



IEEE



# CERTIFICATE OF PARTICIPATION

This certificate is awarded to

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Presented by tech (team 26)

# Human resource tech





# Introduction to the problem statement

“It is truly believed that employees are its greatest assets and that effective, actionable insight into an employee’s performance and their satisfaction level becomes a critical parameter for the success of the organization.” We are looking for solutions that

1. Leverage external data/behavioral data to identify the ‘right hire.’
2. Provide solutions to lower attrition (e.g. predict an employee’s resignation).
3. Provide an expense management system for internal employees.



# problem solution 1:

- Problem Statement:
  - Leverage external data/behavioral data to identify the 'right hire.'
- Proposed Solution:
  - Utilize LinkedIn Scraping API to gather applicant data.
  - Analyze graduation, experience, and work patterns.
  - Rank candidates and categorize into senior, junior, etc.
- Implementation:
  - Scrape applicant data using LinkedIn Scraping API.
  - Analyze data to identify qualifications and experience.Create graphs to visualize candidate rankings.
- Benefits:
  - Streamlined candidate evaluation process.
  - Enhanced decision-making in talent acquisition.
  - Improved recruitment efficiency and effectiveness.





# problem solution 2:

- Problem Statement:
  - Attrition poses challenges for organizations in retaining talent and maintaining productivity.
  - Predicting employee resignations can help in proactive retention efforts.
- Proposed Solution:
  - Conduct employee sentiment surveys using simple questions.
  - Analyze employee responses using sentiment analysis API.
  - Categorize responses as positive or negative to gauge employee satisfaction.
  - Use data insights to identify at-risk employees and take preventive measures.
- Implementation:
  - Design and distribute employee sentiment surveys periodically.
    - Integrate sentiment analysis API to automatically analyze survey responses.
  - Create a dashboard to visualize sentiment trends and identify patterns.
- Benefits:
  - Early identification of employees at risk of resigning.
    - Opportunity for proactive intervention to address issues and improve employee satisfaction.
  - Reduction in attrition rates and associated costs.





# problem solution 3:



- Problem Statement:
  - Managing employee expenses manually can be time-consuming and prone to errors.
  - Lack of a centralized system leads to inefficiencies and difficulty in tracking expenses.
- Proposed Solution:
  - Introduce an automated expense management software for internal employees.
  - Process:
    - Employee initiates expense request for approval.
    - Employee submits receipts, bills, and other relevant documents through the portal.
    - Employees have a 30-day submission window.
  - Customization based on employee positions:
    - Different benefits and approval processes based on employee positions.
  - Implementation:
    - Develop and deploy the expense management software.
    - Provide training to employees on using the portal effectively.
    - Ensure seamless integration with existing HR and finance systems.
  - Benefits:
    - Improved efficiency: Automated process reduces manual efforts and errors.
    - Transparency: Clear visibility into expenses and approval status.
    - Compliance: Adherence to company policies and regulatory requirements.
    - Employee satisfaction: Streamlined process enhances employee experience.



# Impact of solution

- **Improved Operational Efficiency:**  
Adoption of automated systems for candidate ranking, expense management, and employee sentiment analysis streamlines processes.  
Reduction in manual efforts and administrative tasks leads to time savings and increased productivity.  
Enhanced efficiency allows employees to focus on core responsibilities, driving overall organizational performance.
- **Enhanced Decision-making and Transparency:**  
Centralized data collection and analysis provide insights for informed decision-making.
  - Improved transparency in recruitment, expense management, and employee sentiment analysis fosters trust and accountability.Clear visibility into various aspects of operations facilitates strategic planning and resource allocation.
- **Increased Employee Satisfaction and Engagement:**  
Implementation of solutions tailored to employee needs enhances satisfaction and engagement levels.  
Streamlined processes and personalized benefits contribute to a positive work environment.  
Enhanced employee experience boosts morale, retention rates, and overall organizational culture.



# Impact of solution

- **Cost Savings and Resource Optimization:**  
Automation and optimization of processes result in cost savings and resource optimization. Reduction in manual errors, administrative overheads, and operational inefficiencies leads to financial benefits.
  - Enhanced utilization of resources and improved decision-making contribute to long-term sustainability and growth.
- **Data-driven Insights for Continuous Improvement:**  
Collection and analysis of data provide valuable insights for continuous improvement. Feedback loops established through candidate feedback, expense tracking, and employee sentiment analysis drive iterative enhancements.
  - Data-driven decision-making fosters innovation and adaptability, positioning the organization for future success.



# Applied technologies

- python
  - streamlit
  - vadersentiment
- html
- css
- javascript
- (angularjs) Mysql



# Future Scope and Feasibility:



## 1.Future Scope:

Exploration of potential future enhancements and expansions for the project.

- Identification of areas for further development and improvement based on project outcomes.

Discussion of potential new features, functionalities, or modules to be incorporated.

## 2.Market Trends and Opportunities:

- Analysis of current market trends and emerging opportunities relevant to the project domain.
- Exploration of market demands and customer needs that could influence future project

directions.

Identification of potential niche areas or target markets for project expansion.

## 3.Technological Advancements:

Examination of upcoming technologies and innovations that could impact the project's feasibility and scalability.

- Discussion of how emerging technologies such as artificial intelligence, machine learning, or blockchain could be leveraged for future enhancements.

- Consideration of integration possibilities with other systems or platforms to enhance project capabilities.





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link:

[https://github.com/rehanshafiqq/hackx\\_HR\\_TECH](https://github.com/rehanshafiqq/hackx_HR_TECH)





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Thank you  
very much!

