

# LEAVE MANAGEMENT SYSTEM WITH TIMESHEET

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**Abstract-** The project aims at developing a leave management system that is important for an organization. This system can be used to record the workflow of leave applications and their approvals. The main purpose of the project is to reduce the work of managing employee leave. Leave management system provides employees to apply leave, Fill Timesheet to update daily task and attach the documents of completed tasks that is verified by admin and approved, check the leave status. Admin can add ,update and delete employee details, approve and denies leave and can view employee list and timesheet details. Leave balances is also maintained and conditions like annual leave limit for an employee is also set which is helpful for approving leaves. It is used to manage the leave system of an organization, handling employee leave applications, managing leave balance. It manages all information about leaves and their types. The project is totally built at the administrative end; thus, only the administrator is guaranteed access.

**Keywords-**Model View Controller, Active Server Page, Structured Query Language

## I. INTRODUCTION

An employee leave management system is a platform that enables Employees and admin of an organization to easily apply leaves, track and grant leave. In many Organizations, employee are entitle to different kind of leave casual leave, sick leave, annual leave, loss of pay and maternity leave. The software helps employee to apply leave from anywhere and permission is also granted by admin from anywhere at anytime. It provides a information for managerial decision-making and control of leaves. It maintains complete records of employees and they progress. If the Admin reject the leave, a reason for rejecting the leave must be entered into the system and the employee who requested the leave will be notified. Timesheet will display the daily progress of an employee and working hour limits are also given they to evaluate the employee according to the organizations policies. I have used MVC pattern which has high code separation and we can easily update our application, SQL Server for storing all employee details. I have implemented session management and WEB API for authentication, logger for storing logged users data.

## II. RELATED WORK

**Title :** Development of Leave Management System with.NET Framework

**Author :**D. Darmawan, I. N. Muhith, and E. Y. Wibowo are the authors( 2021)

The writers of this paper used the.NET Framework to create a leave management system. Employees can submit requests for leave through the system, and managers can accept or refuse them. Additionally, the system offers supervisors a dashboard where they can view leave requests, control employee leave balances, and create reports. The writers also assessed the system's functionality and demonstrated its effectiveness and efficiency.

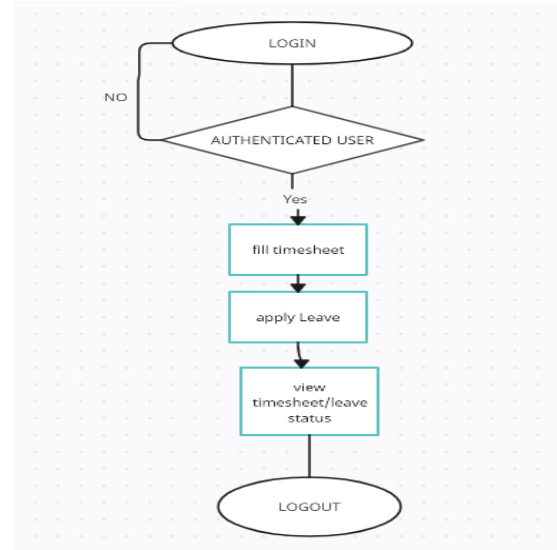
**Title :** Design and Implementation of an ASP.NET MVC Leave Management System

**Author :** A. A. Adigun and M. A. Ajala are the authors(2020)

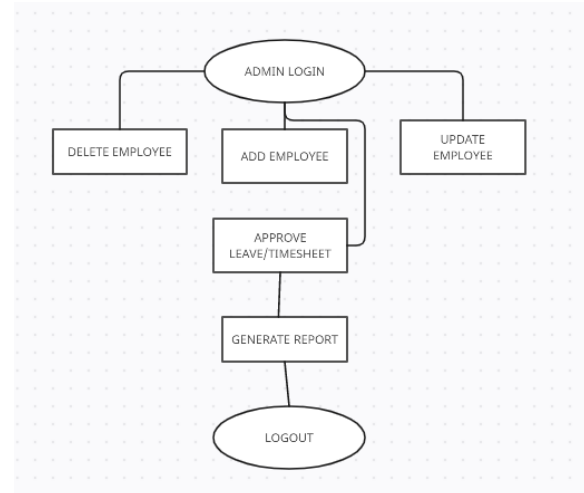
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## I. SYSTEM ARCHITECTURE

### USER



### ADMIN



## II. PROPOSED SYSTEM

1. User access and registration: To utilise the system, employees would need to create an account and log in.
2. Employees had the option of submitting their leave petitions via the system. They would have to give specifics like the kind of absence they were taking, how long it would last, and why.

3. Approval of leaves: Managers or HR personnel would be notified of fresh leave requests and could electronically accept or refuse them. They would be able to view a list of outstanding leave requests and, depending on their availability, approve or refuse them.
4. Employees could examine their leave history, which included the dates and kinds of leave they had taken as well as any unused leave balances.
5. Employee timesheet submission: The system allowed users to send their timesheets. They would have to give information about the hours worked, the projects they worked on, and the tasks they completed.
6. Approval of timesheets: Managers or HR personnel would be notified of new timesheets and could accept or refuse them electronically. They could see a list of unapproved timesheets and decide whether to accept or refuse them based on their accuracy.
7. Reporting: The system would produce reports with data on time-off requests, employee leave amounts, and timesheets.

### III. FUNCTIONAL REQUIREMENTS

#### **Home Page**

Home page display the login options either user login or admin login. A small snippet about company and leave management system. the login credentials are verified and admin authenticates the user to access other pages.

#### **Apply Leave:**

Once the user is authenticated allowed to apply for leave. it includes providing all details for leave such as leave type, reason and period of leave etc.

#### **Fill Timesheet:**

Every employee need fill timesheet daily there is time limit of working hours if total working hour is less than 4hours it will automatically mark employee as absent ,if total working hour is less than 6hours means taken as half day present and the minimum worked hours should be 9hours to be marked as present.

#### **Approve/Denies Leave:**

HR and manager will approve and denies the leave request they approve it on employee daily performance and attendance by referring employees timesheet which is visible to hr , manager and admin .

#### **LEAVE STATUS UPDATE:**

Admin will update the leave status through mail to that concern employee, and makes changes to the leave balance of the employee.

#### **Generate Report:**

Once leave process is completed HR will update all the details of employee leave and attendance as a report which is stored in database for further uses.

#### **Notifications:**

The application provides notifications and reminders for new leave requests, approvals and denial of leaves and pending request to manager as well as employees

#### IV. NON-FUNCTIONAL REQUIREMENTS

##### Performance Requirement:

The load time for interface screen shall take no longer than two seconds

The login information shall be verified with few seconds

The system shall consume very little of primary memory

##### Security Requirements:

Administrator will be able to login to leave management system and can add employees and remove them. Admin provides login credentials to the employee and it will be verified by the unique user Id provided for each employee

Two way authentication is given where the otp will be send to employees mail id for login verification process

##### Maintainability:

The leave management system is being developed in c#,asp.net MVC easy to update and maintain.

##### Portability:

The leave management system can run in any windows environment with .net installed and SQL server database access.

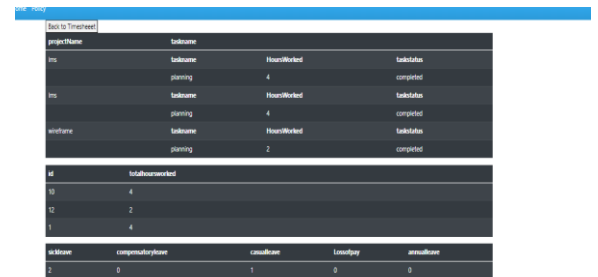
#### V. DEPLOYMENT

In this project, deployment is done in Visual studio code and SQL server. The frontend consist of HTML ,CSS .The Employee leave balance and timesheet report is generated .



Employee Id	Name	Age	Email	Contact_number	Date of joined	Department	Salary	Photo	Action
10	kataravati	21	kataravati720@gmail.com	6381971948	3/26/2023 10:00:00 AM	developer	30000		<a href="#">Update</a> <a href="#">Delete</a>
11	dema	21	demaaggt776@gmail.co	9003073251	3/3/2023 6:00:00 AM	developer	30000		<a href="#">Update</a> <a href="#">Delete</a>

Fig 1. Employee Record



projectName	taskName	HourWorked	taskStatus
10	taskName	4	completed
10	taskName	4	completed
10	taskName	4	completed
10	taskName	2	completed

Fig 2  
Employee Leave balance/Timesheet Record

#### VI. CONCLUSION

In conclusion, any organization that wishes to successfully manage employee leaves must have a leave management system in place. Employees can use it to seek leaves, managers can use it to approve or deny requests, and administrators can use it to keep track of remaining and used leaves. A leave management system can greatly simplify and reduce errors in the leave management process with tools like Applying leaves , maintaining leave balance, reporting and analytics, and payroll integration. In addition, it's imperative to take accessibility and security into account when creating a leave administration system. Overall, an effective leave management system can increase the effectiveness of an organization's HR procedures, lessen workload, and boost employee happiness.

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