



AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSE 3200: Software Development-V

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PROJECT PROPOSAL

Employee Time and Attendance Tracker

Lab Group: C1
Project Group: 02

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1 Introduction

The "*Employee Time and Attendance Tracker*" is a system designed to help businesses manage employee work hours easily and efficiently. It provides a user-friendly interface for employees to log their hours, request time off, and view their work history. Managers can use it to oversee attendance, generate reports, and ensure smooth operations.

1.1 Objective

The main goal of the "*Employee Time and Attendance Tracker*" is to simplify the process of recording and managing employee attendance. The objectives of this project are to streamline the logging of work hours, facilitate time-off requests, and provide managers with tools to monitor and report on attendance. This project addresses issues such as reducing manual errors in attendance tracking, saving time, ensuring compliance with labor laws, and improving workforce management. It will positively influence employees by reducing stress and increasing job satisfaction, assist managers and HR professionals in making better decisions, and enhance overall operational efficiency for businesses.

- Streamline the logging and management of employee work hours, provide tools for requesting time off, and offer managers a centralized platform for monitoring attendance and generating reports.
- Reduce manual errors in attendance tracking, save time, ensure compliance with labor laws, and improve workforce management.
- Benefit employees by reducing stress and increasing job satisfaction, assist managers and HR professionals in making better decisions, and enhance overall business efficiency.

1.2 Motivation

The motivation behind the "*Employee Time and Attendance Tracker*" project comes from firsthand experiences of the challenges and inefficiencies associated with traditional attendance tracking methods. We recognized that manual processes often lead to inaccuracies, increased administrative workload, and difficulty in managing compliance with labor laws. Observing the frustration of employees who struggle with unreliable time logging systems and the burden on managers to manually compile and verify attendance data, we were driven to create a solution that addresses these pain points. Our goal is to develop a system that not only simplifies attendance tracking but also enhances overall workplace efficiency and satisfaction by leveraging technology to solve real-world problems.

2 Proposed Features

The "*Employee Time and Attendance Tracker*" project will include the following key features tailored to ensure user-friendliness and mobile compatibility:

1. **Entry and Exit Attendance:** Employees can easily log their entry and exit times using the system, providing accurate attendance records.
2. **Dashboard:** Both employees and administrators will have access to personalized dashboards displaying relevant attendance information and metrics.
3. **Leave Application:** Employees can submit leave requests directly through the system, specifying the duration and reason for the absence.
4. **Leave Approval:** Administrators can review and approve or decline leave requests, ensuring efficient management of employee time off.
5. **Admin Dashboard:** Administrators will have a comprehensive dashboard where they can view all attendance information, manage leave requests, and perform administrative tasks.
6. **Data Management:** Administrators can add, edit, or delete attendance records and employee information as needed, ensuring data accuracy and completeness.
7. **Customizable Reporting:** The system will offer customizable reporting features, allowing administrators to generate detailed reports on attendance trends, leave usage, and workforce analytics.
8. **Mobile Compatibility:** The system will be accessible on mobile devices, enabling employees and administrators to manage attendance and leave requests on the go.

These features will ensure that the "*Employee Time and Attendance Tracker*" is user-friendly, accessible from mobile devices, and equipped with functionalities to streamline attendance management for both employees and administrators.

3 Project Stakeholders

The "Employee Attendance Tracking" project involves a diverse range of stakeholders, each playing a pivotal role in its planning, development, and operation:

1. **1. Employers:** Employers, spanning from small businesses to large corporations, are primary stakeholders. They implement the attendance tracking system to monitor employee attendance, manage schedules, and ensure workforce accountability.
2. **2. Employees:** The workforce is a significant stakeholder, utilizing the system to mark attendance and manage work hours. Their engagement and user experience are crucial for the system's successful adoption.
3. **3. System Developers:** The development team, responsible for designing, developing, and maintaining the attendance tracking system, is a pivotal stakeholder. Their expertise and efforts are central to the system's functionality and performance.
4. **4. IT Support and Maintenance Team:** The team tasked with ongoing maintenance and support of the system is critical for its continued performance. They address technical issues, implement updates, and ensure the system remains reliable and secure.
5. **5. Human Resources Management:** HR personnel and managers, involved in overseeing employee attendance and HR operations, are key stakeholders. Their input in system functionalities, reporting requirements, and compliance aspects is essential for effective implementation.

Effective collaboration and communication among these stakeholders are imperative for the successful development, implementation, and long-term operation of the Employee Attendance Tracking System. This diverse group ensures that the system meets the needs of both employers and employees while aligning with organizational goals.

4 Project Details

The Employee Attendance Tracking system comprises key components essential for efficient employee attendance management:

- **Database Development:** Designing and implementing a robust database to store employee attendance records, work hours, time-offs, and related information, serving as the system's foundation.
- **User Interface:** Developing an intuitive and user-friendly interface for employees and managers. It facilitates tasks such as logging attendance, viewing schedules, requesting time-offs, and generating reports. The design ensures accessibility and ease of use for all users.
- **Reporting and Analytics:** Integrating a reporting and analytics module that empowers HR managers and administrators to generate comprehensive reports on attendance trends, overtime, absenteeism, and other relevant metrics. These insights aid decision-making and enhance overall workforce management.

The collaborative efforts among the development team, HR personnel, and stakeholders are pivotal for the seamless integration of these components, resulting in a comprehensive and effective Employee Attendance Tracking System.

5 Entity-Relationship Diagram

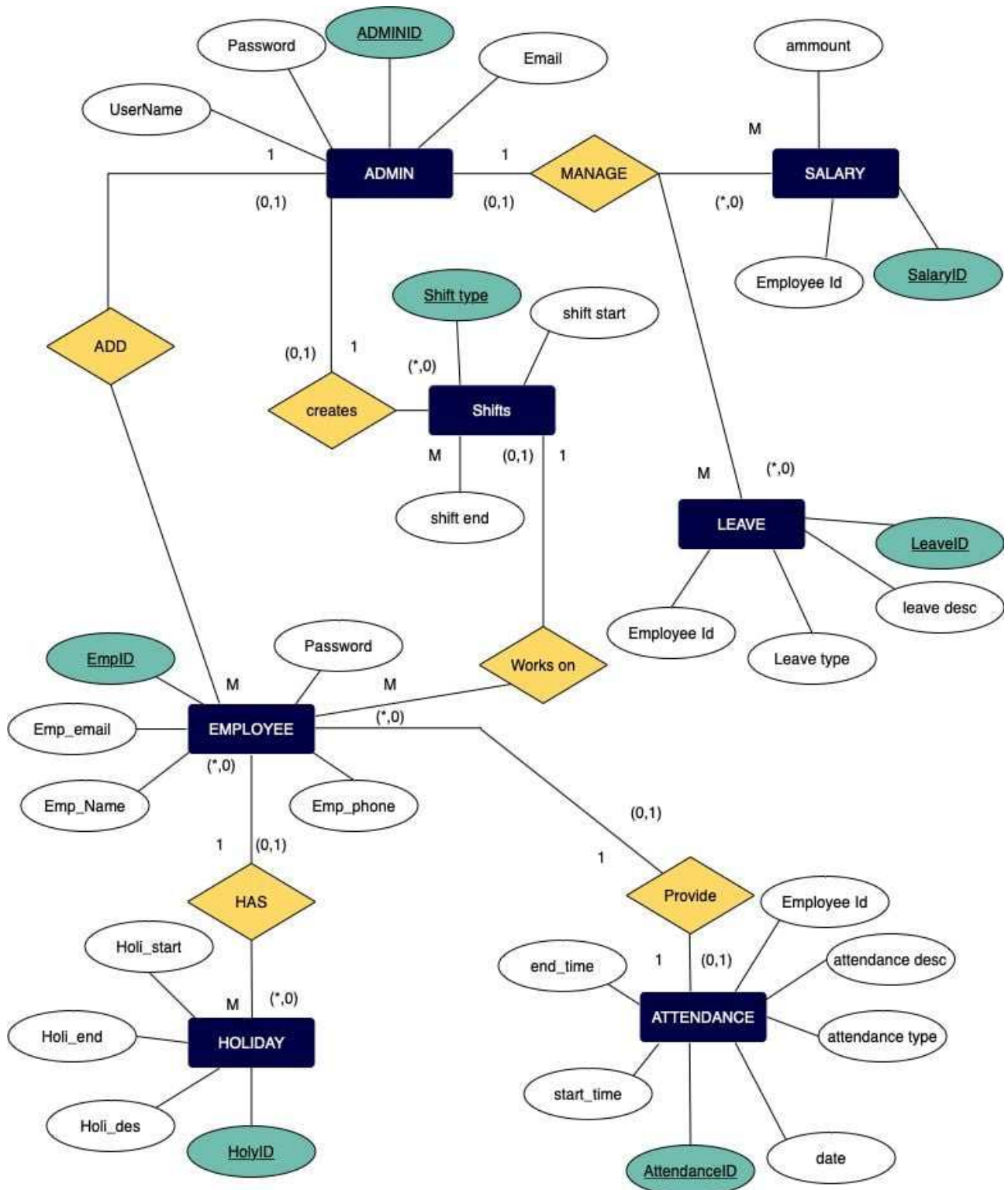


Figure 1: ERD Diagram

6 Project Potential Clients

The "Employee Time and Attendance Tracking" system is poised to serve a diverse array of clients spanning various industries. The potential client base includes, but is not limited to:

1. **1. Enterprises of Different Sizes:** This system is well-suited for organizations of varying scales, ranging from small businesses to large corporations. It caters to the unique attendance tracking needs of enterprises with different workforce sizes.
2. **2. Human Resource Agencies:** HR agencies can derive substantial benefits from this system by providing tailored attendance tracking solutions to their client companies. The system enhances HR agencies' capabilities in managing workforce attendance for diverse businesses.
3. **3. Educational Institutions:** Schools, colleges, and universities can leverage the system to efficiently monitor student and staff attendance. The project offers specialized tools for academic institutions to track attendance records, analyze attendance trends, and foster accountability within the educational environment.
4. **4. Remote Work and Freelance Platforms:** Platforms facilitating remote work or freelance engagements can seamlessly integrate this system to track and manage the attendance of remote workers. It serves as a comprehensive solution for monitoring working hours and ensuring accountability among a distributed workforce.
5. **5. Government Organizations:** Municipalities, government departments, and public sector entities stand to benefit by utilizing this system to monitor employee attendance and ensure compliance with work schedules. The system provides a transparent and accountable method for tracking attendance within government workforces.

The adaptability and versatility of the "Employee Attendance Tracking" system position it as a valuable asset for clients across diverse industries. Whether the goal is to streamline attendance management, ensure compliance, or enhance accountability, this system is tailored to meet the varied needs of organizations and institutions.

7 Conclusion and Future Work

7.1 Conclusion

The "Employee Time and Attendance Tracker" project aims to transform workforce management by providing a comprehensive solution for tracking employee time and attendance. With its intuitive interface, advanced features, and insightful reporting capabilities, the system streamlines attendance recording, enhances operational efficiency, and provides valuable data-driven insights for organizational decision-making.

7.2 Future Works

Future enhancements may include advanced reporting and analytics, mobile application integration, advanced biometric or authentication features, integration with HR systems, and AI-powered predictive analytics. These additions would position the system as a robust and adaptive solution, continuously providing value and efficiency in the evolving landscape of employee time tracking and attendance management.