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# Employee Self Service Portal with Time and Activity Tracking

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**Abstract:** *The project to develop the web-application to maintain the day-to-day activities of the employee with the help of virtual technology to avoid data storage problem. To develop the software keeps record of the daily time-sheets of an employee in virtual form also to solve the problem of paper timesheet that is used for keeping record of employee's daily tasks. Also, the web-application which will help to manage different HR-Activities. As much as technology is getting advanced most of the companies are started using virtual applications to manage their HR-Activates as well as for Timesheets. To keep track of daily task it is important to provide a Web-Application that can store the information about tasks, HR Activities. However, in order to protect the data privacy, sensitive data is usually encrypted before outsourcing to cloud server, which makes it more secure.*

## I. INTRODUCTION

Every organization has different employee management needs; therefore, we design exclusive employee management system with time and activity tracking. Timesheet allows you to see how many hours have been spent per project and customer. Effective time tracking mechanism saves both time and money for the organization. It allows employees to work on the go and lets them clock in and clock out on their device.

Employee self-service has an abbreviation called ESS, the common feature in the HRIS. ESS plays as a portal in the software allowing employees and HR professionals to access it. It also enables employees to complete human resource-related tasks by themselves. Employees can have access to their schedules, payroll, and other information. Furthermore, the feature provides them options to make updates on their details. HR systems grow as the corporate cultures develop. However, it's complicated for organizations to develop HR systems from the manual process. The release of ESS in HRIS makes fast movement for HR systems to automate the whole working process.

Time Sheet Management is the tool for recording the amount of employee's time, spent on allocated job. Conventional method of calculating employee's performance was done by tabular format using an excel sheet etc. At the beginning, the time sheet was used in the elds of payroll calculations and accounting management.

In tabular format it comprises the arrangement of information in columns and rows, often this method has many disadvantages such as more manual interventions, more time consumption in case of calculations etc., so Timesheet Management System overcomes all these drawbacks.

The timesheet contains a detailed analysis of projects. The start and end date of the project can be recorded and this statistics can be later used for accounting, payroll, billing of client, tracking, estimation and project allocated job. e timesheet tool can be used by any organization for strategic management. Time Sheet.

## II. PROBLEM STATEMENT

Currently, maximum of IT Companies is using multiple software's to handle their employee's day to day tasks and HR-related activities.

This software needs different logins as well as employee needs to follow long procedures. In the proposed system it will track employees' task with time and store it to the system in form of Timesheet. HR committee often gets tired of maintaining the excel sheets for activities like HR-activities, time-sheets. Worse is the case where case where technology remains unused. Also, employee gets restless when after completing hectic work schedule then they need to submit their time sheet. Such issues are very common in most of the companies.

With no appreciate tools, managing a company's day-to-day activity takes too much of time, effort, and money with a lot of inefficiency. As times have changed, most of us have strived to combine technology with our daily chores irrespective of the field. Thus, changing the way of maintaining society's information will also prove to be beneficial, also it improves efficiency and saves us time.

### III. RESEARCH METHODOLOGY

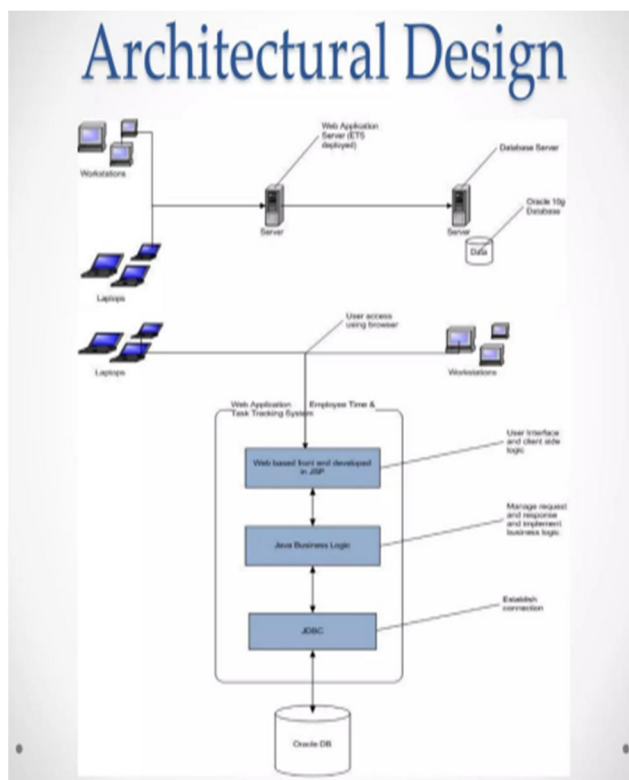
P.M. Verlan in “The Success of Employee Self-Service Portals” says that Self-service portals for HR information, IT services and time or expense reporting should be offered by organizations. Positive effects of User Satisfaction on Intention to Use and Use on User satisfaction have also been proven in this research. Case studies showed that cost reduction is not one of the main reasons for the organizations to implement self-service portals.

Multiple case studies have been conducted and therefore, the results can be generalized. In this research, it was studied which key features should be included in employee self-service portals. When organizations would like that their employees are willing to use self-service portals then self-service features for HR information, IT services and, time or expense reporting should be offered by the organization. Furthermore, when organizations would like to emphasize the user satisfaction then self-service portals for IT services, and time or expense reporting should be implemented. The positive effects of User Satisfaction on Intention to Use and Use on User Satisfaction have also been proven in this research. The case studies showed that cost reduction is not one of the main reasons for the organizations to implement self-service portals. The decision makers of the organizations mentioned improvement of business processes as main reason to implement self-service portals. These organizations also did not measure cost reductions caused using self- service. Therefore, the relationship between Use and Cost reduction has not been supported in this research.

### IV. PROJECT DESIGN

#### A. Architectural Diagram

Architectural design consists of Workstations, Laptops, Web Application Servers, Database Server, etc. We are using some applications such as: 1. Web based front end development in JSP for user interface and client-side logic. 2. Java Business Logic for manage request and response and implement for logic. 3. JDBC for establishing the connection. And lastly, all these applications are connected to Oracle Data Base.



Architectural Diagram

#### B. Use Case Diagram

Employee can Login through the system then only he/she can see other features like Update My Profile, Change Account Password, Apply Leaves etc. Then through Manager’s portal manager can take check employees timesheet, Approval of employees leaves, Manage Task, Assign Task etc.

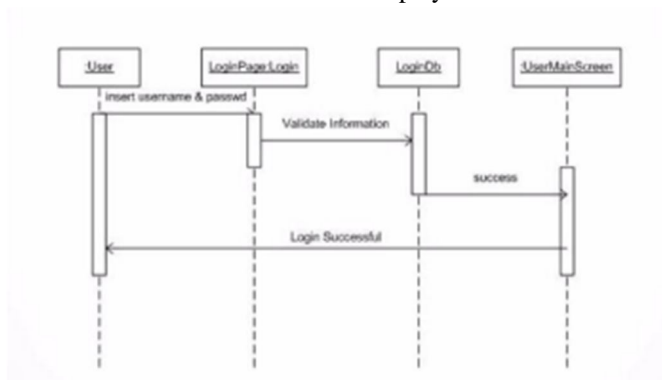


Use-Case Diagram

C. Sequence Diagram

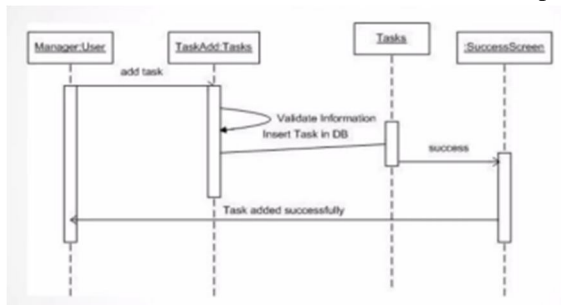
1) User Login

When User send Login request by using Username & Password then system will validate the information from Login Database and if the Username and Password is valid then User's Main Screen will be displayed.



2) Add Task

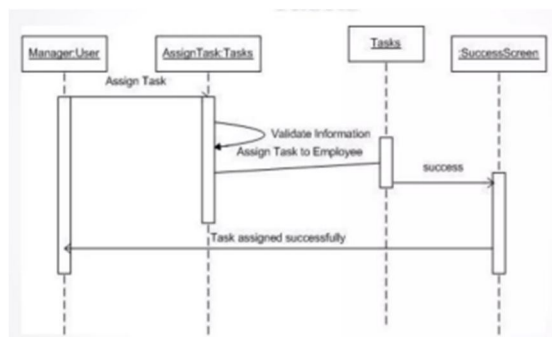
Manager can add the task for employee. After successful addition of task that task will be displayed on manager's portal.



3) Assign Task

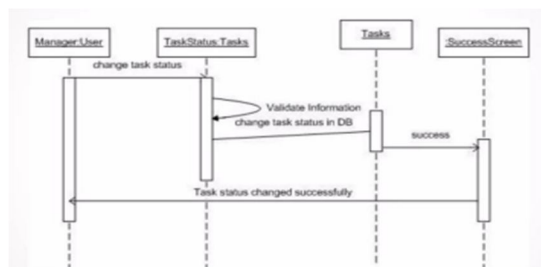
Manager can assign the previously added task to the respective employee. That task will be displayed on the Employees portal.





#### 4) Update Task

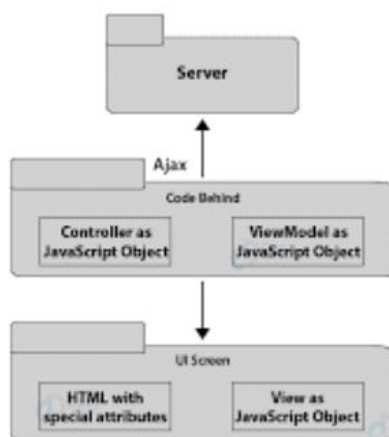
The assigned task's status can be updated through managers or employee's portal. Employee cannot delete task which are added by Manager.



## V. TECHNOLOGY

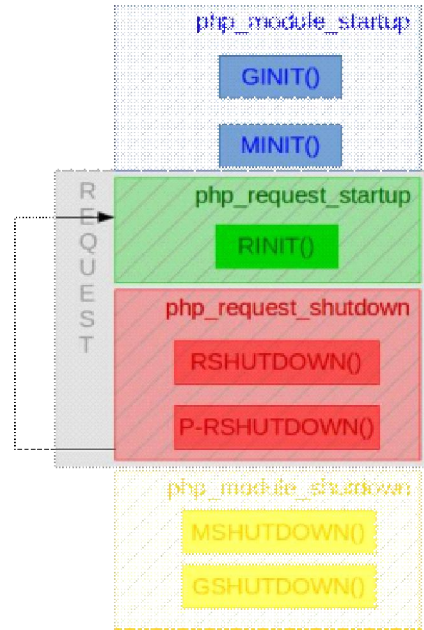
### A. JavaScript

JavaScript is a dynamic programming language that's used for web development, in web applications, for game development, and lots more. It allows you to implement dynamic features on web pages that cannot be done with only HTML and CSS. Many browsers use JavaScript as a scripting language for doing dynamic things on the web. Any time you see a click-to-show dropdown menu, extra content added to a page, and dynamically changing element colors on a page, to name a few features, you're seeing the effects of JavaScript.



### B. PHP

Dynamic websites contain Web pages that are generated in real-time. These pages include Web scripting code, such as PHP or ASP. When a dynamic page is accessed, the code within the page is parsed on the Web server and the resulting HTML is sent to the client's Web browser. Most large websites are dynamic since they are easier to maintain than static websites. This is because static pages each contain unique content, meaning they must be manually opened, edited, and published whenever a change is made. Dynamic pages, on the other hand, access information from a database. Therefore, to alter the content of a dynamic page, the webmaster may only need to update a database record. This is especially helpful for large sites that contain hundreds or thousands of pages. It also makes it possible for multiple users to update the content of a website without editing the layout of the pages.



### C. MySQL

MySQL is an Oracle-backed open-source relational database management system (RDBMS) based on Structured Query Language (SQL). MySQL runs on virtually all platforms, including Linux, UNIX, and Windows. Although it can be used in a wide range of applications, MySQL is most often associated with web applications and online publishing. MySQL is an important component of an open-source enterprise stack called LAMP. LAMP is a web development platform that uses Linux as the operating system, Apache as the web server, MySQL as the relational database management system and PHP as the object-oriented scripting language. (Sometimes Perl or Python is used instead of PHP.)

## VI. RESULTS

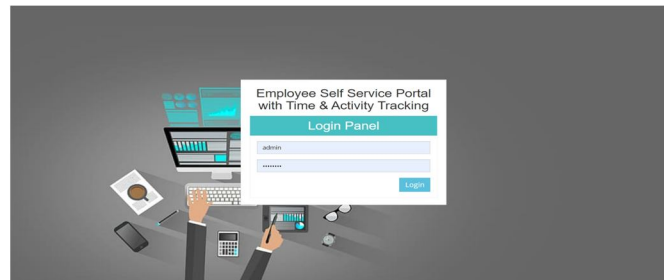


Fig -6.1: Login Panel

A login screen prompts a user to enter their login credentials, such as a username and password, to access a secure system or application. It typically consists of a form where users can input their credentials, and often includes buttons to submit or reset the login information. It that ensures only authorized users can access sensitive information and resources.

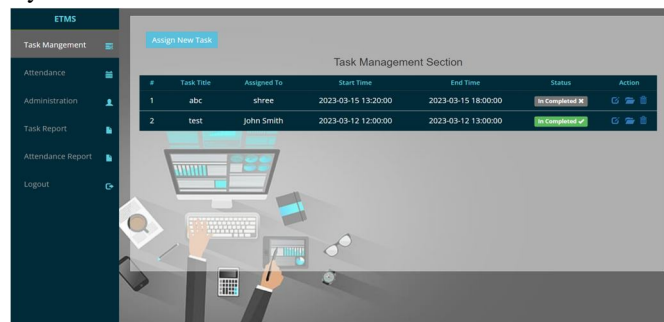


Fig -6.2: Admin Panel

The admin panel's user interface is designed to be user friendly and intuitive, enabling administrators to quickly access the information they need and perform tasks efficiently. The panel also includes a robust reporting and analytics engine, providing insights into employee performance, attendance trends, and other key HR metrics.

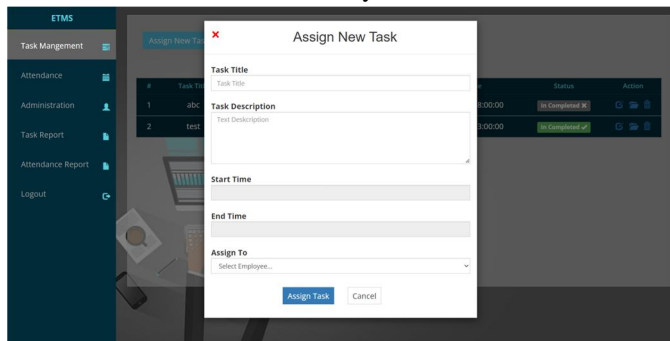


Fig -6.3: Admin Panel – Assign New Task

The "Assign New Task" feature in an employee self-service portal's admin panel is a tool that allows administrators or supervisors to create and assign new tasks to their employees. This feature can be used for a variety of purposes, such as assigning specific projects, setting deadlines, and tracking progress.

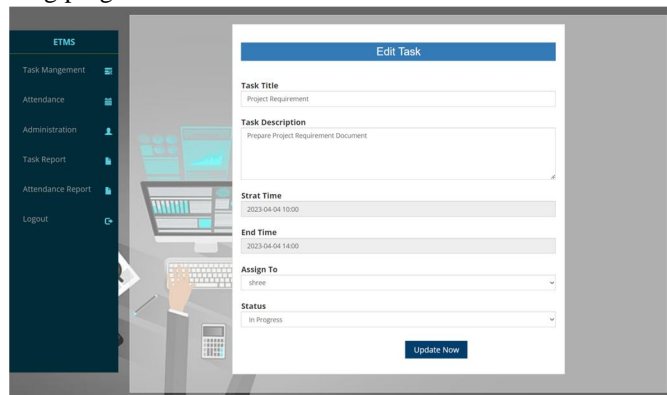


Fig -6.4: Admin Panel – Edit/Update Task

The Edit Task feature in the employee self-service portal's admin panel allows the authorized personnel to modify the details of an existing task assigned to an employee. With this feature, the admin can make changes to the task description, priority level, due date, and any other relevant information.

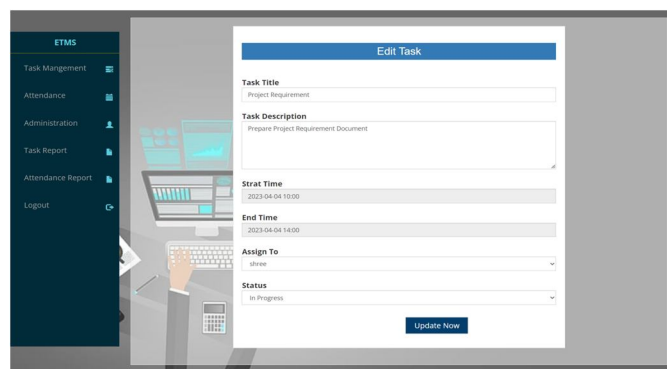


Fig -6.5: Admin Panel – Update Task Status

The Update Task Status feature on the Employee Self Service Portal's Admin Panel allows authorized personnel to manage and monitor the progress of tasks assigned to employees. This feature enables administrators to update the status of tasks, track employee productivity, and ensure timely completion of tasks.

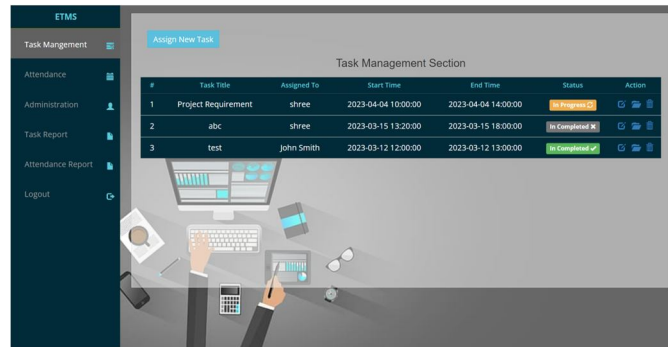


Fig -6.6: Admin Panel – Assign Task

The Assign Task feature in an employee self-service portal's admin panel allows managers or administrators to assign tasks or projects to employees. This feature helps streamline the task delegation process by eliminating the need for back-and-forth communication between managers and employees.



Fig -6.7: Admin Panel – View Task

The Edit Task feature in the employee self-service portal's admin panel allows the authorized personnel to modify the details of an existing task assigned to an employee. With this feature, the admin can make changes to the task description, priority level, due date, and any other relevant information.

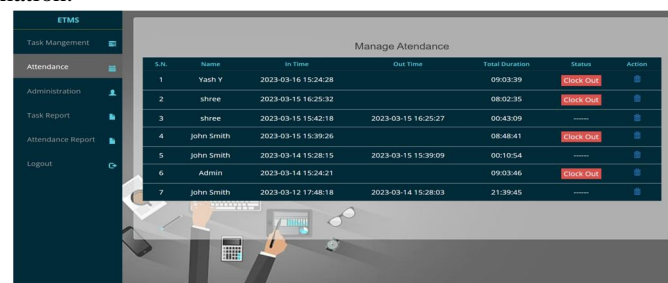


Fig -6.8: Admin Panel – Manage Attendance

The "Manage Attendance" feature in an employee self-service portal's admin panel allows authorized personnel to manage and monitor the attendance of employees within the organization. This feature provides a centralized system to track attendance, which enables the HR department to efficiently manage time and attendance data.



Fig -6.9: Admin Panel – Manage Admin/Employee



The Manage Admin/Employee section of an employee self-service portal is an administrative panel that allows authorized users to manage and maintain employee information and access rights.

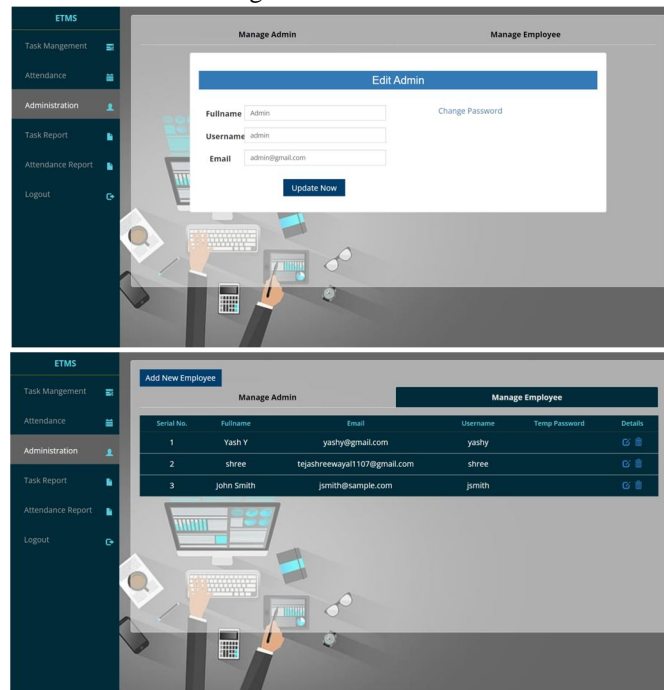


Fig -6.10 & 6.11: Admin Panel – Edit Admin/Employee

The Edit Admin/Employee feature enables an admin to add, edit, or delete employee records. This includes employee details such as contact information, work history, job position, pay rate, and benefits. Admins can also assign and manage roles and permissions for each employee, ensuring that the right access levels are granted for different individuals.

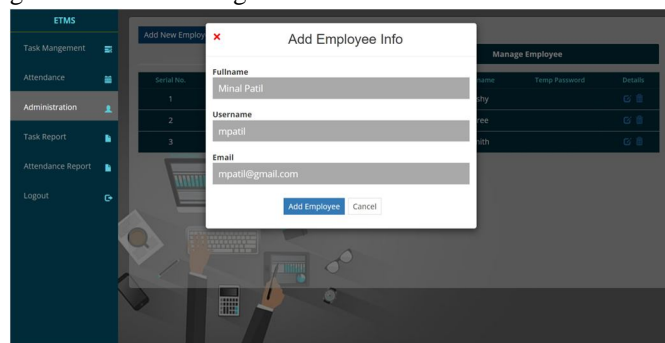


Fig -6.12: Admin Panel – Add Employee

The "Add Employee" feature in the admin panel of an employee self-service portal allows authorized personnel to easily create new employee profiles and add them to the company's database.

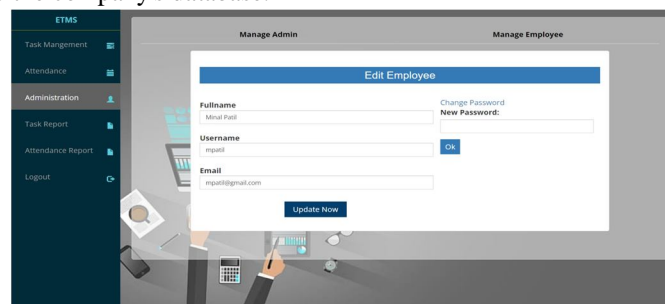


Fig -6.13: Admin Panel – Edit Employee

The Edit Employee feature allows administrators to manage employee job information, including job title, department, employment status, and compensation details. They can also update employee work schedules, manage time off requests, and monitor employee performance.

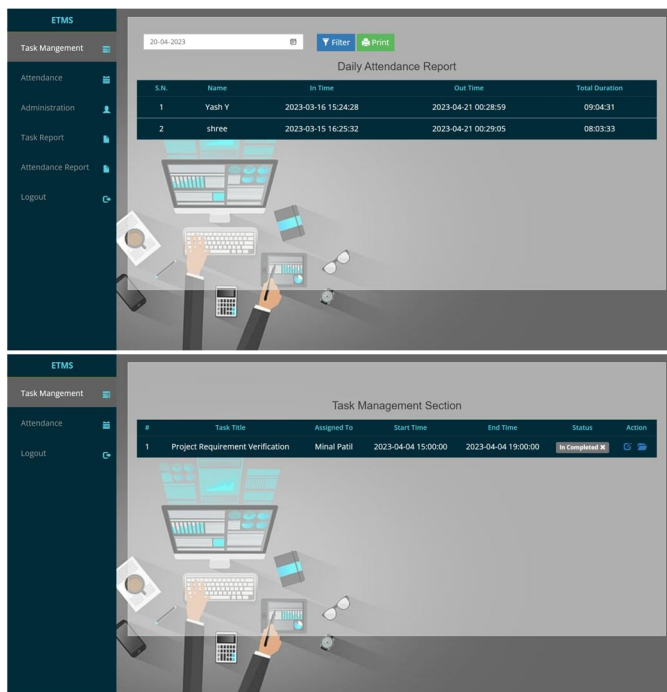


Fig -6.14 & 6.15: Admin Panel – Attendance/Task Report

The Attendance Report in the admin panel of an employee self-service portal provides a comprehensive overview of an organization's employee attendance records. This report allows administrators to track employee attendance, monitor attendance trends, and identify patterns that may require action.



Fig -6.16: Employee Panel – Change Password

The "Change Password" feature in an employee self-service portal allows an employee to update their login credentials. It is a simple yet important security measure that ensures the confidentiality and integrity of an employee's personal and professional data.

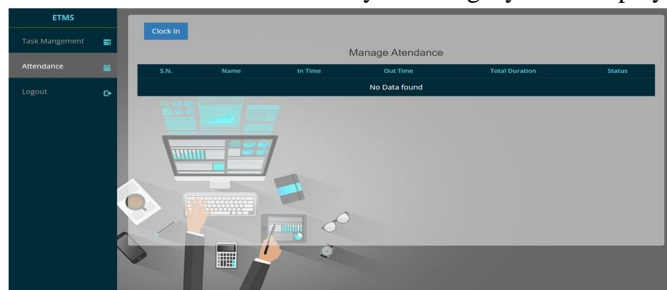


Fig -6.17: Employee Panel – Clock-IN

The employee panel's check-in feature in the employee self-service portal is a convenient tool that allows employees to easily clock in and out of work without the need for traditional paper time cards or manual record-keeping. This feature is typically located within the portal's dashboard, where employees can access it using their unique login credentials.

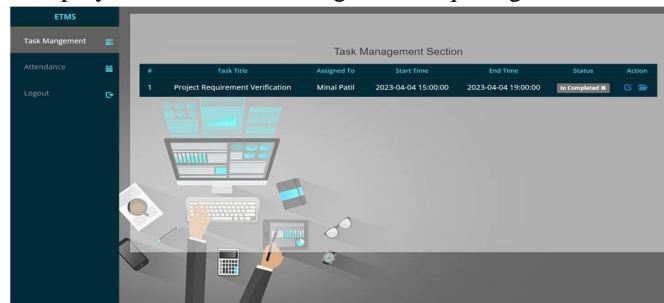


Fig -6.18: Employee Panel – Task Management

The employee panel's task management feature of an employee self-service portal is designed to help employees keep track of their assigned tasks and deadlines. It allows employees to view their assigned tasks, mark them as complete, and add comments or notes to them.

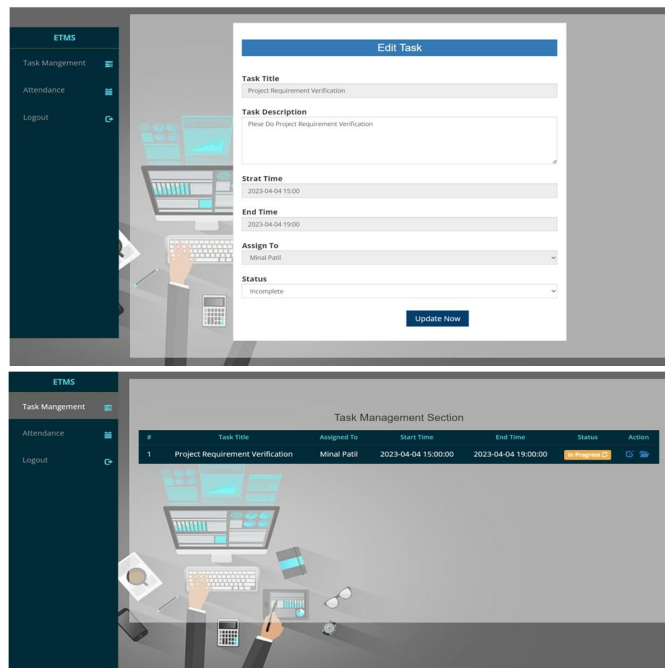


Fig -6.19: Employee Panel – Edit Task

The employee panel's edit task feature of an employee self-service portal allows employees to manage their tasks and responsibilities efficiently. With this feature, employees can easily view and edit their assigned tasks, update task status, set due dates, and add comments or notes to their tasks.

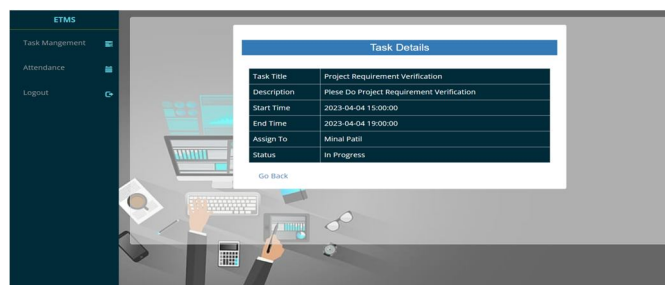


Fig -6.20: Employee Panel – View Task

The employee panel's view task in an employee self-service portal allows employees to view and manage their tasks and responsibilities within the company. This feature provides employees with an organized and easy-to-use dashboard that displays their assigned tasks, deadlines, and progress updates.

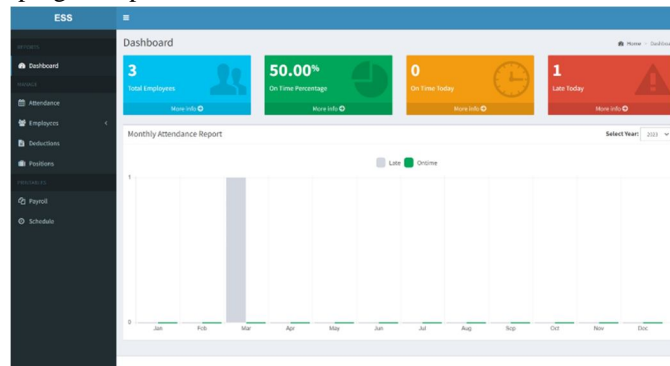


Fig -6.21: Admin Panel – ESS Dashboard

An employee dashboard within an employee self-service portal is a centralized platform that provides employees with easy access to important information and tools related to their employment. This dashboard typically displays key information about an employee's job, such as their current work schedule, pay rate, and benefits status, as well as any relevant company news or announcements.

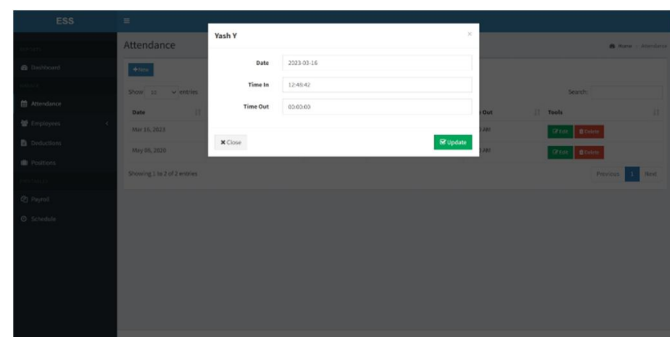
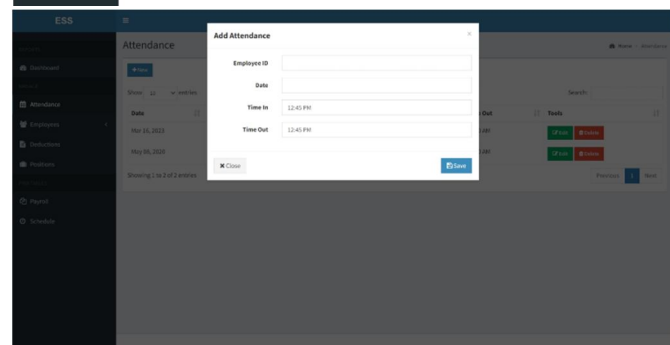
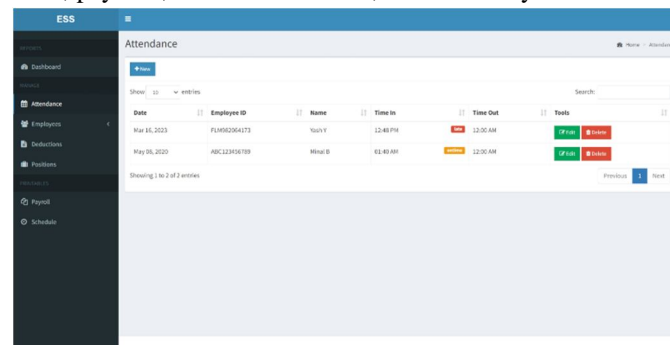


Fig -6.22, 6.23 & 6.24: Admin Panel – ESS – Add/View/Update Attendance

The employee Admin Panel in the self-service portal is a feature designed to allow administrators to manage employee attendance efficiently. This panel provides a centralized location for administrators to view, add, and update employee attendance records.

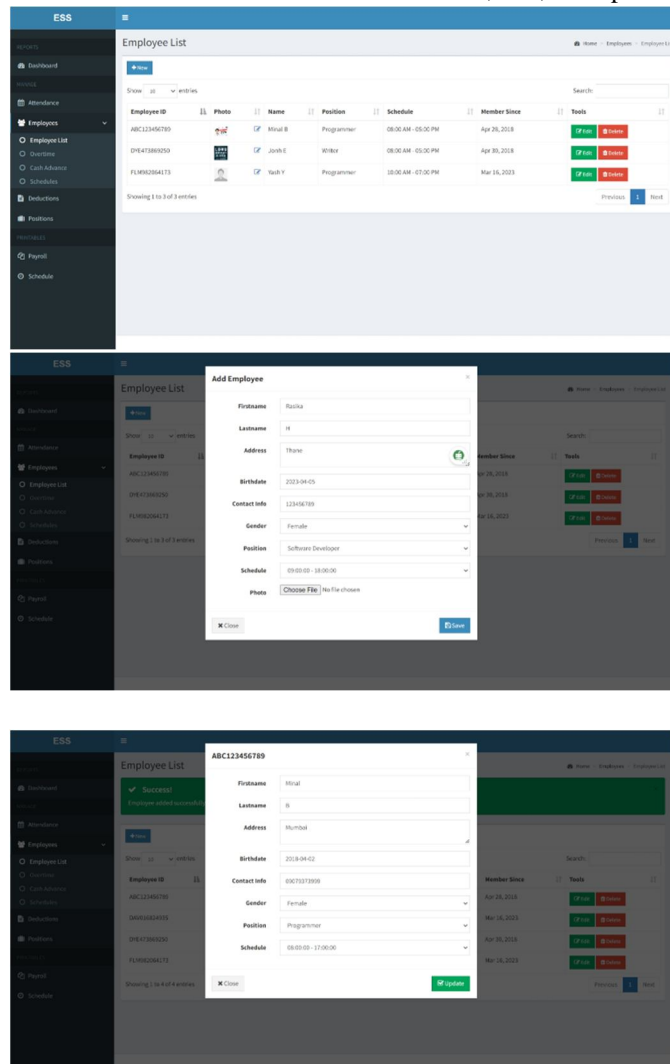
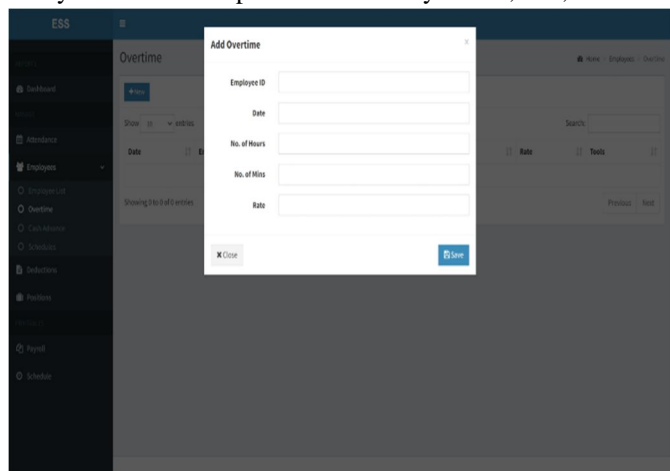


Fig -6.25, 6.26 & 6.27: Admin Panel – ESS – Add/Edit/Delete Employees

The employee self-service portal is a web-based platform that allows employees to manage various aspects of their employment information and benefits. One of the key features of the portal is the ability to add, edit, and delete employee information.





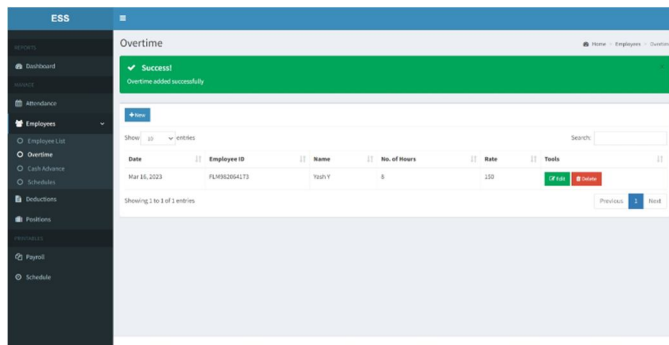


Fig -6.28 & 6.29: Admin Panel – ESS – Add/Edit/Delete Overtime

The Employee Admin Panel for the Employee Self Service (ESS) Portal is a powerful tool that allows employers and employees to manage their overtime hours in a streamlined and efficient manner. This tool enables employees to add, view, and update their overtime hours from a user-friendly dashboard, making it easy to keep track of their work hours and ensure that they are compensated accurately.

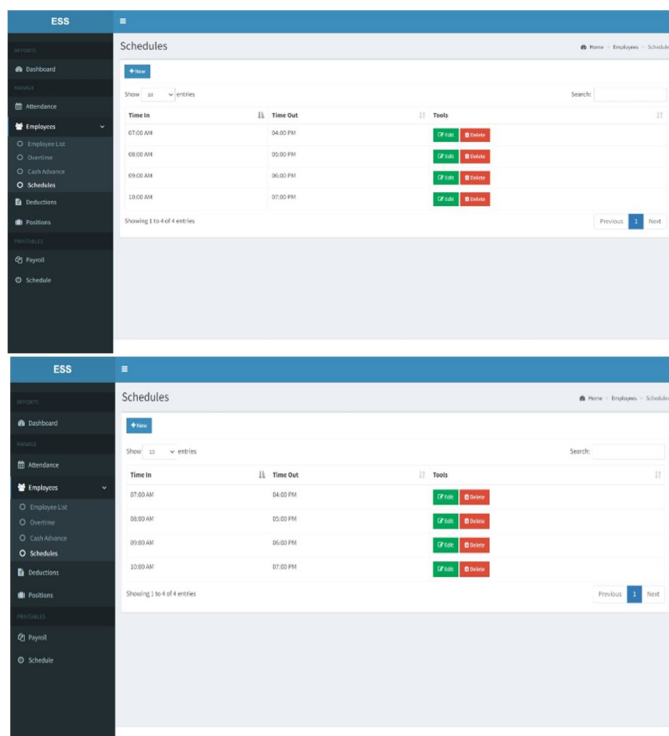


Fig -6.30 & 6.31: Admin Panel – ESS – Add/Edit/Delete Schedule

The Employee Admin Panel - ESS - Add/View/Update Schedule is a powerful tool within an employee self-service portal that allows employees to manage their work schedule in a user-friendly and efficient manner. With this tool, employees can view their existing schedule, request time off, swap shifts with other colleagues, and update their availability for upcoming shifts.

## VII. CONCLUSION

Thus, our application tries to comfort the proposed system is useful for those companies whose employees are working remotely. It will allow the admin of the company to access the employees' information. Thus, this application provides a best way to manage their day-to-day activities. To improve employee's engagement in efficient manner, companies need to build such applications. To keep companies' data private this application can be used with VPN and Figure-print based authentication can be used. They can use one single software to handle their day-to-day tasks. Also, can get all the information like personal details, pay slips, companies rule book, timesheet, tasks etc.



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