

# Automatic Job Recruiting System and Offer Letter Generator

Abbas A M <sup>1</sup>, Abhishek K <sup>2</sup>, Akhil Biju <sup>3</sup>, Mohammed Hamrash <sup>4</sup>, Professor Rajasekhar C <sup>5</sup>,  
Professor Mohammed Malik C K <sup>6</sup>

U.G. Student, Department of Computer Science And Engineering, Eranad Knowledge City Technical Campus,  
Manjeri, Malappuram, Kerala, India<sup>1</sup> Orcid Id : 0009-0006-0022-9819

U.G. Student, Department of Computer Science And Engineering, Eranad Knowledge City Technical Campus,  
Manjeri, Malappuram, Kerala, India<sup>2</sup>, Orcid Id : 0009-0007-3202-0611

U.G. Student, Department of Computer Science And Engineering, Eranad Knowledge City Technical Campus,  
Manjeri, Malappuram, Kerala, India<sup>3</sup>, Orcid Id : 0009-0000-2044-4643

U.G. Student, Department of Computer Science And Engineering, Eranad Knowledge City Technical Campus,  
Manjeri, Malappuram, Kerala, India<sup>4</sup>, Orcid Id : 0009-0005-6898-2201

Assistant Professor, Department of Computer Science And Engineering, Eranad Knowledge City Technical Campus,  
Manjeri, Malappuram, Kerala, India<sup>5</sup>, Orcid Id : 0009-0005-7972-4072

Assistant Professor, Department of Computer Science And Engineering, Eranad Knowledge City Technical Campus,  
Manjeri, Malappuram, Kerala, India<sup>6</sup>, Orcid Id : 0009-0006-9783-8863

**ABSTRACT:** The Automatic Job Recruiting System and Offer Letter Generator project is a solution to the manual and time-consuming recruitment process. The system is developed using UiPath, a leading RPA software, to automate the entire recruitment process, from sourcing candidates to generating offer letters. The system collects resumes from various sources such as job portals, email, and social media and performs a preliminary screening of the resumes. The resumes are then forwarded to the concerned department, where they are further screened and evaluated. Based on the evaluation, the system generates an offer letter and sends it to the selected candidate. The offer letter is generated based on predefined templates and can be customized to meet the specific requirements of the organization. The system provides a streamlined and efficient solution to the recruitment process, eliminating manual efforts and time. The system also ensures that all recruitment-related data is maintained in a centralized repository and is easily accessible by authorized personnel. In conclusion, the Automatic Job Recruiting System and Offer Letter Generator project is an innovative solution to the traditional recruitment process. The system automates the recruitment process, saving time and effort. The system provides a centralized repository for recruitment-related data and ensures that the process is carried out in a streamlined and efficient manner. The use of UiPath, a leading RPA software, ensures that the system is robust and reliable.

**KEYWORD:** Robotic Process Automation (RPA), UiPath

## I. INTRODUCTION

The hiring procedure is a labor-intensive manual operation that needs proper planning. It may be labor-intensive and error-prone to find applicants, review resumes, conduct interviews, and produce offer letters. The Automatic Job Recruiting System and Offer Letter Generator project aims to provide a solution to the recruitment process.

The system automates the entire hiring procedure, starting from sourcing of candidates to the generation of offer letters. The system collects resumes from various sources such as job portals, email, and social networks and

performs a preliminary screening of the resumes. The resumes are then evaluated and rated based on predetermined standards, and the best-suited candidates are selected for further processing.

The offer letter generator component of the system guarantees that offer letters are created in a timely and effective manner. The offer letters are created based on established templates and may be changed to match the unique requirements of the company. The solution simplifies the recruiting process by keeping all recruitment-related data in a single repository and making it accessible.

The use of RPA technology, specifically UiPath, ensures that the system is reliable and robust. The system reduces manual efforts and saves time by automating the recruitment process. The Automatic Job Recruiting System and Offer Letter Generator e-project is a step towards a more automated and efficient recruitment process.

## II. RELATED WORKS

Performance analysis on automating the PDF download process using Robotics Process Automation :-

This study analyses manual downloading, excel automation, csv automation and data table automation to discover the best effective means of obtaining PDF files. Four approaches were tested: Manual Method, Data table Method, Excel Automation, CSV Automation and Data Table Automation. It was determined that Excel Automation was more efficient than the other three approaches. The recruiting process is a time-consuming and laborious activity that requires careful planning. All four techniques were tried in the same computer and connected with the same Wi-Fi network. The recruiting process is a time-consuming and laborious activity that requires careful planning.

Impact of Robotic Process Automation (RPA) in Human Resource Operations :-

Human resource management is a vital aspect of a company organization. HR automation is a technique of boosting the productivity of the human resource department by freeing staff from tiresome manual duties and allowing them to focus on more sophisticated responsibilities like as decision-making and strategic planning. RPA, or robot process automation, may be utilising robotic technology in enterprises to automate and conduct repetitive and continuous processes.

The research paper emphasizes the impact of RPA on human resource operations and highlights the role of RPA in HR operations. Data was collected from reports and websites and analyzed using a statistical tool such as percentages.

Approximately 93% of human resource time spent on recurrent and transactional tasks such as manual data entry, monitoring, and record-keeping within processes. Automation of robotic processes is becoming a very major sensation in HR operations and may bring numerous advantages to the whole company sector such as higher efficiency, lower costs, enhanced resource allocation, increased return on investment, etc. Automation of robotic processes plays a significant function in tech solutions and also helps businesses to grow. It can bring required inventive solutions for the human resource process and can provide several benefits such as lower costs, reduce cycle times, saving workers from repetitive tasks

A structured approach to implementing Robotic Process Automation in HR:-

The industrial environment is evolving as a consequence of technological improvements. The HR department has to concentrate on implementing automation and additional technologies that promise efficiency, efficient service delivery, and cost savings as technology modifies the world. RPA, which stands for robotic process automation, implementation can help with a number of tasks, including: (a) providing better service to employees and managers; (b) ensuring that HR processes adhere to standards and regulations; (c) facilitating the quick start and completion of HR processes; (d) improving efficiency by digitising data and auditing process data; and (e) increasing HR productivity and cost savings by automating a manual and continuous duties. In order to uncover HR operations that can be automated using the RPA approach, this research suggests a four-step strategy. It identifies HR processes that are important to the RPA strategy for HR Strategy, Talent Acquisition, Talent Development & Performance Management, Compensation &



Benefits, HR Operations and Employee Relations, and offers a technique for mapping HR RPA tendency. RPA presents substantial opportunities for HR automation in the areas of employee interactions, salary & benefits, talent acquisition, talent development, and performance management. Candidate screening, interview scheduling, new hire process completion, creation of new hire data, offer letter mailing, onboarding, performance review forms mailing, performance review schedule, publishing performance reports to managers, payroll update, Duration and information about attendance validation, basic and net wage calculation, online payslip distribution, depositing statutory dues, tracking employee grievance requests, and many other processes are all offered by HR automation.

RPA for Human Resource Operations:-

With the help of robotic automation of processes (RPA), a "robot" may replace the repetitive and routine tasks that are now done by people. RPA isn't a real-world machine. Software supports processes by operating as a virtual (co-)worker. By helping with simple tasks, the robot software cuts down on process time and expense. Software that doesn't replace current HR or payroll programmes is an RPA robot. a computer programme that can do human jobs. Very helpful in supporting procedures that are data-driven. The ability of robots to utilise the current systems and procedures is a major benefit of RPA. Therefore, there is not a need for a large investment in new HR or payroll systems. Processes requiring plenty of processing of information benefit greatly from the use of robots. Robots typically undertake actions include acquiring data from XLS systems or files, running reports, copying data, ensuring that the data is complete, learning, being processed, and sending emails, entering data into HR or payroll systems, and pre-filling forms. The suggested system, which is aimed to demonstrate the simulated results of automation, demonstrates how human jobs or processes may be substituted by robots and how the work is quickly and precisely carried out by the platform's software, the outputs are all produced at high rates of productivity, and the expenditures associated with the process are likewise extremely low. The essential work is also successfully and flawlessly carried out by the bot.

### III. METHODOLOGY

The following figure 3.1 shows the Architecture of the System

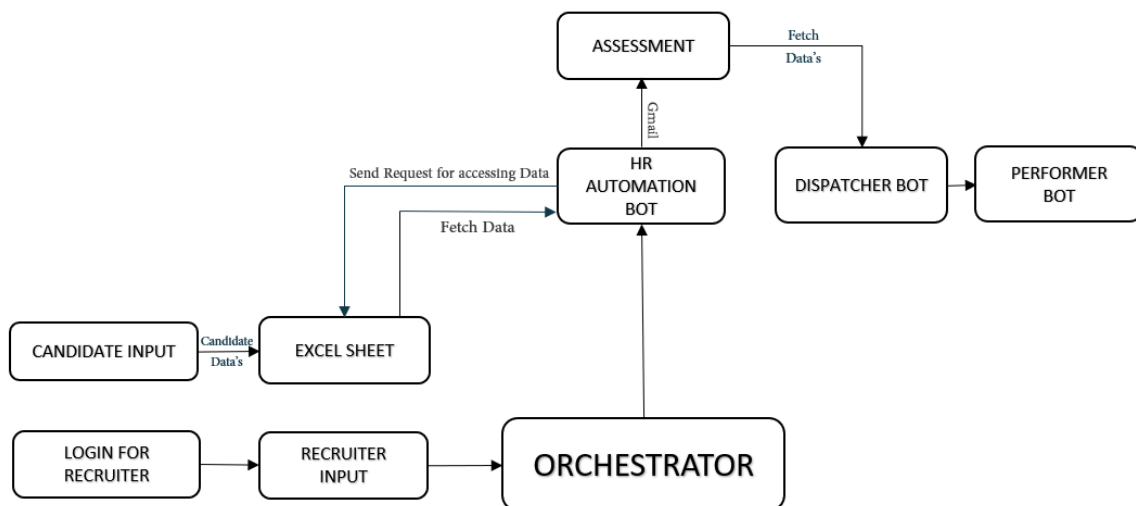


Fig 3.1 System Architecture

Orchestrator : The Orchestrator of UiPath is a centralized platform that allows organizations to manage and deploy their automation projects. It provides a range of tools for managing and monitoring automated workflows, as well as for scheduling, logging, and reporting on automation processes.

There are five phases in the above architecture.

- 1) Candidate Input: In this phase, candidate information is collected and stored in an Excel sheet, allowing for easy management and organization of data.
- 2) Recruiter Login and Sorting: Once logged in, recruiters can sort through candidates based on desired skills and experience, making the hiring process more efficient and targeted.
- 3) HR Automation Bot: This phase involves the usage of an HR automation bot, which can streamline various tasks such as reading the value from excel sheet, filtering it and sending assessment link to candidate through Gmail which will be done by robots, freeing up valuable time for recruiters.
- 4) Dispatcher Bot: The dispatcher bot takes over in this phase, After the Assessment test the result will be stored in the excel sheet and the candidate with higher marks are added to the Orchestrator Queue
- 5) Performer Bot: In the final phase, the performer bot tackle more complicated jobs such as Generate Offer Letter and Mailed to Selected Candidate.

The system works as follows: First, we offer a Job Application which includes fields for candidate information, experience, skills, and other characteristics. The Google Sheet will then be updated with these data. When viewed from the recruiter's perspective, they are given a login form where they may login to the page and they can search for the abilities and experience according to their needs. The information recorded in the Google Sheet is automated. After entering the abilities and experience, the data is pulled from the Google sheet and stored to a new excel file that recruiters can access. The next step is to automatically send each candidate on the sorted list an email. After that, a test is administered online by the hiring company. The results of this quiz are evaluated by the recruiters, who then look at the candidates' scores. Candidates who receive better scores are employed, and an automatic offer letter is prepared and sent to the chosen candidate. Robots perform every task in this place.

#### IV. EXPERIMENTAL RESULTS

The development of RPA technology has revolutionized the way we handle repetitive tasks. This technology is capable of performing tasks with incredible speed and accuracy, making it more efficient than human labour. The use of RPA technology can automate various processes, including data gathering, to ensure efficiency and accuracy.

In the recruitment process, RPA technology can help to minimize delays that typically occur in the hiring process. By automating job recruiting processes and generating offer letters, RPA technology can ensure that the proper individual is picked for the position. This may be achieved by selecting the people who are most qualified based on their qualifications and experience, and by ensuring that they fit well with the corporate culture.

The quality of the employee is a crucial indicator of a successful recruitment process. RPA technology may be used to speed up the hiring process and improve the quality of hires, lowering the possibility of hiring errors. An efficient and successful hiring procedure is ensured by the automated job recruiting system and offer letter generator, which can quickly find the ideal applicant and produce and deliver offer letters.

In conclusion, RPA technology is a potent tool that may improve the hiring process by cutting down on delays, identifying the best-fit individuals, and accurately and rapidly producing offer letters. With better hiring results, more successful recruits, and greater overall business performance, this technology may assist organisations.

Given Below images are the output of our project :



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Fig 4.1 Candidate Input

Fig 4.2 Admin Login Page

Fig 4.3 Admin Input For Sorting

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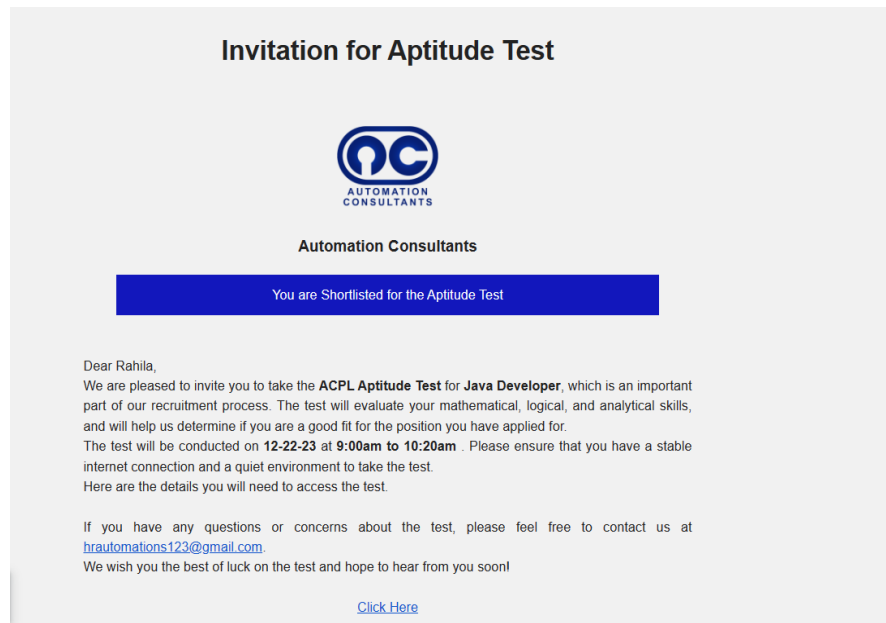


Fig 4.4 Aptitude Test

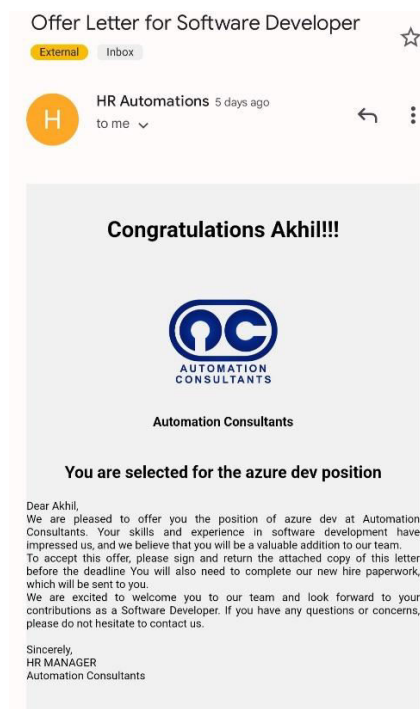


Fig 4.5 Offer Letter

## V. CONCLUSION

The recruiting procedure is a crucial aspect of any organization, but it can be time-consuming, error-prone, and costly. The development of automated job recruiting tools has allowed businesses to automate the hiring process, saving time and money while assuring more precise and effective recruitment efforts. These systems reduce human error and bias and can identify the right candidates for the job quickly and effectively.

One of the most widely used RPA platforms, UiPath, offers end-to-end automation and can scale up quickly across businesses, giving it a considerable edge over competing technologies. The bots created using UiPath can do tasks in a small fraction of the time it would take a person, allowing businesses to concentrate on more important hiring-related duties.

An automatic job recruiting system can help organizations streamline their recruitment process and identify the right candidate with the desired skillset and experience. This technology helps reduce the time and effort required to shortlist candidates, interview them, and make the right hiring decision. Companies may guarantee an impartial, equitable, and effective hiring process with a minimum of human involvement.

In conclusion, an automatic job recruiting system can help organizations effectively generate offer letters and send them to selected candidates, making the hiring process seamless and efficient. With the use of this technology, businesses can enhance their hiring processes, draw in the greatest personnel, and eventually accomplish their objectives.

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