Employee Monitoring System

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INTRODUCTION

1.1 Project Context
The Employee Monitoring System is a software solution designed to streamline and automate various aspects of employee monitoring within an organization. This system aims to provide a user-friendly interface for both employees and the HR department, enhancing efficiency and reducing manual administrative tasks. The system will have separate login systems for employees and HR personnel, each offering specific functionalities tailored to their respective roles and responsibilities.

1.2 Objectives of the Study
The main objective of this study is to develop an Employee Monitoring System that caters to the needs of both employees and HR personnel. The specific objectives include:

- To create a user-friendly interface for employees to access their profile, manage attendance, view leave information, access pay slips, and perform essential tasks.
- To develop a system that enables HR personnel to monitor and manage employee attendance effectively.
- To implement a leave management feature that allows employees to submit leave requests and enables HR personnel to approve or disapprove them.
- To provide a secure and efficient login system for both employees and HR personnel.
- To enhance overall organizational efficiency by automating manual administrative tasks related to employee management.

1.2.3 Scope and Limitation
The scope of this study encompasses the development of an Employee Monitoring System that includes features such as employee profiles, attendance management, leave management, pay slips, and secure login systems. The system will provide employees with access to their personal information, attendance records, and pay slips. HR personnel will be able to monitor employee attendance, approve or disapprove leave requests, and generate pay slips.

However, it is important to note that this system may have certain limitations. For instance, it may not cover every possible scenario related to employee management, and additional functionalities beyond the specified scope may not be included. The system may also not address specific requirements unique to certain industries or organizational structures. These

limitations should be considered when implementing and utilizing the Employee Monitoring System.

2. Methods

2.1 Data Gathering

The data-gathering process for this study will involve a combination of primary and secondary data sources. Primary data will be collected through interviews and surveys conducted with employees and HR personnel to identify their specific needs, preferences, and challenges related to employee management. Secondary data will be obtained from relevant literature, articles, and existing employee management systems to gain insights into best practices and industry standards.

2.2 Analysis

The collected data will be analyzed to identify common patterns, requirements, and functionalities needed for the Employee Monitoring System. This analysis will guide the system design and development process, ensuring that the system effectively addresses the identified needs and aligns with the objectives of the study. The analysis will also help in determining the most suitable technologies and frameworks for developing the system, taking into consideration factors such as scalability, security, and user experience.

User Requirement Definition

The Employee Monitoring System is a web-based application designed to provide efficient and streamlined monitoring for administrators. The system is exclusively web-based, offering all its functionalities through a user-friendly web interface. The primary objective of the system is to offer easy and fast monitoring functionalities for administrators, empowering them to effectively manage employee-related tasks.

Hardware Requirements

To run the Employee Monitoring System, the hardware specifications should meet certain criteria. The recommended specifications include:

- Total system RAM higher than 1GB.
- CPU with a clock speed faster than 1 GHz, preferably an Intel Core i3 2nd generation or higher.
- Graphics card with at least GTX 750 or higher.

These hardware requirements ensure optimal performance and responsiveness of the Employee Monitoring System, enabling administrators to carry out their monitoring tasks efficiently.

Software Requirements

➢ **Visual Studio Code**

We use Visual Studio Code to write the necessary code for creating our Employee Monitoring System. This is our chosen code editor because of its user-friendly interface and extensive features for code development.

➢ **XAMPP**

We utilize XAMPP as it provides convenient features for connecting our codes to the database. XAMPP includes the Apache web server, MySQL database, PHP, and Perl, which are essential components for web application development. We will leverage XAMPP's database functionality to store and retrieve data for the Employee Monitoring System.

➢ **PHP Coding**

As for the programming language, we will primarily use PHP for the development of our system. PHP is a widely-used server-side scripting language that is well-suited for web development. With PHP, we can handle user authentication, process data, interact with the database, and generate dynamic content for the Employee Monitoring System.

By combining Visual Studio Code, XAMPP, and PHP, we can create a robust and efficient Employee Monitoring System with seamless integration between the frontend, backend, and database components.
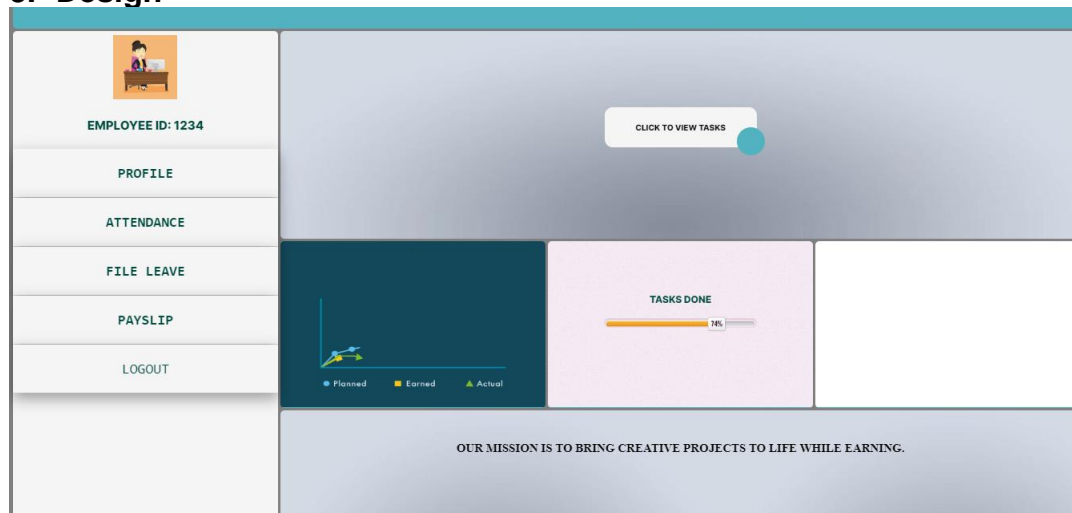
2.3 Functional Requirements
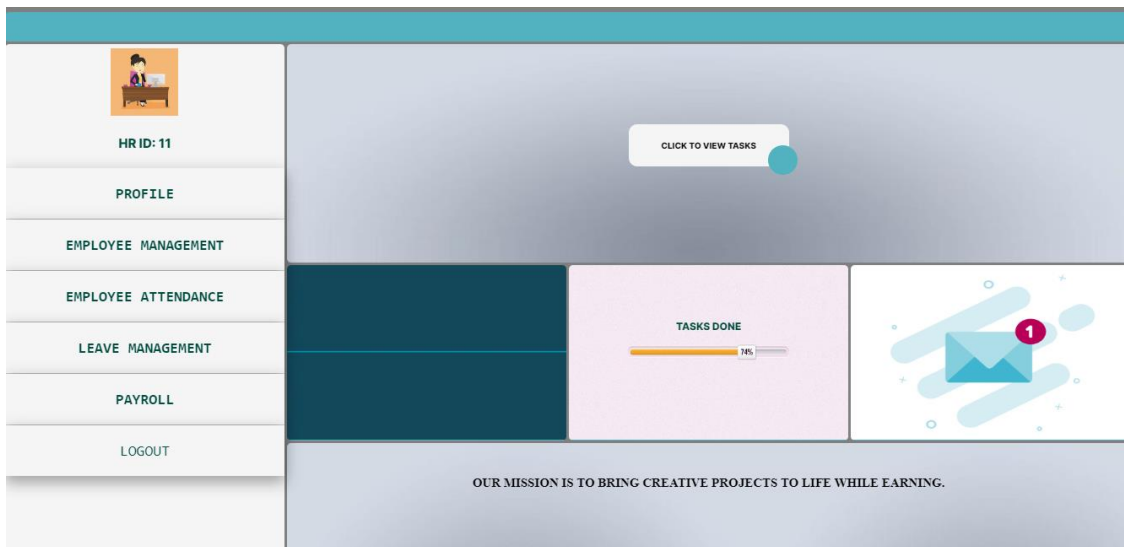
For Employees

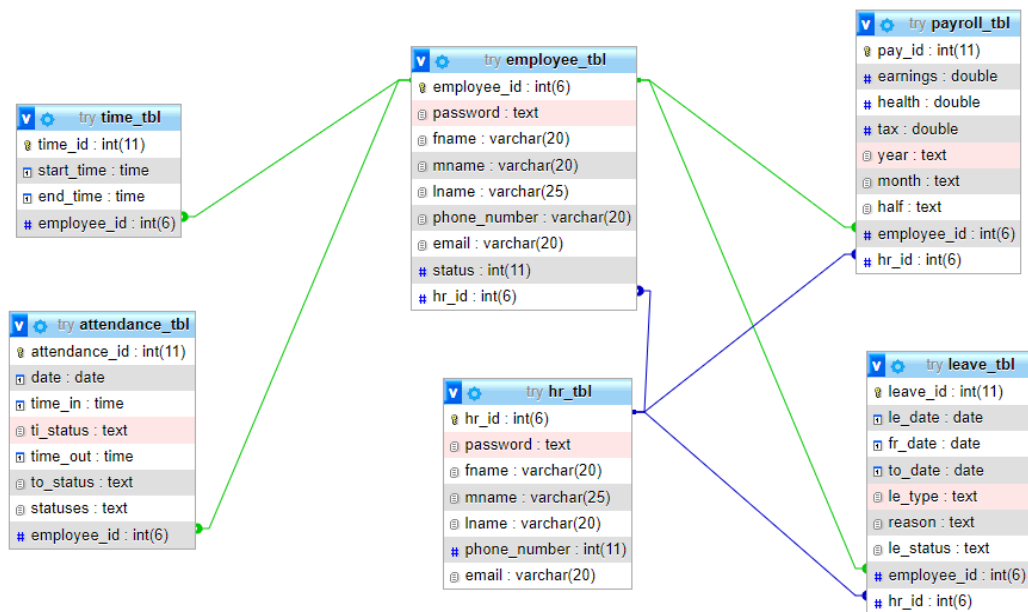|	
User Login	- Employees should be required to enter their unique credentials (such as username and password) to authenticate themselves and gain access to the system.
Profile Viewing	- Once logged in, employees should be able to view their profile information. - The profile may include details such as the employee's name, contact information, and other relevant information.
Attendance Management	- Employees should be able to indicate their attendance by clocking in and out or by manually marking their attendance through the system.
Leave Management	- Employees should have the ability to file leave requests through the system. - Employees should be able to view the history of their filed leave requests, including approved and rejected leaves.
Pay Slip Viewing	- Employees should have the ability to view their pay slips for a specific pay period.

For HR

HR Login	- HR personnel should be required to enter their unique credentials (such as username and password) to authenticate themselves and gain access to the system.
HR Profile Viewing	- Once logged in, HR personnel should be able to view their profile information. - The profile may include details such as HR personnel's name, contact information, role, and other relevant information.
Employee Account Management	- HR personnel should have the ability to add or create employee accounts within the system. - This includes entering employee details such as name, contact information, and other relevant information.
Attendance Monitoring	- HR personnel should be able to view attendance records, including clock-in/out times, dates, and any relevant remarks or notes.
Leave Management	- HR personnel should be able to view and manage employee leave requests. - This includes reviewing and approving or disapproving leave requests submitted by employees. - HR personnel should also have access to the leave history of employees, including approved and rejected leaves. -
Pay Slip Management	- The system should provide a feature for HR personnel to manage employee pay slips. - HR personnel should be able to view and generate pay slips for employees, including salary details, deductions, allowances, and other relevant financial information. - HR personnel should have the ability to manage the payment process, ensuring that employees are paid accurately and on time.

3. Design

3.1 ERD

time_tbl
- time_id : int(11)
- start_time : time
- end_time : time
- employee_id : int(6)

employee_tbl
- employee_id : int(6)
- password : text
- fname : varchar(20)
- mname : varchar(20)
- lname : varchar(25)
- phone_number : varchar(20)
- email : varchar(20)
- status : int(11)
- hr_id : int(6)

payroll_tbl
- pay_id : int(11)
- earnings : double
- health : double
- tax : double
- year : text
- month : text
- half : text
- employee_id : int(6)
- hr_id : int(6)

attendance_tbl
- attendance_id : int(11)
- date : date
- time_in : time
- ti_status : text
- time_out : time
- to_status : text
- statuses : text
- employee_id : int(6)

hr_tbl
- hr_id : int(6)
- password : text
- fname : varchar(20)
- mname : varchar(25)
- lname : varchar(20)
- phone_number : int(11)
- email : varchar(20)

leave_tbl
- leave_id : int(11)
- le_date : date
- fr_date : date
- to_date : date
- le_type : text
- reason : text
- le_status : text
- employee_id : int(6)
- hr_id : int(6)

3.2 Database Design

☐ Show all | Number of rows: 25 ▼ | Filter rows: Search this table | Sort by key: None ▼

+ Options

←T→			▼	hr_id	password	fname	mname	lname	phone_number	email
☐	✏ Edit	⅀ᵢ Copy	⊖ Delete	11	admin	Jeb	C	Jumilla	9143156123	Jeb@email.com
☐	✏ Edit	⅀ᵢ Copy	⊖ Delete	22	admin	Roxanne	L	Fernando	9088184444	Roxanne@email.com

↥ ☐ Check all | With selected: ✏ Edit | ⅀ᵢ Copy | ⊖ Delete | 🖳 Export

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+ Options

←T→	employee_id	password	fname	mname	lname	phone_number	email	status	hr_id

↥ ☐ Check all | With selected: ✏ Edit | ⅀ᵢ Copy | ⊖ Delete | 🖳 Export

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time_id	start_time	end_time	employee_id

attendance_id	date	time_in	ti_status	time_out	to_status	statuses	employee_id

Query results operations

leave_id	le_date	fr_date	to_date	le_type	reason	le_status	employee_id	hr_id

Query results operations

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

SELECT * FROM `payroll_tbl`

pay_id	earnings	health	tax	year	month	half	employee_id	hr_id

3.3 Prototypes (User's Manual)

EMPLOYEE ID: 1234

PROFILE

ATTENDANCE

FILE LEAVE

PAYSLIP

LOGOUT

HR ID: 11

PROFILE

EMPLOYEE MANAGEMENT

EMPLOYEE ATTENDANCE

LEAVE MANAGEMENT

PAYROLL

LOGOUT

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AhVYr1YBHbavADUQ_AUoAXoECAEQAw&biw=1366&bih=649&dpr=1#imgrc=g8noXrTFj
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