

Employee Availability on Click

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Abstract— ERP System for Employee Management is an online Web based system which will take care of leave and availability of Employees along with dynamic workload is taken into consideration. This portal will represent information and Statistics in diagrams as well as in tables, forms and is easy to use. It integrates many features in one portal which are mostly proprietary and not available in one single system. Using this system, the higher authorities such as HOD and Principal can conduct activities in the premises along with selected faculty members and notifying them through Email/SMS for the same. Employees can share their workload dynamically over the web-system which affects their availability in the Institute. When an employee desires to take a leave he/she can apply through the system along with workload sharing with another employee. This system will help the institute to improve overall performance by eliminating paperwork and dynamic management of employee availability. taken into consideration. This portal will represent information and Statistics in diagrams as well as in tables, forms and is easy to use. It integrates many features in one portal. As Employees are hassled by the manual paper-based system this online web-based system will provide a hassle-free way to manage their activities in an Institute.

Keywords: ERP, HOD, Principal, Employee, Load Adjustment, Statistics, Notification, Dynamic Workload Sharing

I. MOTIVATION

The project idea focuses on problems faced in an organization with an adequate workforce. An organization faces many problems which are observed while managing workload between employees when some employees are on leave. Because of such unavailability of employees, managing their workload becomes a tedious task. It also becomes a difficult task for the higher authority to evaluate employee's performance based on their leave records and workload. Current system is a subscription based proprietary SaaS web system which provides features regarding leave management, attendance records, etc. Unfortunately, it is proprietary and requires extra premium charges for some essential features along with lack of dynamic workload management. But the current system lacks the feature of dynamic workload as it provides only static workload. It also fails in providing integrated report generation. It provides only limited free features and expensive premium add-ons.

There are two issues addressed by this system. The first issue is 'Available Workforce Management' in the context of 'Employee Availability management'. The second issue is about 'Leave Management'.

II. PROBLEM STATEMENT

The difficulty confronted by an educational institute are as follows:

- It is a lethargic process to manage availability and leaves while keeping track of it manually on paper.
- For an instance, the leaves and dynamic duties has to be tallied by HA to keep track of employee's availability.
- Sometimes HA has a tough time to track down the employee's location (i.e. class room number and lab room number).
- Departmental and academic workload must be swapped with another employee with same designation before going on leave.
- Besides no report generation, there is a necessity to keep handwritten or printed records.
- Special activity conducted in an institute which involves employees working voluntarily must be recorded and recognized.
- To calculate monthly/yearly leave record, requires unnecessary efforts to get simple statistics.
- For conducting special activity employees time slots/days must be checked according to their availability.
- Appraisals need to be calculated taking into account leaves and special activity.
- Real time notifications regarding meetings are not provided.

III. PROPOSED SYSTEM

A. Availability of Employees

Availability of employees will be displayed according to their schedule, leaves and dynamic duties. Activities conducted in the institute will also be reflected in their current and future availability.

B. Leave Management for Employees

Firstly, employee has to follow an online procedure of filling leave form along with approved workload adjustment followed by HOD approval.

This system will solve two main problems which are broadly classified as follows:

1) Static Workload:

It is fixed for a particular period of time. For an instance, day-to-day pre-assigned activity of taking lectures according to the timetable which is constant.

2) Dynamic Workload:

It is the work assigned dynamically at the moment. It can be categorized as:

- Indoor Duty
- Outdoor Duty
- Exam Duty

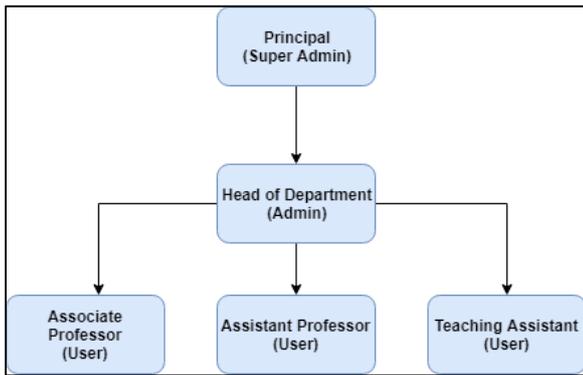


Fig. 1: Designations in an Educational Institute

IV. PROPOSED SYSTEM ARCHITECTURE / WORKING

Following architecture of an ERP web system will be developed for an educational institute and will be based on its hierarchy:

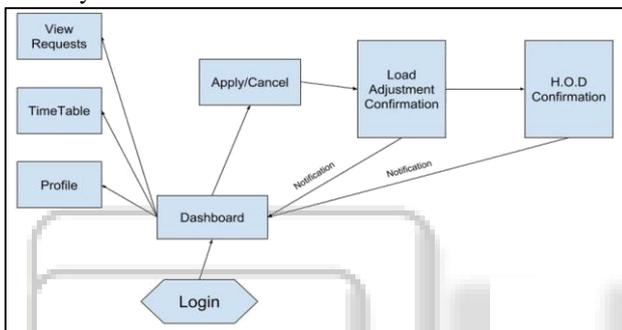


Fig. 2: Employee Login Flowchart

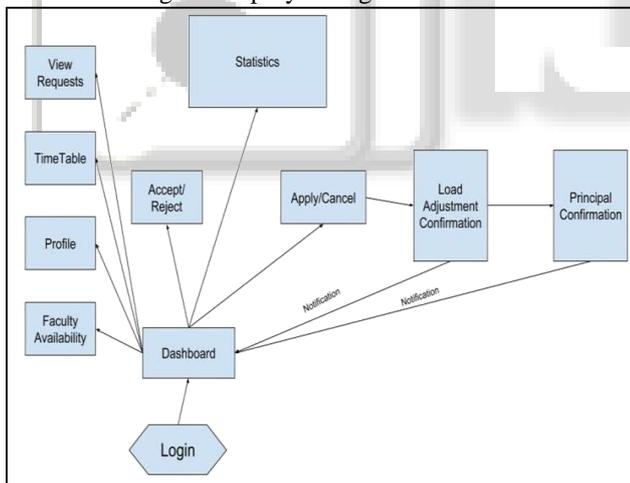


Fig. 3: Higher Authority Flowchart

A. Dashboard:

Dashboard represents a navbar which links to different pages as well as statistics of leaves (all types) which are taken with respect to the remaining leaves. Record of past leave taken in the current academic month as well as year.

B. Apply/Cancel:

There is an interface present in the system which is used to apply for a leave or cancel a pending leave. Leave application has five main fields which are needed to be filled by an employee who is going on leave.

- Type of leave

- Status
- Duration of leave
- Reason for leave
- Request of departmental and academic workload sharing with Colleague.

C. View Requests:

Academic and Departmental workload request from other employees which are pending will be displayed. The employee has the authority to accept or reject the workload request.

D. Timetable:

An employee can view and edit the timetable/schedule. Entered Lab/Class number will be considered as occupied slots whereas blank slots will be considered as free slots.

E. View/Change Profile:

An interface is provided to view/edit user profile information.

F. Load Adjustment Confirmation:

Notification is provided via SMS/e-mail when a colleague has accepted his/her load sharing request.

G. HOD Confirmation:

When the higher authority has accepted employee's leave request along with load sharing, then the same will be notified through SMS/e-mail.

H. Accept/Reject:

After load sharing has been approved by the employee's colleague. Then the leave request will be displayed in higher authority's portal and a decision will be made whether to accept or reject the leave request.

I. Statistics:

This interface will display statistics of employees to the higher authority. These statistics will include the following:

- The total number of leaves granted to all employees in the current month/year.
- Leave record of an employee in the current month/year.
- Maximum leaves taken by employees in this month (descending order).
- Employees who pro-actively participated in this month/year (descending order).
- Employees who applied for a leave on the system after taking it.

J. Faculty Availability:

During a specific slot, it can be found when a faculty is free and can be tracked in the institute according to his/her timetable from the system.

K. Conduct Activity:

If an activity has to be conducted in an institute which involves employees from different departments, notification to all registered employees will be sent through the system.

L. Reset:

Principal has an authority to reset the timetable every semester in which leaves will be carried forward or reset

system for every academic year in which leaves as well as time table will be set as default.

V. IMPLEMENTATION

A. Technology Stack

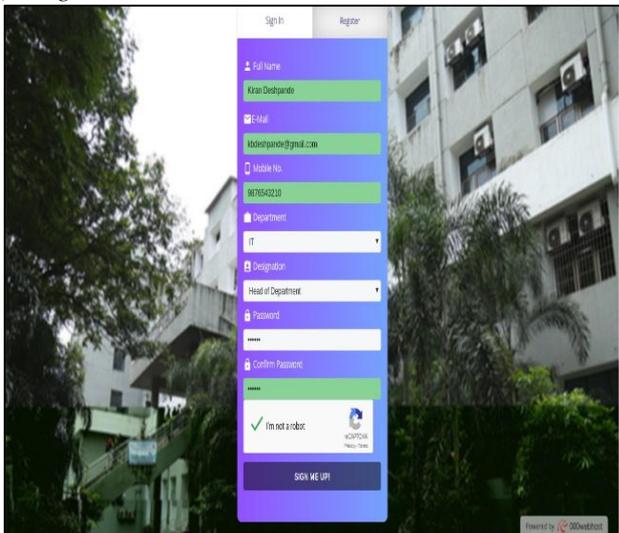
- HTML
- CSS
- JS
- PHP
- MYSQL

B. Software Specifications

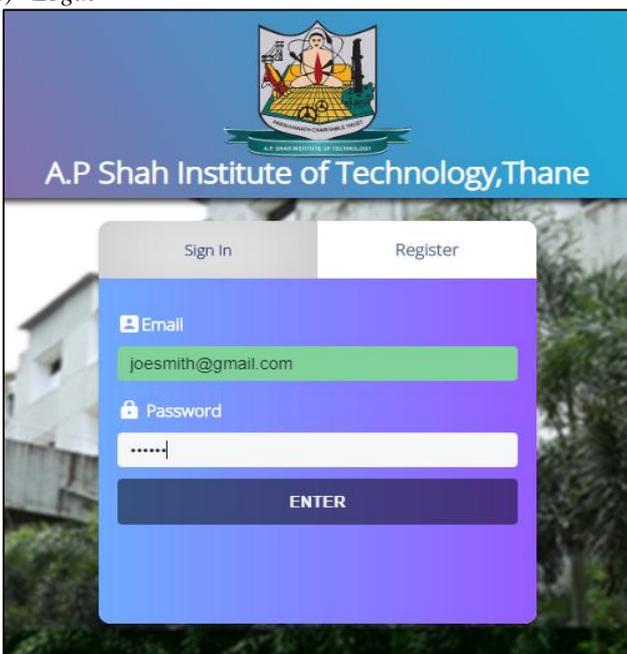
Minimum Requirements:

- Web Browser:
Mozilla Firefox 55+
Google Chrome 20.0
- Web Server:
PHP 7.0+

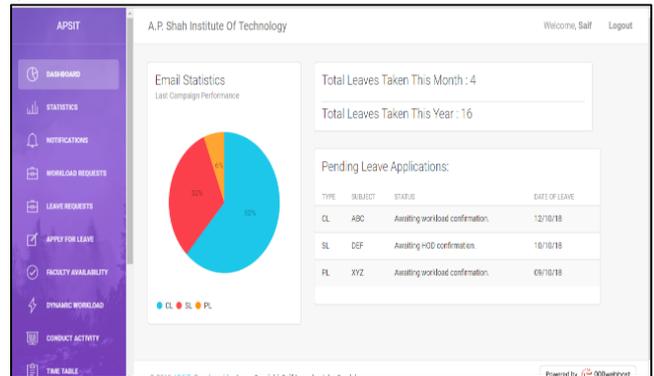
1) Registration



2) Login



3) Dashboard



4) User Request

NAME	EMAIL	MOBILE NO.	DESIGNATION	DEPT	ACTION
No New Requests!					

5) Load Adjustment

6) Workload Requests

DATE	FROM	LEAVE DATE	DEPT	STATUS	TYPE	ACTION
22-Mar-2019	Isha Ovalekar	12-Mar-2019	IT	Avalled	ML	VIEW

7) Statistics

Pending Leave Application with Load Adjustment

NAME	LEAVE TYPE	DATE	FULL / HALF DAY	WORKLOAD DESCRIPTION	ACTION
Prof. Neha Deshmukh	CL	12/18/18	Full day	This is workload description.	Accept Reject
Prof. Vishal Badgajar	SL	12/01/19	Half day	This is workload description.	Accept Reject
Prof. Sunil Sushir	SL	22/02/19	Half day	This is workload description.	Accept Reject

Information regarding Activity to be Conducted
Activity Name on Date and Time

NAME	DEPARTMENT
Prof. Nahid Shaikh	IT
ABC	EXTC.

Faculty Absent Today

NAME
Prof. Nahid Shaikh
Prof. Sunil Sushir

8) Timetable

A.P. Shah Institute Of Technology

Edit Timetable for 2nd Semester From 02-January-2019 To 01-June-2019

TIMESLOT	9:15-10:00	10:05-11:00	11:05-11:55	11:55-12:25	12:25-1:20	1:20-2:15	2:15-2:30	2:35-3:30	3:30-4:25	4:25-5:20
MONDAY			B					B		
TUESDAY			R					R		
WEDNESDAY			E					E		
THURSDAY			A					A		
FRIDAY			K					K		

9) Conduct Activity

Conduct Activity

Activity Title: _____

Select Department: IT

Date: dd/mm/yyyy

From (Time): --:-- To (Time): --:--

Select Involved Faculty Members

CHECK	NAME	DEPARTMENT
<input checked="" type="checkbox"/>	Prof. Nahid Shaikh	IT
<input checked="" type="checkbox"/>	ABC	EXTC.

10) Reset

A.P. Shah Institute Of Technology

Welcome, Anam Logout

Reset

Reset System For New Academic Year

Reset System For 2nd Half Of Academic Year

11) List of Tables used

Table	Action	Rows	Type	Collation	Size	Overhead
abdefgh	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 K B	-
abdefgh_ss	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	48 K B	-
academic_master	Browse Structure Search Insert Empty Drop	5	InnoDB	latin1_swedish_ci	16 K B	-
anamquraishi	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 K B	-
anamquraishi_ss	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	32 K B	-
civilteacher	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 K B	-
civilteacher_ss	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	48 K B	-
conduct_activity	Browse Structure Search Insert Empty Drop	3	InnoDB	latin1_swedish_ci	16 K B	-
dynamic_duty	Browse Structure Search Insert Empty Drop	1	InnoDB	latin1_swedish_ci	16 K B	-
ishaowalekar	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 K B	-
ishaowalekar_ss	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	48 K B	-
leave_applications	Browse Structure Search Insert Empty Drop	8	InnoDB	latin1_swedish_ci	16 K B	-
sainnamdar	Browse Structure Search Insert Empty Drop	10	InnoDB	latin1_swedish_ci	16 K B	-
sainnamdar_ss	Browse Structure Search Insert Empty Drop	0	InnoDB	latin1_swedish_ci	32 K B	-
users	Browse Structure Search Insert Empty Drop	5	InnoDB	latin1_swedish_ci	09 K B	-
15 tables	Sum	72	InnoDB	latin1_swedish_ci	432 K B	0 B

VI. CONCLUSION

This report can be summarized as - This topic can be broken down into two modules i.e. Employee Availability Management System and Employee Leave Management System. This web system solves the issue which is encountered in an organization related to the availability of employees and it will handle all the leave applications, load sharing requests and employee availability. Statistics will be displayed dynamically to the employees and higher authorities which will provide them a way to make decisions in less time. The main goal is to productively and efficiently manage all the task in an organization. As well as it focuses on reducing time and energy invested by employees on activities which are not work-related.

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