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E-leave android application for employee leave management

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ABSTRACT

The main objective of the proposed system is to decrease the paperwork, employees find it difficult to apply for leaves and vacations, especially those that have tasks that require a specific number of people to operate which is a very complicated process and to avoid the collision of dates with other employees under the same department. Proposed system will help in easier record keeping by having a centralized database system where data will be maintained. The system will keep the records, decrease paperwork and reduce chances of data loss. The system will allow employees and their managers to manage leaves and replacements for better scheduling of workload. Android E-Leave Application is an employee leave management system that keeps leave records of all the employees in organization. This system will provide a connection between the user and the database hence enabling quick retrieval of the leave information without any intervention from the human resource manager. In this system employees can apply for leave from their android smartphone and can also track the applied leave status in real-time.

Keywords: Android App Development API, Android Application, Mobile Application, ELMS, HRMS

1. INTRODUCTION

The objective of this project is to automate leave management. With the help of this android application, users can apply leave through an app installed on their Smartphone, Supervisor/Manager of the department can approve or escalate to higher levels; admin can add/remove Employees and can add monthly/yearly leaves as per the leave policy of organization. The user can see the status of all leave taken and their remaining leave through this application. The work flow is designed in such a way that the leave system generates notification to the respective users (Employees/Managers).

Android E-Leave Application System is very simple to understand, easy to use. The major use of designing such an application is to provide a staff or an employee a better way for scheduling and calculating their leave details. As the existing system increases the paper work and record maintenance which is a tedious work, so there is a need of new system which makes the record maintenance easy that is the common requirement for the management or an organization.

2. EXISTING SYSTEM

In the existing system, there's paperwork related to leave management. Leaves are maintained using the attendance register for the staff. An employee needs to submit their leave forms manually to their respective authorities or department, this increases paperwork and maintaining the paperwork becomes a tedious exercise.

Employees find it difficult to apply for leaves and vacations, especially those that have tasks that require a specific number of people to operate which is a very complicated process.

First of all, there should be a way to determine if a specific employee has legitimate leave days to use.

Second, leaves should be scheduled in a way that the normal operations of the business are not impaired.

Finally, the personal views and emotions of the employee that is taking the leave as well as the atmosphere in the department he or she is leaving should be considered to foster cooperation and goodwill instead of anger and conflicts.

3. PROPOSED SYSTEM

The aim of the proposed system is to decrease the paperwork, Collision of dates with other employees under the same department, Changes in the work schedule and late payment of leave allowances due to wrong calculation of leave balances and help in easier record keeping by having a centralized database system where data will be maintained. The system will keep the records, decrease paperwork and reduce chances of data loss.

The system will allow employees and their managers to manage leaves and replacements for better scheduling of workload.

Android E-Leave Application System is a leave management that keeps leave records of all the employees in organization. This system will provide a connection between the user and the database hence enabling quick retrieval of the information without any intervention from the human resource manager. In this system employees can apply for leave from their android smartphones.

3.1 System Architecture

Proposed System architecture consist of three layers as shown in figure 1.

First there is an android app installed on android smartphone which is used by an end user to interact with the whole system. Second there will be a Web server which will serve the requests between the android app end user and the database server by making use of an API (Application programming interface).

And at the Third layer there will be a centralized yet secured database system



Fig. 1: System Architecture

4. E-LEAVE MANAGEMENT SYSTEM

The modules Android E-Leave Application System are,

4.1 Login Module

Only authorized active employee/staff will be able to login into the system, a unique employee id should be used in the login. If user uses unregistered employee id, application will display an error message “invalid login”.

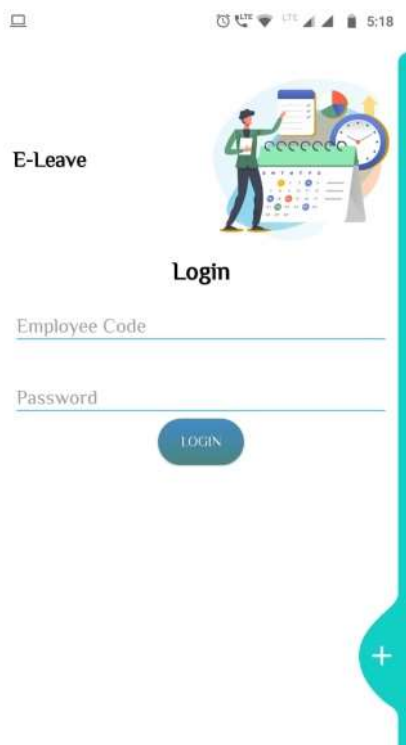


Fig. 2: Emp Login

4.2 Admin Module

In this module the Admin has the privileges to add/remove all the Employees or the Department and register them into the E-LMS system. And can also be able add monthly/yearly leaves as per the leave policy of organization.

4.3 Employee Module

In this module employee have to use his employee id and password for login and he will see a dashboard containing relative information about leaves, such as available leaves, applied leaves, approved/rejected leaves.



Fig. 3: Emp Dashboard after successful login.

Leave Request Module -

Apply Leave – It will bring a leave form as shown in figure 4. After submission of the leave request, employee will also be able to cancel the request if he/she wants to.

The leave form will display “from” and “to” Date. In which employee can select the number of day(s) for applying leave. It also has number of day’s field which will automatically calculate the total number of days for which the leave is applied. Leave type will display as dropdown menu the different kinds of leave such as Privilege Leave, Casual Leave, Sick Leave, Maternity Leave as per the organization’s leave policy.

After filling the leave form if apply button is clicked, the leave is forwarded to 1st Approver which will be a Supervisor/ Team lead under whom the employee is working, after that it will further go to 2nd Approver who is the Manager of the Department and will be stored in database.



Fig. 4: Leave request form

Leave Status Module

Approval Process Status – It will display the status of the applied leave by the employee on employee home screen after login.

Firstly, it will show the leave application submitted by the employee with the date below it on which the leave is applied.

And will be marked in green color.

Secondly, it will be notified to the 1st Approver who will be a Supervisor/Team lead. Initially it will be in yellow color, if 1st approver approves the leave request color will be changed to green, and if the leave gets rejected then the color will change into red. For both Approve/Reject leave request 1st approver will have Approve/Reject buttons and can also enter a remark/reason if any.

Date on which the status gets updated from pending to Approve/Reject will be stored in database and will also be showed in the approval process status on the home screen.

And lastly, if the 1st approver approves the leave request then only it will be notified to the 2nd Approver. For both Approve/Reject leave request 2nd approver will have Approve/Reject buttons and can also enter a remark/reason if any.

The Employee, Supervisor/Team lead and Manager can view the leave approval process status.

4.4 HR Module

In this module HR manager can check the status of the leave approve process and have rights to add leave to specific employee whenever required if the employee is out leave balance.

5. SCOPE OF THE PROPOSED SYSTEM

This Android E-Leave management system is an online leave management system for leave applications and approvals or rejection of particular leave applied by an employee in an organization. A centralized database will be used to hold all leave applications details and keep data in a way that it can be viewed by management to make prompt informed decisions on approvals or rejection of employee leaves. A simple android

application interface will be in place making it easy to use for all employees and management.

5.1 Limitations of the proposed system

The android application will only be used by a registered employee in an organization, as they will be using their employee code in the login process.

As this system is giving a freedom to employees of applying leaves from anywhere hence the active internet connection on his/her Android smartphone required.

6. CONCLUSION

Thus the E-Leave android application has been developed to overcome the problem of manually applying leave which is time consuming. It helps a staff or an employee to apply the leave through online mode and get approval from higher officials. The application provides notification to higher officials upon submission of leave request and leave status is notified to the respective employee, which also provides an optimized solution to track the leave status in real-time.

7. REFERENCES

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