

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JnanaSangama, Belgaum-590018



## A Database Management System Mini Project Report On

## “EMPLOYEE LEAVE MANAGEMENT SYSTEM”

Submitted in Partial fulfillment of the Requirements for the V Semester of the  
Degree of

Bachelor of Engineering  
In  
Computer Science & Engineering

By  
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Under the Guidance of  
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**CMR INSTITUTE OF TECHNOLOGY**

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BANGALORE-560037

# CMR INSTITUTE OF TECHNOLOGY

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



### CERTIFICATE

This is to certify that the Database Management System Project work entitled “EMPLOYEE LEAVE MANAGEMENT SYSTEM” has been carried out by **Aman Kumar (1CR18CS016)** and **Ankit Yadav (1CR18CS023)** bonafide students of CMR Institute of Technology in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the Visvesvaraya Technological University, Belgaum during the year **2020-2021**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. This DBMS Project Report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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**Dr. Prem Kumar Ramesh**  
**Professor, Head**  
**Dept. of CSE, CMRIT**

External Viva

Name of the examiners

1.

2.

Signature with date

# **ABSTRACT**

In the world of businesses , maintaining the employee leave records on physical pen and paper may make tasks cumbersome and is complex to handle. It may also lead to mismatches and mistakes as human error is quite possible.

Therefore, through this website, we are completely digitizing the whole employee leave record management system , all the tasks involving in a leave record management system be it applying of leave, approval as well as status can be done using the website.

The aim of this project is to develop a website for all the businesses who are still functioning on non-digitized version of an Employee leave management and hence provide them a digitized version of the same.

# ACKNOWLEDGEMENT

The success and final outcome of this project required a lot of guidance and assistance from many people and we are extremely privileged to have got this all along the completion of our project. All that we have done is only due to such supervision and assistance and we would not forget to thank them. We would like to extend our sincere esteems towards our guide, Mrs. Rubini PE for the support, guidance and encouragement, she provided during the BE Project. This work would have not been possible without her valuable time, patience and motivation. We thank her for making our stint thoroughly pleasant and enriching. We are deeply indebted to Prof. Mr. Prem Kumar Ramesh. (Head of Department of CSE) and the entire team in the Computer Department. They supported us with scientific guidance, advice and encouragement, they were always helpful and enthusiastic and this inspired us in our work. We take the privilege to express our sincere thanks to Dr. Sanjay Jain, our Principal for providing the encouragement and much support throughout our work.

AMAN KUMAR (1CR18CS016)

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## List of Figures and Tables

### 1. Table admin

- 1.1 id
- 1.2 Username
- 1.3 password
- 1.4 updationdate

id	UserName	Password	updationDate
1	admin	5c428d8875d2948607f3e3fe134d71b4	2017-10-30 11:42:58

### 2. Table department

- 2.1 id
- 2.2 Departmentname
- 2.3 DepartmentShortname
- 2.4 DepartmentCode
- 2.5 CreationDate

id	DepartmentName	DepartmentShortName	DepartmentCode	CreationDate
1	Human Resource	HR	HR001	2017-11-01 07:16:25
2	Information Technology	IT	IT001	2017-11-01 07:19:37
3	Operations	OP	OP1	2017-12-02 21:28:56

### 3. Table Leaves

- 3.1 id
- 3.2 leavetype
- 3.3 Fromdate
- 3.4 Todate
- 3.5 description
- 3.6 Postingdate
- 3.7 Adminremark
- 3.8 Status
- 3.9 Isread
- 3.10 EmpID

id	LeaveType	ToDate	FromDate	Description	PostingDate	AdminRemark	AdminRemarkDate	Status	IsRead	empid
7	Casual Leave	30/11/2017	29/10/2017	test description test descriptiontest descriptiont...	2017-11-19 13:11:21	Lorem Ipsum is placeholder text commonly used in t...	2017-12-02 23:26:27	2	1	1
8	Medical Leave test	21/10/2017	25/10/2017	test description test descriptiontest descriptiont...	2017-11-20 11:14:14	Lorem ipsum dolor sit amet, consectetur adipiscing...	2017-12-02 23:24:39	1	1	1
9	Medical Leave test	08/12/2017	12/12/2017	Lorem Ipsum is placeholder text commonly used in t...	2017-12-02 18:26:01	NULL	NULL	0	1	2
10	Restricted Holiday(RH)	25/12/2017	25/12/2017	Lorem Ipsum is placeholder text commonly used in t...	2017-12-03 08:29:07	Lorem Ipsum is placeholder text commonly used in t...	2017-12-03 14:06:12	1	1	1

#### 4. Table leavetype

4.1 id

4.2 LeaveType

4.3 Description

4.4 CreationDate

id	LeaveType	Description	CreationDate
1	Casual Leave	Casual Leave	2017-11-01 12:07:56
2	Medical Leave test	Medical Leave test	2017-11-06 13:16:09
3	Restricted Holiday(RH)	Restricted Holiday(RH)	2017-11-06 13:16:38

#### 5. Table employee

5.1 id

5.2 Empid

5.3 Firstname

5.4 Lastname

5.5 EmailId

5.6 Password

5.7 Gender

5.8 Dateofbirth

5.9 Department

5.10 Address

5.11 City

5.12 Country

5.13 PhoneNumber

5.14 Status

5.15 RegDate

id	EmpId	FirstName	LastName	EmailId	Password	Gender	Dob	Department	Address	City	Country	Phonenumber	Status	RegDate
1	EMP10806121	Anuj	kumar	anuj@gmail.com	f925916e2754e5e03f75dd58a5733251	Male	3 February, 1990	Human Resource	New Delhi	Delhi	India	9857555555	1	2017-11-10 11:29:59
2	DEMP2132	Amit	kumar	test@gmail.com	f925916e2754e5e03f75dd58a5733251	Male	3 February, 1990	Information Technology	New Delhi	Delhi	India	8587944255	1	2017-11-10 13:40:02
3	F022	Aman	Kumar	amankumar09jul@gmail.com	ccdf57efc107df49af2c6236137baa2	Male	9 July, 2017	Operations	1B 403 , CLPD ARCADIA , GUNJURPALYA BANGALORE -35	BANGALORE	India	9483453397	1	2021-01-10 15:05:30

## 6. Table Resources

### 6.1 EmpId

### 6.2 Resources

EmpId	availability
EMP10806121	Available
DEMP2132	available
F022	Available

## 7. Trigger Employee\_num

### 7.1 Listedleavetype

### 7.2 Total\_registered

### 7.3 Listed\_departments

listedleavetype	total_regisrered	listed_departments
3	3	4



## Chapter 1

# INTRODUCTION

In the world of businesses , maintaining the employee leave records on physical pen and paper may make tasks cumbersome and is complex to handle. It may also lead to mismatches and mistakes as human error is quite possible. Therefore, through this website, we are completely digitizing the whole employee leave record management system , all the tasks involving in a leave record management system be it applying of leave, approval as well as status can be done using the website.

To make this possible, we have developed an application where the admin and employee both can login, and the employee can apply for the leaves as well the admin can take care of all the leave details such as reviewing, approving the leaves and seeing all the statuses.

## Chapter 2

# SYSTEM REQUIREMENTS

## 2.1 Functional Requirements

Our Web Application, 'Employee Leave Management System' is made for the Employees where they can apply for leave. The knowledge required for this project was - HTML, CSS ,PHP and little about JavaScript.

The functional requirements of our project are:

- The website contains a Login page, Dashboard, Department, Employees,Resources and Leaves of Employees.
- When the user accesses the website, he/she is directed to the Login Page, where admin enters its username and password, and a dashboard which shows all the Total registered employee, listed department, listed leave type.
- The leave is categorized according to its type should be filtered according to its type. The leave types are:- Casual type, Medical Type, Restricted Type.
- Admin can take actions on the leave , Admin can approve or reject the leave of Employees.
- Admin has authority to add employee or remove it from the department.
- The Page contains all the leaves applied by the employees.
- Employee has an option to add description to the leave.
- While applying leave employee has to select the dates from which to which date he/she wants leave.
- When admin takes the action on employee leave, the action is reflected on the employees portal.
- Admin also has the privilege to see all the temporary resources who are available for working against the employees that are on leave .
- Also each employee login page has the feature wherein the employee can change his status to available or unavailable for the Temporary resources pool.

## 2.2 Hardware and Software Requirements

### 2.1 System Requirements

These consist of the hardware and software components of a computer system that are required to install in order to use the software efficiently.

#### 2.1.1 Software Requirements

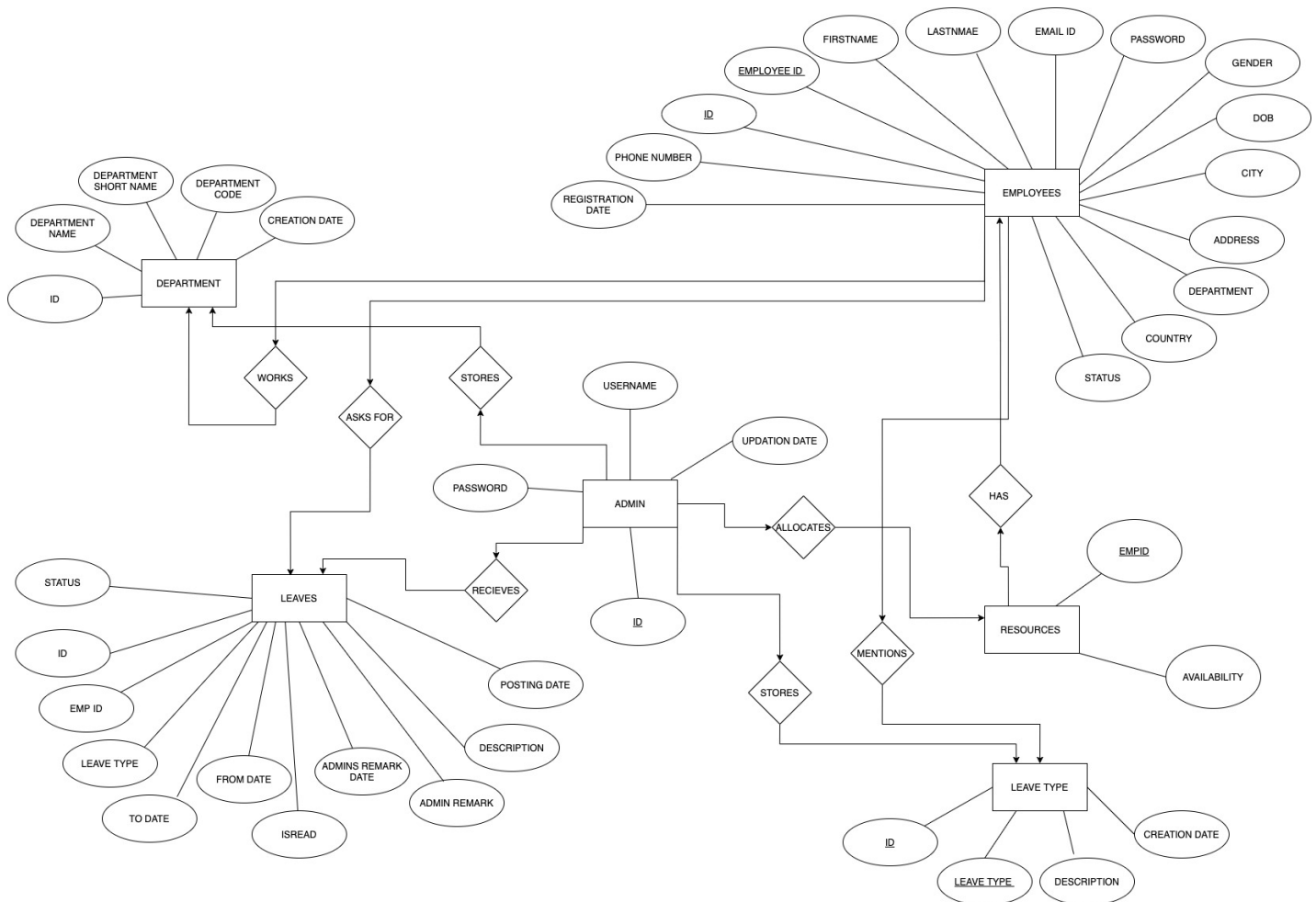
1. **Operating system:** Windows XP / windows 7
2. **Technology:** PHP
3. **Database:** MySQL
4. **IDE:** VS CODE
5. Antivirus software
6. Backup & Data Recovery software

#### 2.1.2 Hardware Requirements

1. **Processor:** Intel dual core or above
2. **Processor Speed:** 1.0GHZ or above
3. **RAM:** 1 GB RAM or above
4. **Hard Disk:** 20 GB hard disk or above
5. Printer for printing reports
6. Uninterruptible power supply to ensure a constant access of data.
7. USB flash disk (At least 2GB)

## DESIGN

### 3.1 ER Diagram



In the above ER-Diagram we have five entities (1)admin, (2)department, (3)leavetype, (4)leaves, (5)employee (6)resources and their relationship. Each entity has its own attributes.

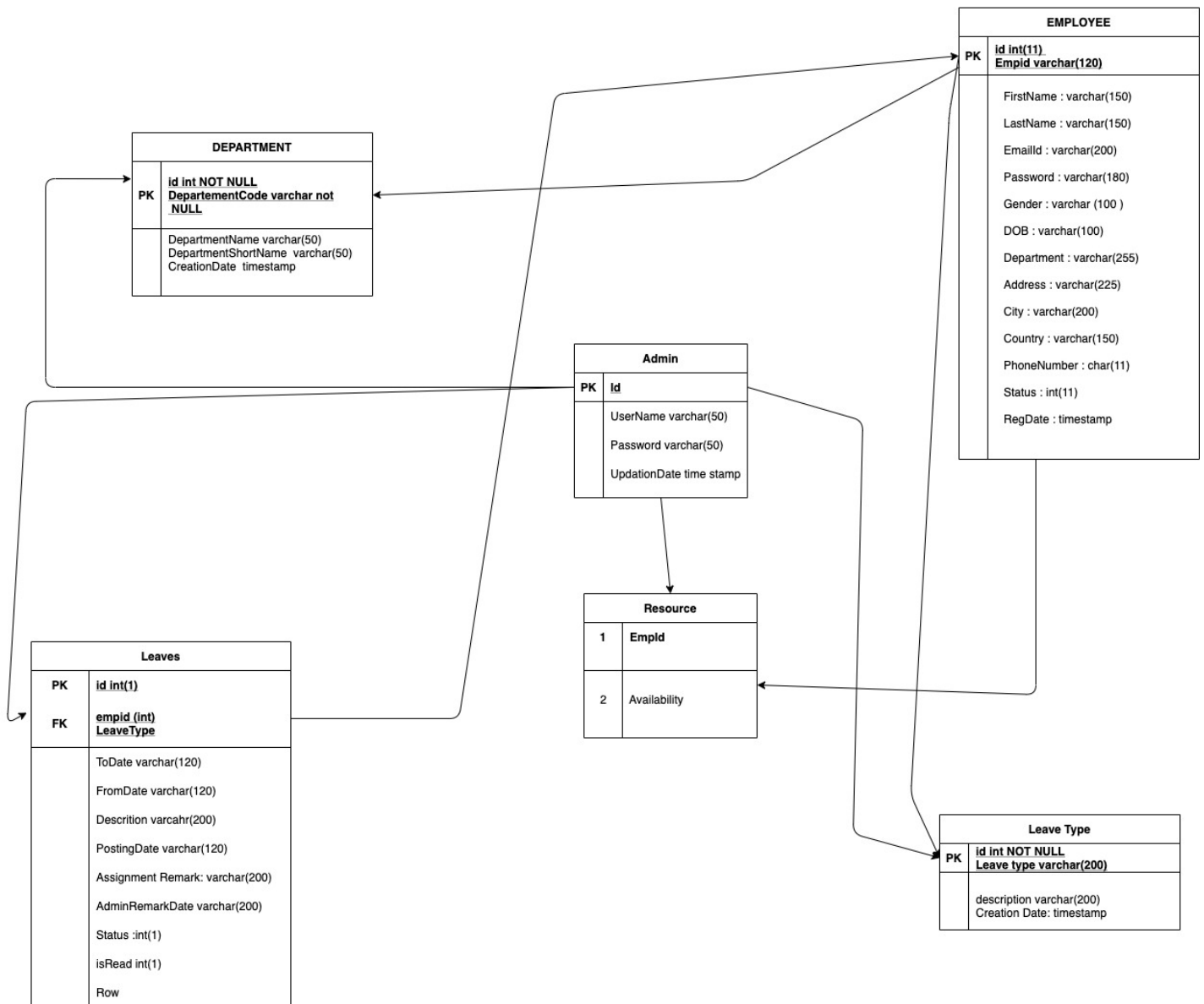
The entity admin consists the details of the admin as its attributes, core\_item consists of details that are to be handled by the admin. The employee asks for leave types that are already listen in the leavetypes table. The department and employee consists of details about each department and the details of all the employee present in the organization respectively.

The relation between leaves and employee is one to many relationship as one leavetype can be applied multiple employees.

# Employee Leave Management System

## 3.2 Schema Diagram

### DATABASE SCHEMA



## Chapter 4

# IMPLEMENTATION

Dashboard.php :

```
<?php
session_start();
error_reporting(0);
include('includes/config.php');
if(strlen($_SESSION['alogin'])==0)
    {
header('location:index.php');
}
else{
?>

<!DOCTYPE html>
<html lang="en">
    <head>

        <!-- Title -->
        <title>Admin | Dashboard</title>

        <meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-
scalable=no"/>
        <meta charset="UTF-8">
        <meta name="description" content="Responsive Admin Dashboard Template" />
        <meta name="keywords" content="admin,dashboard" />
        <meta name="author" content="Steelcoders" />

        <!-- Styles -->
        <link type="text/css" rel="stylesheet" href="../assets/plugins/materialize/css/materialize.min.css"/>
        <link href="http://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">
        <link href="../assets/plugins/metrojs/MetroJs.min.css" rel="stylesheet">
        <link href="../assets/plugins/weather-icons-master/css/weather-icons.min.css" rel="stylesheet">

        <!-- Theme Styles -->
        <link href="../assets/css/alpha.min.css" rel="stylesheet" type="text/css"/>
        <link href="../assets/css/custom.css" rel="stylesheet" type="text/css"/>

    </head>
    <body>

        <?php include('includes/header.php');?>
```

```

<?php include('includes/sidebar.php');?>

<main class="mn-inner">
    <div class="middle-content">
        <div class="row no-m-t no-m-b">
            <div class="col s12 m12 l4">
                <div class="card stats-card">
                    <div class="card-content">

                        <span class="card-title">Totle Regd Employee</span>
                        <span class="stats-counter">

<?php
$sql = "SELECT id from tblemployees";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$empcount=$query->rowCount();
?>

                        <span class="counter"><?php echo htmlentities($empcount);?></span></span>
                    </div>
                    <div id="sparkline-bar"></div>
                </div>
            </div>
            <div class="col s12 m12 l4">
                <div class="card stats-card">
                    <div class="card-content">

                        <span class="card-title">Listed Departments </span>

<?php
$sql = "SELECT id from tbldepartments";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$dptcount=$query->rowCount();
?>

                        <span class="stats-counter"><span class="counter"><?php echo
htmlentities($dptcount);?></span></span>
                    </div>
                    <div id="sparkline-line"></div>
                </div>
            </div>
            <div class="col s12 m12 l4">
                <div class="card stats-card">
                    <div class="card-content">

                        <span class="card-title">Listed leave Type</span>

```

```

        <?php
$sql = "SELECT id from tblleavetype";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$leavtypcount=$query->rowCount();
?>

        <span class="stats-counter"><span class="counter"><?php echo
htmlentities($leavtypcount);?></span></span>

        </div>
        <div class="progress stats-card-progress">
            <div class="determinate" style="width: 70%"></div>
        </div>
    </div>
</div>
</div>

    <div class="row no-m-t no-m-b">
        <div class="col s12 m12 l12">
            <div class="card invoices-card">
                <div class="card-content">

                    <span class="card-title">Latest Leave Applications</span>
                    <table id="example" class="display responsive-table ">
                        <thead>
                            <tr>
                                <th>#</th>
                                <th width="200">Employee Name</th>
                                <th width="120">Leave Type</th>

                                <th width="180">Posting Date</th>
                                <th>Status</th>
                                <th align="center">Action</th>
                            </tr>
                        </thead>

                        <tbody>
<?php $sql = "SELECT tblleaves.id as
lid,tblemployees.FirstName,tblemployees.LastName,tblemployees.EmpId,tblemployees.id,tblleaves.LeaveType,tblleaves.
PostingDate,tblleaves.Status from tblleaves join tblemployees on tblleaves.empid=tblemployees.id order by lid desc
limit 6";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;
if($query->rowCount() > 0)

```



```

{
foreach($results as $result)
{
    ?>

    <tr>
        <td> <b><?php echo htmlentities($cnt);?></b></td>
        <td><a href="editemployee.php?empid=<?php echo htmlentities($result-
>id);?>" target="_blank"><?php echo htmlentities($result->FirstName." ".$result->LastName);?>(<?php echo
htmlentities($result->EmpId);?></a></td>

        <td><?php echo htmlentities($result->LeaveType);?></td>
        <td><?php echo htmlentities($result->PostingDate);?></td>
        <td><?php $stats=$result->Status;

if($stats==1){

    ?>
    <span style="color: green">Approved</span>
    <?php } if($stats==2) { ?>
    <span style="color: red">Not Approved</span>
    <?php } if($stats==0) { ?>

    <span style="color: blue">waiting for approval</span>
    <?php } ?>

    </td>

    <td>
        <td><a href="leave-details.php?leaveid=<?php echo htmlentities($result->lid);?>" class="waves-effect
waves-light btn blue m-b-xs" > View Details</a></td>
    </tr>
    <?php $cnt++;} }?>
</tbody>
</table>
</div>
</div>
</div>
</div>
</div>
</div>
</main>

</div>
<!-- Javascripts -->
<script src="../assets/plugins/jquery/jquery-2.2.0.min.js"></script>
<script src="../assets/plugins/materialize/js/materialize.min.js"></script>
<script src="../assets/plugins/material-preloader/js/materialPreloader.min.js"></script>
<script src="../assets/plugins/jquery-blockui/jquery.blockui.js"></script>
<script src="../assets/plugins/waypoints/jquery.waypoints.min.js"></script>

```

```

<script src="../../assets/plugins/counter-up-master/jquery.counterup.min.js"></script>
<script src="../../assets/plugins/jquery-sparkline/jquery.sparkline.min.js"></script>
<script src="../../assets/plugins/chart.js/chart.min.js"></script>
<script src="../../assets/plugins/flot/jquery.flot.min.js"></script>
<script src="../../assets/plugins/flot/jquery.flot.time.min.js"></script>
<script src="../../assets/plugins/flot/jquery.flot.symbol.min.js"></script>
<script src="../../assets/plugins/flot/jquery.flot.resize.min.js"></script>
<script src="../../assets/plugins/flot/jquery.flot.tooltip.min.js"></script>
<script src="../../assets/plugins/curvedlines/curvedLines.js"></script>
<script src="../../assets/plugins/peity/jquery.peity.min.js"></script>
<script src="../../assets/js/alpha.min.js"></script>
<script src="../../assets/js/pages/dashboard.js"></script>
</body>
</html>
<?php } ?>

```

### Trigger :

```

if($row21==0)
{
    $query1=$con->prepare("insert into dashboard(Empid,id,qty)values('".$row1['Empid']."','".$row1['id']."','1')");
    CREATE TRIGGER Employee_num
    AFTER INSERT
    ON dashboard FOR EACH ROW
    BEGIN
        if($query1->execute())
        {
            echo"<script>alert('New Employee Detail')</script>>";
            echo"<script>window.open('dashboard.php?id=".$row1['Empid']."','_self')</script>";
        }
    END
}

```

### Stored Procedure :

```

if(isset($_GET['id']))
{
    //Stored procedure with one parameter

    CREATE PROCEDURE SelectAllEmpDetails @Id nvarchar(30)
    AS
    $query22=$con->prepare("select *from employee where EmpId='" @Id "'");
    GO;

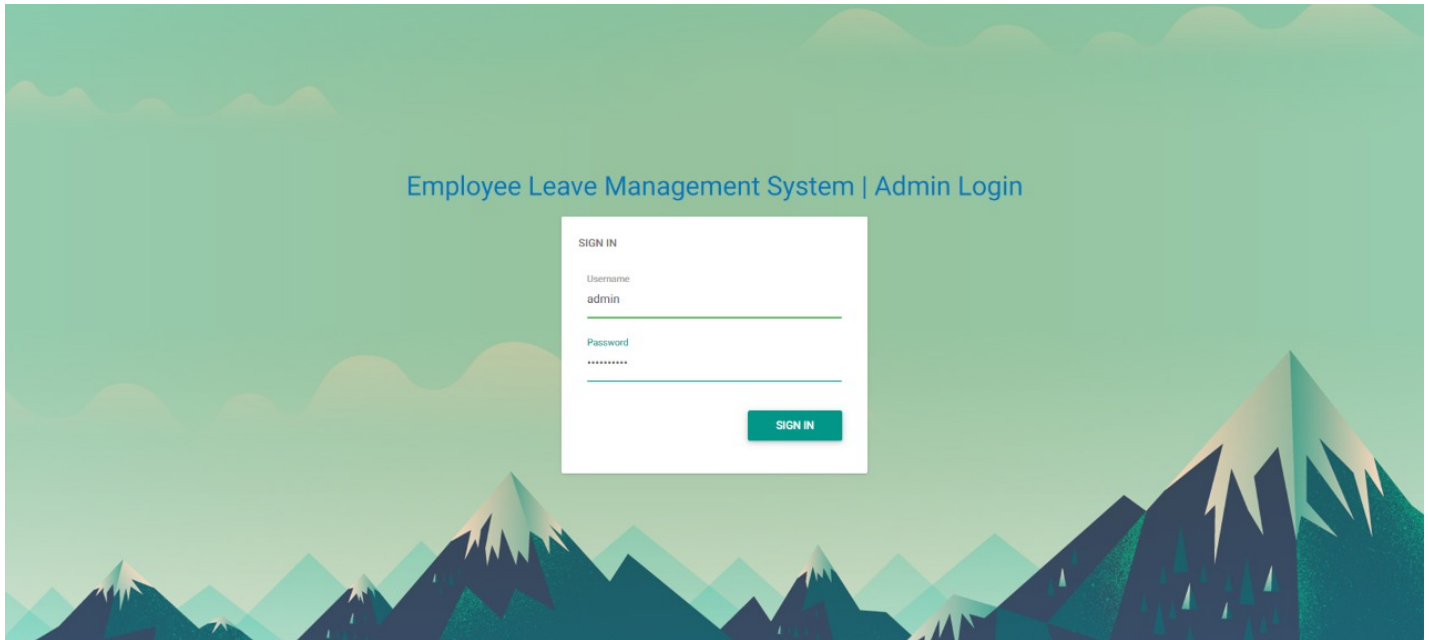
    EXEC SelectAllEmpDetails @Id = '".$_GET['id']."'";
}

```

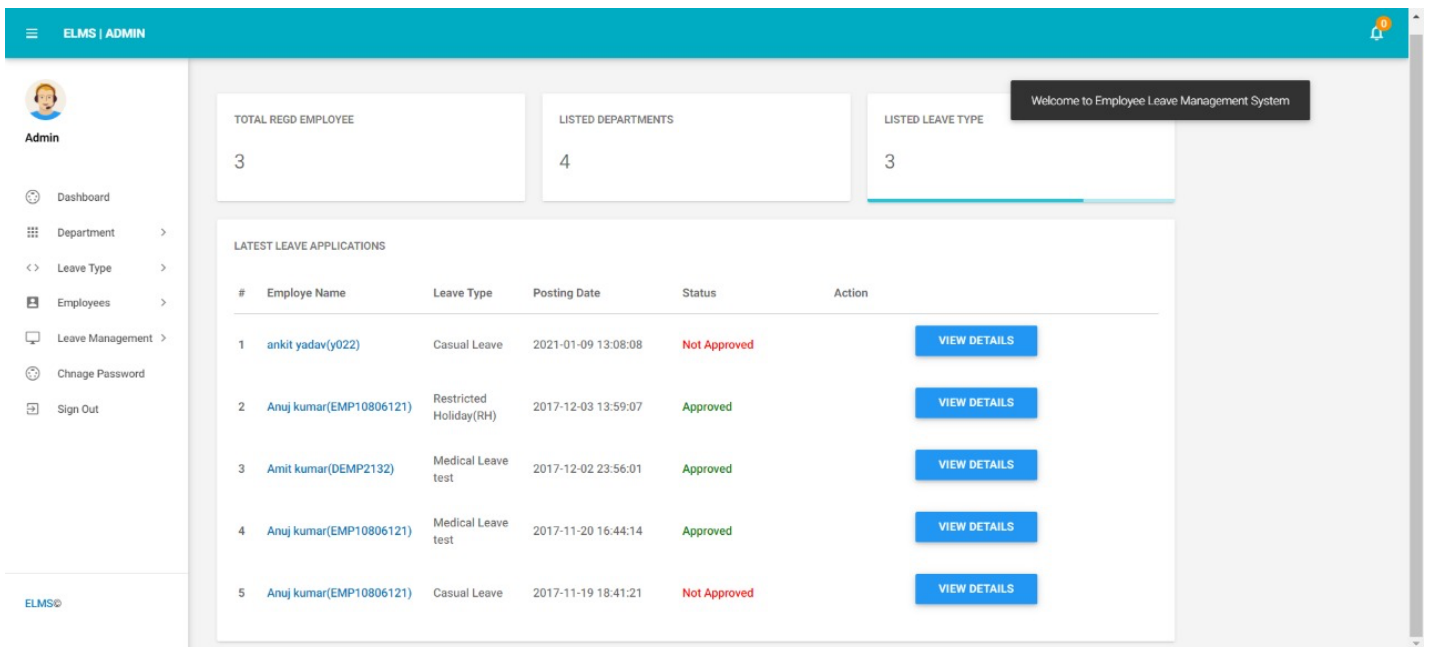
## Chapter 5

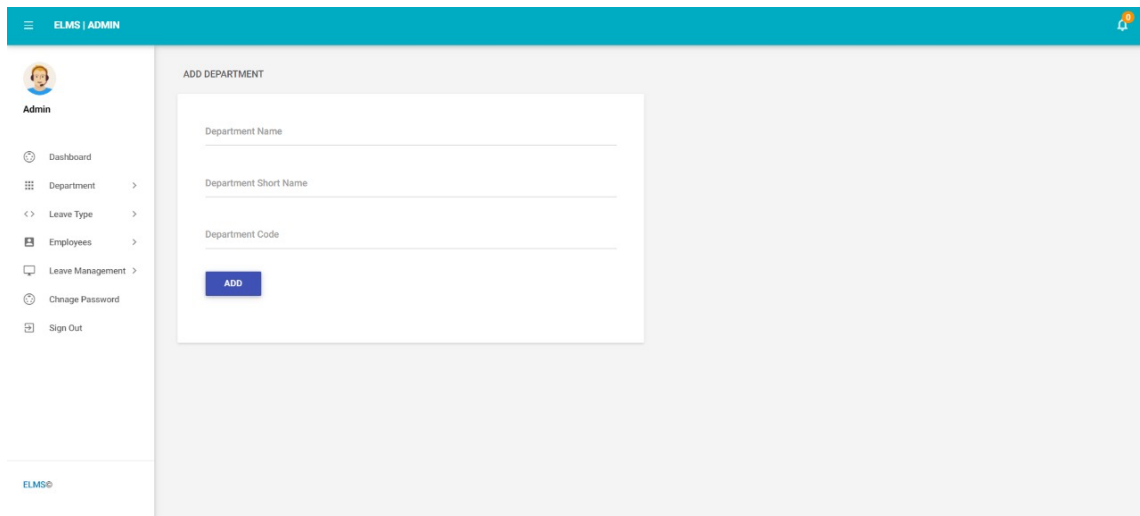
# DISCUSSION AND SCREENSHOTS

**Fig. 5.1 Admin Login Page**

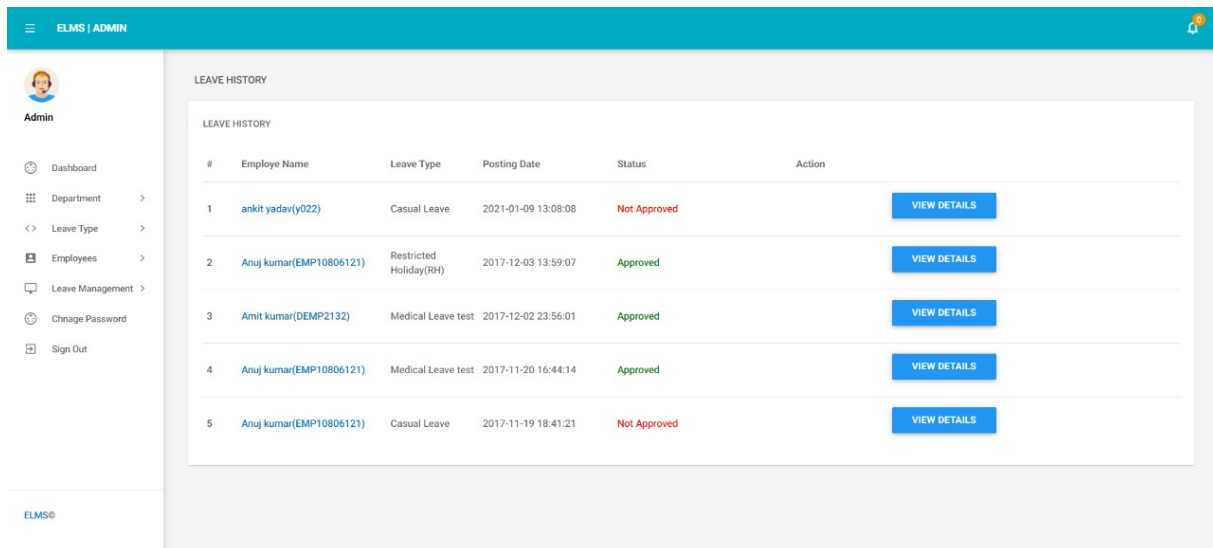


**Fig. 5.2 Dashboard**



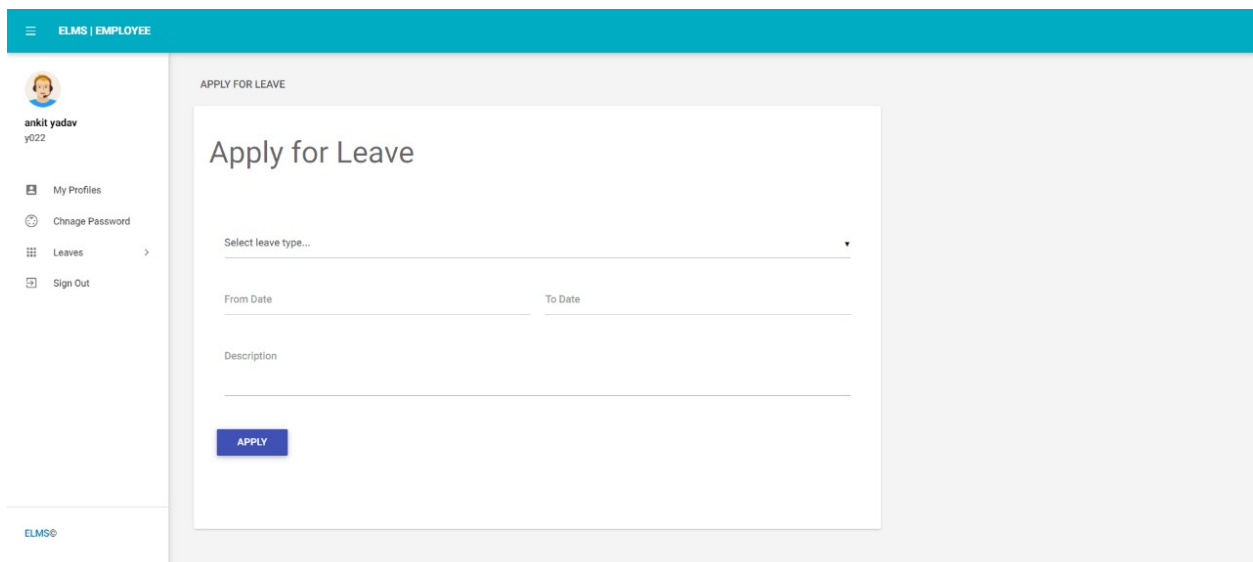
**Fig. 5.3 Department**


The screenshot shows the 'ADD DEPARTMENT' form in the ELMS ADMIN interface. The form has three input fields: 'Department Name', 'Department Short Name', and 'Department Code'. Below these fields is a blue 'ADD' button. The left sidebar shows the user 'Admin' and a menu with options: Dashboard, Department, Leave Type, Employees, Leave Management, Change Password, and Sign Out.

**Fig. 5.4 Leave Management**


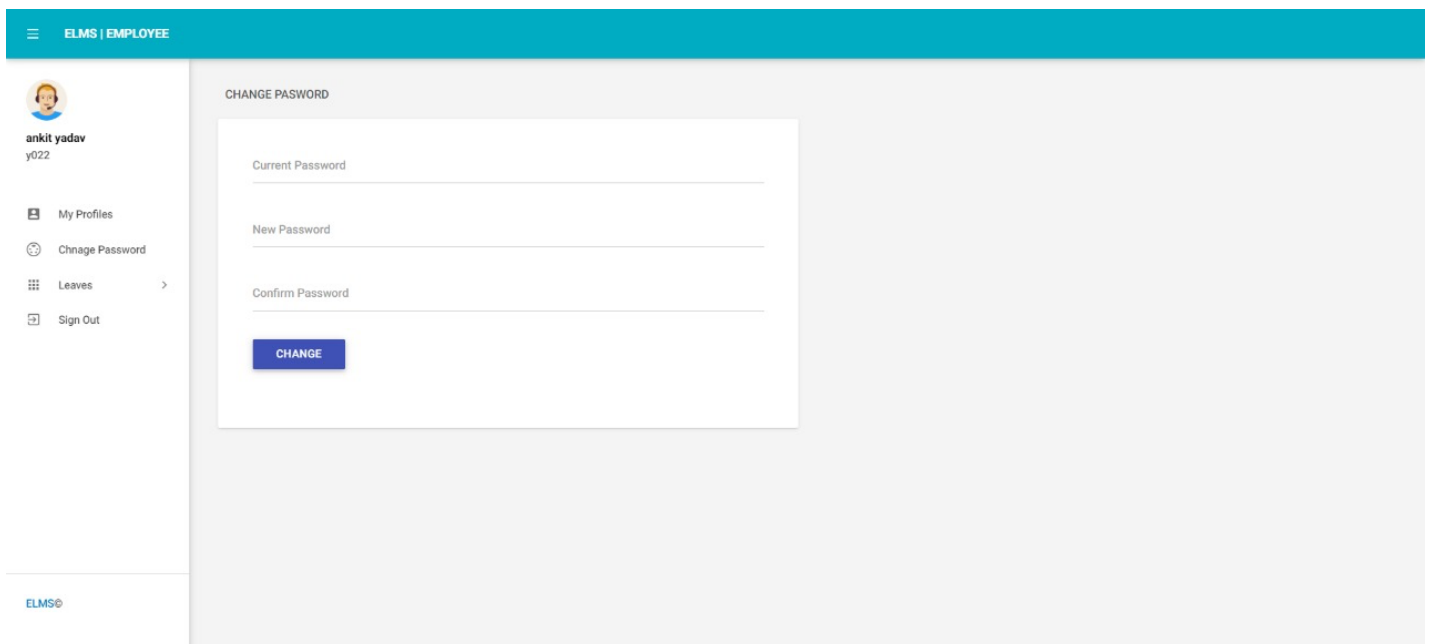
The screenshot shows the 'LEAVE HISTORY' table in the ELMS ADMIN interface. The table has columns: #, Employee Name, Leave Type, Posting Date, Status, and Action. There are five rows of data, each with a 'VIEW DETAILS' button in the Action column.

#	Employee Name	Leave Type	Posting Date	Status	Action
1	ankit yadav(y022)	Casual Leave	2021-01-09 13:08:08	Not Approved	<a href="#">VIEW DETAILS</a>
2	Anuj kumar(EMP10806121)	Restricted Holiday(RH)	2017-12-03 13:59:07	Approved	<a href="#">VIEW DETAILS</a>
3	Amit kumar(DEMP2132)	Medical Leave test	2017-12-02 23:56:01	Approved	<a href="#">VIEW DETAILS</a>
4	Anuj kumar(EMP10806121)	Medical Leave test	2017-11-20 16:44:14	Approved	<a href="#">VIEW DETAILS</a>
5	Anuj kumar(EMP10806121)	Casual Leave	2017-11-19 18:41:21	Not Approved	<a href="#">VIEW DETAILS</a>

**Fig. 5.5 Apply leave Page**


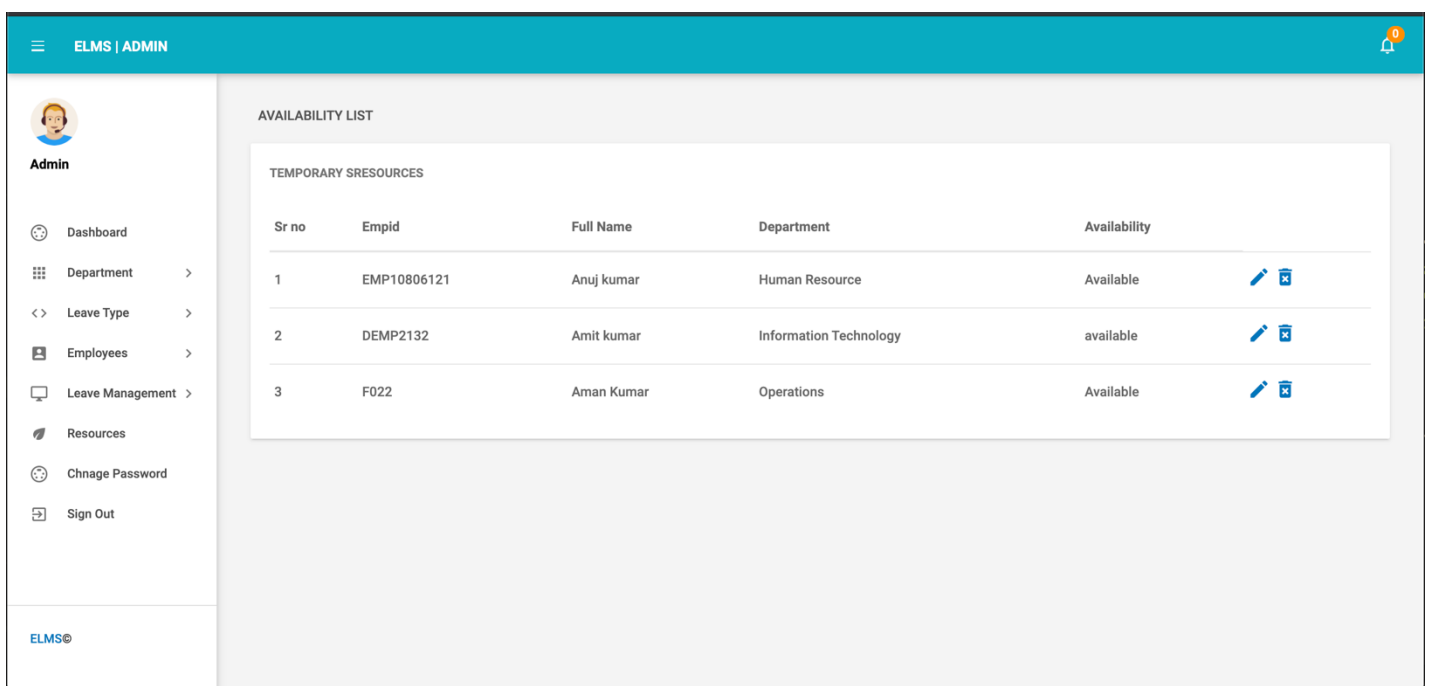
The screenshot shows the 'APPLY FOR LEAVE' form in the ELMS EMPLOYEE interface. The form has a dropdown menu for 'Select leave type...', two date input fields for 'From Date' and 'To Date', and a text input field for 'Description'. Below these fields is a blue 'APPLY' button. The left sidebar shows the user 'ankit yadav y022' and a menu with options: My Profiles, Change Password, Leaves, and Sign Out.

Fig. 5.6 Change Password









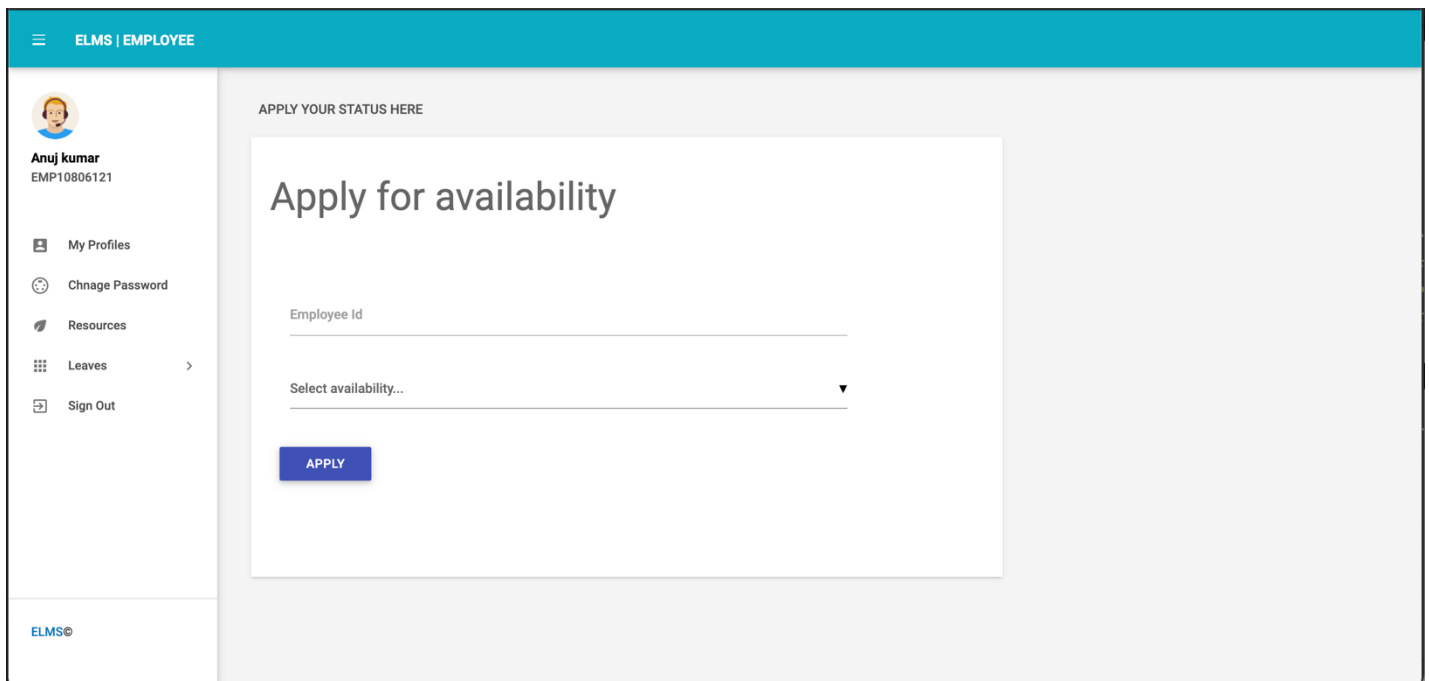
The screenshot shows the 'CHANGE PASWORD' page for an employee. The header is 'ELMS | EMPLOYEE'. The left sidebar shows the user 'ankit yadav y022' and navigation links: 'My Profiles', 'Chnage Password' (active), 'Leaves', and 'Sign Out'. The main content area has three input fields: 'Current Password', 'New Password', and 'Confirm Password'. Below these fields is a blue 'CHANGE' button.

Fig. 5.7 Resources Page Admin End

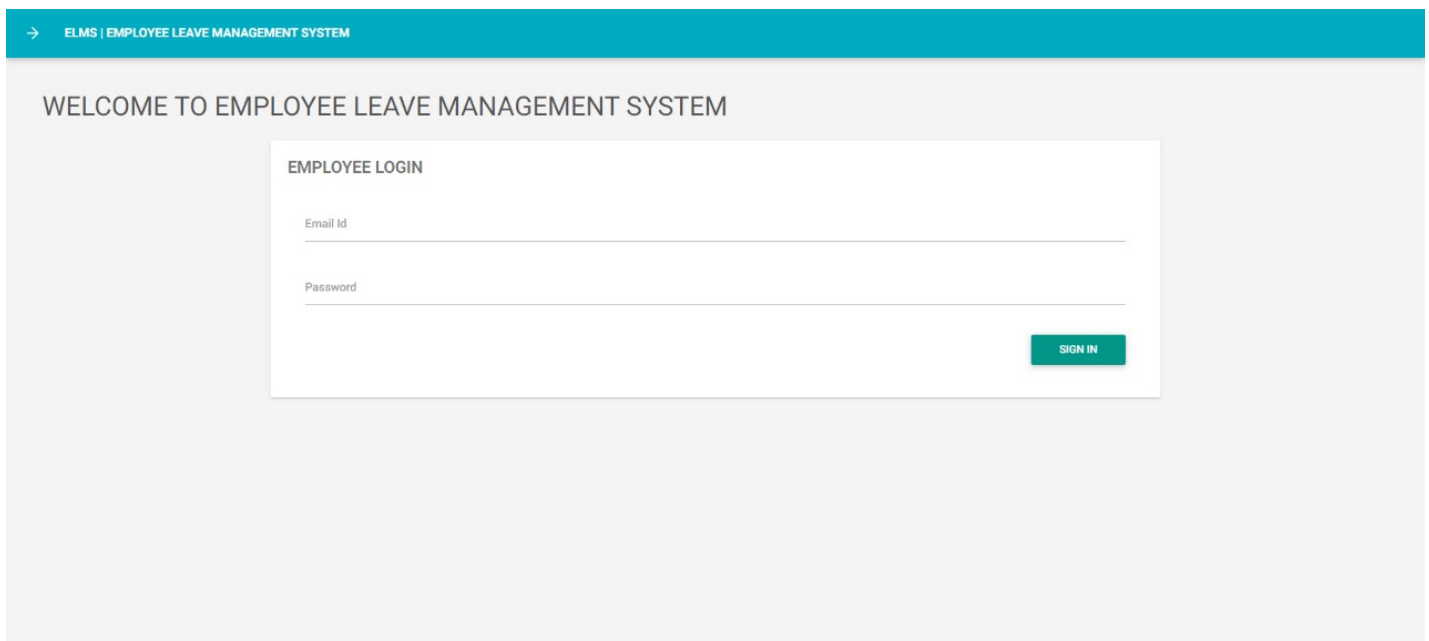


The screenshot shows the 'AVAILABILITY LIST' page for an admin. The header is 'ELMS | ADMIN'. The left sidebar shows the user 'Admin' and navigation links: 'Dashboard', 'Department', 'Leave Type', 'Employees', 'Leave Management', 'Resources' (active), 'Chnage Password', and 'Sign Out'. The main content area displays a table of 'TEMPORARY SRESOURCES'.

Sr no	Empid	Full Name	Department	Availability	
1	EMP10806121	Anuj kumar	Human Resource	Available	 
2	DEMP2132	Amit kumar	Information Technology	available	 
3	F022	Aman Kumar	Operations	Available	 

**Fig. 5.8 Resources Page Employee End**

The screenshot shows the 'Resources' page for an employee. The header is 'ELMS | EMPLOYEE'. The left sidebar contains a user profile for 'Anuj kumar' (EMP10806121) and a menu with 'My Profiles', 'Change Password', 'Resources', 'Leaves', and 'Sign Out'. The main content area is titled 'APPLY YOUR STATUS HERE' and features a form titled 'Apply for availability'. The form includes an 'Employee Id' input field, a 'Select availability...' dropdown menu, and an 'APPLY' button.

**Fig. 5.9 Employee Login**

The screenshot shows the 'Employee Login' page. The header is 'ELMS | EMPLOYEE LEAVE MANAGEMENT SYSTEM'. The main content area is titled 'WELCOME TO EMPLOYEE LEAVE MANAGEMENT SYSTEM'. Below this is a form titled 'EMPLOYEE LOGIN' with fields for 'Email Id' and 'Password', and a 'SIGN IN' button.

## Chapter 6

# CONCLUSION AND FUTURE SCOPE

### 6.1 Conclusion

Our aim in this project ‘Employee Leave Management System’ to help the businesses with there leave management system and digitize the whole user interface. From our project, we learnt to create a fully developed and working Web Application from scratch. Our team enjoyed every step and endeavored to complete the task at hand.

### 6.2 Future Scope

In the future we can implement dynamic leave status granting using machine learning for giving automatic system approved choices .

## **BIBLIOGRAPHY**

- [1] Web Development using PHP Guide
- [2] GeeksForGeeks
- [3] MYSql Guide
- [4] <https://www.w3schools.com/sql/>