

Streamlining Resource on Boarding Business Processes through Leveraging Task Automation

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Abstract: *Human Resources (HR) processes play a crucial role in managing employees and maintaining organizational efficiency. However, the traditional HR processes are often time-consuming and prone to errors, which can lead to significant challenges for organizations. This project aims to automate the HR processes by leveraging modern technologies to reduce the time and mistakes associated with traditional HR processes. The proposed solution will streamline the HR processes, including recruitment, onboarding, employee data management, performance management, and training, by using intelligent automation tools and techniques. By automating the HR processes, organizations can significantly reduce the manual effort and increase the accuracy and efficiency of their HR functions. This project will also improve the employee experience by providing them with a more efficient and streamlined HR process. The project's target audience is organizations of all sizes, especially those with a large workforce, who are looking to optimize their HR functions and improve employee satisfaction. By implementing the proposed solution, organizations can reduce the costs associated with manual HR processes, increase their productivity, and create a more positive work environment for their employees. This project will contribute to the ongoing trend towards digital transformation in the workplace, ensuring that organizations remain competitive and agile in an ever-changing business landscape.*

Keywords: employees and maintaining organizational efficiency, streamline the HR processes, digital transformation in the workplace

I. INTRODUCTION

Organizations often find themselves bogged down by manual HR processes that have become an administrative burden for their HR departments. These processes, such as onboarding a new recruit, involve a lot of paperwork, email threads, and manual tasks that can be time-consuming and error-prone. The application is designed to automate HR processes by integrating with Microsoft Teams. The application provides HR teams with a platform to schedule and promote tasks to new hires as part of the onboarding process. The tasks are presented in the form of templates, making it easy for new hires to complete the required forms and processes. The integration with Microsoft Teams makes it easy for HR teams to collaborate with other stakeholders involved in the onboarding process. The application allows stakeholders to access and sign forms, making the entire process digital and paperless. This reduces the administrative burden on HR teams and helps to ensure that the onboarding process is completed quickly and accurately. The automation capabilities can be extended to other HR processes, such as performance management and employee data management. By automating these processes, organizations can reduce manual effort, eliminate errors, and increase the efficiency of their HR functions. In addition to streamlining the onboarding process, the application can also automate other HR processes such as performance management and employee data management. For instance, performance management can be

automated by setting up performance evaluation templates for employees, which can be tracked and monitored digitally. This helps HR teams to keep track of employee performance and identify areas for improvement. Employee data management can also be automated, ensuring that employee data is up-to-date and accurate. The application can be used to store employee data in a secure digital format, which can be accessed and updated by HR teams as needed. This eliminates the need for manual data entry and reduces the risk of errors, ensuring that employee data is always accurate and up-to-date. Moreover, the application can also generate reports and analytics, providing HR teams with valuable insights into employee performance and HR processes. The reports can be used to identify trends and patterns, helping HR teams to make informed decisions and optimize their HR processes. Overall, the application provides organizations with a comprehensive solution for automating their HR processes. By eliminating manual work and streamlining HR processes, organizations can reduce administrative burden, increase efficiency, and improve the accuracy of their HR functions. The integration with Microsoft Teams makes the application user-friendly and promotes collaboration, making it easier for HR teams to work together and achieve their goals. In summary, the application offers a comprehensive solution to automate HR processes and reduce the administrative burden on HR teams. By integrating with Microsoft Teams, the application provides a seamless user experience and promotes collaboration among stakeholders. Organizations can leverage application automation capabilities to optimize their HR functions and improve their overall operational efficiency.

1.1 Objective:

- Improve the accuracy and efficiency of HR processes by eliminating the risk of errors in manual work.
- Streamline the onboarding process by presenting tasks in the form of templates and allowing stakeholders to access and sign forms digitally.
- Facilitate collaboration between HR teams and other stakeholders involved in the onboarding process.
- Extend automation capabilities to other HR processes, such as performance management and employee data management.
- Improve the accuracy and accessibility of employee data by storing it in a secure digital format.
- Generate reports and analytics to provide insights into employee performance and HR processes.

1.2 Base Paper:

<https://ieeexplore.ieee.org/document/10010715>

II. LITERATURE REVIEW

The importance of automating HR processes has been recognized in the literature for some time. According to a study by the Society for Human Resource Management, organizations that automate their HR processes see significant benefits, including reduced administrative workload, increased efficiency, and improved accuracy (SHRM, 2021). The study also found that automation of HR processes leads to increased employee engagement and satisfaction. One of the key benefits of automating HR processes is the reduction of errors. According to a study by PwC, manual processes are more prone to errors than automated processes, which can lead to compliance and regulatory issues (PwC, 2021). Automating HR processes can help to reduce these errors and ensure that the organization is in compliance with all relevant regulations. Another benefit of automating HR processes is the reduction of manual work. Manual processes are often time-consuming and require significant effort from HR teams. By automating these processes, organizations can free up their HR teams to focus on more strategic initiatives, such as talent development and employee engagement. In addition to the benefits of automation, there are also challenges that organizations may face when implementing an automated HR system. One such challenge is the need for buy-in from all stakeholders. According to a study by Accenture, organizations must ensure that all stakeholders, including employees, managers, and HR teams, are involved in the implementation process to ensure its success (Accenture, 2020). Another challenge is the need for data security and privacy. According to a study by Gartner, organizations must ensure that the data they collect and store as part of their automated HR processes is secure and protected (Gartner, 2021). Failure to do so can lead to significant legal and financial consequences.

Overall, the literature supports the need for organizations to automate their HR processes. Automation can lead to significant benefits, including reduced administrative workload, increased efficiency, improved accuracy, and increased employee engagement and satisfaction. However, organizations must be aware of the challenges they may face and take steps to address them, such as ensuring stakeholder buy-in and protecting data security and privacy.

III. EXISTING SYSTEM

The existing system of automated HR processes is a technological solution that streamlines the HR functions of organizations by reducing manual work, eliminating errors, and increasing efficiency. The system leverages automation tools and techniques to automate HR processes such as recruitment, onboarding, employee data management, performance management, and training. This system is an upgrade from the traditional manual HR processes that can be time-consuming and error-prone. The automated HR process is designed to improve the overall employee experience and optimize organizational efficiency.

One of the significant advantages of the automated HR process is that it saves time and effort. HR teams no longer have to spend countless hours manually processing paperwork, scheduling interviews, or tracking employee performance. Automation allows HR teams to focus on more strategic tasks that can positively impact the organization's bottom line. Additionally, automation helps to reduce errors and increase accuracy, which is critical in HR processes that require compliance with legal and regulatory requirements.

However, automated HR processes are not without their disadvantages. One of the significant challenges is the initial investment required to implement the system. The cost of acquiring and setting up the necessary technology can be high, and this may deter some organizations from adopting the system. Additionally, the system requires training and support, which can further increase the cost.

3.1 Disadvantages of Existing system

1. Initial Investment: The implementation of an automated HR process requires a significant upfront investment in terms of software, hardware, and infrastructure. The costs associated with training employees to use the new system can also be substantial.
2. Integration Challenges: One of the biggest challenges associated with implementing an automated HR process is integrating it with other systems and software used by the organization. This can be time-consuming and require a significant amount of IT resources.
3. Technical Issues: Like any other system, automated HR processes are prone to technical issues such as software bugs, system crashes, and other technical glitches. These issues can cause delays and negatively impact the user experience.
4. Data Security Risks: The digitization of employee data increases the risk of data breaches and cyber attacks. The sensitive data stored within the system needs to be protected from unauthorized access or cyber threats.
5. Limited Customization: Some automated HR processes have limited customization options, which can make it difficult to tailor the system to meet the specific needs of an organization. This can result in a less efficient system that does not fully meet the organization's HR needs.
6. Limited Human Interaction: Automated HR processes can be highly efficient and streamlined, but they lack the personal touch that comes with human interaction. This can lead to a less engaging experience for employees and less effective communication between HR and employees.
7. Resistance to Change: Employees may resist the implementation of a new automated HR process, especially if they are used to traditional manual processes. This can result in a slow adoption rate and require significant effort to train and educate employees on the new system.

IV. PROPOSED SYSTEM

The proposed project aims to automate HR processes using modern technologies to reduce time and errors associated with traditional HR processes. The solution will streamline recruitment, onboarding, employee data management, performance management, and training using intelligent automation tools. Automating HR processes will reduce manual effort and increase accuracy and efficiency. The project will also improve the employee experience by

providing a more efficient and streamlined HR process. The target audience is organizations of all sizes, especially those with large workforces, looking to optimize HR functions and improve employee satisfaction. Implementing the solution can reduce costs, increase productivity, and create a positive work environment. The project contributes to the trend towards digital transformation in the workplace. Automating HR processes will ensure organizations remain competitive and agile. The solution can significantly reduce administrative burden on HR departments. The proposed solution offers a comprehensive solution for automating HR processes. By eliminating manual work and streamlining HR processes, organizations can reduce administrative burden and increase efficiency. The solution promotes collaboration, making it easier for HR teams to work together and achieve their goals. Overall, the proposed system offers a cost-effective and user-friendly solution to automate HR processes and improve organizational efficiency.

4.1 Advantages of proposed system over Existing system:

The proposed system offers several advantages over the existing system of automated HR processes, including:

- **Greater Efficiency:** The proposed system uses modern technologies and intelligent automation tools to streamline HR processes, which will increase overall efficiency and productivity.
- **Improved User Experience:** By automating HR processes, the proposed system will create a more user-friendly and streamlined experience for employees, which will improve their satisfaction and engagement.
- **Customization:** The proposed system offers greater customization options than the existing system, which will allow organizations to tailor the system to their specific HR needs.
- **Cost-Effective:** The proposed system offers a cost-effective solution for automating HR processes, reducing the initial investment required to implement the system
- **Better Data Security:** The proposed system will implement security protocols to protect employee data from cyber attacks and data breaches, reducing the risk of data security issues.
- **Greater Flexibility:** The proposed system offers greater flexibility than the existing system, which will make it easier for HR teams to adapt to changing organizational needs and respond to new challenges.
- **Enhanced Collaboration:** The proposed system promotes collaboration between HR teams, making it easier for them to work together and achieve their goals.

Overall, the proposed system offers several key advantages over the existing system of automated HR processes, making it a more efficient, customizable, and cost-effective solution for organizations looking to streamline their HR functions and improve employee satisfaction.

4.2 List of modules:

- On boarding
- blastoffs
- Loopins
- Reports

4.3 Modules Description:

a. On boarding:

The Onboarding module comprises three sub-modules:

- i. **User Configuration:** In this sub-module, the admin configures users based on their roles and provides access using the organization's Azure Active Directory.
- ii. **Progress Tracker:** Here, the HR monitors the progress of tasks assigned to new hires and managers. Separate tabs are available for tracking new hire and manager progress.
- iii. **Onboarding To-do's:** This sub-module serves as a repository for tasks created by the HR for new hires/managers. These tasks are scheduled based on the start date of the new hire after determining the appropriate template to use.

b. Blastoffs:

The Blastoffs module provides a selection of pre-built templates that are critical for assigning tasks to new hires and managers based on their respective roles. It consists of three tabs, namely:

- i. New Hire: This tab contains templates intended for new hires. The HR can select a specific template for a new hire and configure it according to their needs.
- ii. Manager: This tab contains templates for assigning tasks to managers.
- iii. Archive: Templates that are not frequently used can be archived in this tab and retrieved when needed.

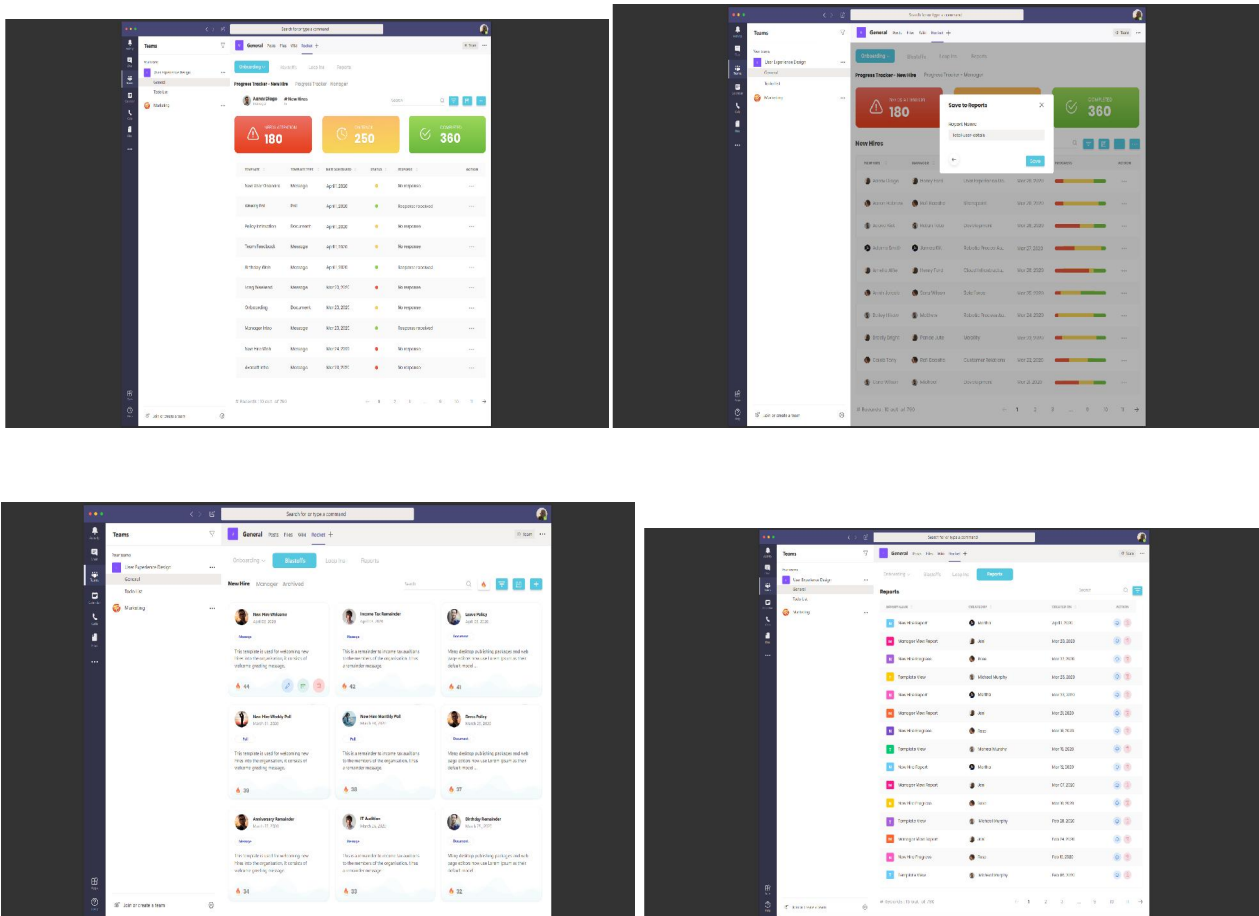
c. Loopins:

Loopins is a set of templates that are not essential and can be utilized by all employees in the company, not just new hires and managers. Custom templates can also be created by the HR/Admin in Loopins and saved for future usage. While HR-created Loopins can be removed, default ones cannot be deleted

d. Reports:

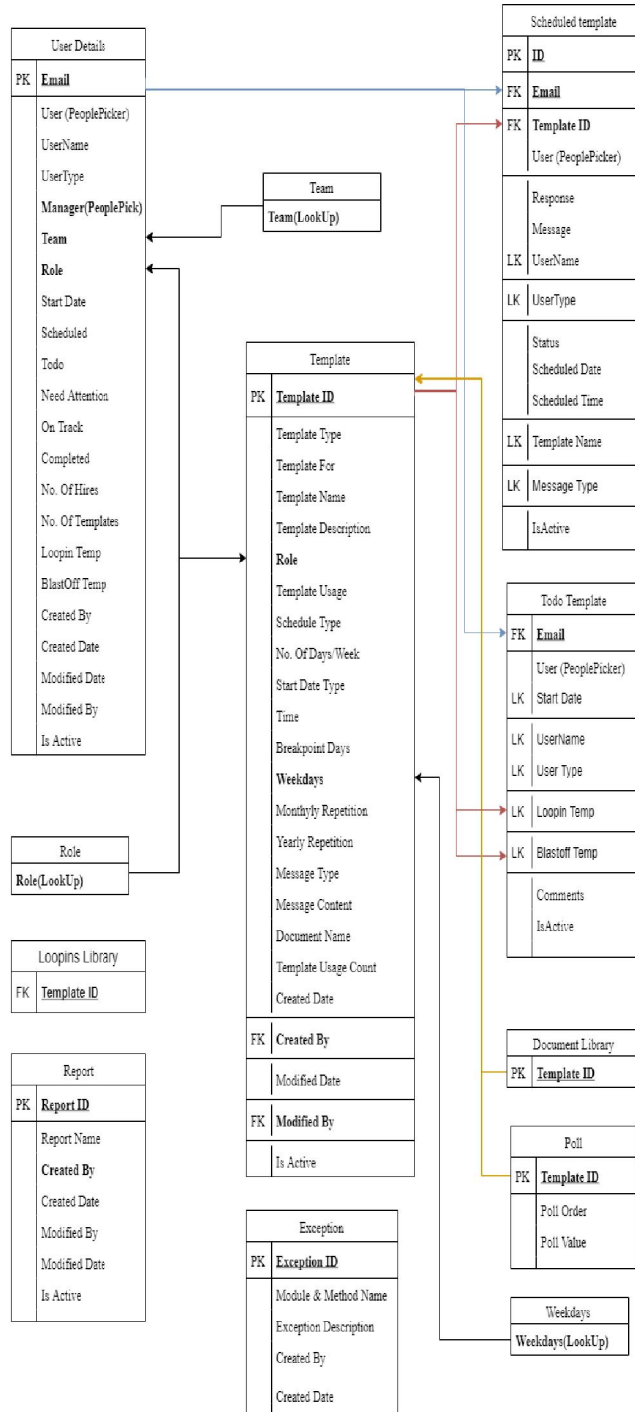
It is possible to save HR activities and the status of tasks completed by new hires and managers as reports in available modules. These saved tasks will be displayed in the report module and can be downloaded as an Excel file or removed if not necessary.

4.4 Output



V. SYSTEM ARCHITECTURE:

UML Diagram (ER Diagram):



VI. CONCLUSION

In conclusion, streamlining resource onboarding business processes through leveraging task automation is a practical and effective approach that can significantly improve organizational efficiency and productivity. By automating repetitive and time-consuming tasks such as data entry, file processing, and communication, companies can reduce errors, minimize delays, and enhance the overall onboarding experience for new employees. Additionally, automating these processes can free up valuable time for HR personnel, allowing them to focus on more strategic and value-adding

activities. To successfully implement task automation, organizations should carefully analyze their existing processes, identify areas that can benefit from automation, and select appropriate tools and technologies. With the right approach, automation can help businesses become more competitive, agile, and responsive to changing market demands.

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