Leave Management system for Educational Institutes

IPL Mini Project

Bachelor of Engineering
in
Information Technology
by

Ms. Swaleha Khan (17IT5010)

Ms. Gauri Kadam (17IT5020)

Ms. Ashwini Patil (17IT5011)

Under the Guidance of

Mr. Madhav Vyas

Department of Information Technology
Dr. D.Y.Patil Group's
Ramrao Adik Institute of Technology
Dr.D.Y. Patil Vidyanagar,Sector-7,Nerul,Navi Mumbai 400706
(Affiliated to University of Mumbai,2018)

Ramrao Adik Institute of Technology
(Affiliated to University of Mumbai)
Dr.D.Y. Patil Vidyanagar,Sector-7,Nerul,Navi Mumbai 400706

CERTIFICATE

This is to certify that
IPL Mini Project entitled
"Leave Management System for Educational Institutes"
is a bonafide work
done
by

Ms. Swaleha Khan (17IT5010)
Ms. Gauri Kadam (17IT5020)
Ms. Ashwini Patil (17IT5011)

and is submitted in the partial fulfillment of the
requirement for degree of

Bachelor of Engineering
in
Information Technology
to the
University of Mumbai

Guide
(Mr.Madhav Vyas)

Certificate of Approval by Examiners

This IPL Mini Project report entitled **'Leave Management System for Educational Institutes'** is a bonafide work done by **Ms.Swaleha Khan(17IT5010),Ms. Ashwini Patil(17IT5011),Ms.Gauri Kadam(17IT5020)** under the supervision of Mr. Madhav Vyas in Information Technology, University of Mumbai.

Project Guide **External Examiner**

(Mr.Madhav Vyas) **( )**

Date: 24 October,2018

Place: Nerul, Navi Mumbai

Acknowledgement

I take this opportunity to express my profound gratitude and deep regards to my project guide Mr. Madhav Vyas for her exemplary guidance, monitoring and constant encouragement throughout the completion of this report. I am truly grateful to her efforts to improve my technical writing skills. The blessing, help and guidance given by her time to time shall carry me a long way in the journey of life on which I am about to embark. I am also thankful to Dr.Ashish Jadhav, Head of Department of Information Technology.

Ms. Swaleha Khan (17IT5010)

Ms. Ashwini Patil (17IT5011)

Ms. Gauri Kadam (17IT5020)

Contents

List of Figures

AIM

Providing an internet based solution to the issue of approval of leaves in an educational institute, to decrease the paperwork and enable the process with efficient, reliable record maintenance by using centralized database, thereby reducing chances of data loss to provide for an automated leave management system is our main motive. Our aim is to reduce the paper work required in the process of application of leaves by a faculty upto the point it gets an approval by the Principal of the institute and a copy is sent to the admin. The system tends to remove the concept of waiting in a queue in order to get approval of the leave from the Principal after which it has to be submitted to the admin for calculation of pending leaves. Thus the system also calculates the pending leaves and notifies the faculty about the same.

Introduction

In the existing Leave Record Management System, every college follows manual procedure in which faculty enters information in a record book. This module is a single leave management system that is critical for HR tasks and keeps the record of vital information regarding leaves. It intelligently adapts to HR policy of the management and allows employees to manage leaves and replacements (if required). In this module, Head of Department (HOD) will have permissions to look after data of every faculty member of their department. HOD can approve leave through this application and can view leave information of every individual.

This projects main idea is to develop an online centralized application connected to database which will maintain faculty leaves, notices information and their replacements (if needed).

Abstract

This project is aimed at developing a leave management system that is of importance to either an organisation. The Leave Management System (LMS) is an Intranet based application that can be accessed throughout the organisation or a specified group/Dept. This system can be used to automate the workflow of leave applications and their approvals. The periodic crediting of leave is also automated. There are features like automatic approval of leave, report generators etc in this system. Leave Management application will reduce paper work and maintains record in more efficient way.

Proposed System

The main objective of the proposed system is to decrease the paperwork and help in easier record maintenance by having a particular centralized Database System, where staff Leaves are maintained.The proposed system automates the existing system. It decreases the paperwork and enables easier record maintenance.This application is an online application which makes it more flexible to access information.

In this new PHP based Leave Management Sytsem for Educational Institutes ,there will be four types of users who will interact with this system and control the various activity.These four users will be:Employee,Admin,HoD and Principal.Admin adds the employee details;the employee then applies for a leave.The employee can also select their substitute for that particular day/slot.After the substitute approves it,the application goes to Head of Department for further recommendation.If HoD recommends,the application is forwarded to the Principal for final approval who scans a QRCode for approval of the leave application.

Existing System

In the existing Leave Record Management System, every college follows manual procedure in which faculty enters information in a record book.Providing an internet based solution to the issue of approval of leaves in an educational institute, to decrease the paperwork and enable the process with efficient, reliable record maintenance by using centralized database, thereby reducing chances of data loss to provide for an automated leave management system.The main objective of the proposed system is to decrease the paperwork and help in easier record maintenance by having a particular centralized Database System, where staff Leaves are maintained.The proposed system automates the existing system.

System Modules:

Leave Management system basically consist of 4 modules:-

1.Admin Module: The Admin module logs into the system where he can check:
I.) Checks the Dashboard to see the leave history of employees.
II.) Can add Department to the database.
III.) Can add classes(such as FE,SE,TE,BE).
IV.) Can add leave type(such as Medical,vocational,casual,etc.,)
V.) Adds Employee details to the database.
VI.) Can view employees leave details after the principal approves it.
VII.) Log out

2. Employee Module: The staff member logs into his interface window where he can check:
I.) Their profile and update the same if needed.
II.) Can view their leave history i.e.,Balance leaves
III.) Can change their password.
IV.) Can upload their timetable.
V.) Can apply for leave and choose substitute.
VI.) Can check available substitute for his/her time slot in the TimeTable.

2.1 Substitute: The substitute can do the following:
I.) Can approve employees request if he/she has requested it.
II.) Can also reject the request if not free for that particular time slot.
III.) After the substitute approves the request it goes to the HoD.

3.HOD(Head of Department)HOD logs into his interface window to:
I.) Check new application request.
II.) Check employee leave details.
III.) Can change their password
IV.) Accepts/rejects leave application.
V.) Can see employees leave history(approved,not approved and pending leave applications)
After the HoD recommends the leave it goes to the Principal.

4.Principal module: The Principal logs into his interface window where he can check:
I.) Can approve/not approve employee leave by scanning QR code.
II.) Can change password if needed.
III.) Log out.

6.0.1 Working of the system:

When a staff member logs in to the system firstly a member is validated with the entries in database if the employee is registered,then a leave application form appears, employee will fill the form with all necessary information and submits the application .The employee can upload his/her timetable as well.The member can also a select a substitute,if needed.

The leave application then goes to the substitute,who then approves/not approves it depending on whether he/she is free or not.If substitute approves the leave, it goes to the HoD.

When HOD logs in he/she has access to all applied leave application. HOD decides whether to accept or reject the application. The HoD recommends the leave application to the Principal.

Finally, the principal decides whether to approve/not approve the leave application using a QR code

RESPONSIVE WEB DESIGNING FRAMEWORK

What is a framework?

A framework is a standardized set of concepts, practices and criteria for dealing with a common type of problem, which can be used as a reference to help us approach and resolve new problems of a similar nature. In the world of web design, to give a more straightforward definition, a framework is defined as a package made up of a structure of files and folders of standardized code (HTML, CSS, JS documents etc.) which can be used to support the development of websites, as a basis to start building a site. Most websites share a very similar (not to say identical) structure. The aim of frameworks is to provide a common structure so that developers dont have to redo it from scratch and can reuse the code provided. In this way, frameworks allow us to cut out much of the work and save a lot of time.

Bootstrap: Bootstrap is a free front-end framework for faster and easier web development. Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins.

Material design: Material Design is a visual language that synthesizes the classic principles of good design with the innovation of technology and science.

RWD CODE

Index.php

```
<?php
session_start();
error_reporting(0);
include('includes/config.php');
if(isset($_POST['signin']))
{
$uname=$_POST['username'];
$password=md5($_POST['password']);
$sql ="SELECT EmailId,Password,Status,id FROM tblemployees WHERE EmailId=:uname and Passwor
$query= $dbh -> prepare($sql);
$query-> bindParam(':uname', $uname, PDO::PARAM_STR);
$query-> bindParam(':password', $password, PDO::PARAM_STR);
$query-> execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
if($query->rowCount() > 0)
{
 foreach ($results as $result) {
    $status=$result->Status;
    $_SESSION['eid']=$result->id;
  }
if($status==0)
{
$msg="Your account is Inactive. Please contact admin";
} else{
$_SESSION['emplogin']=$_POST['username'];
echo "<script type='text/javascript'> document.location = 'emp-changepassword.php'; </scrip
} }

else{

  echo "<script>alert('Invalid Details');</script>";

}

}

?>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Faculty Login</title>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
<!--===============================================================================================
  <link rel="icon" type="image/png" href="assets/images/logo.png"/>
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="vendor/bootstrap/css/bootstrap.min.css">
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="fonts/font-awesome-4.7.0/css/font-awesome.mi
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="fonts/iconic/css/material-design-iconic-font
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="vendor/animate/animate.css">
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="vendor/css-hamburgers/hamburgers.min.css">
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="vendor/animsition/css/animsition.min.css">
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="vendor/select2/select2.min.css">
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="vendor/daterangepicker/daterangepicker.css">
<!--===============================================================================================
  <link rel="stylesheet" type="text/css" href="css/util.css">
  <link rel="stylesheet" type="text/css" href="css/main.css">
<!--===============================================================================================
<style>
img:hover {
  animation: shake 0.5s;
  animation-iteration-count: infinite;
}

@keyframes shake {
  0% { transform: translate(1px, 1px) rotate(0deg); }
  10% { transform: translate(-1px, -2px) rotate(-1deg); }
  20% { transform: translate(-3px, 0px) rotate(1deg); }
  30% { transform: translate(3px, 2px) rotate(0deg); }
  40% { transform: translate(1px, -1px) rotate(1deg); }
  50% { transform: translate(-1px, 2px) rotate(-1deg); }
  60% { transform: translate(-3px, 1px) rotate(0deg); }
  70% { transform: translate(3px, 1px) rotate(-1deg); }
  80% { transform: translate(-1px, -1px) rotate(1deg); }
  90% { transform: translate(1px, 2px) rotate(0deg); }
  100% { transform: translate(1px, -2px) rotate(-1deg); }
}
</style>
```

```
</head>
<body>

  <div class="limiter">
    <div class="container-login100" style="background-image: url('assets/images/bg-01.jpg')
      <div class="wrap-login100">
        <form class="login100-form validate-form" name="signin" method="post">
          <span class="login100-form-logo">
            <img src="assets/images/logo.png" width="70" height="70" />
          </span>

          <span class="login100-form-title p-b-34 p-t-27">
            Log in
          </span>

          <div class="wrap-input100 validate-input" data-validate = "Enter username">
            <input class="input100" type="text" name="username" id="username" placeholder="
            <span class="focus-input100" data-placeholder="&#xf207;"></span>
          </div>

          <div class="wrap-input100 validate-input" data-validate="Enter password">
            <input class="input100" type="password" name="password" id="password" placehold
            <span class="focus-input100" data-placeholder="&#xf191;"></span>
          </div>

          <div class="container-login100-form-btn">
            <!-- <input type="submit" name="signin" value="Sign in" class="login100-form-bt
            <button class="login100-form-btn" name="signin">
              Login
            </button>
          </div>
        </form>
      </div>
    </div>
  </div>


  <div id="dropDownSelect1"></div>

<!--===============================================================================================
  <script src="vendor/jquery/jquery-3.2.1.min.js"></script>
<!--===============================================================================================
  <script src="vendor/animsition/js/animsition.min.js"></script>
<!--===============================================================================================
  <script src="vendor/bootstrap/js/popper.js"></script>
  <script src="vendor/bootstrap/js/bootstrap.min.js"></script>
<script src="vendor/select2/select2.min.js"></script>
  </body>
</html>
```

CSS

CSS comes in three types:

1.In a separate file (external)
2.At the top of a web page document (internal)
3.Right next to the text it decorates (inline)

External style sheets are separate files full of CSS instructions (with the file extension .css). When any web page includes an external stylesheet, its look and feel will be controlled by this CSS file (unless you decide to override a style using one of these next two types). This is how you change a whole website at once. And that's perfect if you want to keep up with the latest fashion in web pages without rewriting every page!

Internal styles are placed at the top of each web page document, before any of the content is listed. This is the next best thing to external, because they're easy to find, yet allow you to 'override' an external style sheet – for that special page that wants to be a nonconformist!

Inline styles are placed right where you need them, next to the text or graphic you wish to decorate. You can insert inline styles anywhere in the middle of your HTML code, giving you real freedom to specify each web page element. On the other hand, this can make maintaining web pages a real chore!

Style.css

```
 <style>
    .errorWrap {
    padding: 10px;
    margin: 0 0 20px 0;
    background: #fff;
    border-left: 4px solid #dd3d36;
    -webkit-box-shadow: 0 1px 1px 0 rgba(0,0,0,.1);
    box-shadow: 0 1px 1px 0 rgba(0,0,0,.1);
}
.succWrap{
    padding: 10px;
    margin: 0 0 20px 0;
    background: #fff;
    border-left: 4px solid #5cb85c;
    -webkit-box-shadow: 0 1px 1px 0 rgba(0,0,0,.1);
    box-shadow: 0 1px 1px 0 rgba(0,0,0,.1);
}
        </style>
```

PHP

PHP is a server scripting language, and a powerful tool for making dynamic and interactive Web pages.

To connect to MySQL DataBase using PHP:

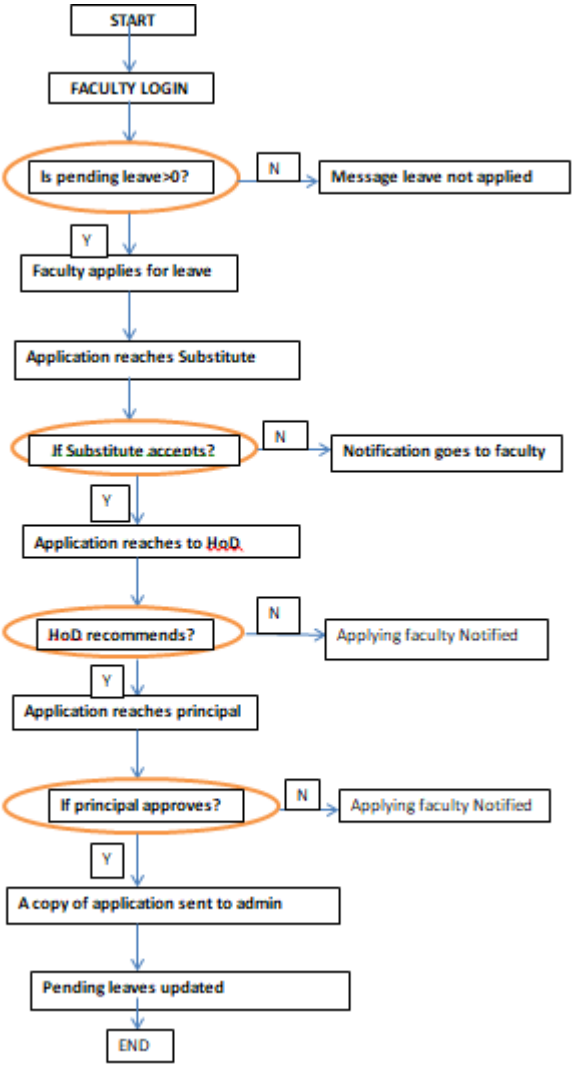
There are several methods for connecting to a MySQL database using PHP:

1.) MySQL Improved (mysqli) extension
2.)PDO (PHP Data Objects)
3.) Legacy MySQL (mysql) function
For our project we have used First one mysqli extension to connect Database

db.php

```
<?php
// DB credentials.
define('DB_HOST','localhost');
define('DB_USER','root');
define('DB_PASS','');
define('DB_NAME','elms');
// Establish database connection.
try
{
$dbh = new PDO("mysql:host=".DB_HOST.";dbname=".DB_NAME,DB_USER, DB_PASS,array(PDO::MYSQL_A
}
catch (PDOException $e)
{
exit("Error: " . $e->getMessage());
}
?>
```

System Architecture



AJAX

AJAX stands for Asynchronous JavaScript and XML.AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script. Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display.

```
/*HTML code related to AJAX*/

<label for="empcode">Employee Code(Must be unique)</label>
<input  name="empcode" id="empcode" onBlur="checkAvailabilityEmpid()" type="text" autocompl
<span id="empid-availability" style="font-size:12px;"></span>


/* Script for implementing AJAX*/

<script>
function checkAvailabilityEmpid() {
$("#loaderIcon").show();
jQuery.ajax({
url: "check_availability.php",
data:'empcode='+$("#empcode").val(),
type: "POST",
success:function(data){
$("#empid-availability").html(data);
$("#loaderIcon").hide();
},
error:function (){}
});
}
</script>
```

Result

1.Employee Module:

I.Applies for leave at apply-leave.php page

II. Can upload their timetable,

III. Can view their leave-history.

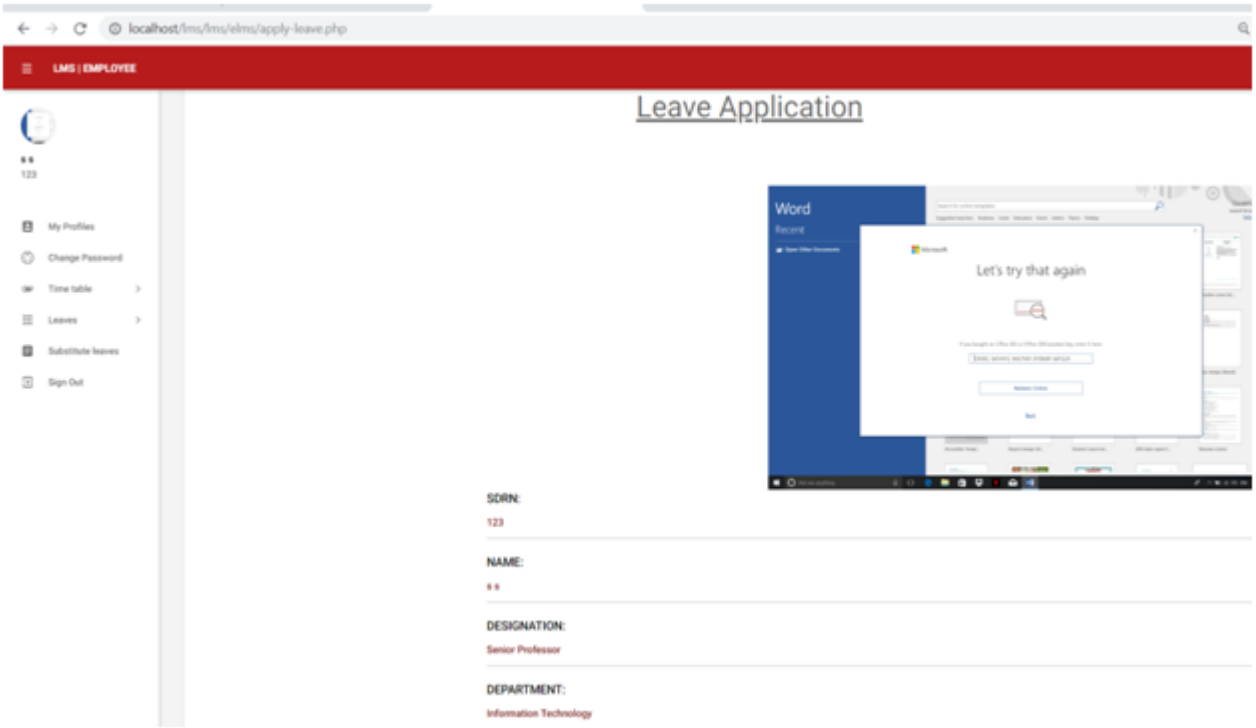


Figure 13.1: Employee Homepage

Figure 13.2: Employee Leave Application

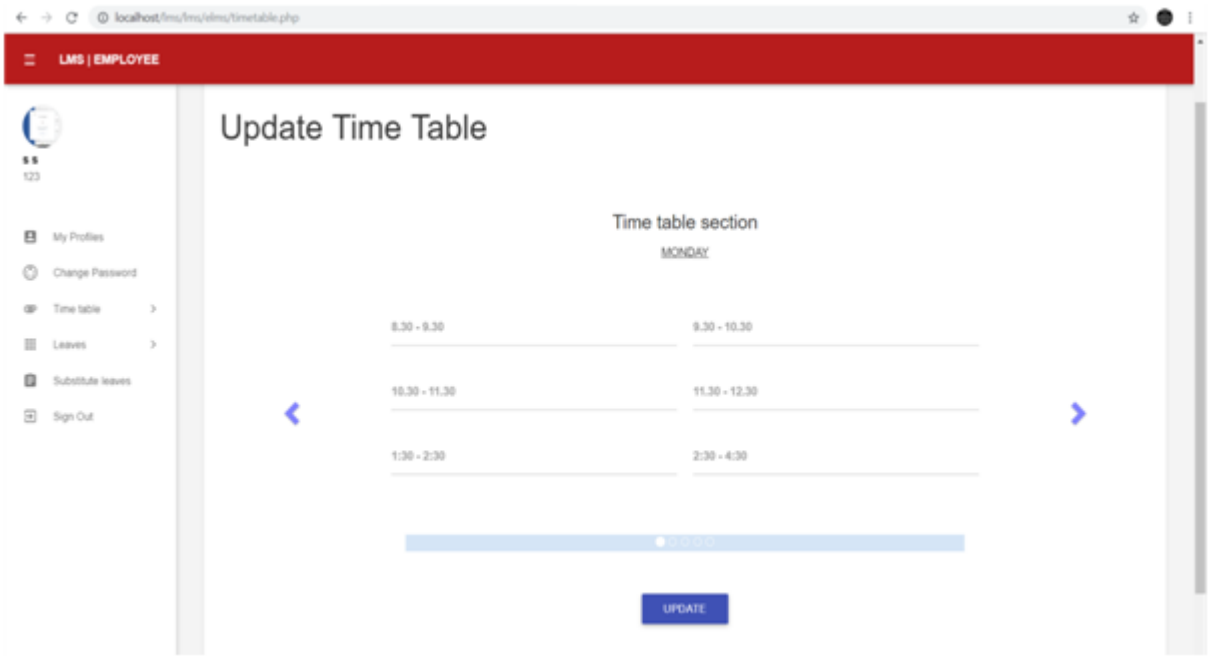


Figure 13.3: Employee Uploads TimeTable

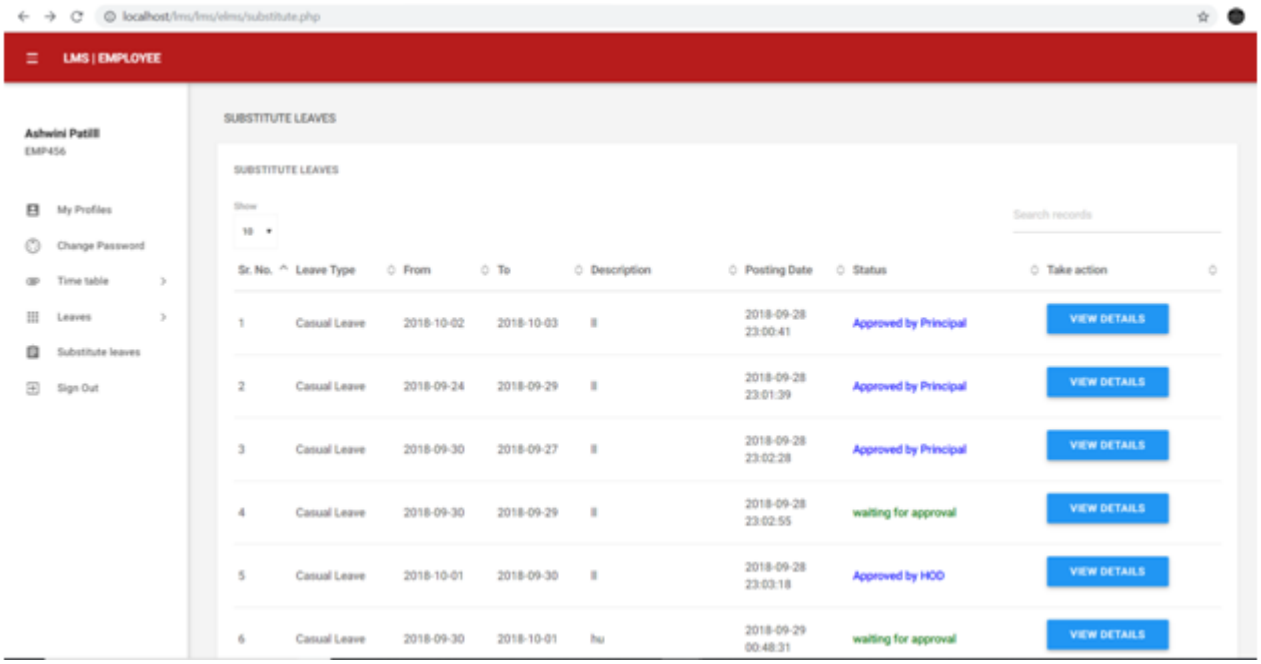


Figure 13.4: Employee Leave History

2.HoD Module
I.HoD approves/not approves leaves,
II. Has Dashboard for viewing all employee leaves.

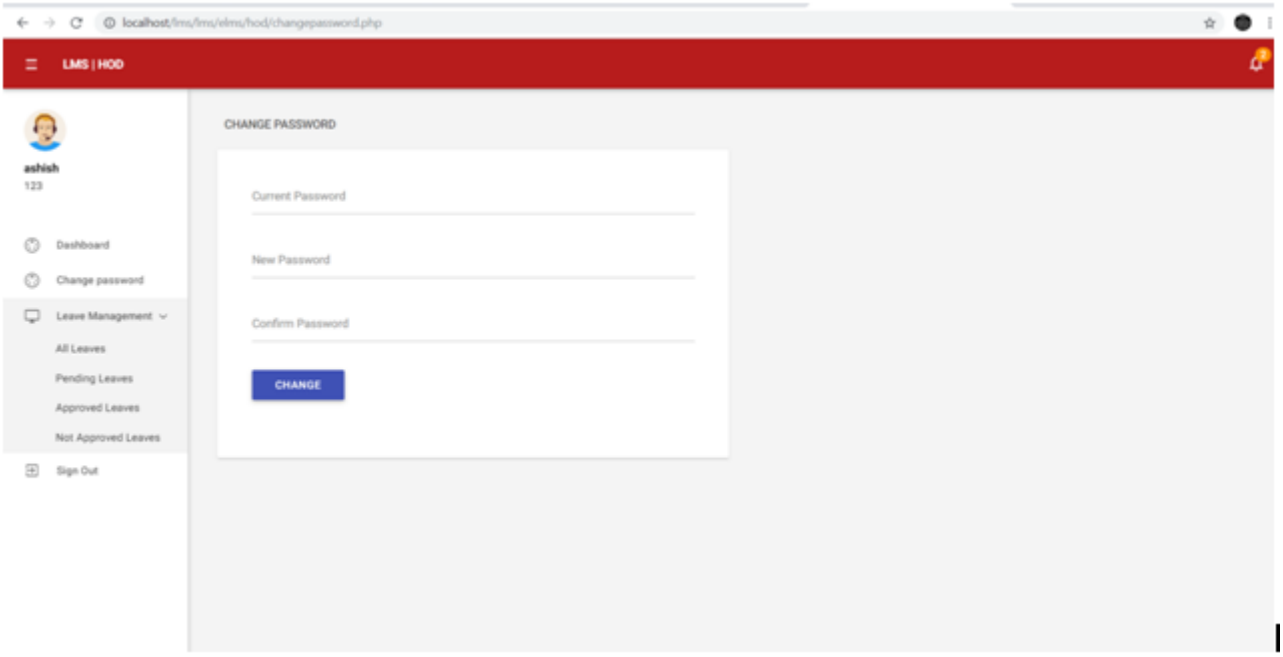


Figure 13.5: HoD Homepage

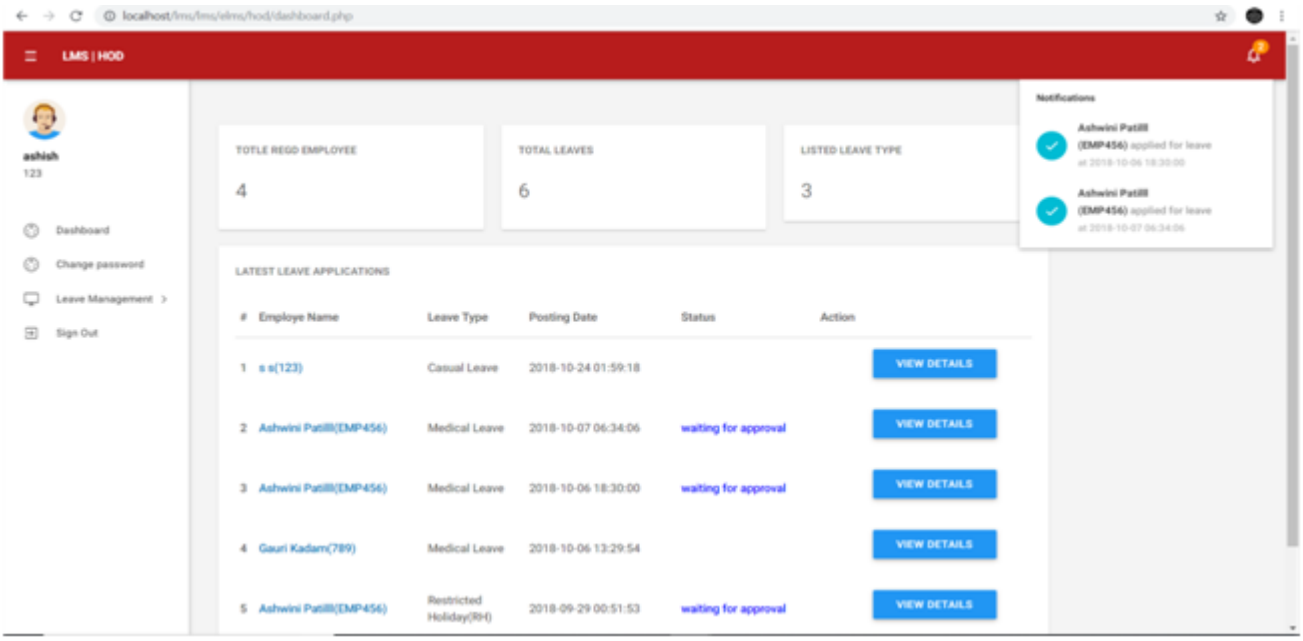


Figure 13.6: HoD DashBoard

3.Admin Module

I. Admin adds and manages employee details, classes and departments

II. Has certain privileges like updating and deleting employee data.

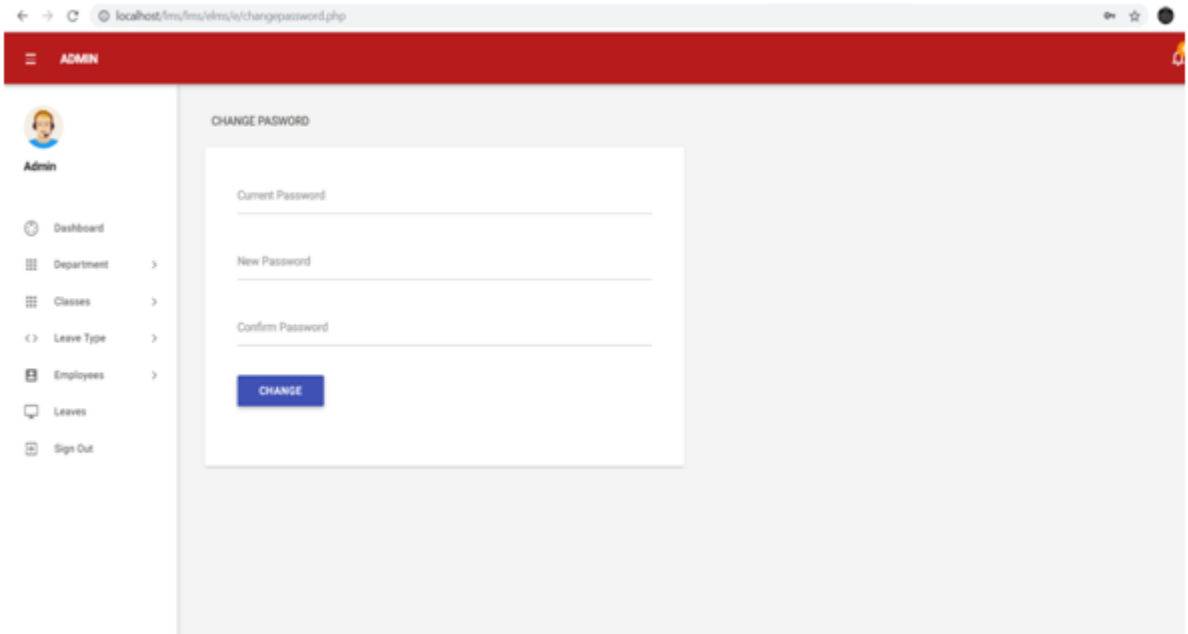


Figure 13.7: Admin Homepage

4.Principal Module:

I.)Can View all leave applications and approves/not approves leave using QRCode.

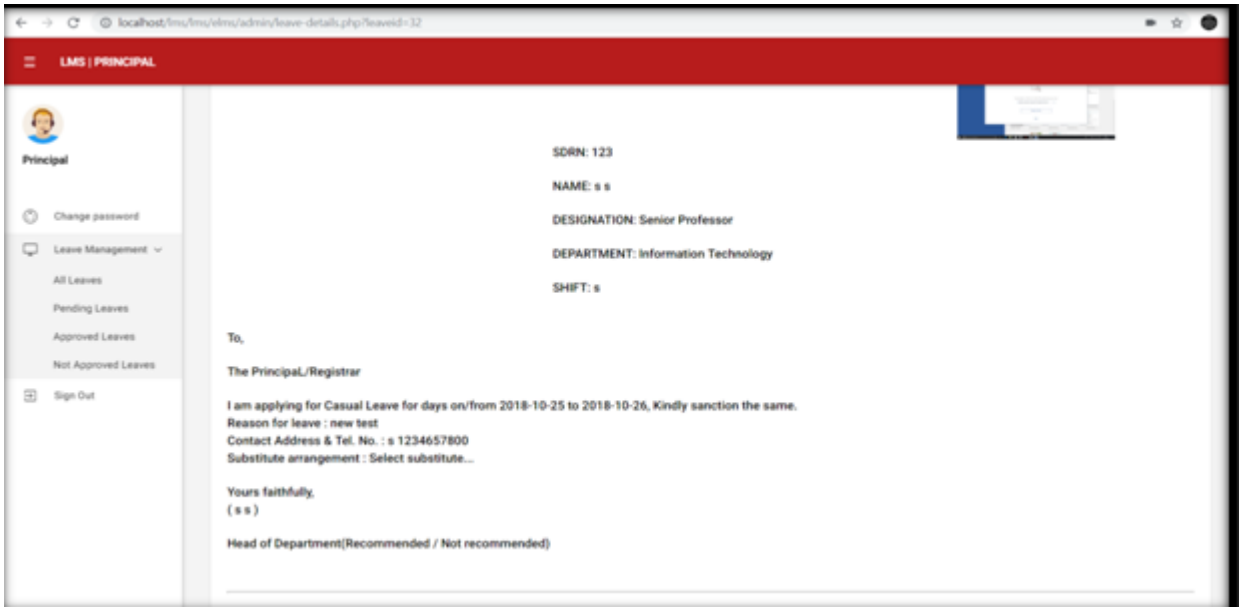


Figure 13.8: Principal Homepage

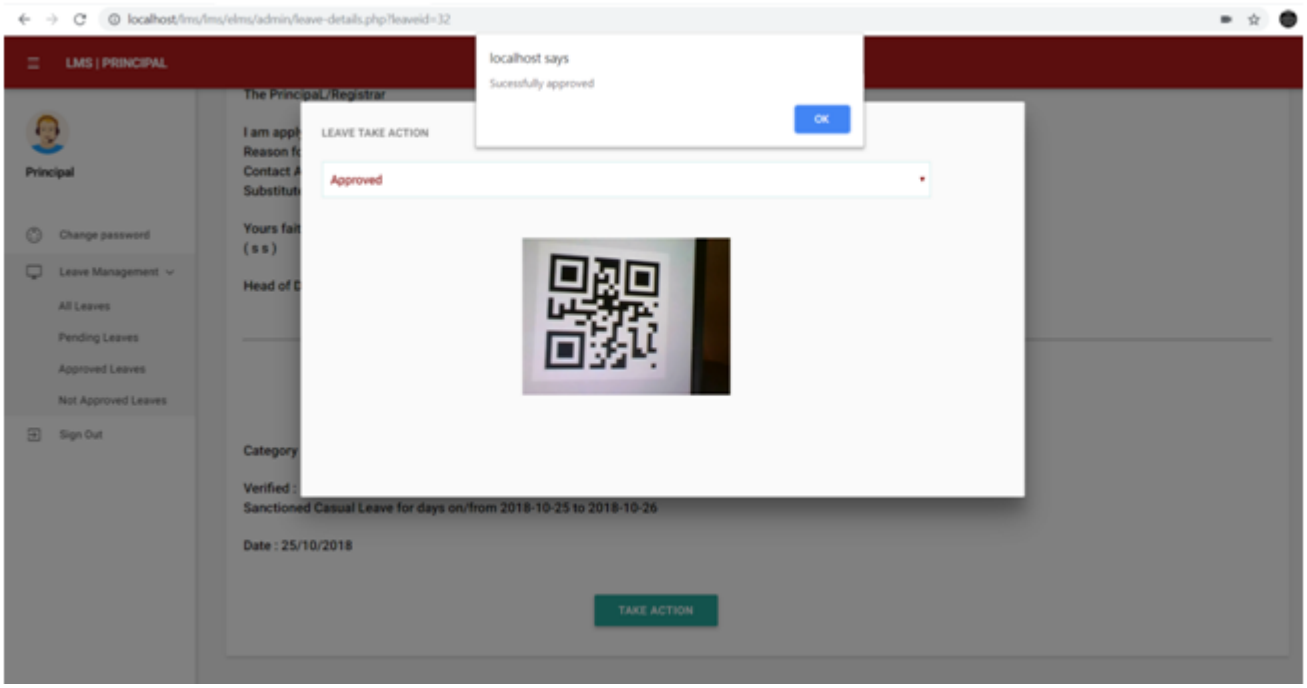


Figure 13.9: QRCode Scanning

Conclusion

Through this project we took a step towards to minimize the workload and paperwork required to maintain the leaves of faculty using php. Providing an internet based solution to the issue of approval of leaves in an educational institute, to decrease the paperwork and enable the process with efficient, reliable record maintenance by using centralized database, thereby reducing chances of data loss to provide for an automated leave management system is our main motive.