

# Cloud Based Employee Leave Management System

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**Abstract—** While paper records are a traditional way of managing data there are several drawbacks to this method. Paper records are difficult to manage and track. The physical exertion required to retrieve, alter, and re-file the paper records are all non-value added activities. The implemented system provides a simple interface for the maintenance of student information. It indicates the design and implementation of an interactive World Wide Web-based Employee Leave Management System for the Management Department at different institutions and colleges. The Employee Leave Management System automates the process of managing the employee leaves and tracking multiple types of employee leaves for example casual leave, earned leave, restricted holiday, etc. Employees will be able to submit the leave form, cancel previously submitted leave requests, check the status of leave requests and view completed leave transactions. The Employees can even check the number of leaves that are remaining, so that they can organize their leave. The higher authorities like HOD and Principal can view the details of the employees and even check their history of leaves. The Leave Management System maintains a database to keep a running balance of each employee is account, accrues employee vacation and sick credits and provides individual reports on employees leave accruals

**Keywords—**html,css,javascript,bootstrap,php,ajax.

## I. INTRODUCTION

The impact of computers on our lives today is probably much more than we are actually known to. Getting good information and transforming it quickly into products than consumers want to buy is the essential key to staying in business and this all is done nowadays using Computers and Application Software. The Cloud Based Employee Leave management system is a system which will be used to implement in the institutes, where it becomes easy for the employee's to apply leave.

The software helps the employees to apply leave from anywhere and the permission to grant the leave by principal and HOD can also be done from anywhere at any time. It provides a regular flow of information for managerial decision-making and control. Educational institutions were looking for a web-based solution such as a teacher information

management system or an intelligent employee information system with an inbuilt mechanism to meet the requirements of employee-related information management as well as to serve the purpose of a school management system. Furthermore, we are looking forward to a complete package on teacher information management system from a single vendor. Employee ERP system provides a simple interface for maintenance of teachers information. It can be used by educational institutes or colleges to maintain the records of teachers easily.

## II. LITERATURE SURVEY

It summarizes the evaluation of the literature relevant to the Employee Leave Management System. An ELMS refers to the systems and processes at the intersection between employees leave management (ELM) and cloud technology. It merges ELM as a discipline and in particular it's basic EL activities and processes with the cloud technology field whereas the programming of data processing systems evolved into standardized routines and packages of employee leave planning (ELM) software. An organization or company with a very large number of employees manages a greater volume of data. This activity can be daunting without a more sophisticated tool to store and retrieve data.

## III. SYSTEM DESIGN

Software design sits at the technical kernel of the software engineering process and is applied regardless of the development paradigm and area of application. Design is the first step in the development phase for any engineered product or system. The designer's goal is to produce a model or representation of an entity that will later be built. Beginning once system requirement have been specified and analyzed, system design is the first of the three technical activities – design, code and test that is required to build and verify software.

Initially the super admin gives the login credentials to all the employees, later the faculties can reset their password. The admin has the authority to add a new employee or delete an existing employee . The faculty then log into the leave portal, as soon as he logs in the information about the faculty will be stored in the database. The faculty applies for the leave

and checks his leave history, the information with respect to this will be stored in database. The faculties will get the notification regarding whether their leave has been approved or rejected by the HOD and principal. Even the principal and HOD can apply for leave. Initially the process includes mounting of data on database. The user then log into his profile which is known as the login page available for all staff members in which each staff can either update profile, view profile, apply leave or view the history of leaves taken.

Once the leave has been applied it will be forwarded to the HOD. The HOD can either approve or reject a leave. If the HOD approves a leave, it goes to the principal else a message will be sent to the particular faculty that the leave is not granted. If the leave is granted it further goes to the principal who can either accept or reject it. If the leave is either accepted or rejected by the principal, a notification will be received by faculties indicating acceptance or rejection of leave.

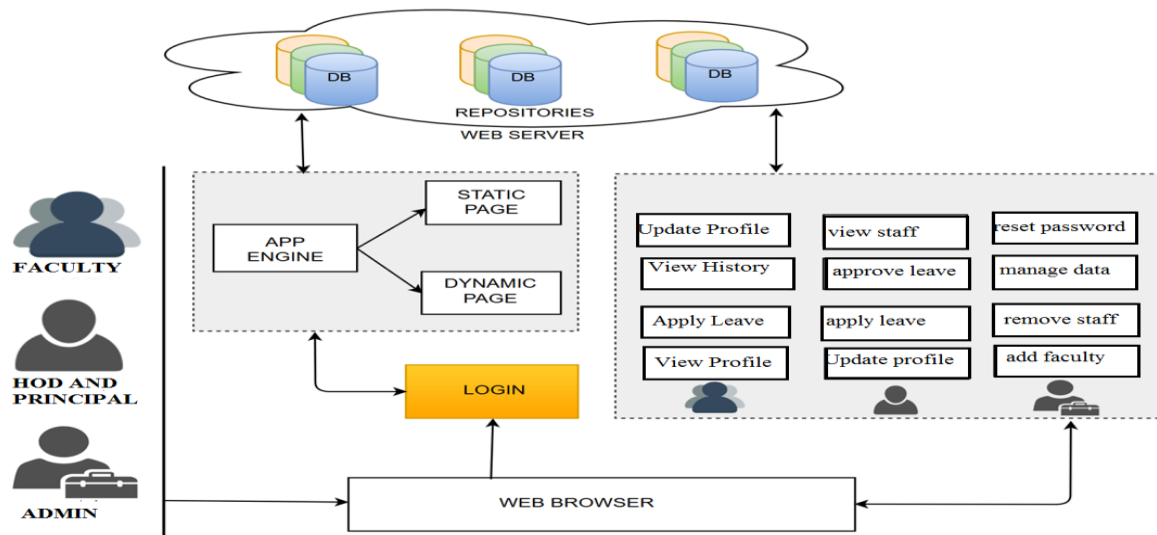


Fig. 1. System Design

**IV. IMPLEMENTATION**

Implementation is also an important phase where the developing of the proposed system is based on the decisions made previously in the design and system requirement phase. Selecting the platform to implement the system also the guidelines to develop the code are also discussed in this section. The decisions made on the selection of the languages, code and other aspects are based on the environment the system works on. This is the phase of the SDLC, where the theoretical system designed is turned in to the actually working system. Thus, this phase is considered as the trivial phase that yields the required results making the users confident enough about the system to use effectively. There are three major decisions made on the project before implementation that is selection of platform, selecting programming languages and coding guidelines.

*A. Login module*

This is the login page where the users have to choose their specific login before logging in. This page can be accessed by faculty or HOD or principal.

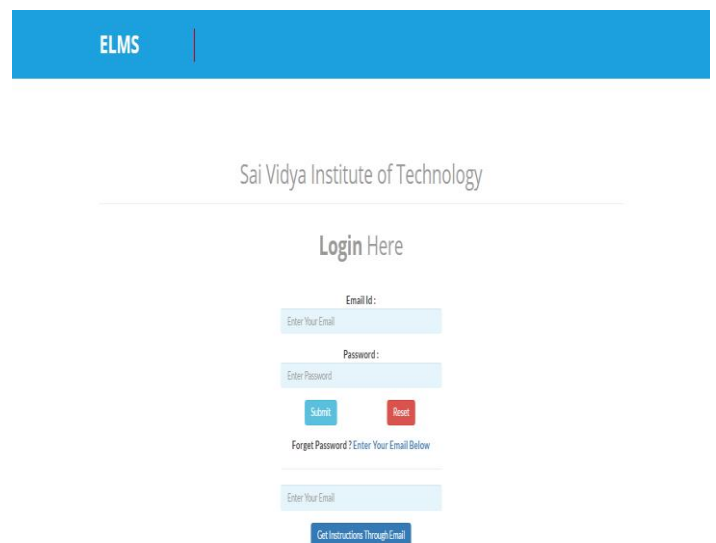


Fig. 2. Login page

**B. Employee module**

The initially an employee can enter into his main form and access his information only by giving his login details. Only an authorized can enter into main form of employees, otherwise an error message will be displayed.

In this module, employees can login from any remote place and can view their details. They can also update their educational and experience etc. details whenever needed. Once updated, their details are modified in the database and, thus available to Administrator when searched. Employees can give suggestions and any remarks also.

The different activities performed by an employee are as follows:

- View / Update Details
- Change The Password
- Feedback To Administrator
- Apply for leaves
- bClass alternate

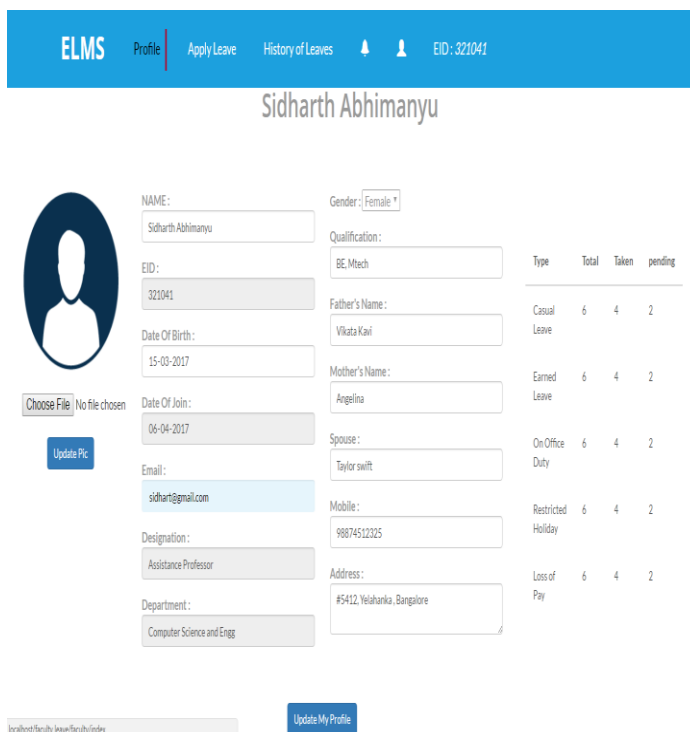


Fig. 3. Employee profile page

**C. Leaves management module**

*a) Online leaves processing:* This is the first phase of Employee Leaves Management and it forms a foundation for further processing. This facilitates for data capturing of employees who are applying for leaves and leaves will be processing through HOD & Principal. This serves as a unique template for employees of various departments in the college. This includes employee id, leaves, period and purpose

*b) Updating leaves information:* This module gives employees information which are applying for leaves according to the given dates and allows the user who change the leaves information such as period from, period to etc

*c) Generating leaves report:* This module allows user to generate a complete report of leaves according to the given dates. This report includes employee id, employee name, department, designation and purpose.

*d) Holiday details:* Yearly holidays lists are available in this module. Employee can plan leaves based on this list. Leave Module: Using this module employee can apply for leave and know status of leave approval or cancellation by HOD/Principal.

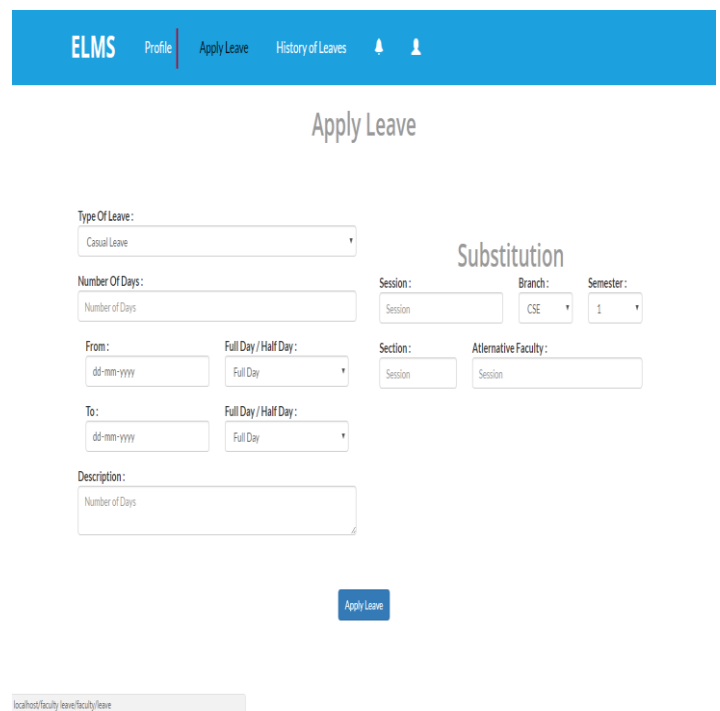


Fig. 4. Leave apply page

**D. Admin module**

This is a major module that involves administrative details regarding employees departments.

*a) Employees:* This involves adding a new employee, updating the existing employee information and deleting the existing employee details.

*b) Departments:* This involves adding a new department, updating the existing department information and deleting the existing department details and adding new designations.

The Administrator module consists of the following:

- View Employee Details
- Add New Employee
- Update Employee Details
- Delete Existing Employee
- Forgot Password support
- Online leaves processing
- Add New Department

**E. Verify leave module**

The faculties will apply for leave and it will be processed through HOD and principal respectively. HOD and principal can either accept or reject a leave which is done by them going through the history of leaves and then verifying that whether they are eligible for leave or not.

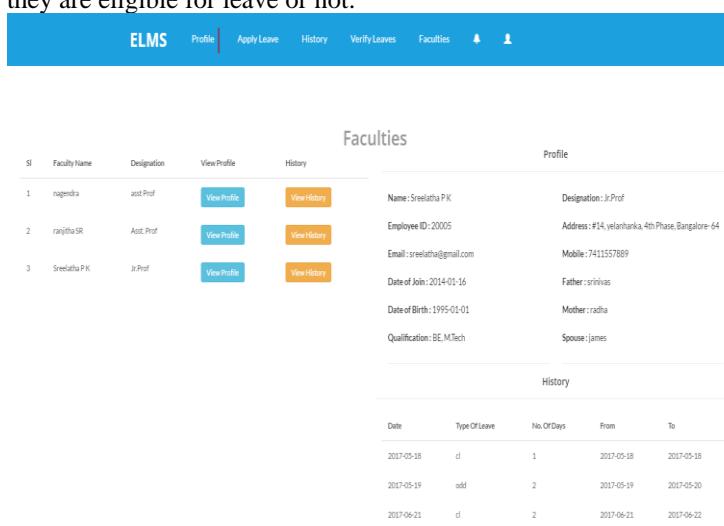


Fig. 5. Admin page

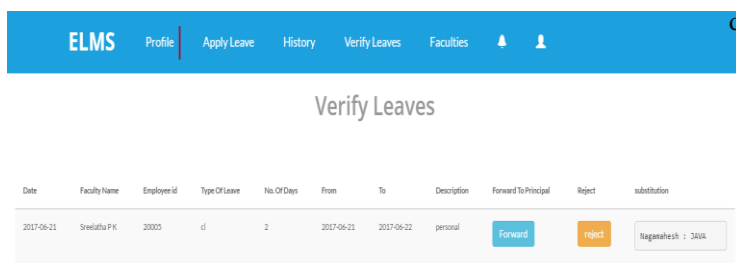


Fig. 6. Verify leaves page

**F. Notification module**

If the leave is accepted by HOD it will be forwarded to principal and if principal accepts leave it will be granted to the faculty and notification will be sent to particular faculty through SMS.

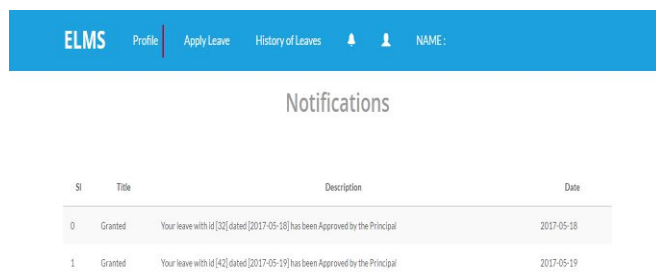


Fig. 7. Notification page

**V. TEST CASES**

The below mentions are examples of some of test cases which are tested on the application.

**A. Login Test**

The login test has 3 cases. The login test is same for all modules such as admin, principal, HOD and faculty. If the name and password is valid, then respective module's home will be displayed or else it displays invalid credentials. If only name or password is entered, then invalid credentials is displayed.

SL NO	Test Case	Expected Result	Test Result
1	Enter valid name and password	login successful	Successful
2	Enter invalid name and password	Invalid Credentials	Successful
3	Enter only name or password	Login unsuccessful	Successful

Fig 8: Login Test Case for username and password

**B. HOD-Principal approval module test**

The leave applied by the respective faculties will be processed by HOD and principal and they have the supreme authority either to accept or reject a leave.

SL NO	Test Case	Expected Result	Test Result
1	Click on Submit button	HOD approval page opens	HOD approves(successful)
2	Click on Submit button	Principal approval page opens.	Principal approves(successful)

Fig 9. HOD-Principal approval test case

**C. Employee leave apply module test**

When the faculty apply for leave, he should go through the leave format and apply for the leave required by him. The different forms of leaves are EL, CL, RH, OOD and LOP.

SL NO	Test Case	Expected Result	Test Result
1	Enter leave type and invalid no of days	Invalid number of days	Successful
2	Enter leave type and valid no of days	Invalid leave type	Successful
3	Leave the number of days empty	Fill in all blanks	Successful

Fig 10: Employee leave apply Test Case

**VI. CONCLUSION**

It is aimed at automating the existing manual system for applying the leave by the employee and process the leave through HOD and Principal. It helps in maintaining the records of the employees which will help human resource team to manage leave approval, leave cancellation and report generation. It is useful in organisations with large number of employees. It's a faster approach as it takes less time when compared to a manual process. There is a proper management of database as the one handled by manual system is not always accurate and even there is a misplacement of databases which could cause a severe problem in near future. It is very reliable and it leads to an efficient report generation

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