

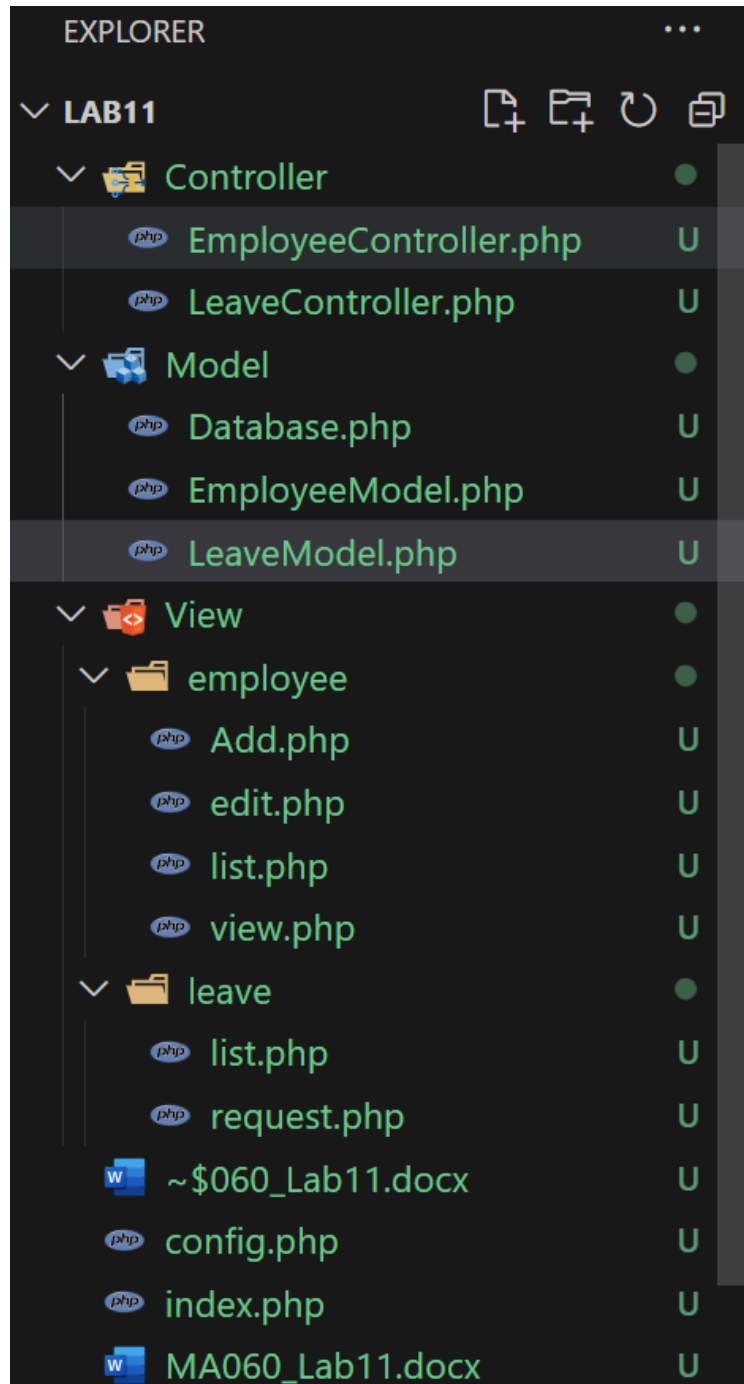
### Practical- 11 MVC

## Practical – 11 MVC

### 1. Implement simple employee information management functionality using MVC.

Manage Employee Data like Employee ID, name, department. Provide insert, view, update and delete functionality using appropriate design

Also Manage Leaves Taken by Employee: id, emp-id, leave date, leave reason, leave-status. Provide facility to request leave, approve disapprove leave and list leave records



## Practical – 11 MVC

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### Code:

#### config.php

```
<?php

namespace LAB11;

class Config
{
    protected const HOST = "localhost";
    protected const DATABASE = "emp";
    protected const USERNAME = "root";
    protected const PASSWORD = "";
}
```

#### index.php

```
<?php

namespace LAB11;

require_once './Controller/EmployeeController.php';

use LAB11\Controller\EmployeeController;

EmployeeController::All();
```

#### Controller/LeaveController.php

```
<?php

namespace LAB11\Controllers;

use LAB11\Models\LeaveModel;

class LeaveController
{
    public static function listLeaves()
    {
        $leaveModel = new LeaveModel();

        $leaves = $leaveModel->getAllLeaves();
    }
}
```

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```
        require_once __DIR__ . '/../View/leave/list.php';
    }

    public static function requestLeave($data)
    {
        $leaveModel = new LeaveModel();

        $success = $leaveModel->requestLeave($data);

        if ($success) {
            header("Location:
index.php?page=leave&action=list");
        } else {
            die("Failed to request leave.");
        }
    }

    public static function approveLeave($leaveId)
    {
        $leaveModel = new LeaveModel();

        $success = $leaveModel->approveLeave($leaveId);
        if ($success) {
            echo <<<EOL
            <script>
                alert('leave approved...')
            </script>
            EOL;
        } else
            echo <<<EOL
            <script>
                alert('leave rejected...')
            </script>
            EOL;
    }

    public static function disapproveLeave($leaveId)
    {
        $leaveModel = new LeaveModel();

        $success = $leaveModel->disapproveLeave($leaveId);

        if ($success) {
```

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```
        echo <<<EOL
        <script>
            alert('leave disapproved...')
        </script>
        EOL;
    } else
    {
        echo <<<EOL
        <script>
            alert('failed to disapprove leave...')
        </script>
        EOL;
    }
}
```

### Controller/EmployeeController.php

```
<?php

namespace LAB11\Controller;

require_once __DIR__ . '/../Model/EmployeeModel.php';
require_once __DIR__ . '/../Model/LeaveModel.php';
require_once __DIR__ . '/../Controller/LeaveController.php';

use LAB11\Controllers\LeaveController;
use LAB11\Model\EmployeeModel;

class EmployeeController extends EmployeeModel
{
    private function __construct()
    {
    }

    public static function All(): array
    {
        $employees = EmployeeModel::All();
        require_once __DIR__ . '/../View/employee/list.php';
        return [];
    }

    public static function Insert($name, $department)
    {
        if (EmployeeModel::Insert($name, $department)) {
            echo <<<EOL
            <script>
```

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```
        alert('record is Inserted...')
    </script>
    EOL;
} else
    echo <<<EOL
    <script>
        alert('faield to Insert...')
    </script>
    EOL;
}
public static function ViewById($empid)
{
    $employee = EmployeeModel::ViewById($empid);
    require_once __DIR__ . '/../View/employee/view.php';
    LeaveController::listLeaves();
}
public static function UpdateView($empid, $name,
    $department)
{
    require_once __DIR__ . '/../View/employee/edit.php';
}
public static function Update($empid, $name, $department)
{
    if (EmployeeModel::Update($empid, $name,
    $department)) {
        echo <<<EOL
        <script>
            alert('record is upated...')
        </script>
        EOL;
    } else
        echo <<<EOL
        <script>
            alert('faield to update...')
        </script>
        EOL;
    }
}
public static function Delete($empid)
{
    if (EmployeeModel::Delete($empid)) {
        echo <<<EOL
        <script>
            alert('record is deleted...')
```

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---

```
        </script>
        EOL;
    }
}
}
```

### Model/Database.php

```
<?php

namespace LAB11\Model;

require_once __DIR__ . '/../config.php';

use LAB11\Config;
use PDO;
use PDOException;

class Database extends Config
{
    private static $pdo;

    private function __construct()
    {
    }

    public static function getInstance()
    {
        if (!isset(self::$pdo)) {
            try {
                $dsn = "mysql:host=" . self::HOST .
                ";dbname=" . self::DATABASE;
                self::$pdo = new PDO($dsn, self::USERNAME,
                self::PASSWORD);
                self::$pdo->setAttribute(PDO::ATTR_ERRMODE,
                PDO::ERRMODE_EXCEPTION);
            } catch (PDOException $e) {
                die("Database connection failed: " . $e-
                >getMessage());
            }
        }

        return self::$pdo;
    }
}
```

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```
}  
}
```

### Model/EmployeeModel.php

```
<?php  
  
namespace LAB11\Model;  
  
require_once __DIR__ . '/../Database.php';  
  
use PDO;  
use PDOException;  
  
class EmployeeModel  
{  
    private function __construct()  
    {  
    }  
  
    public static function All(): array  
    {  
        try {  
            $pdo = Database::getInstance();  
            $query = "SELECT * FROM Employee";  
            $stmt = $pdo->query($query);  
            return $stmt->fetchAll(PDO::FETCH_ASSOC);  
        } catch (PDOException $e) {  
            die("Error fetching employees: " . $e-  
            >getMessage());  
        }  
    }  
  
    public static function Insert($name, $department)  
    {  
        try {  
            $pdo = Database::getInstance();  
            $query = "INSERT INTO Employee (name, department)  
VALUES (:name, :department)";  
            $stmt = $pdo->prepare($query);  
            $stmt->bindParam(':name', $name);  
            $stmt->bindParam(':department', $department);  
            return $stmt->execute();  
        }  
    }  
}
```



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```
        } catch (PDOException $e) {
            die("Error inserting employee: " . $e-
>getMessage());
        }
    }

    public static function ViewById($empid)
    {
        try {
            $pdo = Database::getInstance();
            $query = "SELECT * FROM Employee WHERE empid =
:empid";
            $stmt = $pdo->prepare($query);
            $stmt->bindParam(':empid', $empid);
            $stmt->execute();
            return $stmt->fetch(PDO::FETCH_ASSOC);
        } catch (PDOException $e) {
            die("Error fetching employee by ID: " . $e-
>getMessage());
        }
    }

    public static function Update($empid, $name, $department)
    {
        try {
            $pdo = Database::getInstance();
            $query = "UPDATE Employee SET name = :name,
department = :department WHERE empid = :empid";
            $stmt = $pdo->prepare($query);
            $stmt->bindParam(':empid', $empid);
            $stmt->bindParam(':name', $name);
            $stmt->bindParam(':department', $department);
            return boolval($stmt->execute());
        } catch (PDOException $e) {
            die("Error updating employee: " . $e-
>getMessage());
        }
    }

    public static function Delete($empid)
    {
        try {
            $pdo = Database::getInstance();
```

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```
        $query = "DELETE FROM Employee WHERE empid =
:empid";
        $stmt = $pdo->prepare($query);
        $stmt->bindParam(':empid', $empid);
        return $stmt->execute();
    } catch (PDOException $e) {
        die("Error deleting employee: " . $e-
>getMessage());
    }
}
```

### Model/LeaveModel.php

```
<?php

namespace LAB11\Models;

use LAB11\Model\Database;
use PDOException;

class LeaveModel
{
    public function getAllLeaves()
    {
        try {
            $pdo = Database::getInstance();
            $query = "SELECT * FROM leaves";
            $stmt = $pdo->query($query);
            return $stmt->fetchAll();
        } catch (PDOException $e) {
            die("Database error: " . $e->getMessage());
        }
    }

    public function requestLeave($data)
    {
        try {
            $pdo = Database::getInstance();
            $query = "INSERT INTO leaves (empid, leave_date,
leave_reason, leave_status) VALUES (?, ?, ?, ?)";
            $stmt = $pdo->prepare($query);
```

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```
        $stmt->execute([$data['empid'],
        $data['leave_date'], $data['leave_reason'], 'Pending']);
        return true;
    } catch (PDOException $e) {
        die("Database error: " . $e->getMessage());
    }
}

public function approveLeave($leaveId)
{
    try {
        $pdo = Database::getInstance();
        $query = "UPDATE leaves SET leave_status =
        'Approved' WHERE empid = ?";
        $stmt = $pdo->prepare($query);
        $stmt->execute([$leaveId]);
        return true;
    } catch (PDOException $e) {
        die("Database error: " . $e->getMessage());
    }
}

public function disapproveLeave($leaveId)
{
    try {
        $pdo = Database::getInstance();
        $query = "UPDATE leaves SET leave_status =
        'Disapproved' WHERE empid = ?";
        $stmt = $pdo->prepare($query);
        $stmt->execute([$leaveId]);
        return true;
    } catch (PDOException $e) {
        die("Database error: " . $e->getMessage());
    }
}
}
```

### conn.php

```
<?php
    $servername = "localhost";
    $username = "root";
    $password = "";
```

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---

```
$dbname = "person";  
?>
```

### View/employee/Add.php

```
<?php  
  
use LAB11\Controller\EmployeeController;  
  
require_once __DIR__ .  
    '/../../Controller/EmployeeController.php';  
if (isset($_POST['Insert'])) {  
    EmployeeController::Insert($_POST['name'],  
        $_POST['department']);  
}  
?>  
<!DOCTYPE html>  
<html>  
  
<head>  
    <title>Add Employee</title>  
</head>  
  
<body>  
    <h1>Add Employee</h1>  
    <form action="" method="post">  
        <input type="hidden" name="empid">  
  
        <label for="name">Name:</label>  
        <input type="text" id="name" name="name"  
            required><br>  
  
        <label for="department">Department:</label>  
        <input type="text" id="department" name="department"  
            required><br>  
        <button type="submit" name="Insert">Insert</button>  
    </form>  
</body>  
  
</html>
```

### View/employee/edit.php

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```
<?php

use LAB11\Controller\EmployeeController;

if (isset($_POST['UpdateData'])) {
    EmployeeController::Update($empid, $_POST['name'],
        $_POST['department']);
}
?>
<!DOCTYPE html>
<html>

<head>
    <title>Edit Employee</title>
</head>

<body>
    <h1>Edit Employee</h1>
    <form action="" method="post">
        <input type="hidden" name="empid" value="<?php echo
            $empid; ?>">

        <label for="name">Name:</label>
        <input type="text" id="name" name="name" value="<?php
            echo $name; ?>" required><br>

        <label for="department">Department:</label>
        <input type="text" id="department" name="department"
            value="<?php echo $department; ?>" required><br>
        <button type="submit"
            name="UpdateData">UpdateData</button>
    </form>
</body>

</html>
```

### View/employee/list.php

```
<?php

use LAB11\Controller\EmployeeController;
use LAB11\Model\EmployeeModel;

if (isset($_POST['view'])) {
```

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```
        EmployeeController::ViewById($_POST['empid']);
    }
    if (isset($_POST['update'])) {
        $empid = $_POST['empid'];
        $employee = EmployeeModel::ViewById($_POST['empid']);
        EmployeeController::UpdateView($empid, $employee['name'],
            $employee['department']);
    }
    if (isset($_POST['delete'])) {
        $empid = $_POST['empid'];
        EmployeeController::Delete($empid);
    }
    if (isset($_POST['insert'])) {
        header("location:./View/employee/add.php");
    }

    unset($_POST);
    ?>
<!DOCTYPE html>
<html>

<head>
    <title>Employee List</title>
</head>

<body>
    <h1>Employee List</h1>
    <table>
        <thead>
            <tr>
                <th>Employee ID</th>
                <th>Name</th>
                <th>Department</th>
                <th>Action</th>
            </tr>
        </thead>
        <tbody>
            <?php foreach ($employees as $employee) : ?>
                <tr>
                    <td><?php echo $employee['empid'];
?></td>
                    <td><?php echo $employee['name']; ?></td>
```

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```
<td><?php echo $employee['department'];
?></td>
<td>
    <table>
        <tr>
            <td>
                <form
action="index.php?page=employee&action=view"
method="post">
                    <input type="hidden"
name="empid" value="<?php echo $employee['empid']; ?>">
                    <button type="submit"
name="view">View</button>
                </form>
            </td>
            <td>
                <form action="."
method="post">
                    <input type="hidden"
name="empid" value="<?php echo $employee['empid']; ?>">
                    <button type="submit"
name="update">Update</button>
                </form>
            </td>
            <td>
                <form
action="index.php?page=employee&action=delete"
method="post">
                    <input type="hidden"
name="empid" value="<?php echo $employee['empid']; ?>">
                    <button type="submit"
name="delete">Delete</button>
                </form>
            </td>
        </tr>
    </table>
</td>
</tr>
<?php endforeach; ?>
</tbody>
</table>
```

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---

```
<form action="#" method="post">
    <button type="submit" name="insert">Add
    Employee</button>
</form>
</body>

</html>
```

### View/employee/view.php

```
<!DOCTYPE html>
<html>

<head>
    <title>View Employee</title>
</head>

<body>
    <h1>View Employee</h1>
    <p><strong>Employee ID:</strong> <?php echo
    $employee['empid']; ?></p>
    <p><strong>Name:</strong> <?php echo $employee['name'];
    ?></p>
    <p><strong>Department:</strong> <?php echo
    $employee['department']; ?></p>
    <a href="index.php?page=employee&action=edit&id=<?php
    echo $employee['empid']; ?>">Edit</a>
    <a href="index.php?page=employee&action=delete&id=<?php
    echo $employee['empid']; ?>">Delete</a>
</body>

</html>
```

### View/leave/list.php

```
<?php

use LAB11\Controllers\LeaveController;

if (isset($_POST['approve'])) {
    LeaveController::approveLeave($_POST['leave_id']);
}
if (isset($_POST['disapprove']))
```



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```
LeaveController::disapproveLeave($_POST['leave_id']);

if (isset($_POST['request_leave']))
    header("location:request.php");
?>
<!DOCTYPE html>
<html>

<head>
    <title>Leave List</title>
</head>

<body>
    <h1>Leave List</h1>
    <table>
        <thead>
            <tr>
                <!-- <th>Leave ID</th> -->
                <th>Employee ID</th>
                <th>Leave Date</th>
                <th>Leave Reason</th>
                <th>Leave Status</th>
                <th>Action</th>
            </tr>
        </thead>
        <tbody>
            <?php foreach ($leaves as $leave) : ?>
                <tr>
                    <!-- <td><?php echo $leave['leave_id'];
?></td> -->
                    <td><?php echo $leave['empid']; ?></td>
                    <td><?php echo $leave['leave_date'];
?></td>
                    <td><?php echo $leave['leave_reason'];
?></td>
                    <td><?php echo $leave['leave_status'];
?></td>
                    <td>
                        <table>
                            <tr>
                                <td>
                                    <form action="<?php echo
$_SERVER['PHP_SELF'] ?>" method="post">
```

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```

                                <input type="hidden"
name="leave_id" value="<?php echo $leave['empid']; ?>"
                                <button type="submit"
name="approve">Approve</button>
                                </form>
                                </td>
                                <td>
                                <form action="<?php echo
$_SERVER['PHP_SELF'] ?>" method="post">
                                <input type="hidden"
name="leave_id" value="<?php echo $leave['empid']; ?>"
                                <button type="submit"
name="disapprove">Disapprove</button>
                                </form>
                                </td>
                                </tr>
                                </table>
                                </td>
                                </tr>
                                <?php endforeach; ?>
                                </tbody>
                                </table>
                                <form action="<?php echo $_SERVER['PHP_SELF'] ?>"
                                method="post">
                                <button type="submit" name="request_leave">Request
                                Leave</button>
                                </form>
                                </body>
                                </html>
```

### View/leave/request.php

```
<!DOCTYPE html>
<html>

<head>
    <title>Request Leave</title>

    <link rel="stylesheet"
        href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/cs
        s/bootstrap.min.css">
</head>
```

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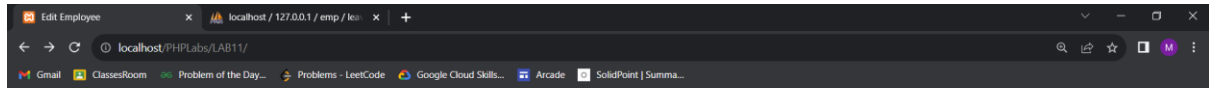
```
<body>
  <div class="container mt-5">
    <h1 class="text-center">Request Leave</h1>
    <form
      action="index.php?page=leave&action=submit_request"
      method="post">
      <!-- Leave request form fields -->
      <div class="form-group">
        <label for="leave_date">Leave Date:</label>
        <input type="date" class="form-control"
          id="leave_date" name="leave_date" required>
      </div>
      <div class="form-group">
        <label for="leave_reason">Leave
        Reason:</label>
        <textarea class="form-control"
          id="leave_reason" name="leave_reason" rows="4"
          required></textarea>
      </div>
      <button type="submit" class="btn btn-
        primary">Submit Request</button>
    </form>
  </div>

  <script src="https://code.jquery.com/jquery-
    3.5.1.slim.min.js"></script>
  <script
    src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.3/d
    ist/umd/popper.min.js"></script>
  <script
    src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/
    bootstrap.min.js"></script>
</body>

</html>
```

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## Output:



## Edit Employee

Name:

Department:

## Employee List

Employee ID	Name	Department	Action		
2	Abhi	Mobile	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	kaushal	UI	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	kaushal	UI	<input type="button" value="View"/>	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

