Research Paper on Automated Leave Management System for Colleges/ universities

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Abstract: Automated Leave Management System project is aimed at developing software that automatically manages leave of teaching and non-teaching staff of a college or a university. It is a web-based application used throughout each employee of the college or a university. In manual system, lots of paper work and workload adjustments are required. There is no facility to take online leave and automatic management of the workload of an employee. This proposed system is used to automate leave management. This system provides features of online leave application, online leave approval, automatic workload adjustment and automatic payment calculation of an employee and leave cancellation. At anytime and anywhere college or university staff can apply their leave using this application. There is no necessity of filling manual forms and take authorised signatures. Lots of paper work is reduced due to this application. The main advantage of this application is to reduce time and save paper. Python Language is used for developing this system and MongoDB Database is used at back end.

Key Words: *: Automatic Payment calculation, Workload adjustment, Online Leave Application, Python, Leave Cancellation.*

1.Introduction

Now a days, everything is going to become automated. In colleges and universities, all teaching and non-teaching staff has to do workload adjustments if they want leave, and it becomes tedious to fill leave application form and signed it by higher authorities and manually do work adjustments. Manual system of leave application is very time consuming and tedious process.

Automated Leave Management System allows user to fill online leave application form, Head of department decides whether to approve the leave or escalate to Higher authorities. If leave is approved the alert message is given to user and his workload is adjusted as per timetable. System will scan the timetable of respective department and adjust the workload. System will provide types of leaves like medical leave or casual leave or emergency leave. It will help in deciding the approval of leave application. This application will calculate salary of teaching and non-teaching staff. User can cancel his leave application.

With this kind of application staff members can easily check their leave details and salary details. Head of department and Principal can easily check the leave details of staff for a day. This application can also help in predicting the performance of staff.

2.EXISTING SYSTEM

In the existing it is individual to apply leave. It increases the paper work and record maintenance and manual workload adjustment which is a tedious work.

3.PROPOSED SYSTEM

The main objective of the proposed system is to automate the existing system. It decreases the paper work and easier to store data using a database for leaves, payment, time table etc. It reduces the time and manual paper work for applying a leave and workload adjustment. Automated Leave Management system

reduces the work and time of the Head of the department/Principal.

4.MODULES IN AUTOMATED LEAVE MANAGEMENT SYSTEM

The modules are
- Login Module
- Leave Application Module
- Leave Cancellation Module
- Leave Status Module
- Workload Adjustment Module
- Payment Calculation

4.1 LOGIN MODULE

In login module every staff member has given user ID and Password through registration. With help of login details , staff members can login into system.

4.2 LEAVE APPLICATION MODULE

In this module, after successful login into system, the staff can apply for leave by filling leave application form and submit it. The leave application is forwarded to higher authorities for approval. Higher authorities (HOD/Principal) can approve or reject the leave application form.

4.3 LEAVE CANCELLATION MODULE

In this module the staff member can cancel the leave application.

4.4 LEAVE STATUS MODULE

In this module the Admin can view the status of leave application of a particular staff member and also view how many faculty members are on leave at particular instance.
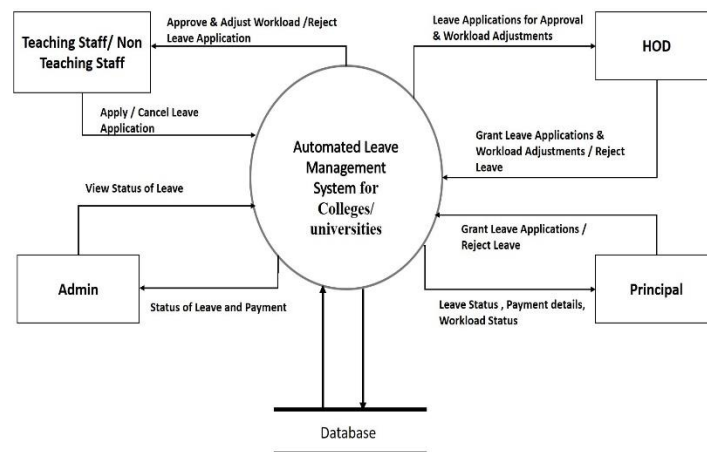
4.5 WORKLOAD ADJUSTMENT MODULE

This module checks the approved leave applications of staff members and as per time table adjust workload of staff to other staff member. Workload adjustment notification is send to HOD and the staff members who have allocated the extra workload.

4.6 PAYMENT CALCULATION

This module calculates the no of leaves of all staff members and as per rules the salaries are calculated automatically. Every Staff Member can view his leave status and checks for his salary.

5.DIAGRAM

6. CONCLUSIONS

Thus the "AUTOMATED LEAVE MANAGEMENT SYSTEM has been developed to overcome the problem of manually applying leave and manages workload and payment calculations which is time consuming process. It helps a staff or an employee to apply the leave through online and get approval from higher officials. Thus, the Automated Leave Application System provides an optimized solution like online leave, approval of leave, Workload status, leave

status and payment calculation can be viewed directly by the staff and higher authorities.

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