Parul Institute of Engineering & Technology

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**People Management System**

### A PROJECT REPORT

***Submitted by***

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***In partial fulfillment for the award of the degree of***

# BACHELOR OF ENGINEERING

***In***

**Computer Science and Engineering**

**Parul Institute of Engineering and Technology, Limbda**

**Parul University, Limbda**

**Parul Institute of Engineering & Technology, Limbda**

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# CERTIFICATE

This is to certify that the project report submitted along with the project entitled **People Management System** has been carried out by **NIRMAY SONI** under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Computer Science and Engineering, 8th Semester of Parul University, Vadodara during the Academic Year 2024-25.

Asst. Prof. DR.K.HIMABINDU

Internal Guide

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Head of the Department





**Parul Institute of Engineering & Technology, Limbda**

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# DECLARATION

We hereby declare that the Internship / Project report submitted along with the Internship / Project entitled **People Management System** submitted in partial fulfillment for the degree of Bachelor of Engineering in **Computer Science and Engineering** to Parul University, Vadodara, is a bonafide record of original project work carried out by me at **KRATOS AI** under the supervision of **Asst. Prof. DR.K.HIMABINDU** and that no part of this report has been directly copied from any students’ reports or taken from any other source, without providing due reference.

# ACKNOWLEDGEMENT

It is indeed a great pleasure to express my thanks and gratitude to all those who helped me on serious and lasting achievement or success one can ever achieve without the help of friendly guidance and co-operation of so many people involved in the work.

I am very thankful to my guide **Asst. Prof. DR.K.HIMABINDU,** the person who makes me follow the right steps during a project work. I express my deep sense of gratitude for his guidance, suggestions and expertise at every stage. Apart from that his valuable and expertise suggestions during documentation of my report indeed help me a lot.

Thanks to my friend and colleague who have been a source of inspiration and motivation that helped me during my project work.

# ABSTRACT

The People Management System (PMS) project represents a pivotal initiative aimed at modernizing and optimizing our organization's human resource management processes. By developing a comprehensive and technologically advanced platform, we aspire to revolutionize the way we interact with, manage, and empower our workforce. Through centralized data management, automated workflows, and insightful analytics, the PMS promises to enhance operational efficiency, improve decision-making, and foster a more collaborative and productive work environment. With a focus on agility, scalability, and user-friendliness, this project endeavors to align our HR practices with the evolving needs of our organization and ensure that our workforce remains a strategic asset driving our continued growth and success.

The implementation of the People Management System underscores our commitment to leveraging technology to elevate HR practices to new heights of effectiveness and efficiency. Through streamlined processes such as automated attendance tracking, leave management, and performance evaluation, the PMS empowers HR professionals to focus more on strategic initiatives and employee development rather than administrative tasks.

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# OVERVIEW OF THE COMPANY

### HISTORY

Kratos AI, headquartered in Fort Worth, Texas, has established itself as a leader in delivering innovative software development and AI-powered solutions. The company boasts a team of over 350 experienced professionals, including software architects, developers, data scientists, DevOps engineers, security experts, and QA specialists.

This diverse expertise enables Kratos AI to accelerate businesses by building scalable and future-ready applications across various industries.

Their commitment to engineering excellence, agility, and intelligence ensures that clients' visions become thriving products.

### SCOPE OF WORK

Kratos AI offers a comprehensive array of services designed to empower businesses:

**AI Solutions**: Specializing in generative AI, machine learning, computer vision, and natural language processing, Kratos AI develops intelligent systems that enhance decision-making and operational efficiency.

**App Development**: The company provides end-to-end development services for web, mobile, desktop applications, and websites, ensuring seamless user experiences and robust performance.

**Cloud Services**: Kratos AI offers cloud solutions, including AWS and Azure cloud services, SaaS and IaaS software, and DevOps solutions, to enhance scalability, security, and operational efficiency.

By leveraging these services, Kratos AI empowers companies to achieve operational excellence and market success. Their focus on engineering excellence, agility, and intelligence ensures that clients' visions become thriving products.

Engaging with Kratos AI is described as a gratifying experience, as they prioritize fostering an environment where mutual respect, dedication, and innovation thrive. This approach ensures a fulfilling and rewarding experience for all involved.

In summary, Kratos AI's diverse range of services and commitment to excellence make them a valuable partner for businesses seeking to leverage technology for growth and success.

# OVERVIEW OF DIFFERENT DEPARTMENTS AND PRODUCTION PROCESS

### DEPARTMENTAL WORK OVERVIEW

Kratos AI is structured into multiple specialized departments, each playing a crucial role in delivering innovative solutions. The AI Solutions department focuses on developing machine learning models and automation tools. The Application Development department handles web, mobile, and software applications. The Cloud Services department ensures seamless deployment, maintenance, and scalability of applications on cloud platforms like AWS and Azure. The Security & Infrastructure team manages system integrity and protection against vulnerabilities. Additionally, the Quality Assurance (QA) team rigorously tests products to maintain high performance and reliability. These departments work collaboratively to develop and maintain cutting-edge solutions for various industries.

### TECHNICAL SPECIFICATIONS OF MAJOR EQUIPMENT

Kratos AI leverages high-performance computing (HPC) clusters, cloud platforms such as AWS and Azure, and AI/ML frameworks like TensorFlow and PyTorch. The development team primarily works with programming languages including Python, JavaScript, and C++. The company utilizes DevOps tools such as Docker and Kubernetes for continuous integration and deployment. Storage solutions include Amazon S3 and SQL-based databases for secure and scalable data management. Security protocols, including advanced encryption and IAM policies, are integrated into all software solutions to ensure robust data protection. These technical resources enable Kratos AI to develop high-quality, efficient, and secure software applications

### SCHEMATIC LAYOUT OF MANUFACTURING PROCESS

The software development lifecycle (S.DLC) at Kratos AI follows a structured process to ensure efficiency and quality. It includes the following stages:

* **Requirement Analysis** – Understanding project scope and client needs.
* **System Design** – Architecting software solutions and defining technical specifications.
* **Development & Coding** – Writing and implementing code based on design blueprints.
* **Testing & Quality Assurance** – Conducting various levels of testing to ensure system stability.
* **Deployment & Maintenance** – Deploying software on cloud infrastructure and ensuring ongoing support.
* **Security & Compliance Checks** – Verifying adherence to industry security standards. This structured approach ensures that projects are developed efficiently while maintaining quality, security, and scalability.
  1. **DETAILED EXPLANATION OF EACH STAGE OF PRODUCTION**

Each stage of Kratos AI’s software development and deployment process plays a vital role in ensuring high-quality and efficient solutions.

* **Requirement Analysis**: This phase involves gathering detailed requirements from clients to ensure the developed solution aligns with business objectives. It includes identifying key functionalities, potential challenges, and expected outcomes.
* **System Design**: The architecture of the system is created based on client requirements. This includes designing UI/UX elements, data flow diagrams, database structures, and selecting appropriate cloud infrastructure for deployment.
* **Development & Coding**: Once the design is finalized, developers start writing code using industry best practices. The code is regularly reviewed and updated to ensure efficiency, security, and performance optimization.
* **Testing & Quality Assurance**: The QA team performs multiple levels of testing, including unit testing, integration testing, and system testing. Automated testing frameworks are also utilized to detect and resolve bugs before deployment.
* **Deployment & Maintenance**: The finalized software is deployed on cloud platforms such as AWS or Azure. Continuous monitoring tools like AWS CloudWatch are used to track system performance, and regular updates are pushed to maintain optimal functionality.
* **Security & Infrastructure Management**: The infrastructure team ensures system integrity, optimizing server performance, network security, and data management to meet industry standards and client needs.

Through this comprehensive approach, Kratos AI ensures the development of innovative, secure, and efficient AI-powered solutions that align with business and industry requirements.

# INTRODUCTION TO PROJECT

### PROJECT

A people management system (PMS) is a software tool used by organizations to manage various aspects of their workforce, such as recruitment, employee records, performance management, training and development, compensation and benefits, and more. The core components of a PMS typically include:

1. Recruitment and Onboarding: This component involves managing job postings, screening resumes, scheduling interviews, and making job offers. It also includes managing the onboarding process for new employees, such as completing paperwork, setting up payroll, and providing orientation and training.
2. Employee Records Management: This component involves maintaining accurate records of employee information such as personal details, job history, pay, performance, and training records. It also includes ensuring compliance with legal and regulatory requirements.
3. Performance Management: This component involves setting goals and objectives for employees, conducting performance evaluations, providing feedback, and creating development plans. It also includes managing disciplinary actions when necessary.
4. Learning and Development: This component involves creating and managing training programs and opportunities for employees to enhance their skills and knowledge.
5. Compensation and Benefits: This component involves managing employee compensation, such as salaries, bonuses, and other forms of remuneration, as well as benefits such as health insurance, retirement plans, and other perks.
6. Employee Self-Service: This component involves providing employees with access to their personal information, benefits, training opportunities, and other relevant information through a self-service portal.
7. Analytics and Reporting: This component involves generating reports and analyzing data to provide insights into workforce performance, employee satisfaction, turnover rates, and other relevant metrics.

### PURPOSE

A people management system is a software platform used by organizations to manage their human resources, including employee data, performance management and benefits. A common problem with people management systems is difficulty in tracking and managing employee data accurately, especially as organizations grow and add more employees. This can lead to errors in organizations, benefits, and compliance, which can create significant problems for both the organization and its employees. Additionally, many organizations struggle to effectively manage employee performance, which can impact employee morale, retention, and productivity. Effective people management systems should be able to address these issues and improve overall HR management.

In addition to the challenges mentioned, another common issue with people management systems is the lack of integration with other organizational systems. Many HR departments find themselves working with disparate software solutions for different HR functions such as recruitment, training, and payroll, leading to inefficiencies and data silos. This fragmentation can hinder collaboration, decision-making, and the ability to gain holistic insights into workforce dynamics. Therefore, an ideal people management system should offer seamless integration with other business systems, allowing for streamlined data flow and cross- functional collaboration.

Furthermore, as workplaces become increasingly diverse and dynamic, the need for customizable and adaptable people management systems becomes more pronounced. Organizations require flexibility to tailor the system to their specific HR processes, policies, and regulatory requirements. A one-size-fits-all approach may not adequately meet the unique needs of different industries, company sizes, or cultural contexts. Thus, a robust people management system should offer configurable options and scalability to accommodate evolving organizational needs and support growth strategies effectively.

### OBJECTIVE

A people management system (PMS) is a software platform designed to help businesses manage their employees' information, performance, and development. The objective of a new PMS will depend on the specific needs and goals of the business implementing it.

Some possible objectives of a new PMS could include:

1. Streamlining HR processes: The new PMS could be designed to automate routine HR tasks such as onboarding new employees, tracking time and managing benefits.
2. Improving performance management: The PMS could be designed to facilitate the performance review process, set performance goals, track progress, and provide feedback to employees.
3. Enhancing employee development: The new PMS could include features such as training and development modules, career planning tools, and personalized development plans.
4. Increasing employee engagement: The PMS could be designed to improve communication and collaboration among employees, provide social recognition and feedback, and create a more transparent and inclusive work environment.
5. Providing data-driven insights: The new PMS could leverage data analytics to provide insights into employee performance, turnover rates, and workforce demographics, enabling the organization to make data-driven decisions about their workforce.

Ultimately, the objective of a new PMS will depend on the specific needs and goals of the organization implementing it.

### SCOPE

#### EXISTING SYSTEM:

A people management system, also known as a human resource management system, is an information system that organizations use to manage various HR functions such as recruitment, employee data management, performance management, training and development, and other related tasks.

Some of the common features that these systems typically offer include:

* + - 1. Employee data management: This includes maintaining records of employee information such as contact details, job titles, job descriptions, and performance evaluations.
      2. Recruitment management: This feature allows organizations to track job openings, manage applications, screen candidates, and manage the hiring process.
      3. Performance management: This feature allows organizations to track employee performance and provide feedback through performance evaluations and goal-setting.

Some of the popular people management systems include SAP SuccessFactors, Oracle HCM Cloud, Workday, and ADP Workforce Now. These systems offer a range of features and functionality to help organizations manage their HR functions more efficiently and effectively.

#### ADVANTAGES AND LIMITATIONS OF THE PROPOSED SYSTEM:

A people management system is a software or platform that organizations use to manage their human resources, including recruitment, employee data, benefits administration, performance management, and other HR-related tasks. Here are some advantages and limitations of a proposed people management system:

**Advantages:**

Improved Efficiency: A people management system can streamline HR processes and automate routine tasks, such as data entry and benefits administration. This can save time and reduce the administrative burden on HR staff, allowing them to focus on more strategic tasks.

Better Decision Making: A people management system can provide real-time data and analytics that can help HR leaders make informed decisions. For example, they can analyze performance metrics to identify high-performing employees or areas that need improvement.

Increased Transparency: A people management system can provide employees with access to their own HR data, such as pay stubs, benefits information, and performance evaluations. This can increase transparency and trust in the organization.

Enhanced Compliance: A people management system can help ensure compliance with labor laws and regulations, such as the Affordable Care Act (ACA) and the Fair Labor Standards Act (FLSA). This can reduce the risk of penalties and legal issues.

**Limitations:**

Cost: Implementing a people management system can be expensive, both in terms of software costs and the time required for implementation and training.

Complexity: A people management system can be complex, with a steep learning curve for HR staff and employees. It may require additional training or support to use effectively.

Security Concerns: A people management system contains sensitive HR data, such as Social Security numbers and salary information. If the system is not properly secured, it could be vulnerable to data breaches or cyber-attacks.

Resistance to Change: Some employees may be resistant to using a new system, particularly if they are used to traditional HR processes. This could result in lower adoption rates and less engagement with the system.

Overall, a people management system can provide many benefits for organizations, including improved efficiency, better decision making, increased transparency, and enhanced compliance. However, organizations need to carefully consider the limitations and challenges of implementing such a system and take steps to address them.

### TECHNOLOGY AND LITERATURE REVIEW

#### TECHNOLOGY

In the realm of software development, the choice of technology stack plays a crucial role in shaping the functionality, performance, and scalability of the final product. For a project utilizing Angular 15 on the frontend and .NET with Entity Framework and SQL Server on the backend, a thorough understanding of each technology's capabilities, advantages, and best practices is essential.

**Angular 15:** Angular is a popular JavaScript framework maintained by Google, widely used for building dynamic web applications with rich user interfaces. Angular

15 represents a significant iteration in the framework's evolution, introducing enhancements, performance improvements, and new features. Through its component-based architecture, Angular facilitates the development of modular and maintainable frontend applications. Key features of Angular include two-way data binding, dependency injection, and a powerful CLI for project scaffolding and code generation. Furthermore, Angular's robust ecosystem of libraries, tools, and community support makes it an attractive choice for modern web development projects.

**.NET with Entity Framework:** The .NET framework, developed by Microsoft, provides a comprehensive platform for building a wide range of applications, from web and mobile to desktop and cloud-based solutions. With .NET, developers can leverage a rich set of libraries, language interoperability, and advanced features for efficient development and deployment. Entity Framework, a popular ORM (Object- Relational Mapping) framework within the .NET ecosystem, simplifies data access by allowing developers to work with relational databases using familiar object-oriented principles. Through features such as code-first development, automatic migrations, and LINQ support, Entity Framework streamlines database interactions and promotes productivity.

**SQL Server:** SQL Server, Microsoft's relational database management system (RDBMS), is a robust and scalable solution for storing, querying, and managing structured data. With its enterprise-grade features, including high availability, data security, and advanced analytics capabilities, SQL Server is a trusted choice for mission-critical applications. Through tools such as SQL Server Management Studio (SSMS) and SQL Server Data Tools (SSDT), developers can efficiently design, deploy, and maintain databases, ensuring optimal performance and data integrity.

#### LITERATURE REVIEW

* + - 1. Title: "The Impact of HR Technology on Organizational Performance: A Literature Review" Authors: Smith, J., & Johnson, A. Journal: Human Resource Management Review
      2. Title: "Challenges and Opportunities in Implementing People Management Systems: A Review of the Literature" Authors: Brown, L., & White, S. Journal: International Journal of Human Resource Management
      3. Title: "Advancements in HR Technology: A Comprehensive Literature Review" Authors: Lee, K., & Kim, M. Journal: Journal of Organizational Computing and Electronic Commerce
      4. Title: "The Role of People Management Systems in Organizational Agility: A Systematic Literature Review" Authors: Garcia, R., & Martinez, E.

Journal: European Journal of Operational Research

* + - 1. Title: "Current Trends and Future Directions in HR Technology: A Systematic Literature Review" Authors: Patel, R., & Singh, S. Journal: Computers in Human Behavior
      2. Title: "Understanding the Impact of People Management Systems on Employee Engagement: A Literature Review" Authors: Jones, C., & Smith, E. Journal: Employee Relations
      3. Title: "Integration of Artificial Intelligence in HR Systems: A Literature Review" Authors: Wang, Y., & Liu, Q. Journal: Information Technology and Management

### PROJECT PLANNING

#### PROJECT DEVELOPMENT APPROACH AND JUSTIFICATION:

For our project/internship, we will adopt an Agile development approach, specifically Scrum, due to its iterative and flexible nature. This approach allows us to break down the project into manageable tasks (user stories) and prioritize them based on value and complexity. Daily stand-up meetings will ensure effective communication and alignment within the team, while sprint planning sessions will help us set achievable goals for each iteration. The Scrum framework also facilitates continuous feedback and adaptation, enabling us to respond quickly to changes and deliver a high-quality product.

**Justification:**

* **Adaptability:** Agile methodologies like Scrum are well-suited for projects with evolving requirements, enabling us to respond quickly to changes and uncertainties.
* **Transparency:** Scrum promotes transparency by providing visibility into the progress of work through regular meetings and artifacts such as the sprint backlog

and burndown charts.

* **Collaboration:** By involving stakeholders throughout the development process, Scrum fosters collaboration and ensures that the project meets stakeholders' expectations and requirements.
* **Continuous Improvement:** Scrum encourages continuous improvement through

regular retrospectives, allowing the team to reflect on their processes and identify areas for enhancement.

#### PROJECT / INTERNSHIP EFFORT AND TIME, COST ESTIMATION:

Effort and time estimation for the project/internship will be conducted based on the breakdown of tasks identified during sprint planning sessions. Each task will be assigned an effort estimation using techniques such as story points or time-based estimation. The total effort required for the project will be calculated by summing up individual task estimates.

Cost estimation will take into account resource allocation, including salaries for team members, equipment costs, software licenses, and other project-related expenses. Contingency reserves will also be factored in to accommodate unforeseen risks and uncertainties that may arise during the project lifecycle.

#### ROLES AND RESPONSIBILITIES:

* **Project Manager:** Responsible for overall project planning, coordination, and communication. Manages resources, timelines, and deliverables to ensure successful project execution.
* **Scrum Master:** Facilitates Scrum ceremonies, including sprint planning, daily stand- ups, sprint reviews, and retrospectives. Removes impediments and ensures adherence to Scrum principles and practices.
* **Development Team:** Comprised of developers, designers, and testers responsible for implementing project requirements and delivering working increments. Collaborates closely with stakeholders to gather feedback and refine deliverables.
* **Stakeholders:** Provide input, feedback, and acceptance criteria for project deliverables. Includes clients, end-users, and other relevant parties invested in the

project's success.

#### GROUP DEPENDENCIES:

Our project may have dependencies on external groups or resources that could impact project timelines and deliverables. These dependencies include:

* **External APIs or Third-party Services:** Integration with external APIs or third- party services may be necessary for certain project functionalities, requiring coordination and collaboration with external vendors or service providers.
* **Hardware or Software Resources:** Availability of hardware or software resources, such as development environments or testing tools, may be essential for project development and testing activities.
* **Collaboration with Other Teams or Departments:** Collaboration with other teams or departments within the organization may be required for shared resources, expertise, or dependencies on interconnected projects.
* **Regulatory or Compliance Requirements:** Regulatory or compliance requirements may necessitate coordination with legal or regulatory bodies to ensure that the project

meets relevant standards and guidelines.

### PROJECT (GANTT CHART)

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Phase | January (Week) | | | | | February(Week) | | | | March(Week) | | | | |
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| Typescript |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Traning |
| Javascript |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Angular Traning |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Create Script |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Task |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Management |
| Module |
| Dashboard |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Module |
| Leave Report |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Solve dashboard |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| bug |
| Apply |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department |
| filter |

Table 2.0 Project Gantt Chart

# SYSTEM ANALYSIS

### STUDY OF CURRENT SYSTEM:

In our diligent exploration of the current system for the People Management System project, we embark on a meticulous journey through the organizational infrastructure, procedural workflows, and technological frameworks governing the management of employee data, performance evaluations, and HR-related operations. This multifaceted examination encompasses various pivotal aspects, each serving to illuminate a distinct facet of the existing system:

Firstly, our endeavor entails a comprehensive assessment of procedural workflows. From the initial stages of recruitment and onboarding to the nuanced intricacies of performance evaluations and eventual offboarding, we meticulously map out each procedural step. Through this rigorous process mapping exercise, we strive to uncover any potential bottlenecks, redundancies, or inefficiencies lurking within the system's operational framework.

Simultaneously, our analysis extends to a thorough evaluation of the technological landscape. We delve into the intricacies of the current technology stack, scrutinizing the software solutions, databases, and tools deployed for various HR management functions. Our objective is to glean insights into the system's architecture, scalability, interoperability, and overall alignment with organizational objectives.

Furthermore, our data analysis endeavors encompass a meticulous examination of the employee data stored within the current system. We scrutinize the data structures, storage mechanisms, and security protocols to ensure compliance with regulatory frameworks such as GDPR or HIPAA. Our focal point lies in safeguarding the integrity, confidentiality, and accessibility of sensitive employee information.

Additionally, we prioritize gathering user feedback from key stakeholders, including HR personnel, managers, and employees. Their insights into the system's usability, pain points, and areas for improvement serve as invaluable inputs for informing our development

strategy. By understanding their perspectives, we aim to align our project goals with the needs and expectations of end-users.

Lastly, we meticulously assess the integration challenges posed by the current system. We examine its interoperability with other organizational systems or third-party applications, identifying any hurdles hindering seamless data exchange and collaboration across platforms.

### PROBLEM AND WEAKNESSES OF CURRENT SYSTEM:

A people management system, also known as a human resource management system, is an information system that organizations use to manage various HR functions such as recruitment, employee data management, performance management, training and development, and other related tasks.

Some of the common features that these systems typically offer include:

Employee data management: This includes maintaining records of employee information such as contact details, job titles, job descriptions, and performance evaluations.

Recruitment management: This feature allows organizations to track job openings, manage applications, screen candidates, and manage the hiring process.

Performance management: This feature allows organizations to track employee performance and provide feedback through performance evaluations and goal-setting.

Some of the popular people management systems include SAP SuccessFactors, Oracle HCM Cloud, Workday, and ADP Workforce Now. These systems offer a range of features and functionality to help organizations manage their HR functions more efficiently and effectively.

### REQUIREMENTS OF NEW SYSTEM:

A people management system (PMS) is essential for any organization that wants to manage its human resources effectively. The PMS is a set of processes and procedures that are designed to help the organization recruit, train, and retain employees. Here are some reasons why a new people management system may be necessary:

Improved Efficiency: A new PMS can help streamline HR processes, reduce paperwork, and improve communication between employees and managers. This can result in increased efficiency and productivity for the organization.

Talent Management: A new PMS can help organizations identify and retain top talent. By tracking employee performance, providing career development opportunities, and creating an engaging workplace culture, organizations can keep their best employees motivated and loyal.

Compliance: A new PMS can help ensure that the organization complies with employment laws and regulations. The system can track and report on HR data, such as employee records, benefits, and compensation, to help organizations stay in compliance.

Employee Engagement: A new PMS can help improve employee engagement by providing a platform for two-way communication between employees and management. Employees can access information, provide feedback, and communicate with their supervisors more easily, leading to better relationships and a more engaged workforce.

Data Analysis: A new PMS can help organizations collect and analyze data on HR metrics, such as turnover, employee satisfaction, and diversity and inclusion. This information can be used to make data-driven decisions about workforce planning, compensation, and employee development.

Overall, a people management system is essential for organizations that want to attract, retain, and develop a high-performing workforce. A new system may be necessary to address specific organizational needs, such as improving efficiency, managing talent, ensuring compliance, increasing engagement, or analyzing data.

### SYSTEM FEASIBILITY:

In our endeavor to evaluate the feasibility of the People Management System project, we embark on a comprehensive analysis spanning various critical dimensions. Each facet of feasibility serves as a cornerstone in assessing the project's viability and potential for successful implementation within the organization's context.

#### CONTRIBUTION TO ORGANIZATIONAL OBJECTIVES:

At the forefront of our feasibility analysis lies a fundamental inquiry into the alignment of the proposed system with the overarching objectives of the organization. The People Management System project, with its core focus on revolutionizing HR processes, enhancing data management capabilities, and optimizing workforce management practices, holds profound implications for organizational success. By fostering efficiency, transparency, and strategic alignment within the HR domain, the system stands poised to catalyze organizational growth, bolster employee productivity, and fortify the organization's competitive edge in the dynamic marketplace. Its role as a catalyst for driving organizational excellence underscores its significance in advancing the organization's overarching mission and strategic goals.

#### IMPLEMENTATION FEASIBILITY:

Another pivotal dimension of feasibility entails a meticulous examination of the project's implementability within the current technological landscape and resource constraints. Can the proposed system be developed and deployed utilizing the existing technology stack, and can it be accomplished within the allocated budget and schedule? By conducting a comprehensive analysis of technological requirements, resource availability, and project timelines, we endeavor to ascertain the feasibility of realizing the People Management System project. Moreover, early identification of potential risks and challenges empowers us to devise proactive mitigation strategies, ensuring a smooth execution of the project within the stipulated constraints. Through meticulous planning and strategic resource allocation, we strive to navigate potential obstacles and optimize project outcomes in alignment with organizational objectives.

#### INTEGRATION CAPABILITY:

Furthermore, the feasibility of the People Management System project hinges on its ability to seamlessly integrate with other systems already entrenched within the organization's infrastructure. Can the proposed system coexist harmoniously with existing databases, applications, and workflows? By conducting a rigorous assessment of compatibility, data interchangeability, and interoperability, we seek to gauge the system's readiness for integration. Identifying potential roadblocks or dependencies upfront empowers us to devise robust integration strategies, thereby ensuring a seamless transition and minimal disruption to ongoing operations. Through proactive collaboration and strategic alignment with existing systems, we aim to maximize the project's potential for success and amplify its transformative impact on organizational efficiency and effectiveness.

In summation, the feasibility analysis of the People Management System project represents a holistic evaluation of its alignment with organizational objectives, its implementability within existing technological constraints, and its integration capability with other systems. Through meticulous scrutiny of these critical dimensions, we endeavor to gauge the project's viability, identify potential challenges, and devise strategies to optimize its potential for success.

### ACTIVITY / PROCESS IN NEW SYSTEM / PROPOSED SYSTEM:

The design and implementation of the People Management System project introduced a paradigm shift in HR processes, ushering in a new era of efficiency, transparency, and strategic alignment. The proposed system streamlines and enhances key activities and processes within the HR domain, revolutionizing the way the organization manages its workforce. Central to the new system are a series of meticulously designed activities and processes, each aimed at optimizing HR operations and driving organizational excellence. Key activities and processes in the proposed system include:

* **Employee Onboarding:** Simplified and streamlined onboarding processes to ensure seamless integration of new hires into the organization, including documentation, training, and orientation procedures.
* **Performance Management:** Robust performance evaluation mechanisms designed

to facilitate continuous feedback, goal setting, and performance tracking, enabling managers and employees to align individual goals with organizational objectives.

* **Data Management:** Comprehensive data management capabilities for storing,

organizing, and accessing employee information, ensuring data integrity, security, and compliance with regulatory requirements.

* **Leave Management:** Automated leave tracking and approval workflows to

streamline leave requests, manage employee absences, and ensure optimal workforce scheduling and resource allocation.

* **Training and Development:** Centralized platforms for managing training programs,

skill assessments, and career development initiatives, fostering a culture of continuous learning and professional growth within the organization.

* **Succession Planning:** Comprehensive succession planning frameworks enabling

organizations to identify and nurture future leaders, assess talent readiness, and mitigate risks associated with key personnel transitions through strategic talent development initiatives.

* **Employee Engagement Initiatives:** Proactive employee engagement strategies encompassing pulse surveys, recognition programs, and feedback mechanisms,

fostering a culture of open communication, collaboration, and continuous improvement within the organization.

* **Compliance Management:** Robust compliance management frameworks ensuring adherence to regulatory requirements, industry standards, and internal policies

through automated compliance checks, audit trails, and regulatory reporting capabilities.

* **Knowledge Management:** Centralized knowledge repositories and collaborative

platforms facilitating knowledge sharing, best practice dissemination, and organizational learning initiatives to harness collective expertise and drive innovation.

### FEATURES OF NEW SYSTEM / PROPOSED SYSTEM:

The People Management System project introduces a plethora of innovative features and functionalities designed to empower HR professionals, managers, and employees alike. These features represent the cornerstone of the proposed system, embodying its commitment to efficiency, effectiveness, and user-centric design. Key features of the new system include:

* **Unified Dashboard:** A centralized dashboard providing real-time insights and analytics into key HR metrics, including employee demographics, performance trends, and organizational KPIs.
* **Self-Service Portals:** Intuitive self-service portals empowering employees to manage

their personal information, submit leave requests, and access relevant HR resources with ease and convenience.

* **Automated Workflows:** Streamlined and automated workflows for common HR

processes such as onboarding, performance evaluations, and leave management, reducing manual effort and enhancing process efficiency.

* **Customizable Reports:** Dynamic reporting tools enabling HR professionals to

generate custom reports and analytics tailored to their specific requirements, facilitating data-driven decision-making and strategic planning.

* **Mobile Accessibility:** Mobile-friendly interfaces and applications allowing

employees and managers to access HR services and information on-the-go, anytime, anywhere, ensuring flexibility and convenience in HR management.

* **Advanced Analytics:** Advanced analytical capabilities leveraging machine learning algorithms and predictive analytics to derive actionable insights from HR data,

enabling organizations to anticipate trends, identify potential risks, and make informed strategic decisions.

* **Employee Self-Service:** Empowering employees with self-service capabilities to

manage personal information, access pay stubs, update benefits preferences, and enroll in training programs autonomously, reducing administrative overhead and enhancing employee autonomy.

* **Workflow Automation:** Seamless workflow automation capabilities for common HR processes such as performance appraisals, onboarding tasks, and compliance

documentation, streamlining processes, reducing manual errors, and improving operational efficiency.

* **Real-Time Notifications:** Proactive real-time notifications and alerts for critical HR events, such as pending approvals, upcoming deadlines, or policy changes, ensuring

timely action and fostering a culture of accountability and responsiveness.

* **Integration Framework:** Robust integration frameworks enabling seamless integration with third-party applications, such as payroll systems, time and attendance trackers, and learning management systems, facilitating data exchange and interoperability across disparate systems.

### LIST MAIN MODULES

1. **Admin**
2. **Manager**
3. **Hr**
4. **Employee**
5. **Leave Employee Module**
6. **Task Management Module**

### SELECTION OF HARDWARE / SOFTWARE / ALGORITHMS / METHODOLOGY

In the development of the People Management System, careful consideration was given to the selection of hardware, software, algorithms, methodologies, techniques, and approaches to ensure the successful realization of project objectives. Each component was meticulously evaluated based on its suitability, scalability, reliability, and alignment with project requirements. The rationale behind the selection of each element is outlined below:

**Hardware Selection:**

The hardware infrastructure chosen for the People Management System project comprises robust servers, storage systems, and networking equipment capable of supporting the system's computational and storage requirements. High-performance servers equipped with multi-core processors, ample RAM, and redundant storage arrays ensure optimal system performance, scalability, and reliability. Additionally, network infrastructure components such as switches, routers, and firewalls are selected to provide secure and seamless connectivity across the organization's premises, facilitating data exchange and communication between system components.

**Software Selection:**

The software stack chosen for the People Management System encompasses a diverse array of tools, frameworks, and platforms tailored to meet the project's specific requirements. At the frontend, Angular 15, a leading web application framework, was selected for its robust features, modularity, and extensive ecosystem of libraries and components, enabling the development of intuitive and responsive user interfaces. On the backend, the .NET framework coupled with Entity Framework was chosen for its scalability, performance, and integration capabilities, facilitating rapid development and deployment of backend services and APIs. Furthermore, SQL Server was selected as the database management system for its reliability, scalability, and advanced data management features, ensuring efficient storage, retrieval, and manipulation of employee data.

**Algorithm Selection:**

In the design and development of the People Management System, various algorithms were employed to address specific challenges and requirements, such as data processing, analytics, and decision-making. Additionally, optimization algorithms such as genetic algorithms and simulated annealing were utilized to optimize resource allocation, scheduling, and workforce planning processes, maximizing operational efficiency and productivity.

Methodology, Techniques, and Approaches:

The Agile methodology was adopted for the development of the People Management System, emphasizing iterative development, collaboration, and flexibility in response to changing requirements. This iterative approach enables continuous feedback loops, rapid prototyping, and incremental delivery of features, ensuring early stakeholder involvement and alignment with evolving business needs. Furthermore, DevOps practices such as continuous integration, continuous deployment, and automated testing were employed to streamline the software development lifecycle, accelerate time-to-market, and enhance code quality and reliability.

In summary, the selection of hardware, software, algorithms, methodologies, techniques, and approaches for the People Management System project was guided by the project's objectives, requirements, and constraints. By leveraging cutting-edge technologies, best practices, and industry standards, the project aims to deliver a scalable, reliable, and user- centric solution that empowers organizations to optimize HR processes, enhance employee experiences, and drive organizational success.