Employee Working Activity Detection Analysis

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Abstract :

The field of human resource management is becoming more intricate and essential in today's fast-paced environment. Effective employee management is a core component of any successful organization. The need for reliable identification and personal verification technologies is becoming more significant due to increased security breaches and fraudulent activities. Every organization, regardless of its size, faces challenges related to human resources. Given that each company's needs for employee management vary, customized solutions are necessary. This paper introduces an advanced employee management system tailored to meet specific organizational needs, aiding in strategic planning and aligning the workforce with future objectives.

Introduction :

Organizations keep comprehensive records of their employees, which play an important role in workforce management. These records are essential for payroll processing, workforce planning, and assessing employee performance. However, managing these records manually can be tedious and time-consuming for HR or administrative teams. The use of an Employee Work Activity Analysis System (EWAAS) can help streamline these processes, saving time, resources, and money. Organizations invest heavily in efficient employee management, and a Human Resource Information System (HRIS) can enhance inventory management and financial tracking. EWAAS functions similarly, offering a digital solution that reduces manual workload and improves efficiency.

Traditionally, employee records have been maintained using paper-based methods. However, recent years have seen a shift toward automated systems that manage employee activities seamlessly. Despite their advantages, implementing these systems can be challenging due to high costs and maintenance needs. This paper aims to present EWAAS as a solution to these challenges.

Existing System :

The current practice for employee management largely involves manual systems that meet basic requirements. However, because employees have diverse work habits and personalities, a system that fairly and efficiently assigns tasks is crucial. In manual systems, data is typically stored in physical files,

making it easy for information to be misplaced or lost. Accessing the required records can be difficult, and proper filing of stock records is not always ensured, resulting in fragmented and hard-to-access data.

Proposed System :

In an era driven by technological advancements, automation has become essential for handling large-scale human resources. With the growing workforce, a comprehensive system to manage vast amounts of data is needed. The proposed EWAAS is designed with user-friendliness in mind, simplifying record management.

The main objective of this project is to develop a robust web-based HR management platform that can cater to various needs such as project tracking, leave management, and performance ratings. It will feature a well-organized database for employee data storage and an easy-to-navigate interface for interaction.

Literature Review :

Literature 1: "Challenges and Opportunities in Human Resource Management Systems" This research explores the evolving landscape of HR management systems and the obstacles organizations face when implementing effective solutions. Issues like data fragmentation, inefficient communication, and performance tracking difficulties are highlighted. The study advocates for integrated systems that consolidate HR functions in one platform, enabling real-time data access and better decision-making. Integrated systems, like EDIS, can enhance productivity and employee satisfaction by equipping HR managers with comprehensive tools for managing staff information and activities.

Key Insight: Integrated HR systems like EDIS offer a practical solution to fragmented data management, leading to higher productivity and improved employee engagement.

Literature 2: "The Role of Technology in Performance Management" This study investigates how technology impacts employee performance management. It shows that modern HR systems can improve the accuracy of performance evaluations through real-time insights into employee activities and productivity. The authors argue that technology-based systems enable transparency and accountability, fostering a culture of continuous feedback. By including project tracking and performance rating features, systems like EDIS help managers make informed decisions about employee growth and task distribution.

Key Insight: Technology-driven performance management systems boost organizational ability to monitor and assess employee performance effectively, supporting strategic HR efforts.

Methodology :

System Modules:

- **HR/ Admin Management**: Enables HR personnel to maintain and organize the structure of the company, add new Project Managers (PMs) and employees, and assign projects.

- **Project Allocation and Tracking**: Facilitates the distribution of projects to employees, and allows tracking of project status and completion with feedback.

- **Project Manager Dashboard**: Provides PMs with an overview of projects under their supervision, tracking employee progress and providing feedback.
- **Employee Task Management**: Allows employees to view their assigned projects, update project status, and review feedback given by PMs.
- **Feedback and Evaluation System**: Promotes communication between PMs and employees by allowing PMs to leave feedback on completed projects and enabling employees to review these comments.
- **Performance Analytics and Reporting**: Supplies detailed reports and analytics on project completion, employee performance, and key metrics, supporting data-driven decision-making.

SYSTEM ARCHITECTURE:

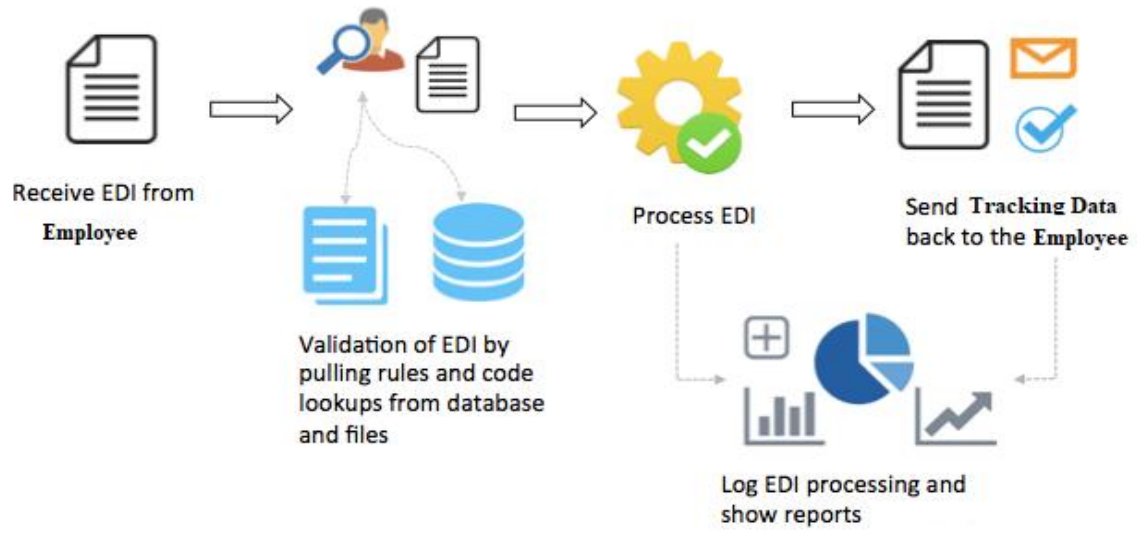

Fig 4.11: System Architecture

1. **Receive EDI from Employee :**

- EDI (Electronic Data Interchange) files or messages are sent by an employee (could be manually uploaded or automatically transmitted).
- These files contain structured business data like orders, invoices, or shipping notices.

Purpose:

- This step ensures the system collects all the data it needs to process.

2. **Validation of EDI :**

- The system checks the received EDI file for errors or incorrect data.

It uses:

Rules: Predefined standards and protocols to ensure the file format is correct.

Code Lookups: Fetching information from a database to cross-check and validate data entries.

Purpose:

- To ensure the data is accurate and meets the required standards before processing.

3**. Process EDI :**

- After validation, the system processes the EDI file.
- This involves executing business logic based on the data (e.g., updating inventory, processing an invoice, or initiating a transaction).

Purpose:

- To automate business operations and ensure seamless data integration between systems.

4**. Log EDI Processing and Show Reports :**

- The system keeps a record (log) of all the actions it has performed during the EDI processing.
- Reports are generated to provide insights, such as:
  - ✓ Success or failure of the processing.
  - ✓ Performance metrics and statistics.

Purpose:

- To help monitor the system's performance and identify any issues for troubleshooting.

5. **Send Tracking Data Back to the Employee :**

- Once the EDI is processed, the system sends a confirmation or feedback to the employee.
- This may include:
  - ✓ Status updates (e.g., successful processing, errors encountered).
  - ✓ Tracking details or reports.

Purpose:

- To ensure the employee is informed about the outcome of the EDI processing.

Summary:

- This system simplifies and automates the handling of business data (EDI) by:

✓ Receiving data.
✓ Validating it.
✓ Processing it according to business needs.
✓ Logging operations.
✓ Providing feedback to employees.
✓ This reduces manual errors, speeds up operations, and ensures transparency through detailed reports and logs.

Conclusion :

The proposed system can significantly enhance organizational efficiency and improve employee management. By automating processes, EWAAS can save resources and time while ensuring better data management and transparency. The system supports strategic planning and fosters a better work environment, ultimately contributing to employee satisfaction and productivity. The employee management system provides a comprehensive solution to managing workforce performance and various HR tasks.

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