# Employee Management System

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# ABSTRACT

An Employee's Management System (EMS) is software built to handle the primary housekeeping functions of a company. EMS helps companies keep track of all the employees and their records. It is used to manage the company using a computerized system The Employee management system is a web-based system. An employee management system is a distributed system developed to maintain the employee details and the company workflow process systematically. EMS helps to eliminate the manual process and saves a lot of time and money. This system maintains the professional and personal details of the employees and the company in a safe manner.

# DECLARATION

We declare that this project and the work presented in it are our own and has been generated by us and hereby declare that the project entitled “Employee Management System” submitted in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering in the Faculty of Computer Science and Engineering of Bangladesh University of Business and Technology, is our own work and that it contains no material which has been accepted for the award to the candidate(s) of any other degree or diploma, except where due reference is made in the text of the project. To the best of our knowledge, it contains no materials previously published or written by any other person except where due reference is made in the project.

| | | |
|---|---|---|
| Mehedi Hasan | MD.Azizul Hakim | MD.Abdul Jabbar |
| ID: 18192203022 | ID: 18192203007 | ID: 18192203016 |

# CERTIFICATE

This is to certify that **Mehedi Hasan, MD.Azizul Hakim** and **MD.Abdul Jabbar** Students of B.Sc. in CSE have completed their Project work titled “Employee Management System” satisfactorily in partial fulfillment for the requirement of B.Sc.in CSE in Bangladesh University of Business and Technology in the year 2021.

| | | |
|---|---|---|
| Mehedi Hasan | MD.Azizul Hakim | MD.Abdul Jabbar ID: |
| 18192203022 | ID: 18192203007 | ID: 18192203016 |

Project Supervisor

Fazle Rahat

Department of Computer Science & Engineering
Bangladesh University of Business and Technology (BUBT)

# ACKNOWLEDGEMENTS

Firstly, we are grateful and expressing our gratefulness to Almighty Allah who offers us His divine blessing, patient, mental and physical strength to complete this project work.

We are deeply indebted to our project supervisor “Fazle Rahat”, Department of Computer Science and Engineering (CSE), Bangladesh University of Business and Technology (BUBT). His scholarly guidance, important suggestions, work for going through our drafts and correcting them, and generating courage from the beginning to the end of the research work has made the completion of this project possible.

A very special gratitude goes out to all our friends for their support and help to implement our works. The discussions with them on various topics of our works have been very helpful for us to enrich our knowledge and conception regarding the work.

Last but not the least, we are highly grateful to our parents and family members for supporting us spiritually throughout writing this project and our life in general.

With best regards

Mehedi Hasan (18192203022)

MD.Azizul Hakim (18192203007)

MD.Abdul Jabbar (18192203016)

# DEDICATION

Dedicated to our parents for all their love and inspiration.

# APPROVAL

This Project “Employee Management System” Submitted by **Mehedi Hasan , MD.Azizul Hakim, and MD.Abdul Jabbar ID NO: 18192203022, 18192203007 and 18192203016** Department of Computer Science and Engineering (CSE), Bangladesh University of Business and Technology (BUBT) under the supervision of “Fazle Rahat”, Department of Computer Science and Engineering has been accepted as satisfactory for the partial fulfillment of the requirement for the degree of Bachelor of Science (B.Sc. Eng.) in Computer Science and Engineering and approved as to its style and contents.

**Supervisor:**

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Department of Computer Science and Engineering (CSE) Bangladesh

University of Business and Technology (BUBT) Mirpur-2, Dhaka-

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**Chairman:**

**Dr.Muhammad Firoz Mirdha**

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1216, Bangladesh

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# Chapter 1

# Introduction

## 1.1 Introduction

An Employee's Management System (EMS) is software built to handle the primary housekeeping functions of a company. EMS helps companies keep track of all the employees and their records. It is used to manage the company using a computerized system The Employee management system is a web-based system. An employee management system is a distributed system developed to maintain the employee details and the company workflow process systematically. EMS helps to eliminate the manual process and saves a lot of time and money. This system maintains the professional and personal details of the employees and the company in a safe manner.

**Existing Theory:**

**Set-up Module:**

1. **Add Department**
   i. Add Department
   ii. View Department

**Operation Module:**

1. **Add Employee Details:**
   i. Add Employee
   ii. Edit Employee

2. **Employee Details**
   i. Search Employee
   ii. View All Employee

iii. Delete Employee
iv. update Employee

3. **Employee salary**
   i. Add Salary
   ii. View All Salary
   iii. Delete Salary
   iv. update Salary

4. **Pay Salary**
   i. View All salary Details

5. **Add Department**
   iii. Add Department
   iv. View Department

6. **Manage Department**
   I. Delete Department
   II. Update Department

7. **Add Project**
   Add Project
   View Project

8. **Manage Project**
   I. Delete Project
   II. Update Project

9. **Notice**
   I. Add Notice
   II. View Notice
   III. Delete Notice
   IV. Update Notice

10. Employee Login
    I. Edit Informations

II. View Notice

III. View All Employee

**1.2 Objective**

The Employee Management System objective is to provide a system that manages the employee details, the payroll activities are done in a company depending upon the employee's attendance and its calculation is very huge. The users will consume less amount of time through computerized systems rather than working manually. The system will take care of all the payroll activities like managing each employee's attendance, the number of leaves taken by that particular employee, and the calculation of salary in a very quick manner.

## The major specifications of project are:

1. **Add Employee**
2. **Employee Details**
3. **Employee salary**
5. **Add Department**
6. **Manage Department**
7. **Add Project**
8. **Manage Project**
9. **Notice**
10. **Employee login**

**Conclusions**

The package was designed in such a way that future modifications can be done easily .The following conclusion can be deduced form the development of the project.

• Automation of the entire system improves the efficiency.

• It provides user friendly interface which proves to be better when compared to the existing system.

• It gives appropriate access to the authorized users depending on their permissions.

• Updating of information becomes so easier.

• System security, data security and reliability are the striking features.

• The system has adequate scope for modification in future if it is necessary

# Chapter 2

# Survey of Technologies

In an application based system like Employee Management System, there is a scope for a large Employee Management System of platforms, languages, web servers and frameworks to choose from. Before selecting from this large array of technologies the following aspects have been kept in mind:

- Performance
- Reliability
- Portability
- Security
- Performance
- Fast speed
- Cost Constraint
- Time Constraint

The project Employee Management System could have been built by various technologies like

- php **8.0.13**
- MYSQL
- Bootstrap
- Html 5
- css
- Microsoft Word

# Chapter 3

# Requirement Analysis

The Employee Management System requires computerizing its storage of contacts in order to provide fully service to automate the following activities. The requirements from the proposed software are as follows:

1. Add Employee
2. Employee Details
3. Employee salary
5. Add Department
6. Manage Department
7. Add Project
8. Manage Project
9. Notice
10. Employee Login

## 3.1 Requirements Specification

**User Requirements:** A careful study of the requirement of the end user; i.e. the Employee Management System should meet the following requirements:

- User could be able to delete any record he/she wants.
- User should be able to update the record.
- User should be able to see the records in a file.
- Although the system is to be installed in a low end system with Windows based OS at present, in future it should be portable to a higher end system with Linux OS.
- The system should have a relatively lower memory and bandwidth requirement.
- The system should have a relatively lower memory and bandwidth requirement.

## 3.2 Software and Hardware Requirements

### Software Requirements

**For development, software's used are:**

Operating System: Windows operating System, All operating System

Language: PHP, SQL

Backend: SQL Xampp Server

Microsoft word 2010

### Hardware Requirements

**For Development, Hardware's used are:**

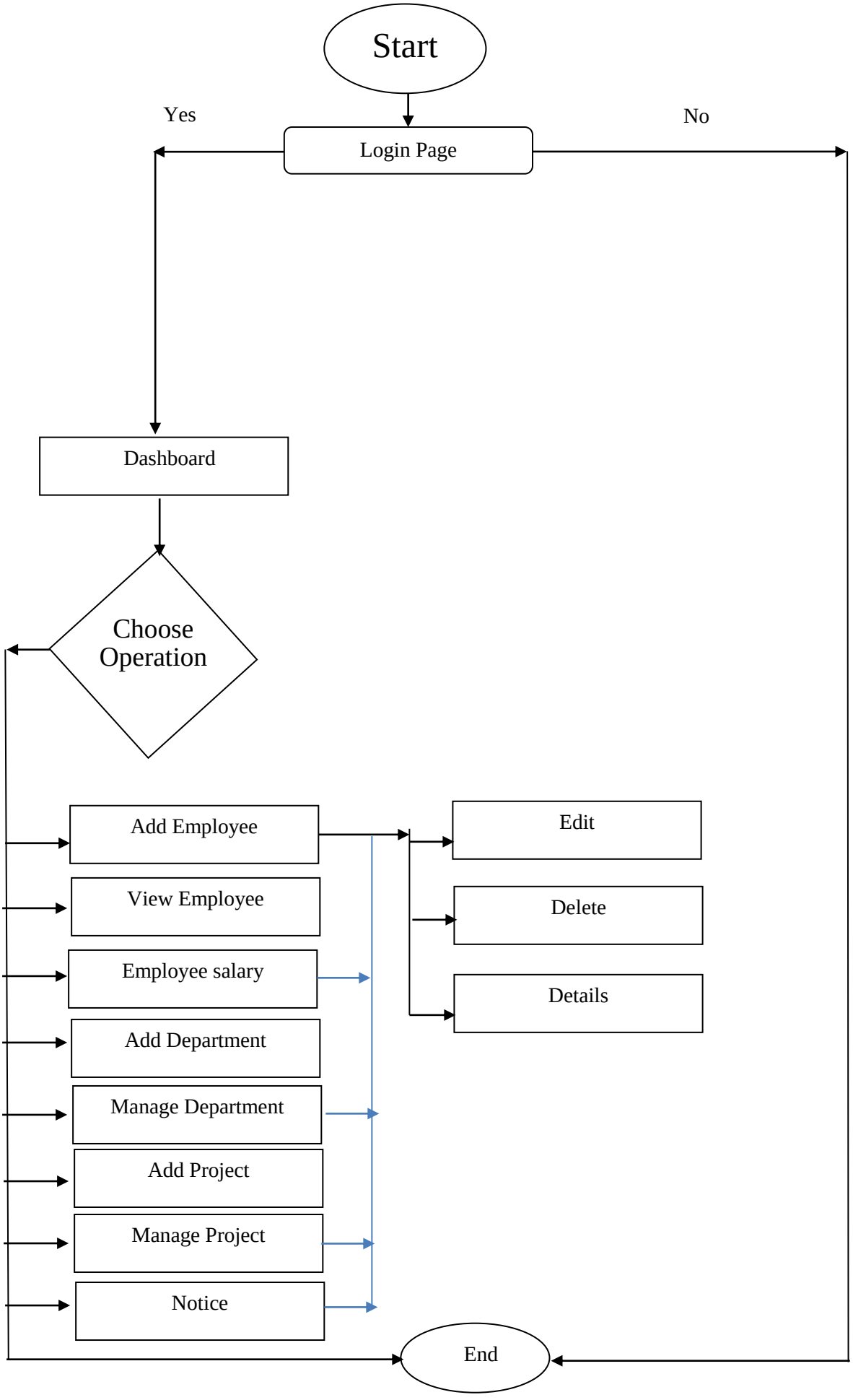
1. Intel Core
2. 40GB hard disk
3. 4 GB RAM

# Chapter 4

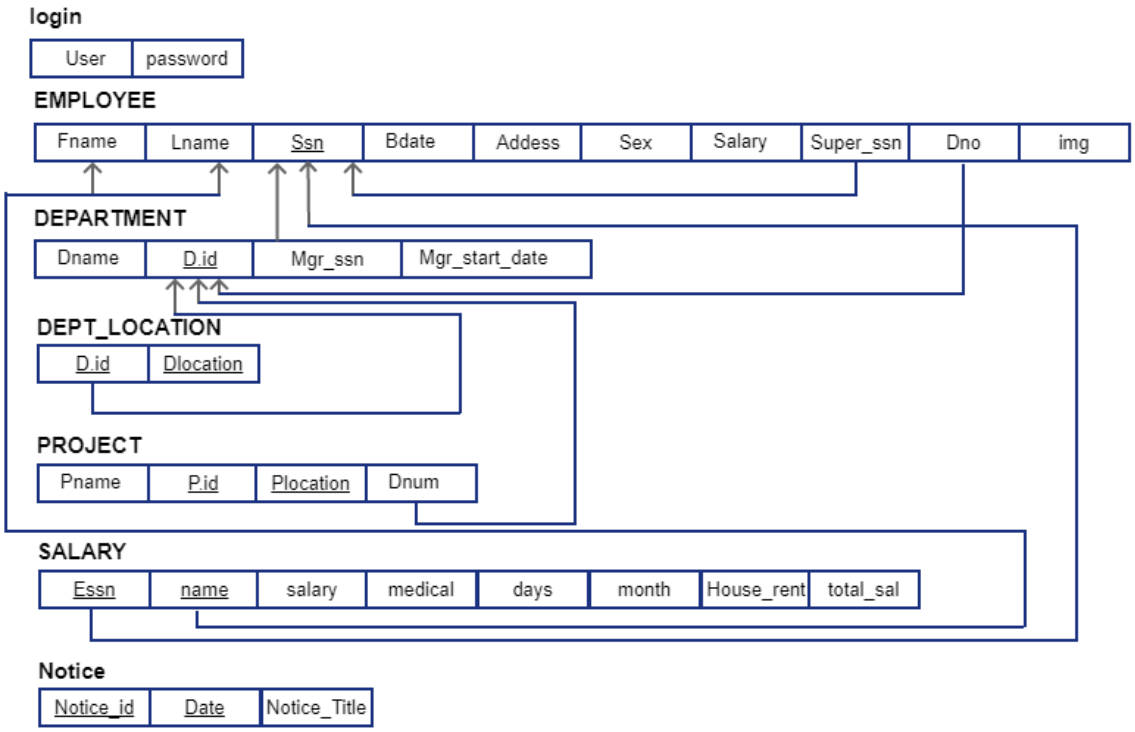
# System Design

## 4.1 Flow chart:

A flowchart is a type of diagram that represents an algorithm or process, showing the steps as boxes of various kinds, and their order by connecting them with arrows


Start
Yes
No
Login Page
Dashboard
Choose Operation
Add Employee
View Employee
Employee salary
Add Department
Manage Department
Add Project
Manage Project
Notice
Edit
Delete
Details
End

## 4.2 Employee mapping table from ER diagram:



## 4.3 Entity Relationship Diagram (ERD)

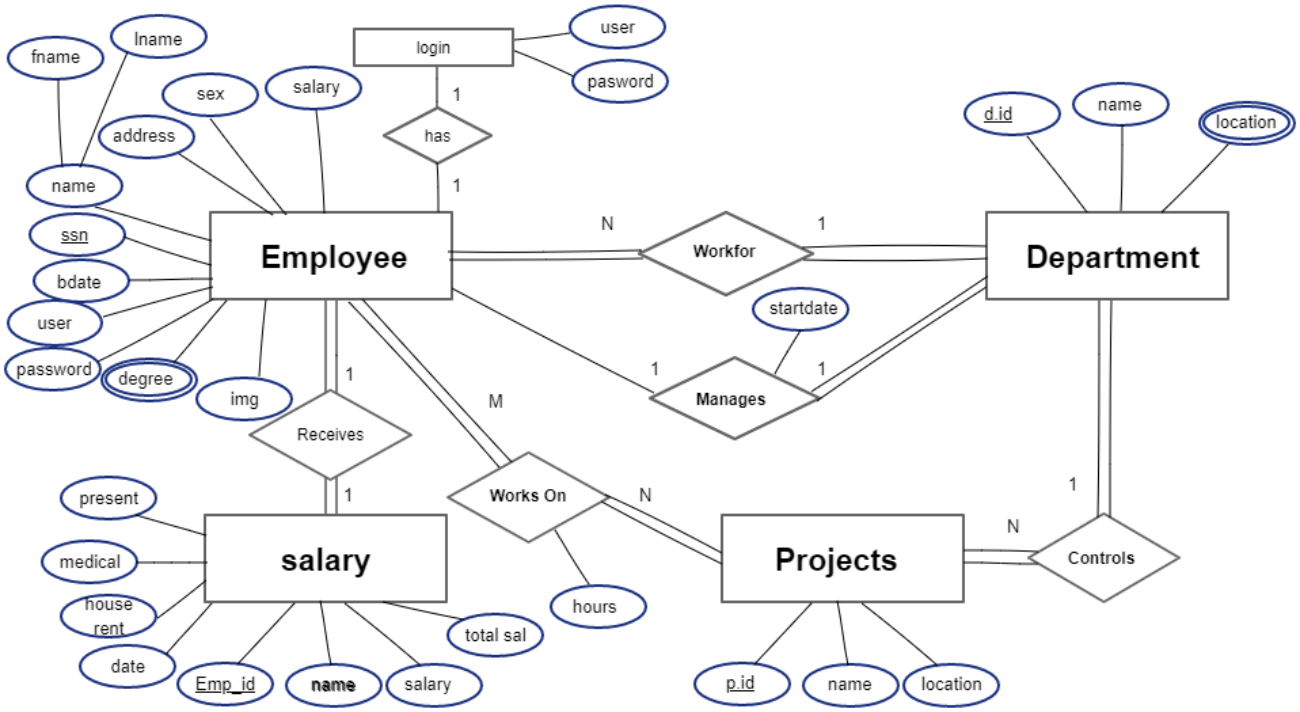
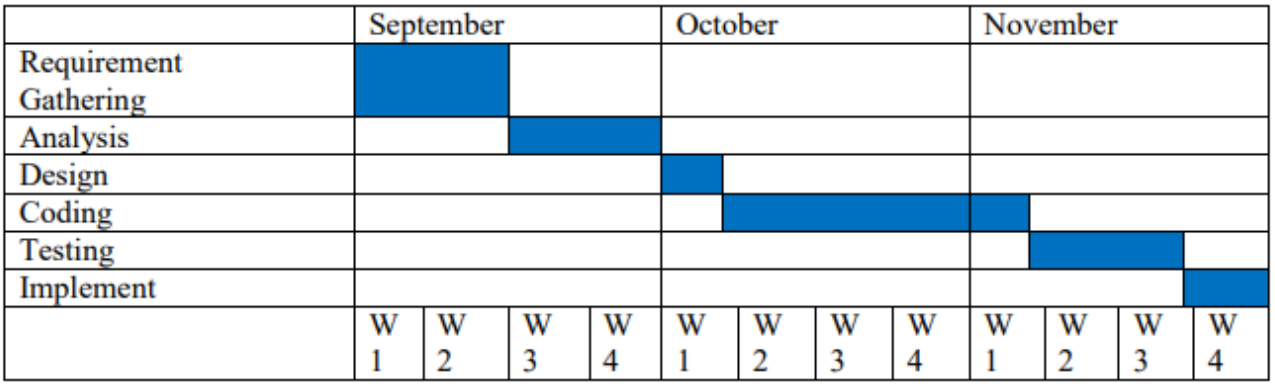



**Figure: ER Diagram**

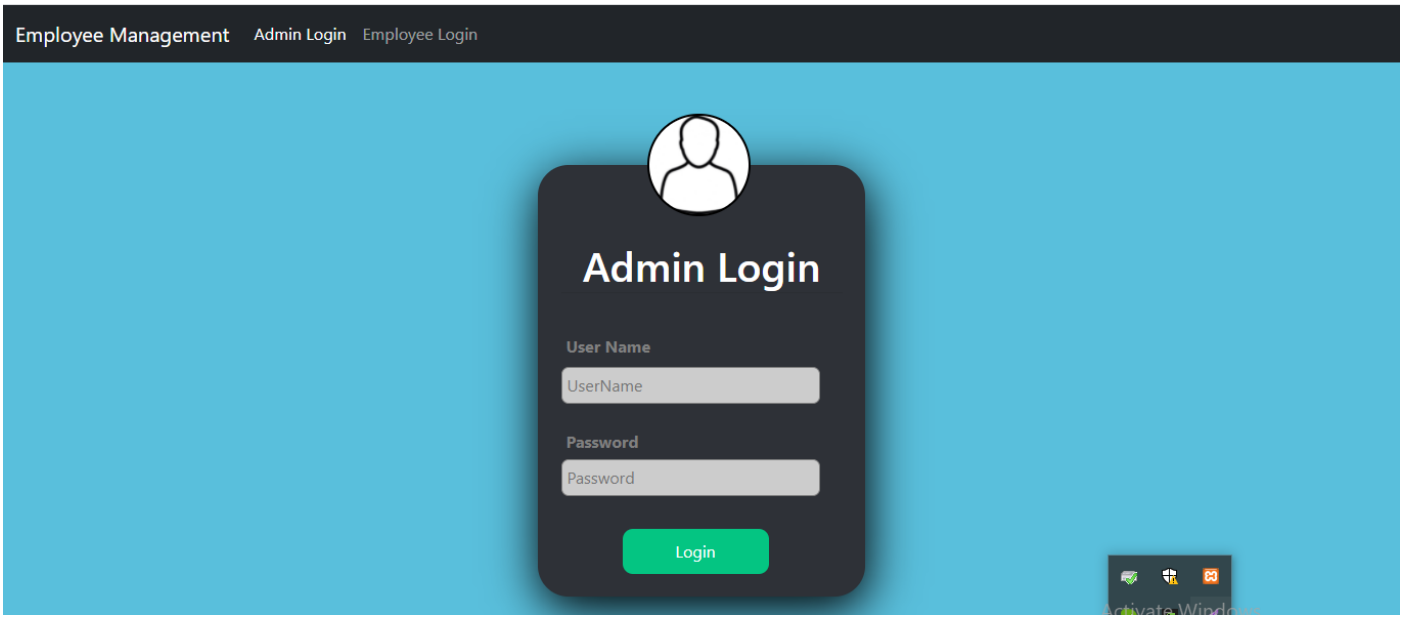
## Project Scheduling:

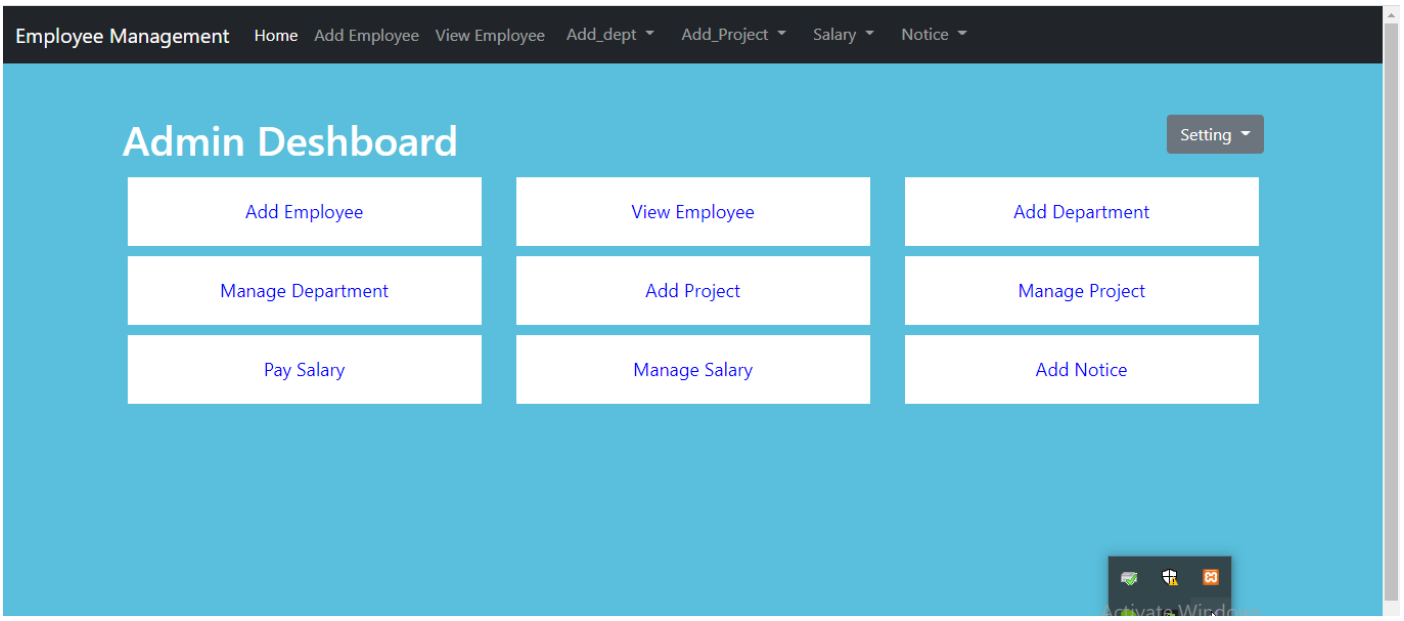
An elementary Gantt chart or timeline chart for the development plan is given below. The plan explains the tasks versus the time (in weeks) they will take to complete.

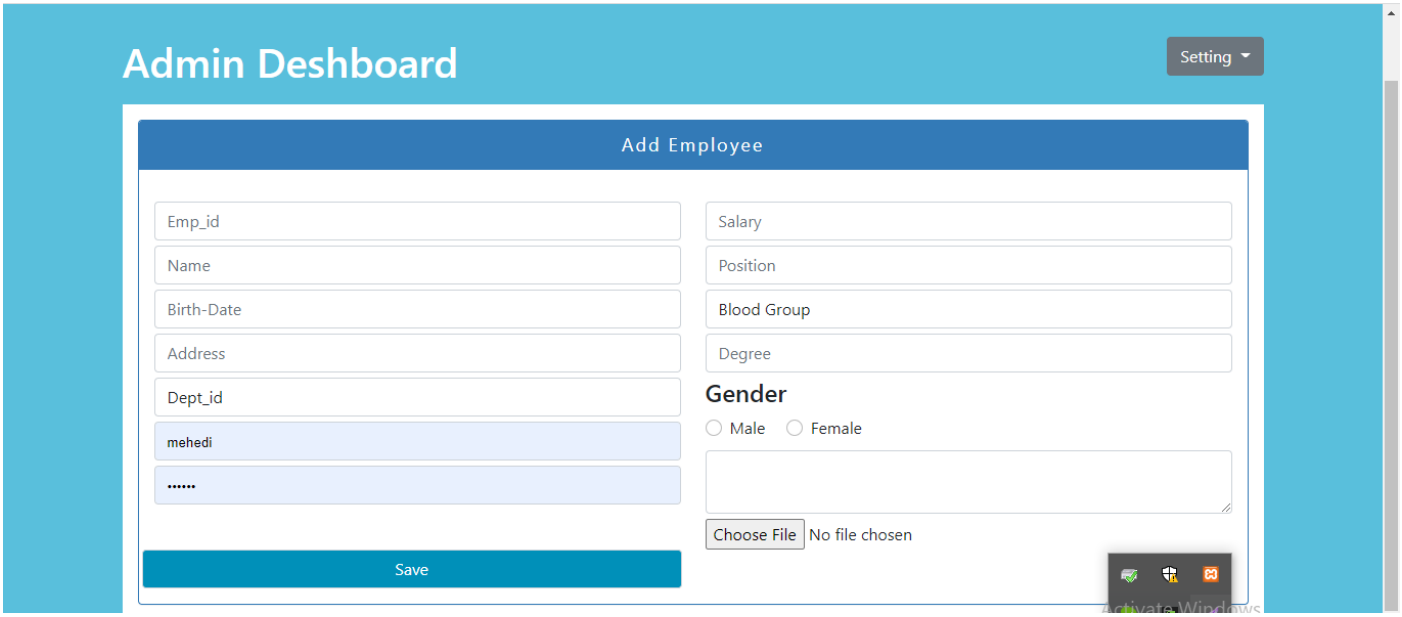


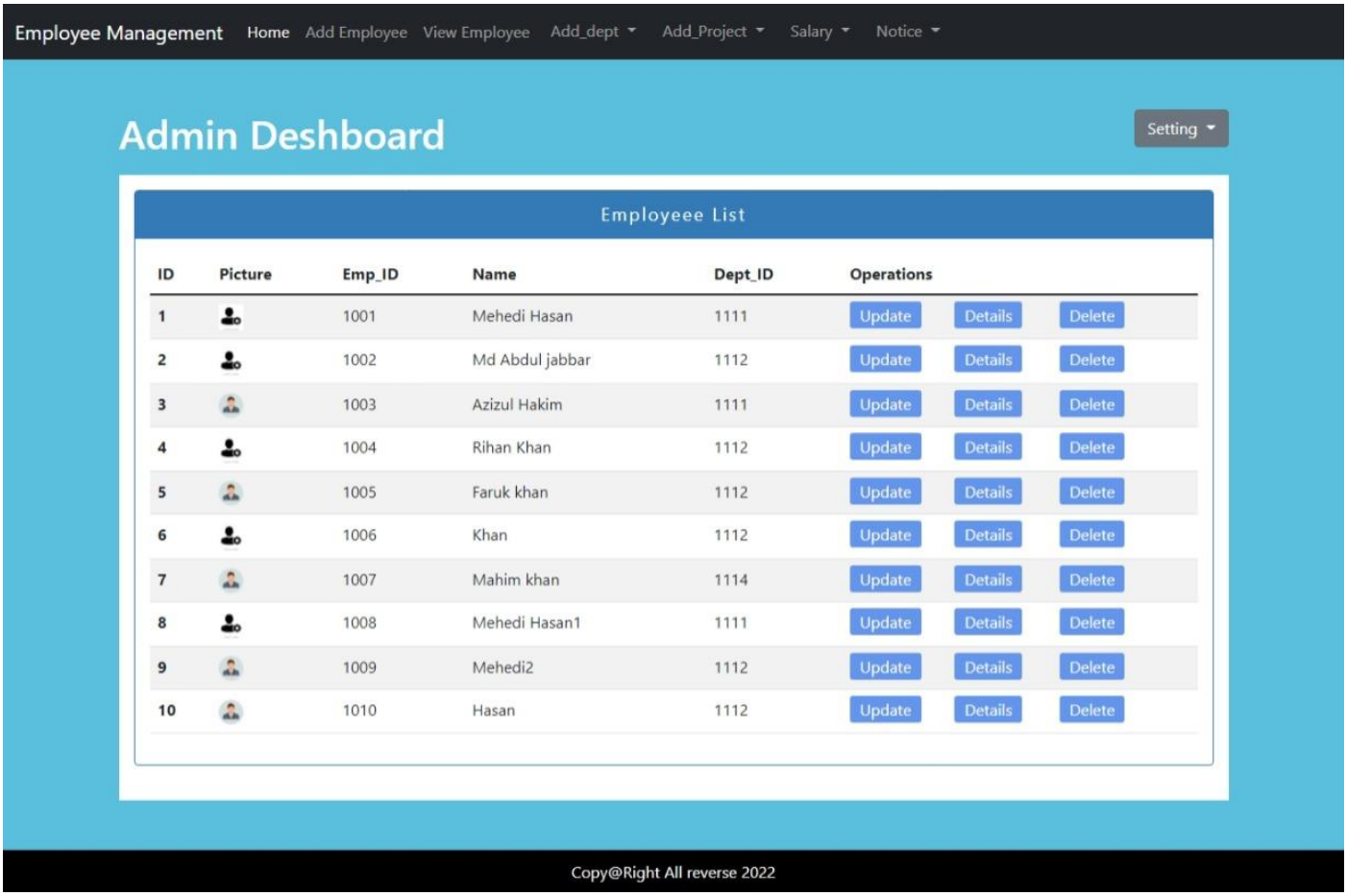
## 4.4 User Interface Design:

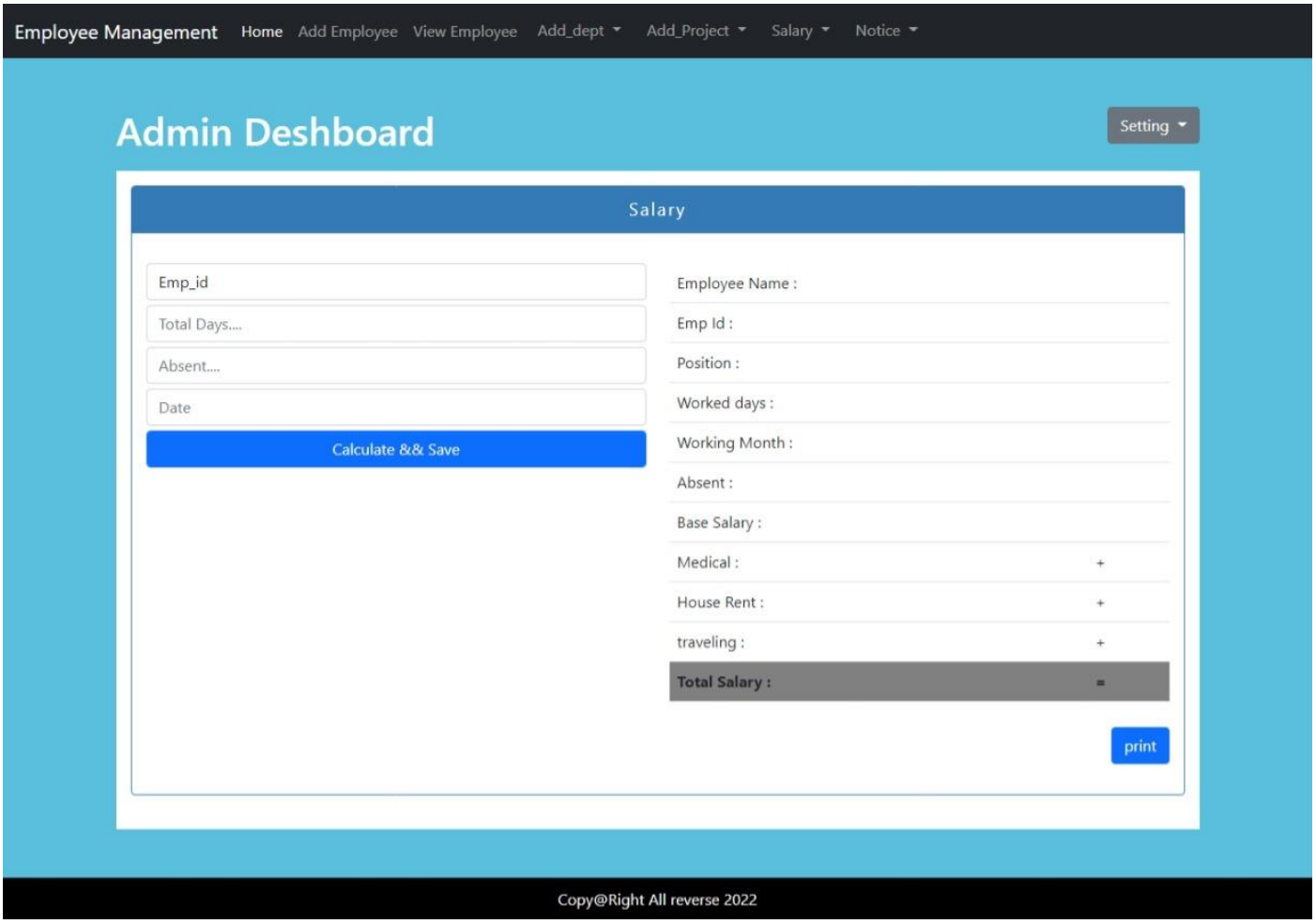
The Employee Management System gives a user a Login interface,

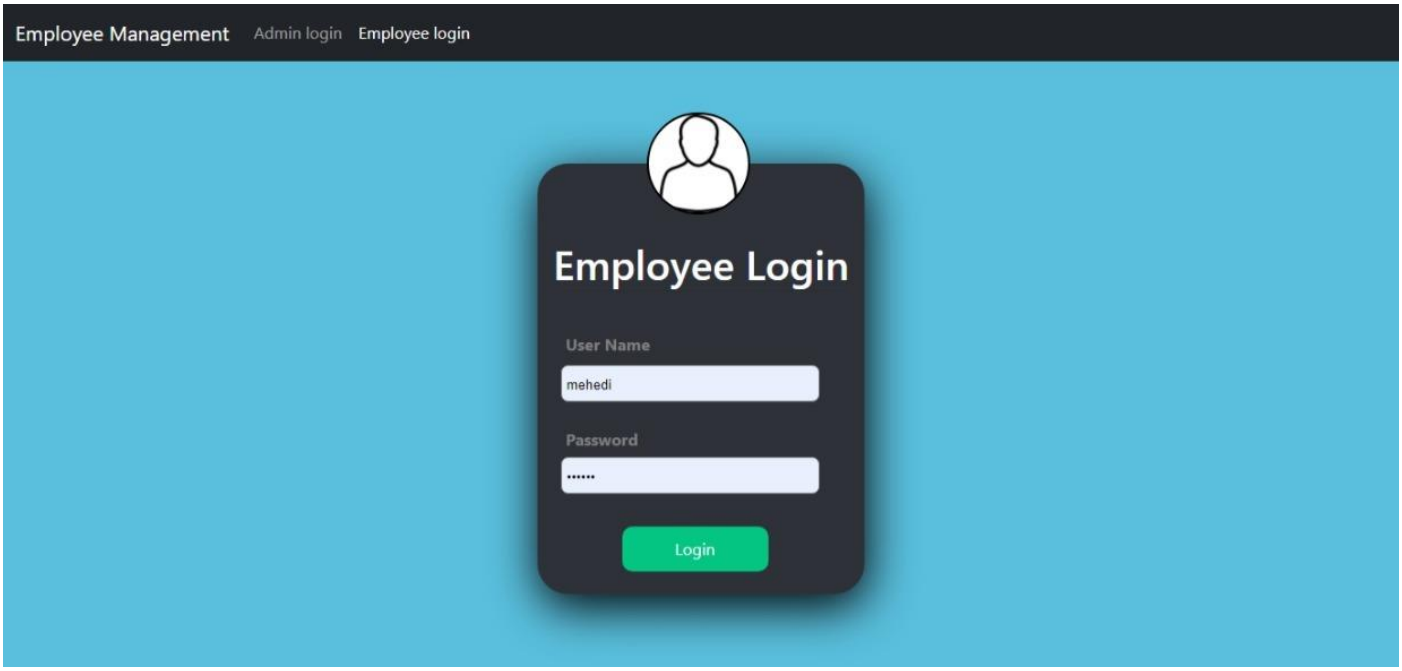


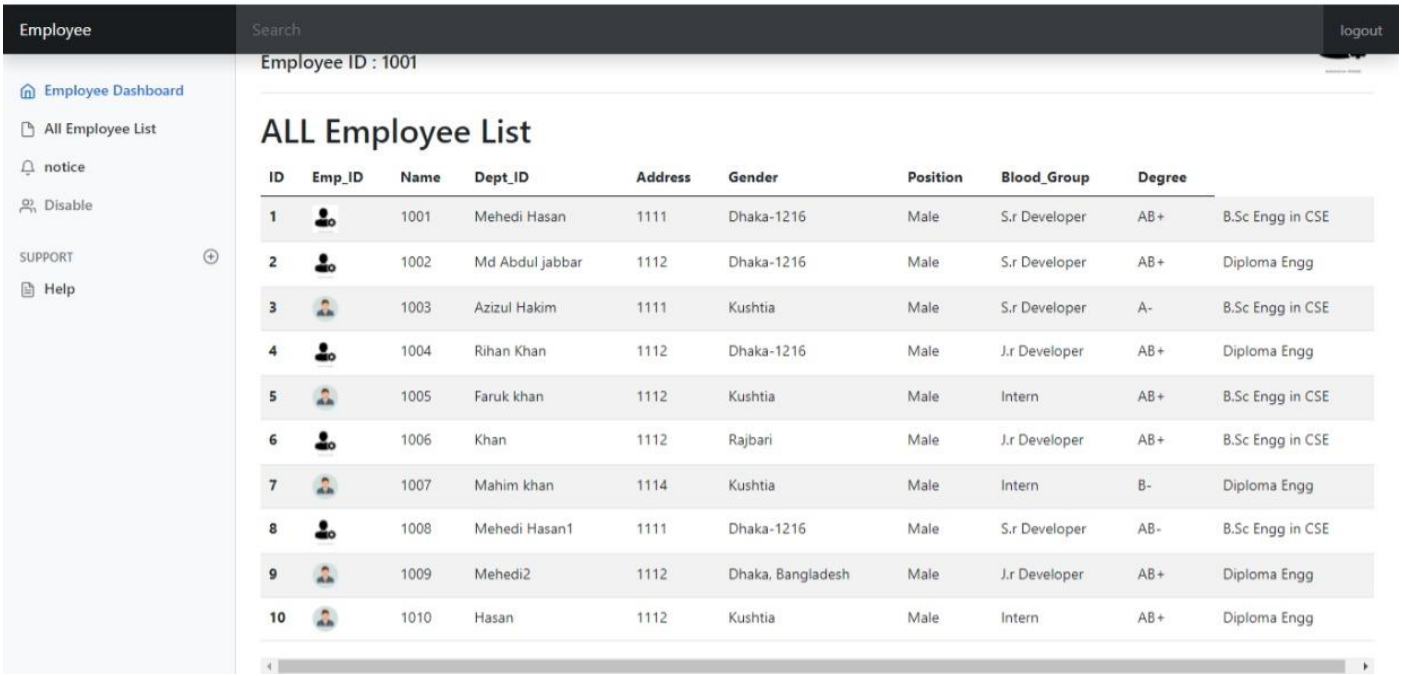



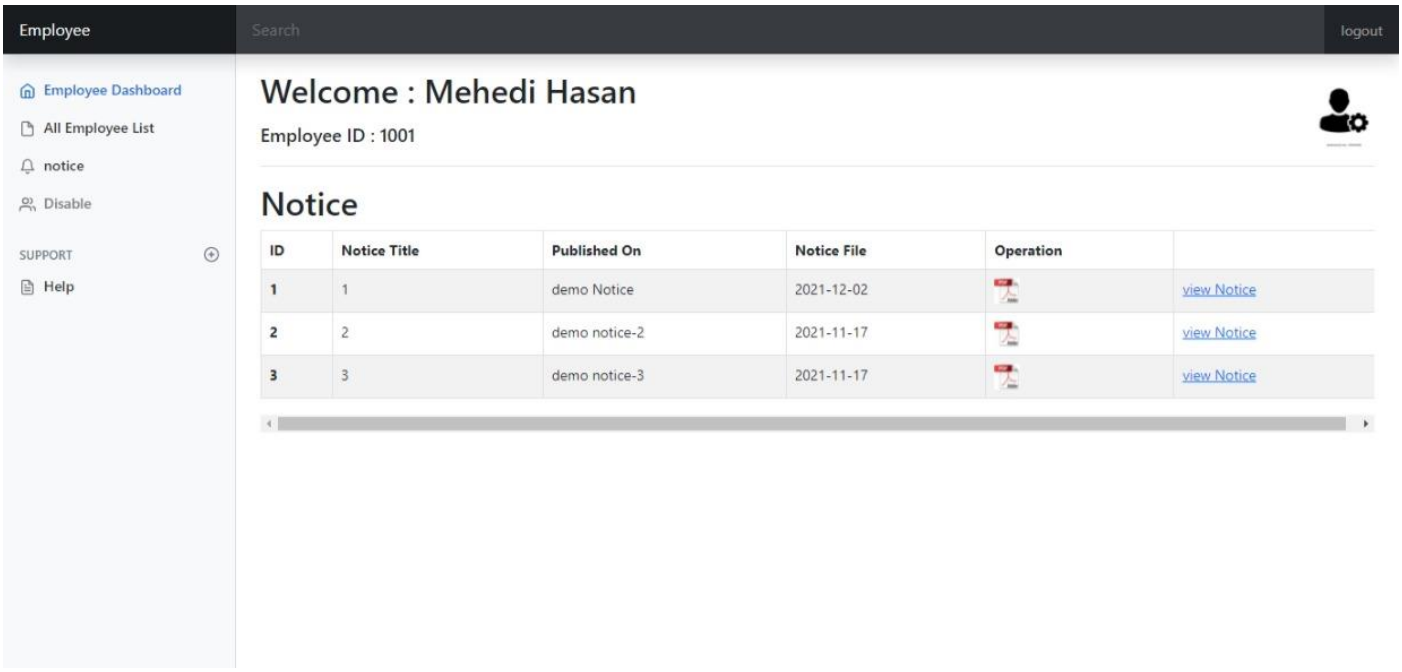

Admin Deshboard
Setting
Add Employee
Emp_id
Name
Birth-Date
Address
Dept_id
mehedi
.....
Save
Salary
Position
Blood Group
Degree
Gender
Male
Female
Choose File
No file chosen

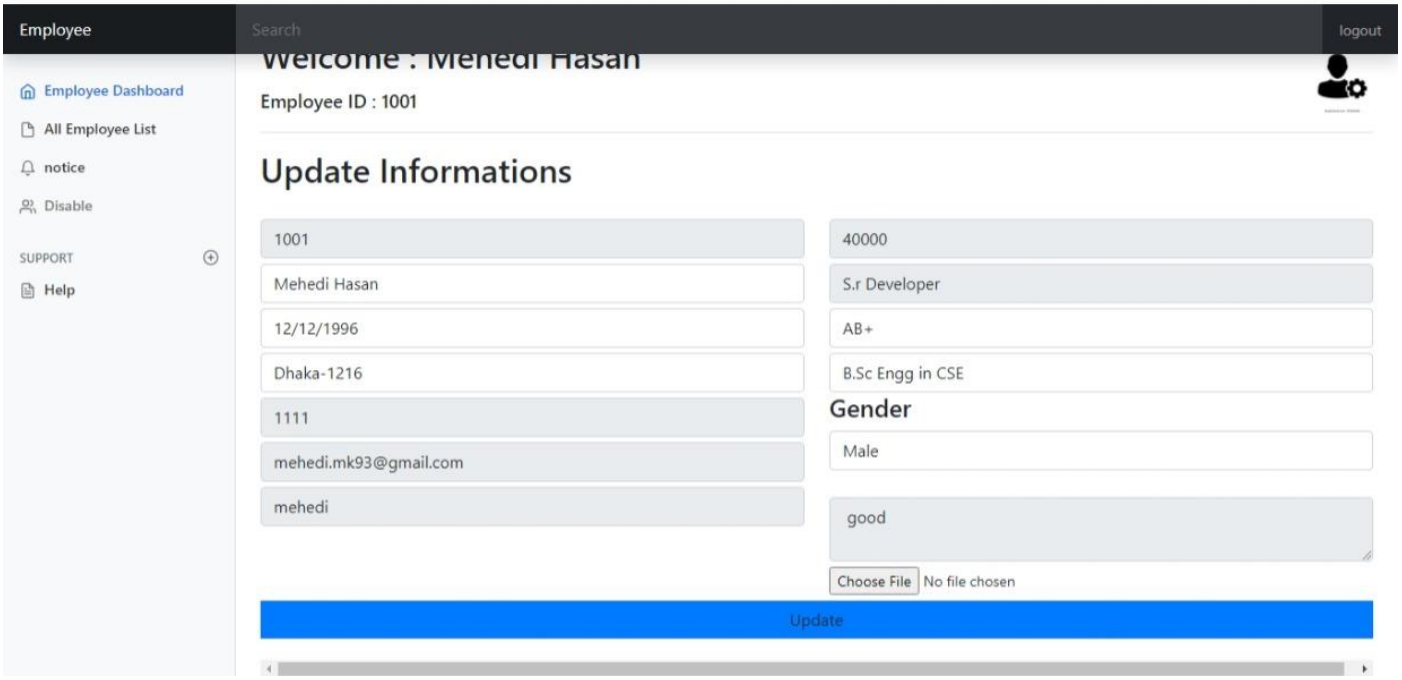

Employee Management
Home
Add Employee
View Employee
Add_dept
Add_Project
Salary
Notice
Admin Deshboard
Setting
Employeee List
ID
Picture
Emp_ID
Name
Dept_ID
Operations
1 1001 Mehedi Hasan 1111 Update Details Delete
2 1002 Md Abdul jabbar 1112 Update Details Delete
3 1003 Azizul Hakim 1111 Update Details Delete
4 1004 Rihan Khan 1112 Update Details Delete
5 1005 Faruk khan 1112 Update Details Delete
6 1006 Khan 1112 Update Details Delete
7 1007 Mahim khan 1114 Update Details Delete
8 1008 Mehedi Hasan1 1111 Update Details Delete
9 1009 Mehedi2 1112 Update Details Delete
10 1010 Hasan 1112 Update Details Delete
Copy@Right All reverse 2022


Employee Management
Home
Add Employee
View Employee
Add_dept
Add_Project
Salary
Notice
Admin Deshboard
Setting
Salary
Emp_id
Total Days....
Absent....
Date
Calculate && Save
Employee Name :
Emp Id :
Position :
Worked days :
Working Month :
Absent :
Base Salary :
Medical : +
House Rent : +
traveling : +
Total Salary : =
print
Copy@Right All reverse 2022


Employee Management
Admin login
Employee login
Employee Login
User Name
mehedi
Password
Login


Employee
Search
logout
Employee Dashboard
All Employee List
notice
Disable
SUPPORT
Help
Employee ID : 1001
ALL Employee List
ID Emp_ID Name Dept_ID Address Gender Position Blood_Group Degree
1 1001 Mehedi Hasan 1111 Dhaka-1216 Male S.r Developer AB+ B.Sc Engg in CSE
2 1002 Md Abdul jabbar 1112 Dhaka-1216 Male S.r Developer AB+ Diploma Engg
3 1003 Azizul Hakim 1111 Kushtia Male S.r Developer A- B.Sc Engg in CSE
4 1004 Rihan Khan 1112 Dhaka-1216 Male J.r Developer AB+ Diploma Engg
5 1005 Faruk khan 1112 Kushtia Male Intern AB+ B.Sc Engg in CSE
6 1006 Khan 1112 Rajbari Male J.r Developer AB+ B.Sc Engg in CSE
7 1007 Mahim khan 1114 Kushtia Male Intern B- Diploma Engg
8 1008 Mehedi Hasan1 1111 Dhaka-1216 Male S.r Developer AB- B.Sc Engg in CSE
9 1009 Mehedi2 1112 Dhaka, Bangladesh Male J.r Developer AB+ Diploma Engg
10 1010 Hasan 1112 Kushtia Male Intern AB+ Diploma Engg


Employee
Search
logout
Employee Dashboard
All Employee List
notice
Disable
SUPPORT
Help
Welcome : Mehedi Hasan
Employee ID : 1001
Notice
ID Notice Title Published On Notice File Operation
1 1 demo Notice 2021-12-02 view Notice
2 2 demo notice-2 2021-11-17 view Notice
3 3 demo notice-3 2021-11-17 view Notice


Employee
Search
logout
Welcome : Mehedi Hasan
Employee ID : 1001
Employee Dashboard
All Employee List
notice
Disable
SUPPORT
Help
Update Informations
1001
Mehedi Hasan
12/12/1996
Dhaka-1216
1111
mehedi.mk93@gmail.com
mehedi
40000
S.r Developer
AB+
B.Sc Engg in CSE
Gender
Male
good
Choose File
No file chosen
Update

# Chapter 5
# Implementation and Testing

## 5.1 Implementation:

### Code for Employee Management System

```
<?php
  include 'connection/db.php';
  include 'inc/session.php';
?>
<?php include 'inc/header.php' ?>
<style type="text/css">
  .footer{
    margin-top: 290px;
  }
</style>
    <section id="">
      <div class="container">
        <?php include 'inc/sessionoutbtn.php'; ?>

        <div class="row">
          <div class="col-md-4">
            <div class="box1">
              <a href="addemp.php">Add Employee</a>
            </div>
          </div>
          <div class="col-md-4">
            <div class="box1">
              <a href="view-employee.php">View Employee</a>
            </div>
          </div>
          <div class="col-md-4">
             <div class="box1">
              <a href="add-department.php">Add Department</a>
            </div>

          </div>
        </div>
        <div class="row">
          <div class="col-md-4">
            <div class="box1">
              <a href="view-department.php">Manage Department</a>
            </div>
          </div>
          <div class="col-md-4">
            <div class="box1">
              <a href="add-project.php">Add Project</a>
            </div>
          </div>
          <div class="col-md-4">
             <div class="box1">
```

```
              <a href="viewProject.php">Manage Project</a>
            </div>

          </div>
        </div>

        <div class="row">
          <div class="col-md-4">
            <div class="box1">
              <a href="pay-salary.php">Pay Salary</a>
            </div>
          </div>
          <div class="col-md-4">
            <div class="box1">
              <a href="view-salary-details.php">Manage Salary</a>
            </div>
          </div>
          <div class="col-md-4">
             <div class="box1">
              <a href="view-notice.php">Add Notice</a>
            </div>

          </div>
        </div>

      </div>
    </section>

<?php include 'inc/footer.php' ?>




<?php
error_reporting(0);
$msg = $errid = $errgender= "";
  include 'connection/db.php';
  include 'inc/session.php';

  if (isset($_POST['save'])) {


      $dept_id = $_POST['dept_id'];
      $dept_name = $_POST['dept_name'];
      $mgr_start_date = $_POST['mgr_start_date'];


      if (empty($_POST['dept_id']) || empty($_POST['dept_name'])
||  empty($_POST['mgr_start_date'])) {
        $errid = $errgender = "<span style ='color:red;text-decoration:underline;font-
size:10px;'>*Fild not be Empty</span>";

      }else{
```

```
        $sql1 = "INSERT INTO department(dept_id,dept_name,mgr_start_date)
value('$dept_id','$dept_name','$mgr_start_date')";
         mysqli_query($cn,$sql1);

       $msg = "Data inserted success";
      }
  }
?>
<?php include 'inc/header.php' ?>

    <section style="margin-bottom: 10px;" id="">
      <div class="container">
         <?php include 'inc/sessionoutbtn.php'; ?>
      </div>
    </section>

    <section id="body">
      <div class="container">
        <div class="row">
          <div class="col-md-12">
            <div class="from-1">
               <div class="panel panel-primary">
                  <div class="panel-heading">Add Departments</div>
                  <div class="panel-body">
                    <form action="add-department.php"  method="post">
                      <div class="row">
                        <div class="col-md-6">
                           <?php echo $errid; ?>
                            <input type="text" name="dept_id" class="form-control"
id="inputEmail4" placeholder="Dept_id...">
                            <?php echo $errid; ?>
                            <input type="text" name="dept_name" class="form-control"
id="inputEmail4" placeholder="Dept_name...">
                       </div><!-- left input -->

                        <div class="col-md-6">
                          <?php echo $errid; ?>
                          <input type="date" name="mgr_start_date" class="form-control"
id="inputEmail4">
                          <input style="width: 100% !important;" type="submit" name="save"
id="login-btn" class="form-control" value="Save">
                          <br>
                        </div>

                        <p id="succesmsg">
                          <?php if (isset($msg)) {
                            echo $msg;
                            }
                         ?>
                        </p>

                      </div>
                    </form>
                  </div>
                </div>
              </div>
```

```
            </div>
            </div>
          </div>
      </div>
    </section>

    <?php include 'inc/footer.php' ?>
```

```
<?php
error_reporting(0);
$msg = $errid = $errgender= "";
  include 'connection/db.php';
  include 'inc/session.php';

  if (isset($_POST['save'])) {


      $project_name = $_POST['project_name'];
      $project_id = $_POST['project_id'];
      $project_location = $_POST['project_location'];
      $dept_id = $_POST['dept_id'];


      if (empty($_POST['project_name']) || empty($_POST['project_name'])
||  empty($_POST['project_location'])) {
        $errid = $errgender = "<span style ='color:red;text-decoration:underline;font-
size:10px;'>*Fild not be Empty</span>";

      }else{
         $sql1 = "INSERT INTO project(project_name,project_id,project_location,dept_id)
value('$project_name','$project_id','$project_location',$dept_id)";
          mysqli_query($cn,$sql1);

        $msg = "Data inserted success";
      }


  }


?>

<?php include 'inc/header.php' ?>

    <section style="margin-bottom: 10px;" id="">
      <div class="container">
       <?php include 'inc/sessionoutbtn.php'; ?>
      </div>
    </section>

    <section id="body">
      <div class="container">
        <div class="row">
          <div class="col-md-12">
            <div class="from-1">
               <div class="panel panel-primary">
```

```
                <div class="panel-heading">Add Project</div>
                <div class="panel-body">
                  <form action="add-project.php"  method="post">
                  <div class="row">


                <div class="col-md-6">
                   <?php echo $errid; ?>
                  <input type="text" name="project_name" class="form-control"
id="inputEmail4" placeholder="project_name...">
                  <?php echo $errid; ?>
                  <input type="text" name="project_id" class="form-control" id="inputEmail4"
placeholder="project_id...">


                </div><!-- left input -->

                <div class="col-md-6">
                  <?php echo $errid; ?>
                  <input type="text" name="project_location" class="form-control"
id="inputEmail4" placeholder="Project Location....">

                  <select name="dept_id" id="inputState" class="form-control" >
                    <option selected>Dept_id</option>
                    <?php
                      $sql  = "SELECT * from department";

                      $result = mysqli_query($cn, $sql);

                      while ($row = mysqli_fetch_array($result)) {
                    ?>

                      <option value="<?php echo $row['dept_id']; ?>"><?php echo
$row['dept_id']; ?></option>
                      <?php } ?>
                  </select>
                  <br>
                  <input style="width: 100% !important;" type="submit" name="save" id="login-
btn" class="form-control" value="Save">

                  <br>

                </div>

                <p id="succesmsg">
                  <?php if (isset($msg)) {
                    echo $msg;
                    }
                 ?>
                </p>


              </div>
              </form>
            </div>
              </div>
```

```
            </div>
            </div>
          </div>
        </div>
    </div>
  </section>

  <?php include 'inc/footer.php' ?>
```

## 5.2 Testing

The purpose of testing is to discover errors .testing is the process of trying to discover every conceivable fault or weakness in a work product .It provides a way to check the functionality of components, sub-assemblies, assemblies and /or a finished product .It is the process of exercising software with the intent of ensuring that the software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of test .each test type addresses a specific testing requirements.

## 5.3 Types of testes:

- Unit testing
- Integration testing
- System test
- White box testing
- Black box testing
- Acceptance Testing

## 5.4 Test results

All the test cases mentioned above passed successfully no defects encountered.

# Chapter 6

# Conclusion

## 6.1 Conclusion

The package was designed in such a way that future modifications can be done easily .The following conclusion can be deduced form the development of the project.

• Automation of the entire system improves the efficiency.

• It provides user friendly interface which proves to be better when compared to the existing system.

• It gives appropriate access to the authorized users depending on their permissions.

• Updating of information becomes so easier.

• System security, data security and reliability are the striking features.

• The system has adequate scope for modification in future if it is necessary

## Limitations of the System

- System works in all platforms and its compatible environments.
- Advanced techniques are not used to check the authorization.

# Reference

https://www.w3schools.com/cs/
https://www.tutorialspoint.com/
https://google.com