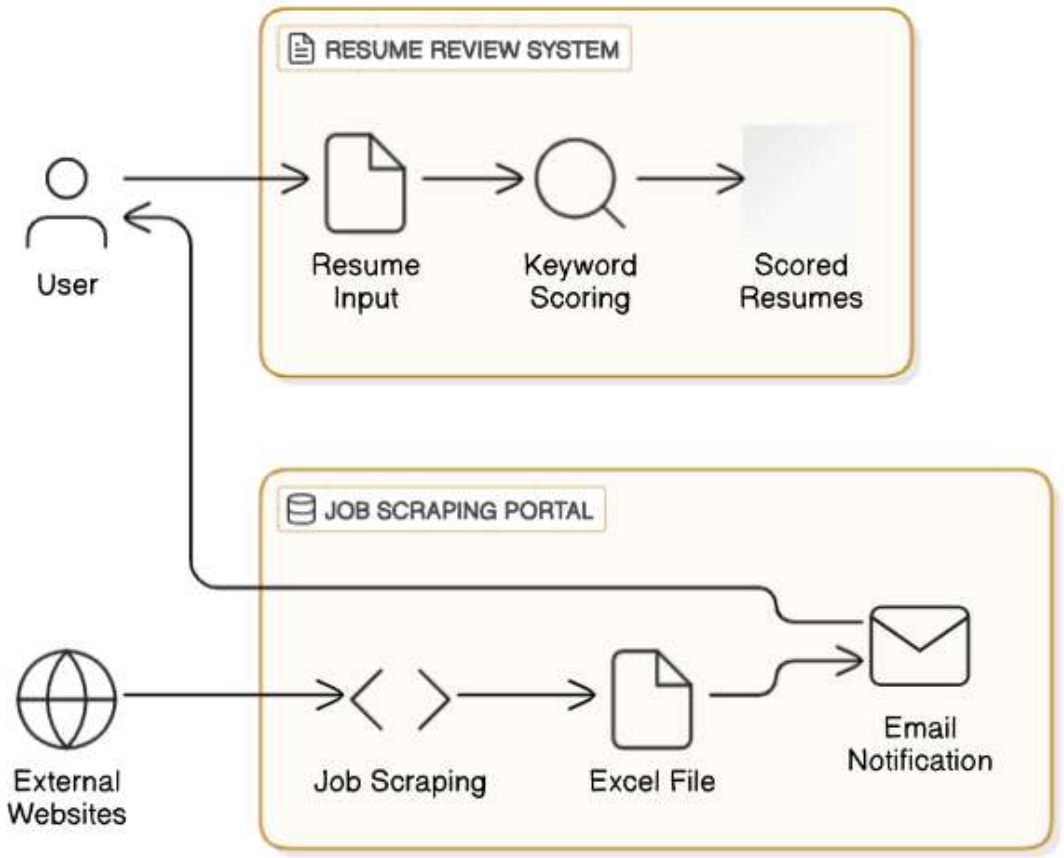


Fig 3.2 Architecture Diagram

3.3 SEQUENCE DIAGRAM

A sequence diagram shows the step-by-step interactions and the order in which they occur between different parts of the system. It helps in understanding how the system works over time. The diagram highlights the messages exchanged and interactions between various components or objects in the system, from the user input to the final output. This dynamic view focuses on the sequence of actions and helps in visualizing the workflow and the dependencies between components.

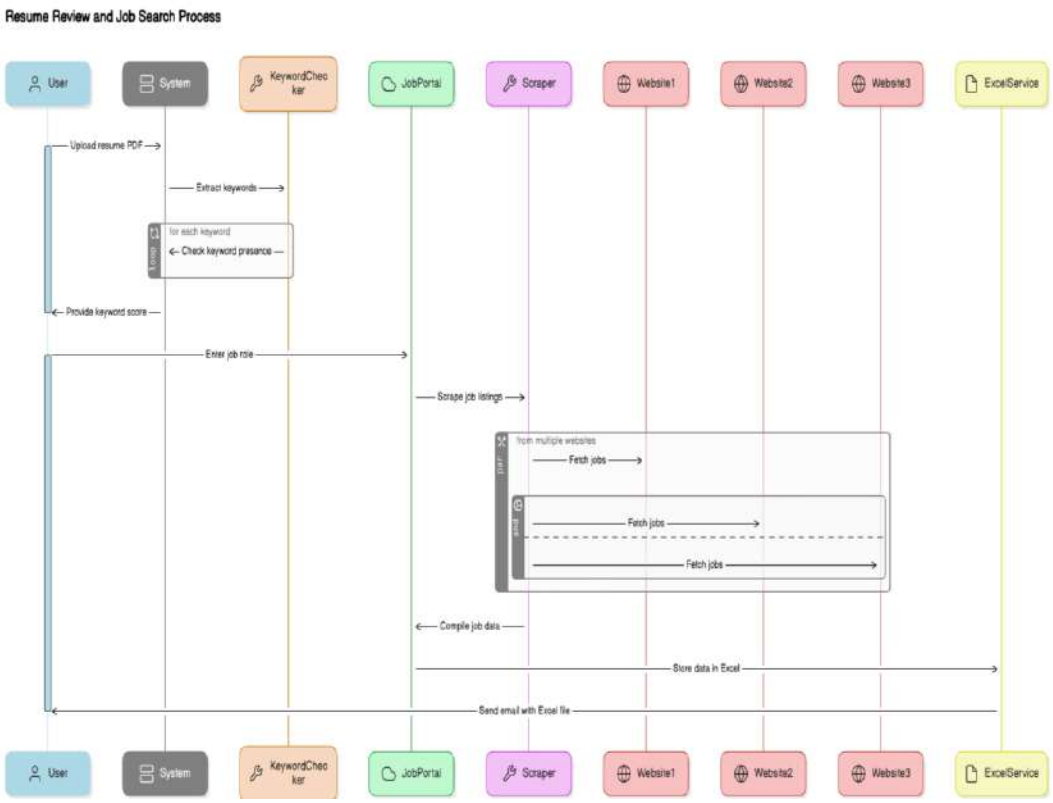


Fig 3.2 Sequence Diagram

CHAPTER 4

PROJECT DESRIPTION

4.1 CREATING PROJECT

Open UiPath Studio and check for the version of the application. While it’s not compulsory to work with the latest version, it is recommended as some features might have been added or few changes might have been made to the already existing Packages/Activities/Properties etc. Once the application is opened, createa new process, name the file and choose the directory where the UiPath files must be stored. Once you are done with the following steps, you will be good to continuewith the next steps of actually Creating the Project.

4.2 PACKAGES REQUIRED

For the successful completion of the Job searching Portal and resume reviewer, it's crucial to download the necessary packages to enable the required activities. The following packages should be installed:

UiPath.WebAPI.Activities: For web scraping and data extraction.

UiPath.Excel.Activities: To work with Excel files and organize flight data.

UiPath.Mail.Activities: For sending the Excel file via email.

UiPath.UIAutomation.Activities : For sending emails with attachments (Excel file).

UiPath.System.Activities: For basic workflow automation tasks like logging & exception.

4.3 PROJECT WORKFLOW

Now, as we know the objective of the project it is time to create the workflow that actually makes up the project. The workflow for this project is simple.

4.3.1 ACTIVITES USED

To create the project the following activities are required:

1. Input Dialog
2. Excel Application scope
3. For each
4. Open Browser
5. Data Scraping
6. Write Range
7. Send SMTP Mail Messages
8. Pdf Extraction activity
9. String Manipulation operations
10. If
11. Build data table.
12. Data conversion operations
13. Web Recording

4.3.2 EXPLAINING SEQUENCE

Here's the sequence of the Job searching portal and resume reviewer project, detailing each step in the workflow from start to finish:

1. **User Input Collection**:

- The bot asks the user to enter the desired job role and location.
- For resume review, the user uploads their resume in PDF format.

2. **Open Browser and Navigate to Job Portals**:

- The bot opens predefined job websites using an automated browser and navigates to the job search section.

3. **Job Data Scraping**:

- The bot extracts details like job title, company name, location, and application links.
- Retry mechanisms handle issues like slow loading pages.

4. **Resume Content Extraction**:

- The bot extracts text from the uploaded PDF file for analysis.

5. **Keyword Matching and Scoring**:

- The bot compares the extracted resume content with predefined job-related keywords.
- A score is generated based on the match.

6. **Organize and Store Data in Excel**:

- Job details are formatted and stored in an Excel file.
- The resume analysis score is included in the file.

7. **Send Email with Results**:

- The bot attaches the Excel file and sends it to the user via email.
- A confirmation message is displayed upon successful delivery.

8. **Error Handling and Logging**:

- The bot logs each step and handles errors using retry mechanisms.

9. **Display Success Notification**:

- A final message confirms that the process is complete.

CHAPTER 5

OUTPUT SCREENSHOTS

RESUME REVIEWER:

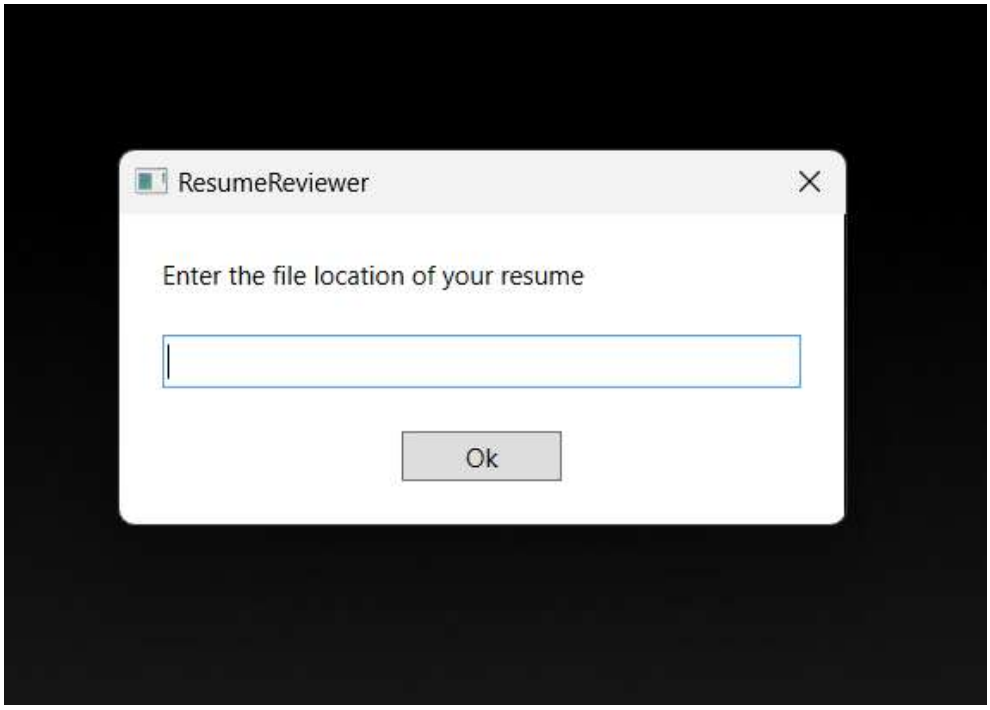


Fig 5.1File location Input Box

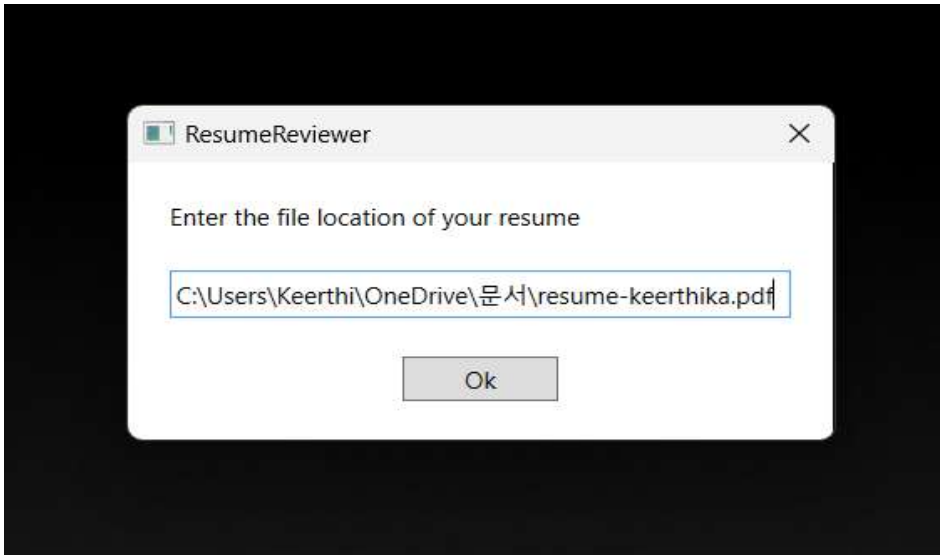


Fig 5.2 resume location Input Box

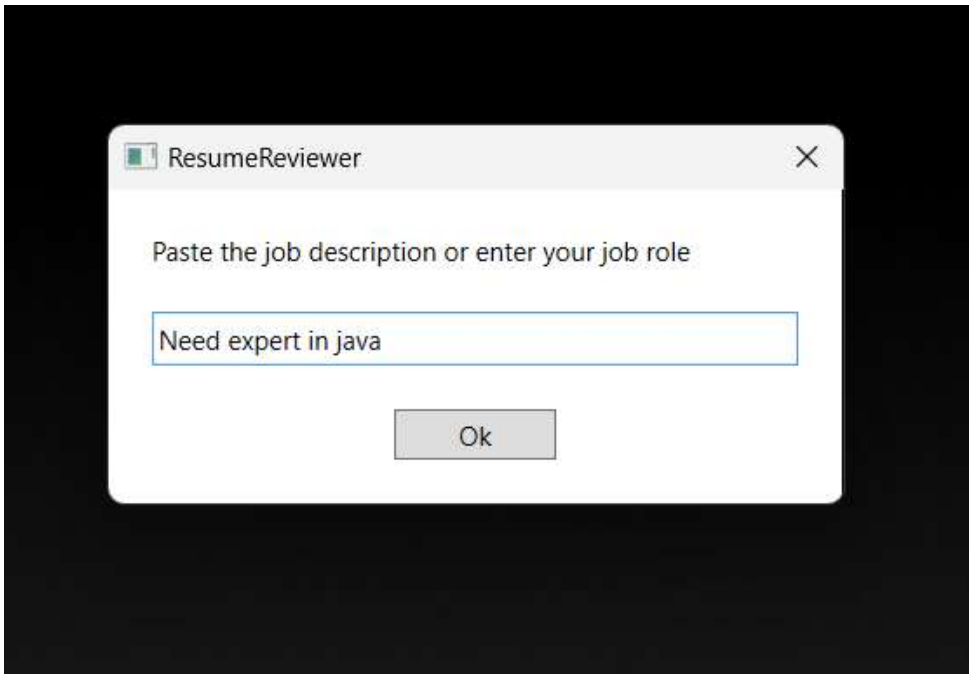


Fig 5.3 Job description Input Box

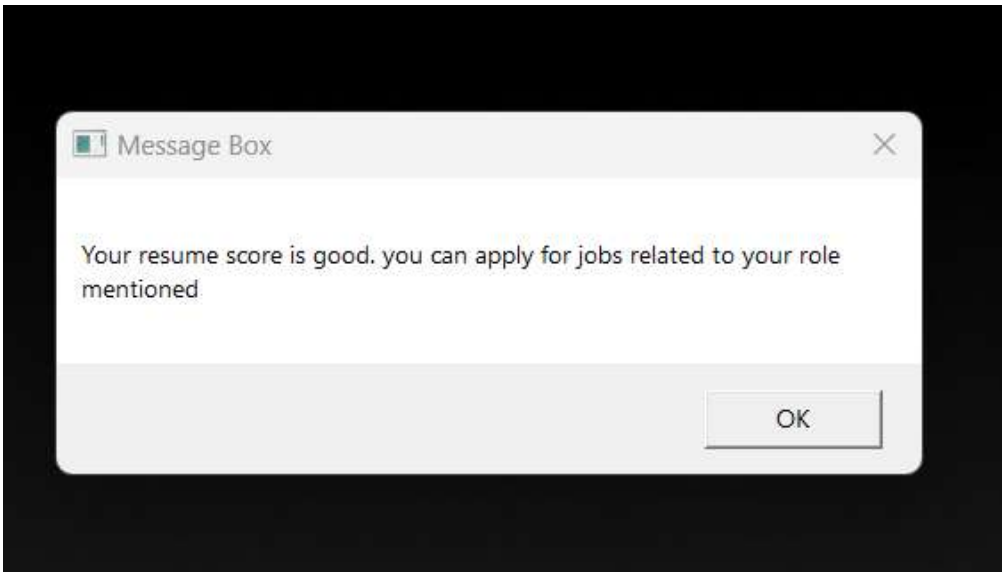


Fig 5.4Resume score message box

JOB SCRAPING PORTAL

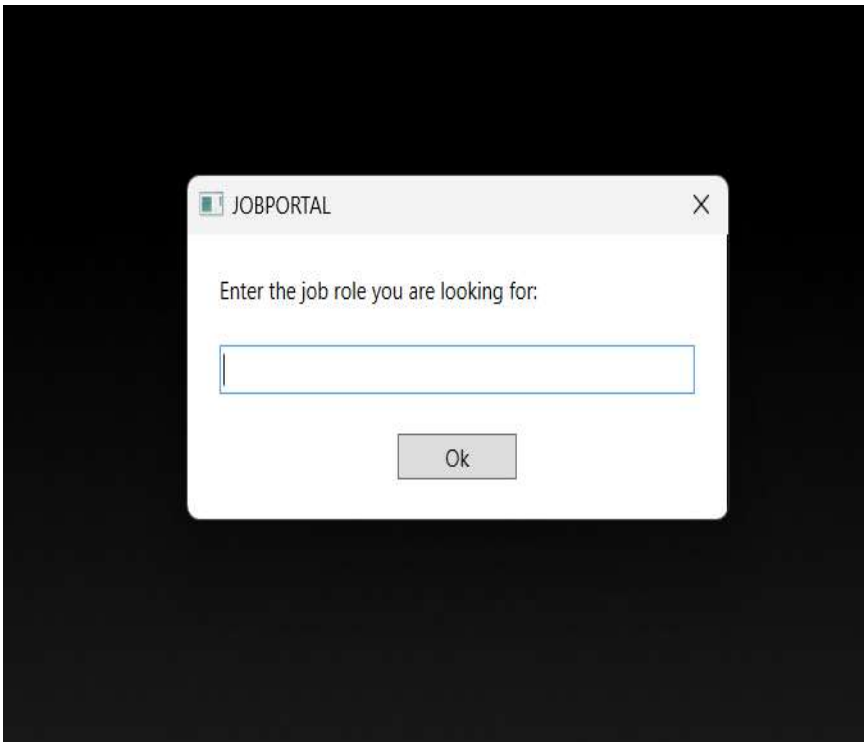


Fig 5.5 Job role input box

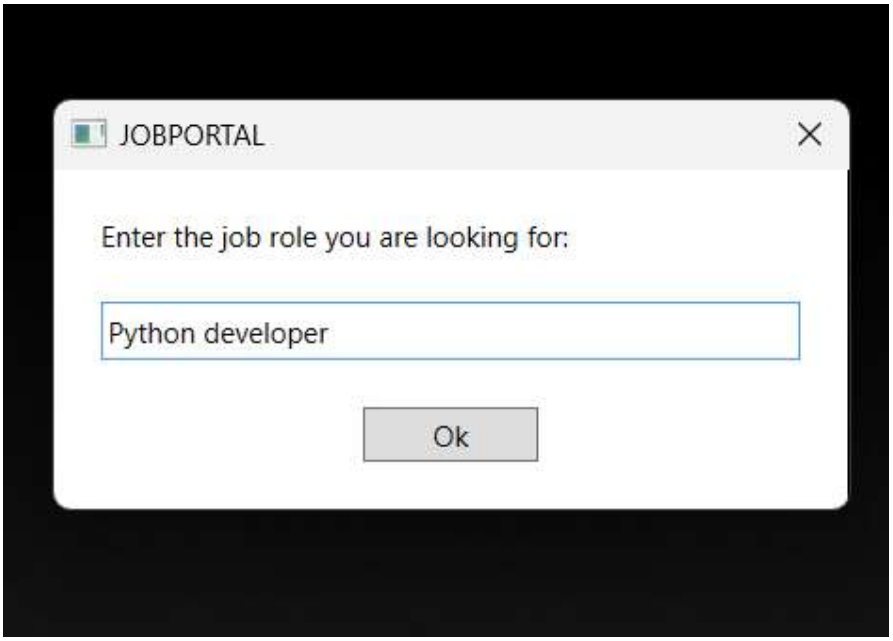


Fig 5.6 Job role input

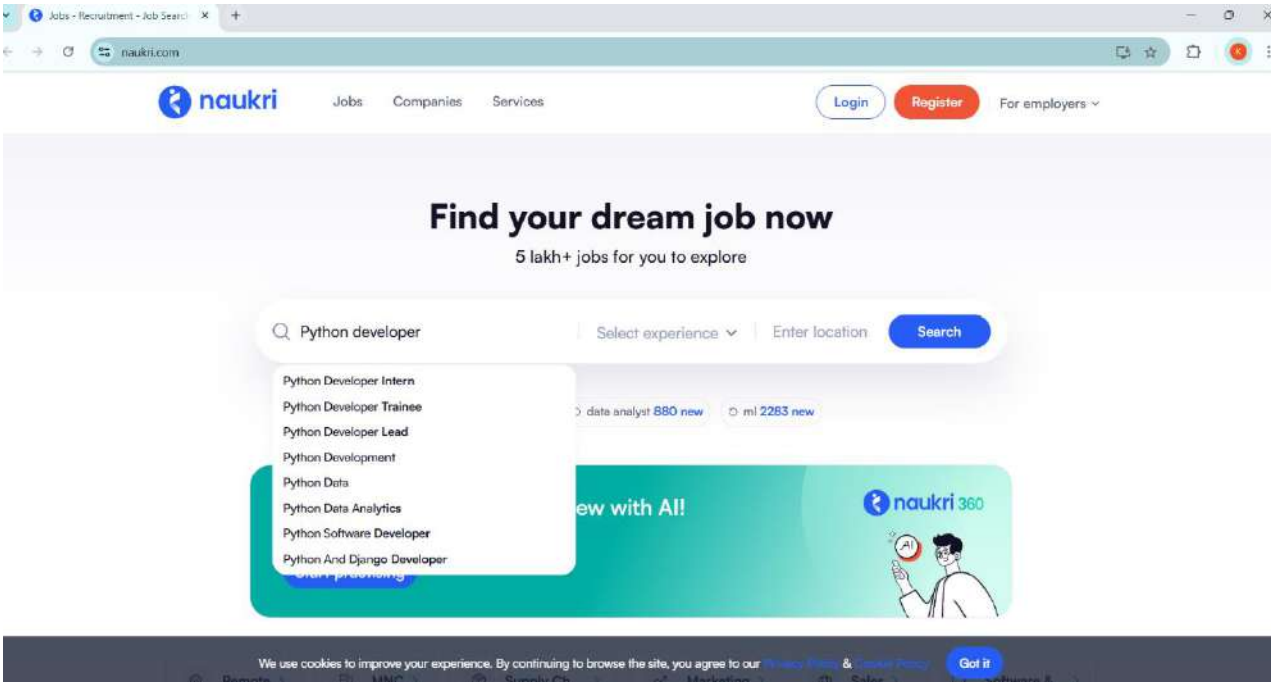


Fig 5.7 Scraping starts in naukri

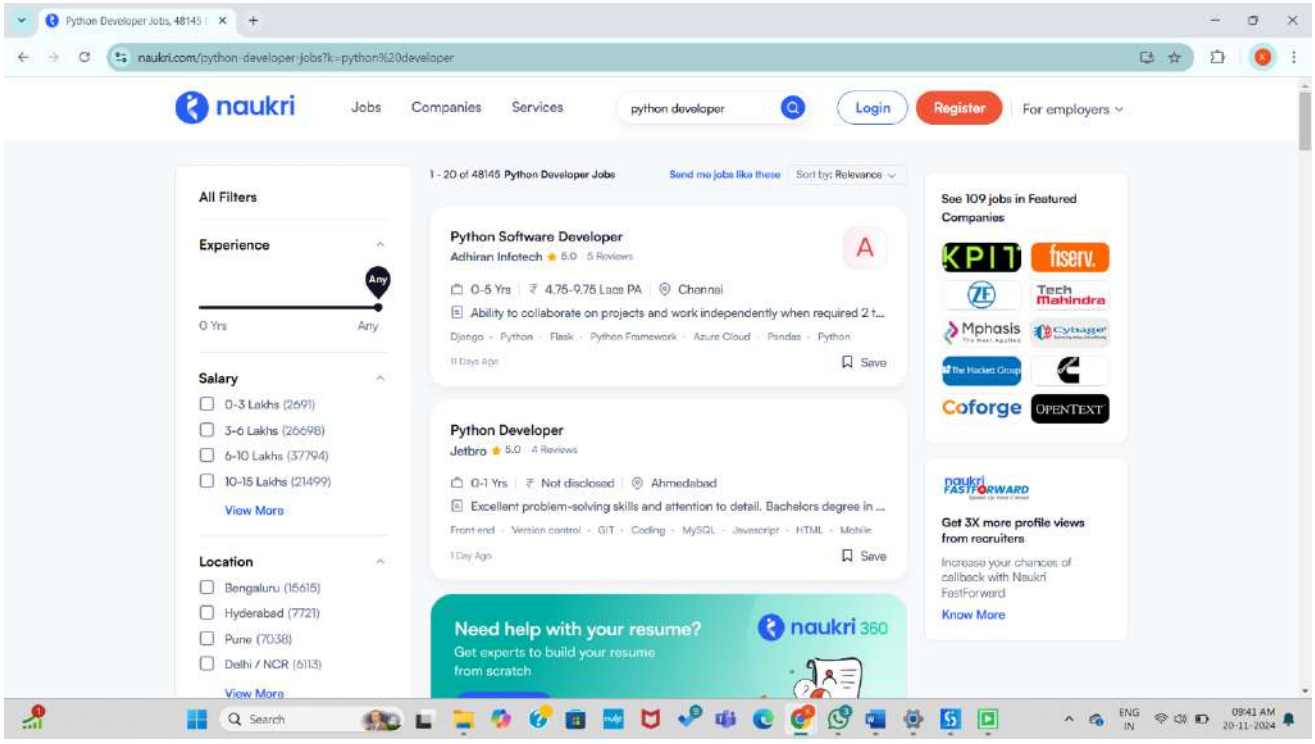


Fig 5.8 Scraping from naukri

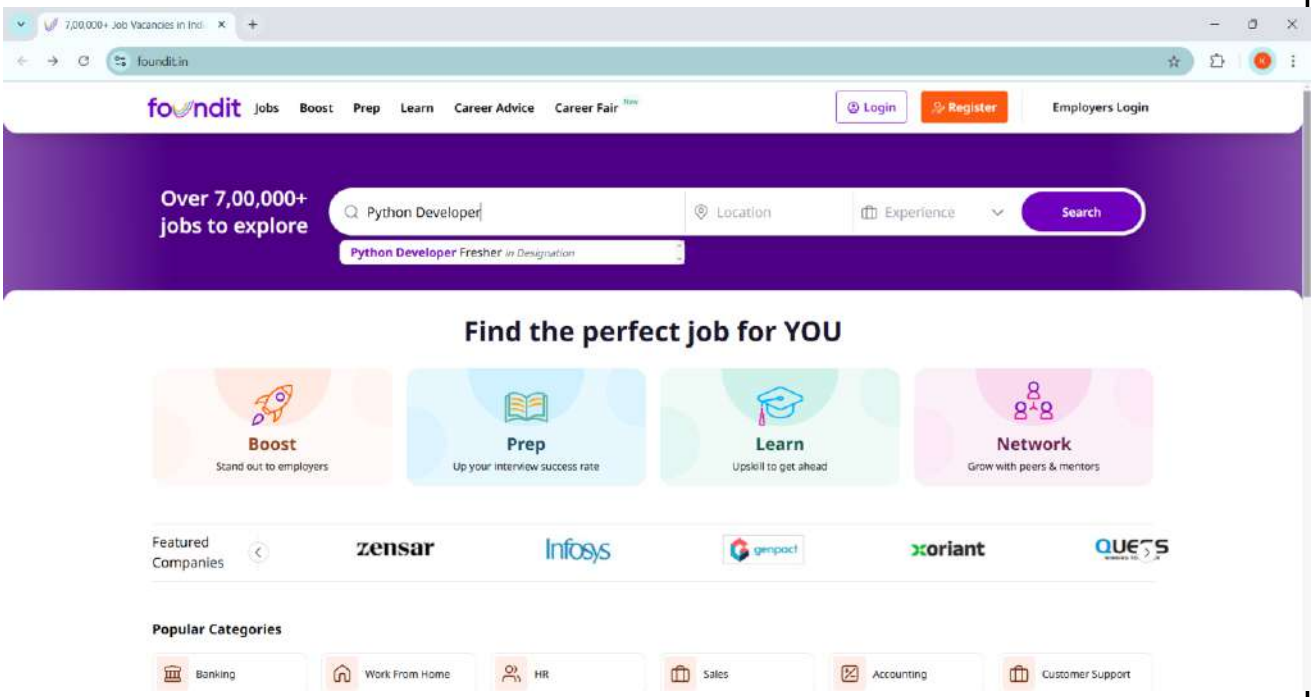


Fig 5.9 Scraping from foundit

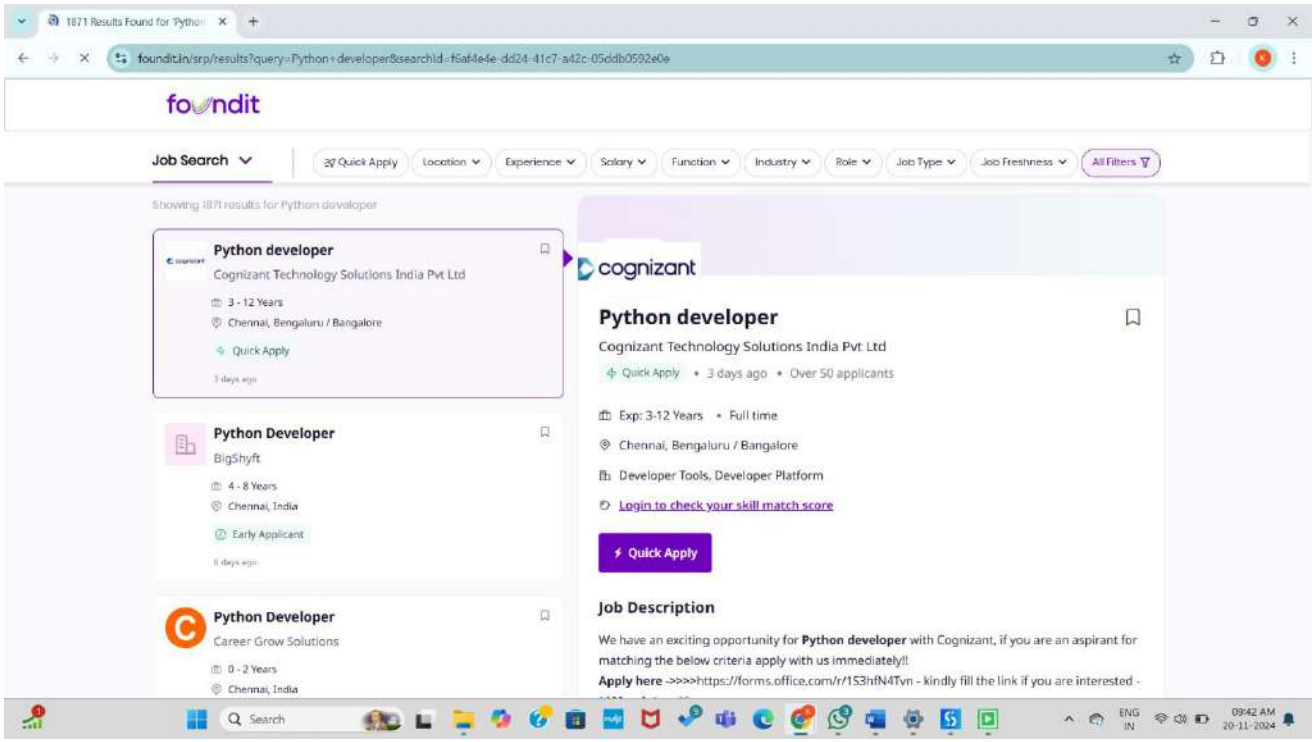


Fig 5.10 Data Extraction

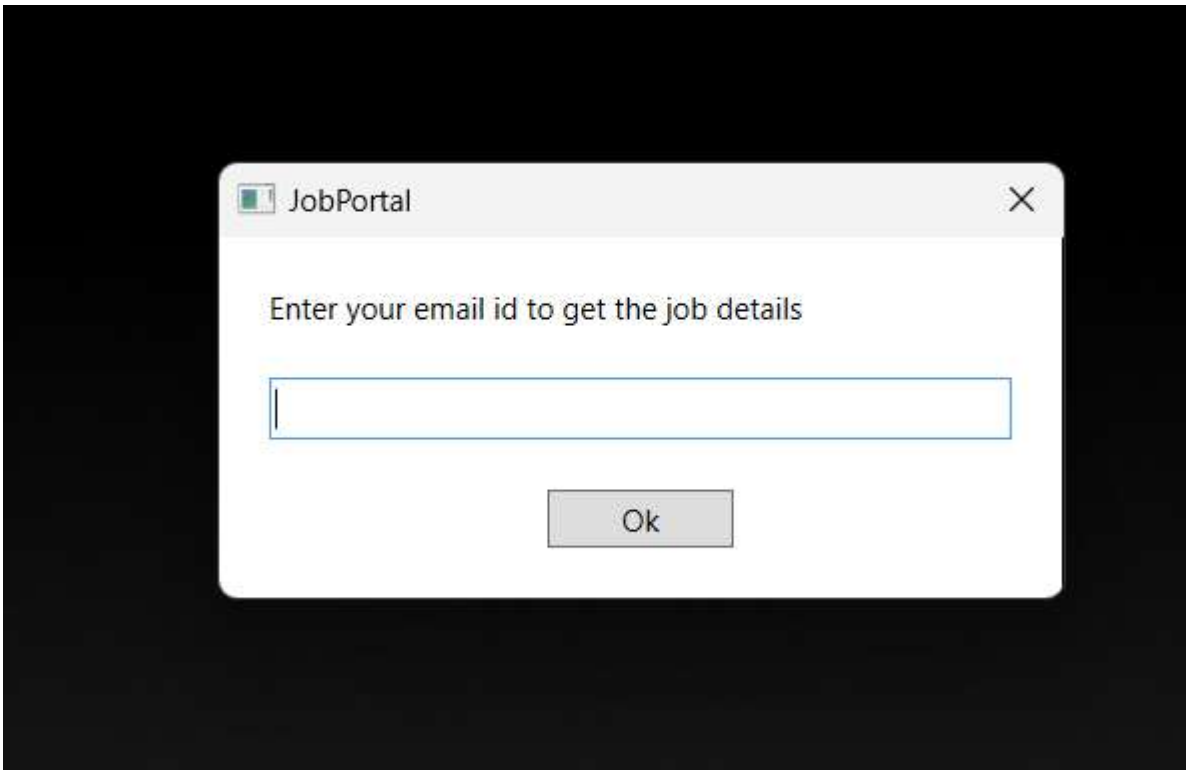


Fig 5.11 Email input box

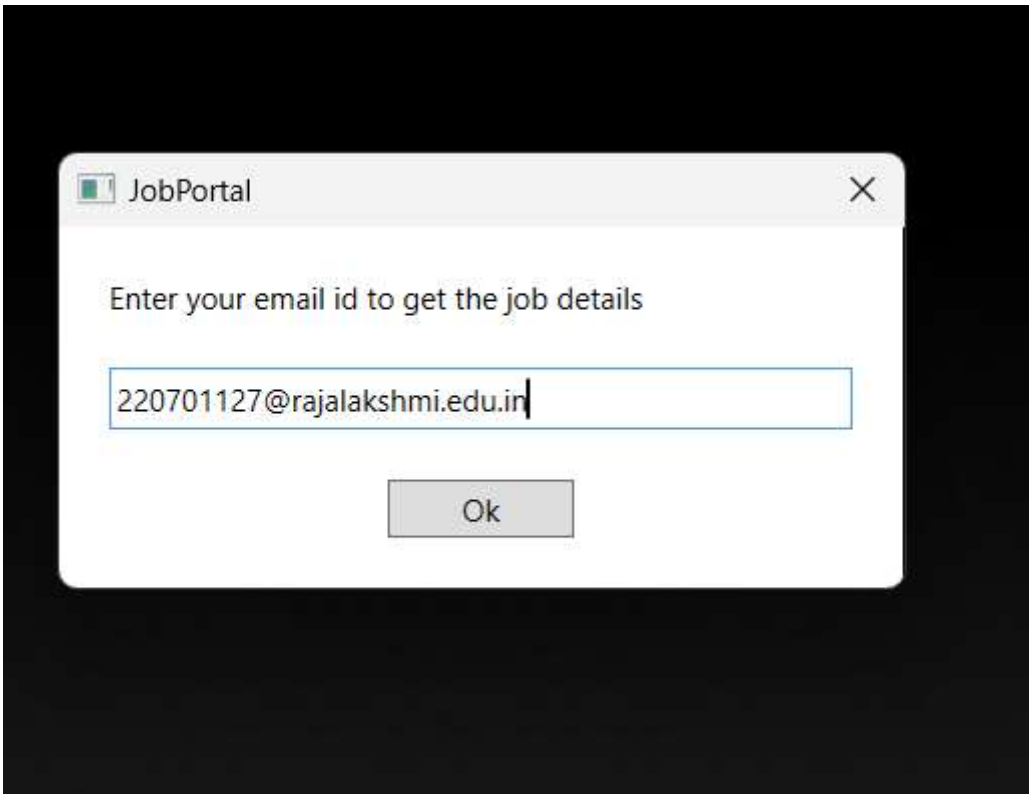


Fig 5.12 Successful Completion Email Delivery

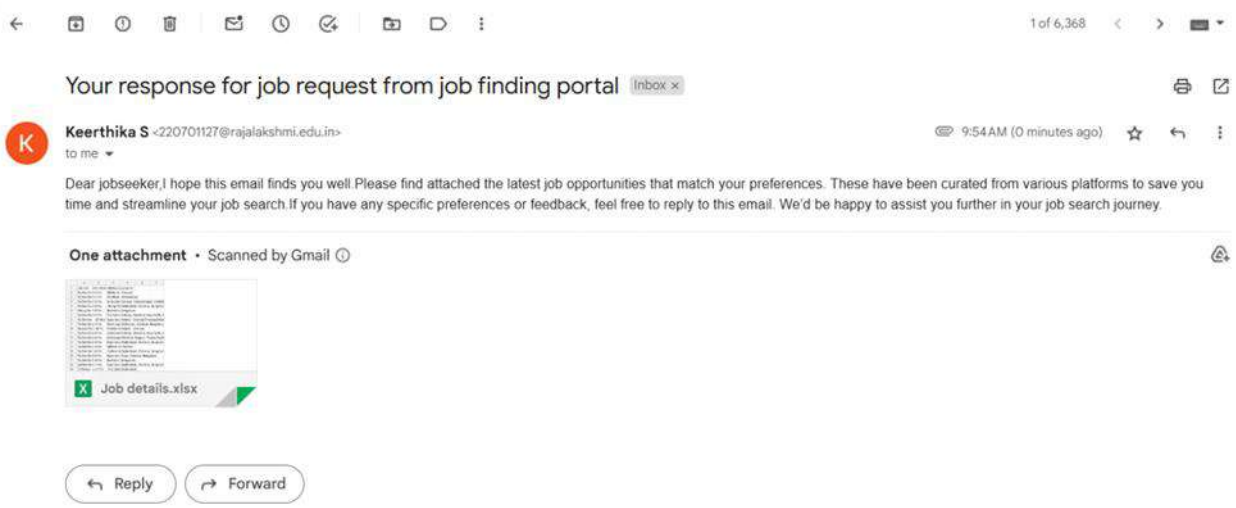


Fig 5.13 Mail

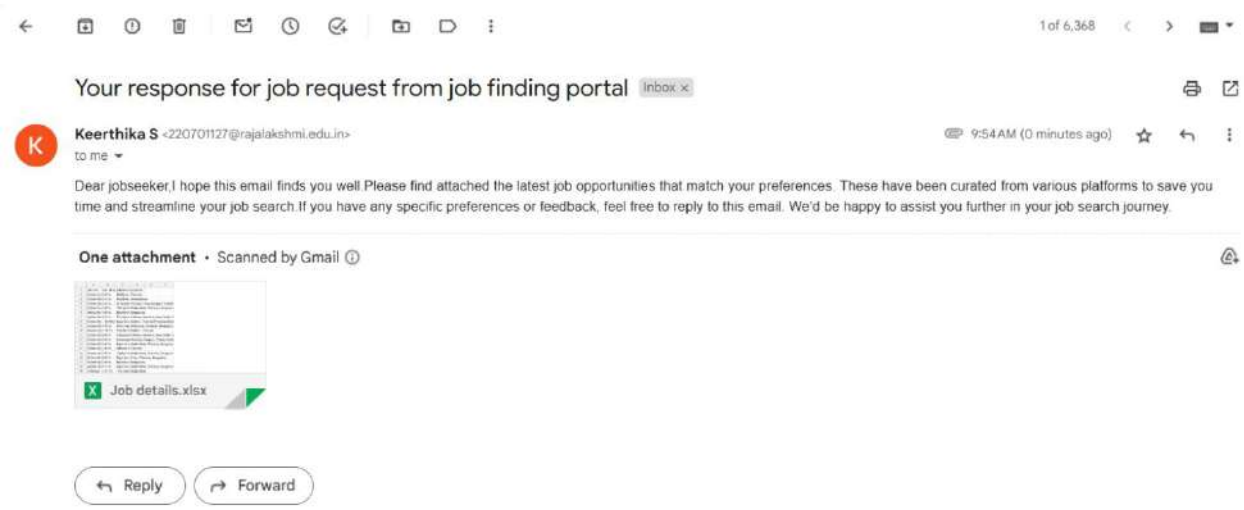
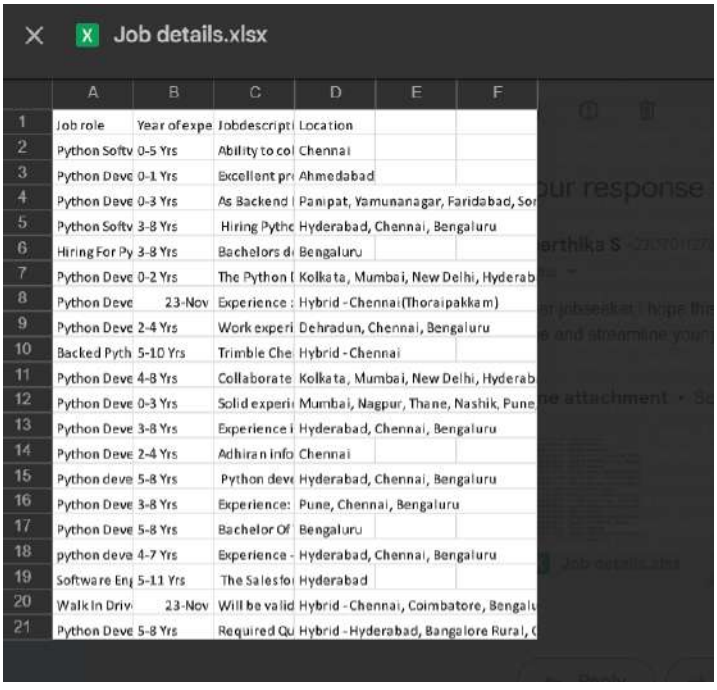


Fig 5.14 Receiving the excel file



	A	B	C	D	E	F
1	Job role	Year of expe	Jobdescripti	Location		
2	Python Softv	0-5 Yrs	Ability to col	Chennai		
3	Python Deve	0-1 Yrs	Excellent pri	Ahmedabad		
4	Python Deve	0-3 Yrs	As Backend	Panipat, Yamunanagar, Faridabad, Sor		
5	Python Softv	3-8 Yrs	Hiring Pythc	Hyderabad, Chennai, Bengaluru		
6	Hiring For Py	3-8 Yrs	Bachelors di	Bengaluru		
7	Python Deve	0-2 Yrs	The Python I	Kolkata, Mumbai, New Delhi, Hyderab		
8	Python Deve	23-Nov	Experience :	Hybrid - Chennai(Thoraipakkam)		
9	Python Deve	2-4 Yrs	Work experi	Dehradun, Chennai, Bengaluru		
10	Backed Pyth	5-10 Yrs	Trimble Che	Hybrid - Chennai		
11	Python Deve	4-8 Yrs	Collaborate	Kolkata, Mumbai, New Delhi, Hyderab		
12	Python Deve	0-3 Yrs	Solid experi	Mumbai, Nagpur, Thane, Nashik, Pune		
13	Python Deve	3-8 Yrs	Experience i	Hyderabad, Chennai, Bengaluru		
14	Python Deve	2-4 Yrs	Adhiran info	Chennai		
15	Python deve	5-8 Yrs	Python deve	Hyderabad, Chennai, Bengaluru		
16	Python Deve	3-8 Yrs	Experience:	Pune, Chennai, Bengaluru		
17	Python Deve	5-8 Yrs	Bachelor Of	Bengaluru		
18	python deve	4-7 Yrs	Experience -	Hyderabad, Chennai, Bengaluru		
19	Software En	5-11 Yrs	The Salesfo	Hyderabad		
20	Walk In Driv	23-Nov	Will be valid	Hybrid - Chennai, Coimbatore, Bengalu		
21	Python Deve	5-8 Yrs	Required Qu	Hybrid - Hyderabad, Bangalore Rural,		

Fig 5.15 Excel Attachment

CHAPTER 6

Conclusion

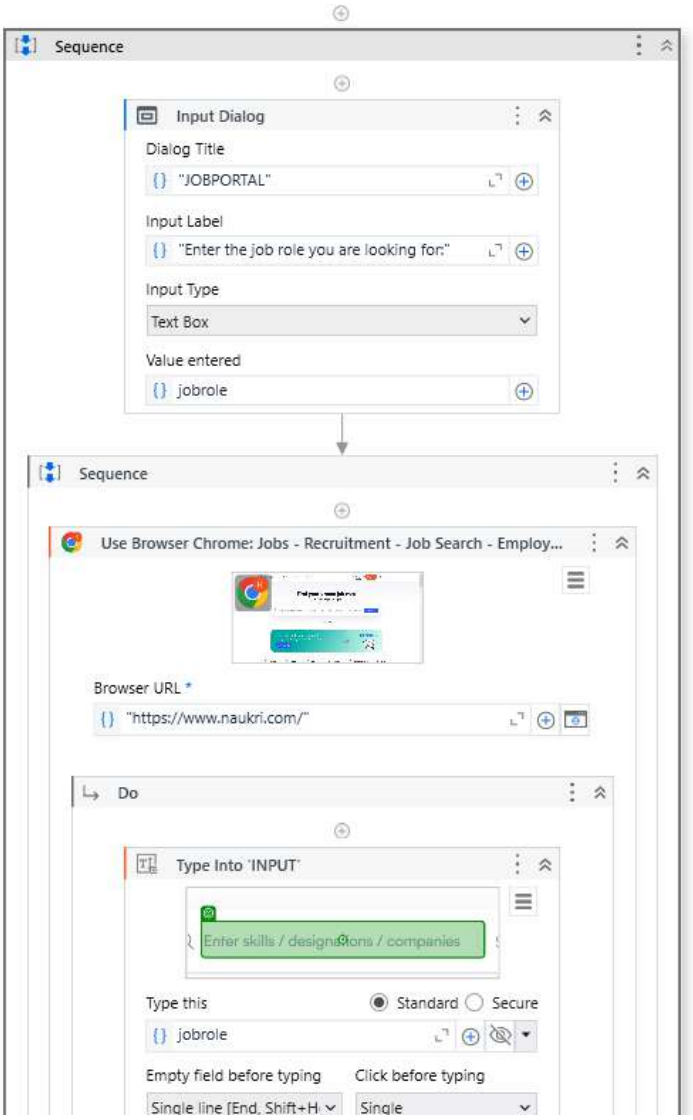
The Job Finder and Resume Review System simplifies and automates the job search and resume evaluation processes. Using UiPath RPA tools, the bot collects job listings from multiple websites, organizes the data into an Excel file, and delivers it to the user via email. Simultaneously, it reviews uploaded resumes by comparing their content to job-related keywords, providing a score to help users improve their chances of securing a job.

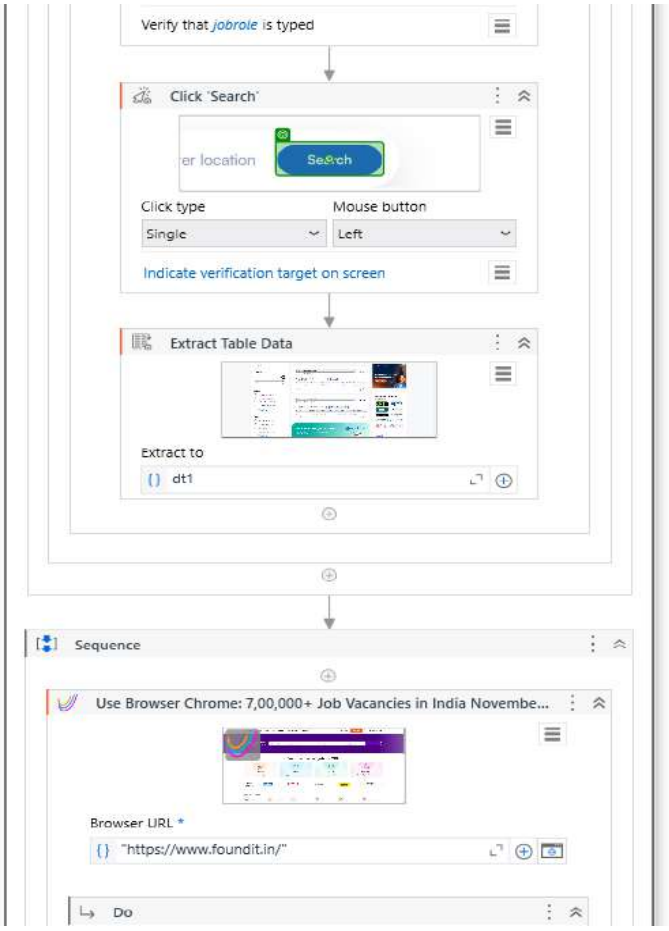
This system eliminates repetitive manual efforts, saves valuable time, and ensures reliable and accurate data handling. Error-handling mechanisms ensure smooth operation even in case of issues like slow website responses, making the system dependable.

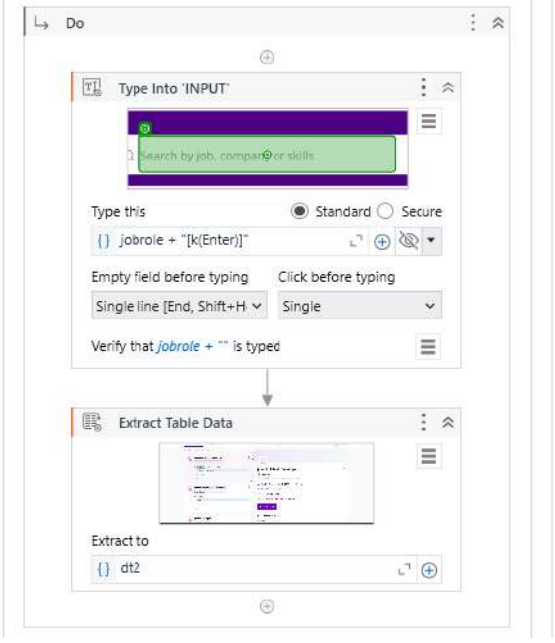
In conclusion, the Job Finder and Resume Review System demonstrates the efficiency of RPA in solving everyday challenges. It provides an easy-to-use, time-saving tool that benefits both job seekers and professionals, making job searches and application processes more streamlined and effective.

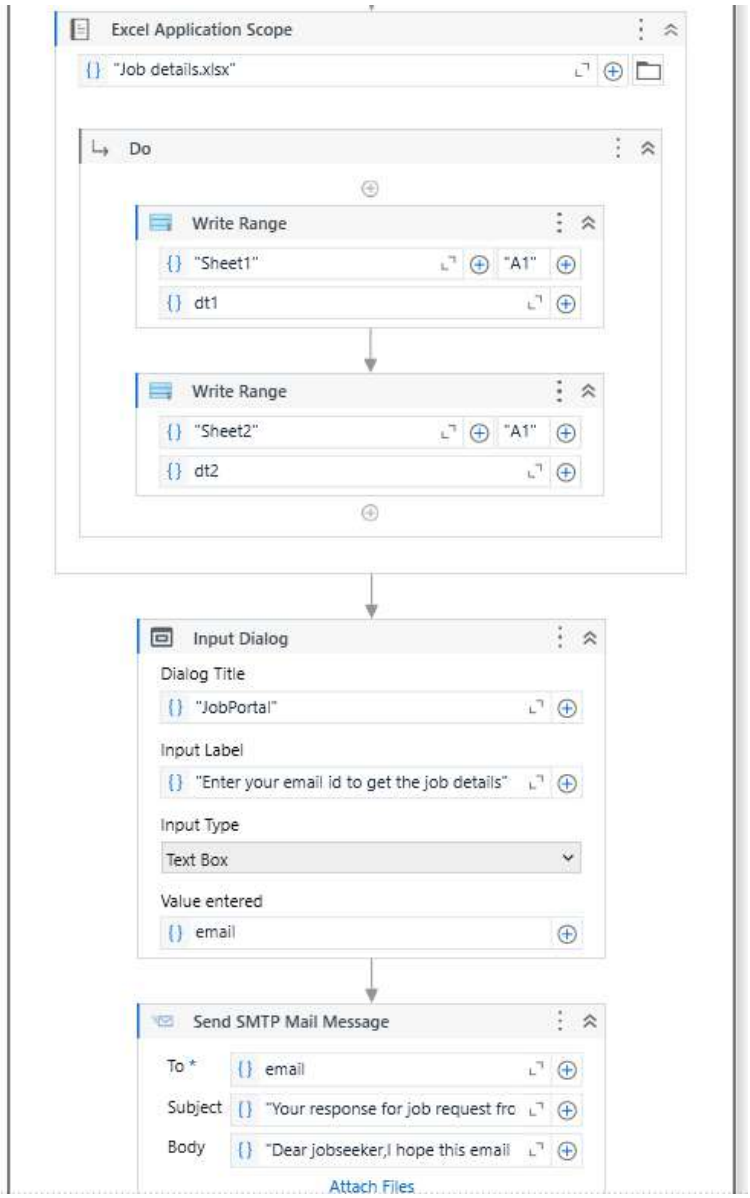
APPENDIX

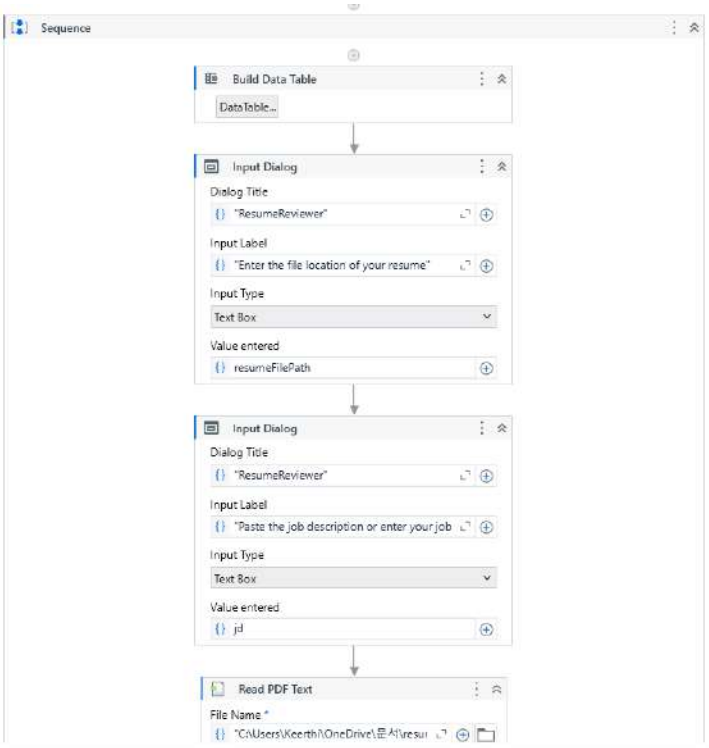
SAMPLE PROCESS

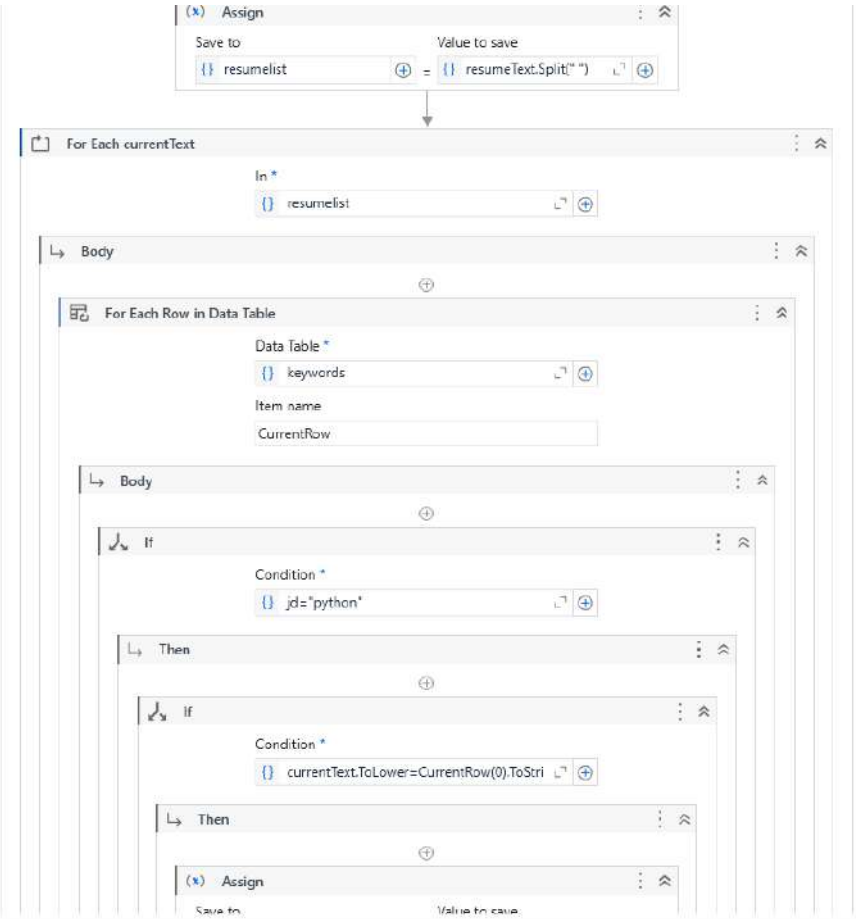


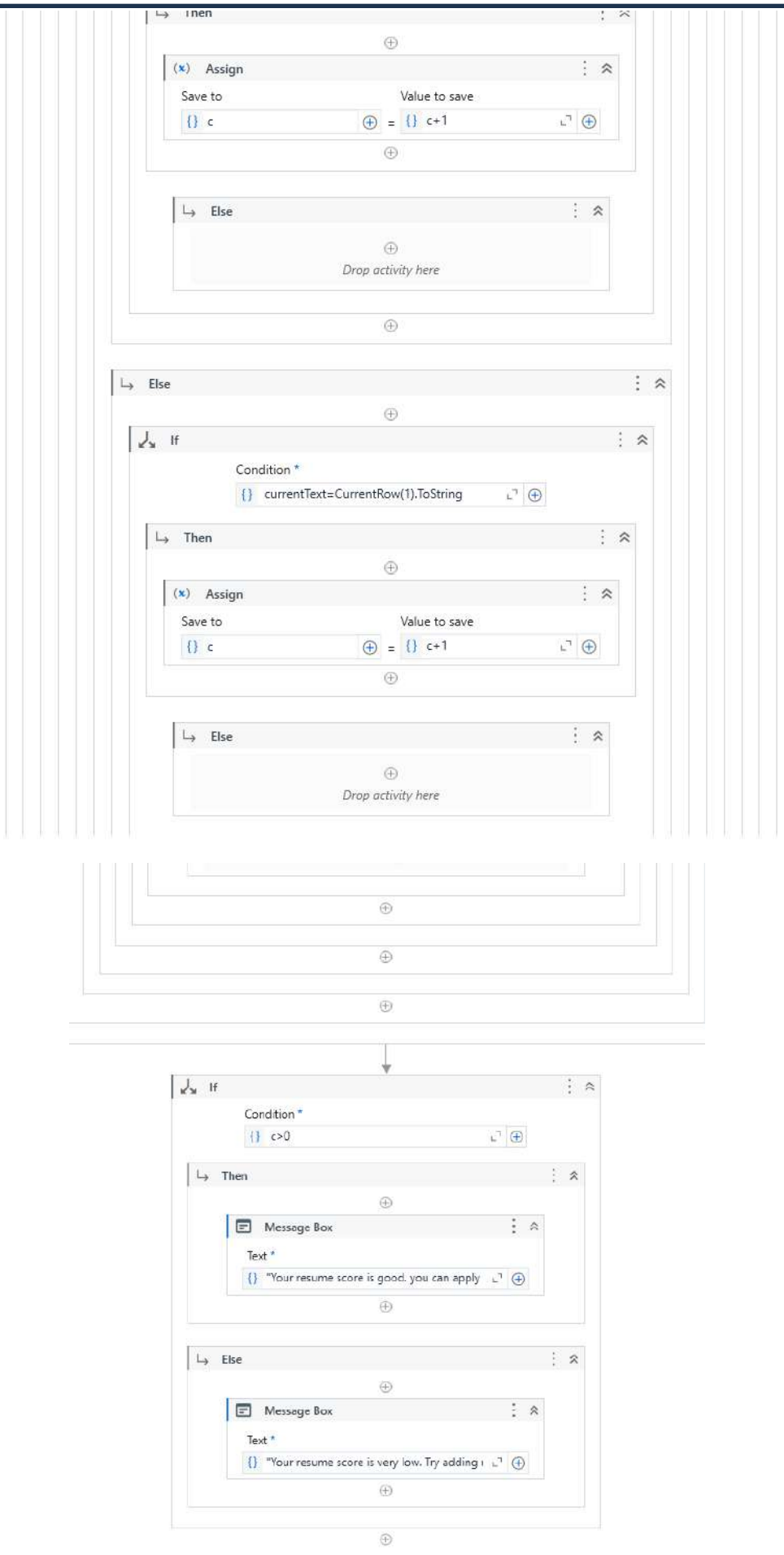

Verify that jobrole is typed
Click 'Search'
er location
Search
Click type
Mouse button
Single
Left
Indicate verification target on screen
Extract Table Data
Extract to
dt1
Sequence
Use Browser Chrome: 7,00,000+ Job Vacancies in India Novembe...
Browser URL *
"https://www.foundit.in/"
Do


Do
Type Into 'INPUT'
Search by job, compan or skills
Type this
Standard
Secure
jobrole + "[k(Enter)]"
Empty field before typing
Click before typing
Single line [End, Shift+H
Single
Verify that jobrole + "" is typed
Extract Table Data
Extract to
dt2


Excel Application Scope
"Job details.xlsx"
Do
Write Range
"Sheet1"
"A1"
dt1
Write Range
"Sheet2"
"A1"
dt2
Input Dialog
Dialog Title
"JobPortal"
Input Label
"Enter your email id to get the job details"
Input Type
Text Box
Value entered
email
Send SMTP Mail Message
To *
email
Subject
"Your response for job request frc
Body
"Dear jobseeker,I hope this email
Attach Files


Sequence
Build Data Table
DataTable...
Input Dialog
Dialog Title
"ResumeReviewer"
Input Label
"Enter the file location of your resume"
Input Type
Text Box
Value entered
resumeFilePath
Input Dialog
Dialog Title
"ResumeReviewer"
Input Label
"Paste the job description or enter your job
Input Type
Text Box
Value entered
jd
Read PDF Text
File Name *


Assign
Save to
Value to save
resumelist
=
resumeText.Split(" ")
For Each currentText
In *
resumelist
Body
For Each Row in Data Table
Data Table *
keywords
Item name
CurrentRow
Body
If
Condition *
jd="python"
Then
If
Condition *
currentText.ToLower=CurrentRow(0).ToStri
Then
Assign


Then
Assign
Save to
Value to save
c
c+1
Else
Drop activity here
Else
If
Condition *
currentText=CurrentRow(1).ToString
Then
Assign
Save to
Value to save
c
c+1
Else
Drop activity here
If
Condition *
c>0
Then
Message Box
Text *
"Your resume score is good. you can apply
Else
Message Box
Text *
"Your resume score is very low. Try adding

REFERENCES

1. UiPath Forum: The UiPath Forum community where users share their experiences and solutions. https://forum.uipath.com/
2. UiPath Documentation: The official documentation of UiPath features and functionalities https://docs.uipath.com/