Employee Task Tracking System

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Abstract: The Employee Task Tracking System is web-based technology that enables administrators to register new employees in the design after fulfilling the required authentication procedures. This capability is only available to administrators who have access the structure. Administrators have the ability to use the system to not only create new divisions but also delegate duties to other members of the team. The database needs to contain every piece of information pertaining to staff members, such as their names, addresses, and Social Security numbers. Users of this web application have an easier time managing, documenting, and keeping track of their records as a result of the capabilities that the design provides. With an use of a system known as Employee Task Tracking, businesses are given the ability to control and exercise command over every aspect of their operations. The software design can used to keep information about employees employed by a company, and those employees can be assigned particular duties based upon information that saved in the structure. It is necessary to the proper operation of the design to have an administrator who is capable of entering information on employees, departments, and the responsibilities of their jobs.

Keywords: Employee, task tracking, logistic regression, methodologies.

I. INTRODUCTION

Employee are pillars of the company so the management plays a role in deciding the organization success. This software make easier for employer to keep footprints of all records. This Employees task tracking system software allows administrator to copy-edit, add new employees, promote employees, transfer employees, delete/terminate employees. Each employee present in database will be associated with position, that can be added or edited when need rise. Employees can transfer between the positions with ease without retyping their information in database. You can also check to see if any duplicate position or employees in database, The assignee can assign the task to the employees and can assess the progress in order to keep traces of the employee carrying out.Employee tracking software solution is flexible and easy to use for medium and small scale companies which provides modules for the personnel information management therefore organization and companies can manage the organization asset. A combination of modules into single application guarantee a perfect environment for the re-engineering and the aligning along with organizational goals. This Employee task tracking system brings regarding easy way of maintaining the complete details of the employees working in the organization. It is very simple to understand and that can used by the anyone who is unfamiliar with the simple employee system. It is a user-friendly and asks user to follow the step by step working for easy. It is very fast can perform many functionalities for the organization. The main goal of this project is to develop and design the employee management system to fill the existence gaps present in electronic management of the employees.

II. LITERATURE SURVEY

Title: A Practical Approaches to Designs, Implementation and Management Author: Begg Carolyn

This book is ideal for a one- or two-term course in database management or database design inan undergraduate or graduate level course. With comprehensive coverage, this book can also be used as a reference for IT professionals. This best-selling text introduces the theory behind databases in a concise yet comprehensive manner, providing database design methodology thatcan be used by both technical and non-technical readers. The methodology for relational Database Management Systems is presented in simple, step-by-step instructions in conjunction with a realistic worked example using three explicit phases -- conceptual, logical, and physicaldatabase design. -- Provided by publisher. Database Systems is ideal for a one- or two-term course in database management or database design in an undergraduate or graduate level course. With its comprehensive coverage, this books can also be used as a reference for IT professionals. This best-selling text introduces the theory behind databases in a concise yet comprehensive manner, providing database design methodology that can be used by both technical and non-technical readers. The methodology for relational Databases Management Systems is presented in simple, step-by-step instructions in conjunction with a realistic worked example using three explicit phases-conceptual, logical, and physical database design.

Title: Accounting Information Systems Author: George Bodnar

Summary: Accounting Information Systems is an introductory and enlightening book by George Bodnar focusing on the important role of information technology in today's practice. This book provides a solid foundation for financial professionals, students and researchers by providing a detailed study of how information systems are incorporated into the financial system. Bodnar delves into the fundamental concepts of data processing, data management, and the creation and implementation of financial systems. He talked about the problems and opportunities brought by the development of technology in accounting and emphasized the benefits of using technology to improve decision making, data analysis and financial reporting. Combining theoretical insights with practice, this book is an essential guide to understanding the interaction between accounting and technology in today's business environment.

Title: Access 2000: The Complete Reference Author: Andersen, Virginia
This report contains a presentation on the development of information systems to manage employee information in a small company or organizations. The design process is also called employee management. It has GUI (application) and information related functions. The choices of programming tool is personal and unique.

Title: Evaluating Employee Performance using Automated Task Management System Author: Asim Seedahmed Ali Osman
This research aims to achieve important business goals such as increasing competitiveness in the organization, increasing productivity and efficiencies, rapid growth, promoting innovation and reducing costs. These studies aim to improve cooperation between employee groups and employers. Using this allows you to perform many work related tasks, job supervision, team collaboration etc. can develop. The results help senior management see how much work have been done and how much time is spent completing the tasks assigned to employees. It also enables employees to collaborate in the productions and working process.

Title: Development Employee Engagement Programs on the Based on Employee Satisfaction Survey
Author: S Abraham
In this study, global competition, different customers, complex strategies of competitors, changing customers, business problems etc. causes many problems for organizations, including In this case, support requires an organization to have committed employees. These workers also need to maintain high productivity. Management has ensured that their employees have all the necessary services and initiatives to meet their needs. They also know that satisfactions does not always lead to productivity. Satisfied employees work hard just to get the job done. These efforts do not lead to greater productivity. Research shows that engaged employees are more productive in organizations.

Title: The relationship of Engagement, Job Satisfaction and Turnover Intensions Author: GM Alarcon , JM Edwards
The current study explores commitment as an indicator of job satisfaction and intent to return to crisis management. A regression analysis was conducted to investigate whether participation could predict change in job satisfaction and coping intentions. The results showed that integration was the main moderator of job satisfaction and managed change in crisis. The current study is the first to examine the role of commitment in predicting job satisfaction and career change intentions (checking for more predictable predictors). This study addresses concerns in the literature regarding the importance of participation models.

Title: Determinant of Employee Engagement and their Impact on Employee Performances Author: J Anitha
Factors such as the work environment, team and employee relations require special attention and effort as they have a greater impact on employee engagement with their job. Organizations should focus on providing a good working environment for employees and supporting activities that improve employee relations. This study shows the increasing importance of the concept of employee engagement and that it should be increased.

Title: An Evidence Based Model Work Engagement Author: AB Bakker
Analyzes show that work and personal resource are important predictor of participation. These resources specialize further in the context of high-demand jobs. Engaged employees are more open to new information, more productive, and willing to go the extra mile. In addition, employees are busy changing the workplace to be more busy. Findings from previous studies have been incorporated into a model that can be used to encourage employee engagement and improve performance in today's workplace.

Title: A Study on the Drivers of Employee Engagement Impacting Employee Performance Author: Madhura bedarkar & Deepika pandita
This study explores the concept of employee engagement and identifies key drivers of employee engagement by analyzing the three dimensions of communication, action balance work, and leadership. This study will also examine

how these factors affect employee performance and health in the workplace. The existing literature on employee engagement shows that little is known about these three factors and their effects on employee engagement

III.   AGILE METHODOLOGY

Project Initiation: Identify the stakeholders: Determine who will use the task tracking system and will be involved in development process.

Define the scope: Clearly outline the functionalities and features the systems should have.

Creates a Products Backlog: Work with stakeholders to creates a list of all the tasks and features needed in the task tracking system. Prioritize the items in the backlogs based on their importances and value to the users.

Sprint Planning: Divide development into time-limited iterations (sprints) that typically take 2- 4 weeks. At each campaign planning meeting, the development team selects the most important items from the backlog to work on during the run. These tasks should can be broken down into the smaller tasks so that can be completed in one sprint.

Design and Development: The development team works on implementing the tasks and features identified for the current sprint. Collaboration and communications among team member are crucial during this phase to ensure a smooth workflow.

Daily Stand-up Meetings: Conduct daily stand-up meeting (usually 15 minutes) to discuss progress, challenges, and plans for the day.

Testing and Review: As features are developed, they should be tested to ensure they meet the specified requirements and quality standards. Conduct regular reviews with stakeholders to get feedback on the completed features and make any necessary adjustments.

Sprint Review: At the ends of sprint, hold a sprint review meeting with stakeholders to demonstrate the completed features. Gather feedback and insights from stakeholders to inform future iterations.

Sprint Retrospective: After the sprint review, conduct a retrospectives meeting with the development team to discuss what went, what could be improves, and any action items to enhance the development process.

Iterate and Improve: Start a new sprint and repeat the process, incorporating feedback from stakeholders and the team's retrospective to continuously improve the system.

Release and Maintenance: Once the task tracking system reaches a state where it provides significant value to users, it can be released. Continue to maintain and update the system based on user feedback and changing requirements.

IV.   IMPLEMENTATION

Initialize the System:

• Set up the database to store tasks, users, and other relevant information.

• Create necessary data structures and variables.

User Registration and Authentication:

• Allow users to register by providing necessary details (name, email, password, etc.).

• Verify user credentials during the login process.

• Generate authentication tokens or sessions for logged-in users.

Task Creation:

• Allow users to create new tasks by providing task details (title, description, due date, etc.).

• Assign the task to a specific employee or team member.

Task Assignment:

• Enable managers or administrators to assign tasks to employees.

• Notify the assigned employees about the new task.

Task List and Filtering:

- Display a list of tasks to each user based on their role and permissions.

- Implement filtering options to view tasks based on status, due date, priority, etc.

Task Details and Editing:

- Provide the ability to view detailed information about a specific task.

- Allow users with appropriate permissions to edit task details.

Task Status Tracking:

- Implement mechanisms to update task status (e.g., open, in progress, completed).

- Automatically update the task status based on user actions.

Task Comments and Updates:

- Enable users to add comments and updates to tasks to facilitate collaboration.

- Display a timeline of task updates and comments.

Task Completion and Reporting:

- Allow employees to mark tasks as completed when finished.

- Generate reports to track task completion rates, employee performance, etc.

Task Reminders and Notifications:

- Provide options for users to set task reminders and due date notifications.

- Send notifications to users for task assignments, updates, and reminders.

V. MODULES

1. Admin

2. Employees

The Dashboard: This is where the administrator may examine an overview of the organisation, which includes the numbers of departments, the number of employees, the numbers of ongoing tasks, and the numbers of completed tasks. The administrator is also able to view a count of how many completed jobs there are.

The administrator has the ability to make changes to Department 2, including the addition of new content and the removal of previously existing content. Thirdly, the manager has the ability to add, change, or remove employees as the situation warrants using the personnel area.The admin has an full controls over all the tasks specified here, including the ability to add, update and delete entries. Within the fifth role of user interface, which is headed "Task Status", the administrator has the ability to see the existing status of task that had assigned. In way to make changes to the about us and contact us pages, go to the Pages sub-menu that is located in the Admin panel.

An administrator can conduct a lookup for a specific worker by entering that worker's employeeid into this section of the control panel. Administrators can look at the "Reports" portion of the report section to get an idea of how many new employees the organization has hiredduring a specific period of time by clicking on the word "Reports." In addition, Admin has the ability to change users' passwords, recover previously lost passwords, and edit users' profiles.

Employees:

To begin, there is the dashboard, which allows workers to view the total number of jobs that have been added, the number of task that are currently worked on and the number of task that have been finished. The 2nd part is mentioned to as "Task," also it is here that employees can view the task that have been assigned to them and the status of those tasks.The employees have the ability to retrieve passwords they've forgotten, update their passwords and amend their profile.

VI. ALGORITHMS

Logistic Regression Algorithm

Task Completion Prediction: You can use logistic regression to predict whether an employee will complete a task on time or not. For example, you can use historical data on various factors to predict the likelihood of completing a task on time.
Task Priority: Logistic regression can be employed to predict whether a task should be prioritized as high or low. Input features could include factors like task urgency, importance, and expected impact on the project's success.
Employee Performance Evaluation: You can use logistic regression to evaluate employee performance based on predefined criteria.
Task Assignment: When assigning tasks to employees, logistic regression could be used to predict the probability of successful task completion based on past task data and employee performance.
Time Estimation: Logistic regression might also be used to predict whether a task will be completed within a specific time frame or exceed the expected duration.

SVM Algorithm

Task Completion Prediction: SVM can be used to predict whether an employee will complete a task on time or not. You can use historical data on task completion status, employee performance, task complexity, deadline, etc., as input features for the SVM model.
Task Priority: SVM can assist in predicting the priority level of tasks. Based on features such as task urgency, importance, impact on the project, and other relevant factors, SVM can help determine whether a task should be prioritized as high or low.
Employee Performance Evaluation: SVM can be employed to evaluate employee performance based on various criteria. Input features might include past performance metrics, feedback from peers or supervisors, and other relevant information.
Task Assignment: When assigning tasks to employees, SVM can help in making decisions by predicting the success probability of task completion. The model can take into account past task data, employee skills, and performance history to make appropriate task assignments.
Time Estimation: SVM can be used to predict the expected time duration for completing a task based on historical data of similar tasks and relevant features.

VII. RESULT

The Employee Task Tracking System Project is a piece of software whose primary purpose is to manage a database of an organization's employees. This database can be accessed by authorized users only. This piece of software was developed as part of a larger project titled Employee Task Tracking System. It is able to record information such as employee profilesas well as the task that employee have been given by their management. And it maintains a record of the tasks that the administrator has delegated to each individual user. Since it will put into operation, the design is now capable of carrying out all the responsibility that were primarily anticipated for it.It will cut down along required of time necessary to answer to the numerous inquiries that customers may have. This project, which control employee data and the tasks that employee receives from their superiors, is supported by the languages Python and the sqlite database.Every conceivable factor including but not limited to a usability, user verification and validation, security, and everything else, has been meticulously studied.

VIII. CONCLUSION

The design and implementation of the code for the Employee Task Tracking System project required a significant amount of investigation and inquiry to parts of the developers. The seasoned project manager who was in charge of managing the activity ensured it has completed to the demanding criteria that he had established. Through the courses of the project, we gave all requirements and options that established before to the project considerable care.
The Employee Task Tracking System is a web-based application that stores, maintains, and safeguards sensitive employee data in an encrypted format. It is likely that this information is tied to either the worker's professional or personal life.

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