

Lab 3: Bootstrap

Date: 24/01/2026

Q1. Design the student bio-data form using button, label, textbox, radio button, table and checkbox.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Student Bio-Data Form</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.8/dist/css/bootstrap.min.css" rel="stylesheet">
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.8/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body class="bg-light">
    <div class="container mt-5">
        <div class="card shadow-lg">
            <div class="card-header bg-primary text-white">
                <h2 class="mb-0">Student Bio-Data Form</h2>
            </div>
            <div class="card-body">
                <form>
                    <h4 class="mb-3">Personal Information</h4>
                    <div class="row mb-3">
                        <div class="col-md-6">
                            <label for="studentName" class="form-label">Full Name</label>
                            <input type="text" class="form-control" id="studentName" placeholder="Enter your full name" required>
                            <div class="invalid-feedback">Name is required.</div>
                        </div>
                        <div class="col-md-6">
                            <label for="studentEmail" class="form-label">Email</label>
                            <input type="email" class="form-control" id="studentEmail" placeholder="Enter your email" required>
                            <div class="invalid-feedback">Please enter a valid email address.</div>
                        </div>
                    </div>
                </form>
            </div>
        </div>
    </div>
</body>
```

```
</div>
<div class="row mb-3">
    <div class="col-md-6">
        <label for="studentPhone" class="form-label">Phone Number</label>
        <input type="tel" class="form-control" id="studentPhone"
placeholder="Enter your phone number" pattern="[0-9]{" required>
            <div class="invalid-feedback">Please enter digits only (0-
9).</div>
    </div>
    <div class="col-md-6">
        <label for="studentDOB" class="form-label">Date of Birth</label>
        <input type="date" class="form-control" id="studentDOB" required>
            <div class="invalid-feedback">Date of birth is required.</div>
    </div>
</div>
<div class="mb-3">
    <label class="form-label">Gender</label><br>
    <div class="form-check form-check-inline">
        <input class="form-check-input" type="radio" name="gender"
id="male" value="Male" required>
            <label class="form-check-label" for="male">Male</label>
        </div>
        <div class="form-check form-check-inline">
            <input class="form-check-input" type="radio" name="gender"
id="female" value="Female">
                <label class="form-check-label" for="female">Female</label>
            </div>
            <div class="form-check form-check-inline">
                <input class="form-check-input" type="radio" name="gender"
id="other" value="Other">
                    <label class="form-check-label" for="other">Other</label>
                </div>
                <div class="invalid-feedback">Please select a gender.</div>
            </div>
    <h4 class="mb-3">Academic Information</h4>
    <div class="row mb-3">
        <div class="col-md-6">
            <label for="studentCourse" class="form-label">Course</label>
            <input type="text" class="form-control" id="studentCourse"
placeholder="e.g. B.Sc Computer Science" required>
                <div class="invalid-feedback">Course is required.</div>
            </div>
            <div class="col-md-6">
                <label for="studentYear" class="form-label">Year of Study</label>
                <select class="form-select" id="studentYear" required>
                    <option selected disabled value="">Choose...</option>
                    <option>1st Year</option>
                </select>
            </div>
        </div>
    </div>
</div>
```

```
<option>2nd Year</option>
<option>3rd Year</option>
<option>Final Year</option>
</select>
<div class="invalid-feedback">Please select your year of
study.</div>
</div>
<div class="row mt-3">
    <div class="col-md-6">
        <label for="studentMentor" class="form-label">Mentor
Name</label>
        <input type="text" class="form-control" id="studentMentor"
placeholder="Enter name of mentor" required>
        <div class="invalid-feedback">Mentor is required.</div>
    </div>
    </div>
</div>
<div class="mt-4">
    <button type="submit" class="btn btn-success">Submit</button>
    <button type="reset" class="btn btn-danger">Reset</button>
</div>
</form>
</div>
</div>
</body>
</html>
```

Output:

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "Student Bio-Data Form". The page content is a form with two main sections: "Personal Information" and "Academic Information". In the "Personal Information" section, there are fields for "Full Name" (Dhruv Phalod) and "Email" (dhruv@mit.com). In the "Academic Information" section, there are fields for "Course" (Computer Science and Engineering), "Year of Study" (3rd Year), and "Mentor Name" (Sahana Roshan). At the bottom of the form are two buttons: "Submit" (green) and "Reset" (red). The browser's toolbar and status bar are visible at the bottom.

2. Design a web page which shows the database-oriented CRUD operation. Consider Employee data.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Employee Management</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap/dist/css/bootstrap.min.css" rel="stylesheet">
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body class="bg-light">
    <div class="container mt-5">
        <div class="card shadow-lg">
            <div class="card-header bg-primary text-white d-flex justify-content-between align-items-center">
                <h2 class="mb-0">Employee Management</h2>
```

```
<button class="btn btn-success" onclick="openModal('add')">+ Add Employee</button>
</div>
<div class="card-body">
  <table class="table table-hover table-bordered" id="employeeTable">
    <thead class="table-dark">
      <tr>
        <th>ID</th>
        <th>Name</th>
        <th>Email</th>
        <th>Department</th>
        <th>Salary</th>
        <th>Actions</th>
      </tr>
    </thead>
    <tbody></tbody>
  </table>
</div>
</div>
</div>
```



```
<div class="modal fade" id="employeeModal" tabindex="-1" aria-hidden="true">
  <div class="modal-dialog">
    <form class="modal-content" id="employeeForm">
      <div class="modal-header">
        <h5 class="modal-title" id="modalTitle">Add Employee</h5>
        <button type="button" class="btn-close" data-bs-dismiss="modal"></button>
      </div>
      <div class="modal-body">
        <input type="hidden" id="editIndex">
        <div class="mb-3">
          <label class="form-label">ID</label>
          <input type="number" class="form-control" id="empId" required>
        </div>
        <div class="mb-3">
          <label class="form-label">Name</label>
          <input type="text" class="form-control" id="empName" required>
        </div>
        <div class="mb-3">
          <label class="form-label">Email</label>
          <input type="email" class="form-control" id="empEmail" required>
        </div>
        <div class="mb-3">
          <label class="form-label">Department</label>
          <input type="text" class="form-control" id="empDept" required>
        </div>
```

```
<div class="mb-3">
    <label class="form-label">Salary</label>
    <input type="number" class="form-control" id="empSalary" required>
</div>
</div>
<div class="modal-footer">
    <button type="submit" class="btn btn-primary" id="modalActionBtn">Save</button>
    <button type="button" class="btn btn-secondary" data-bs-dismiss="modal">Cancel</button>
</div>
</form>
</div>
</div>

<script>
let employees = [
    { id: 101, name: "John Doe", email: "john@example.com", dept: "HR",
salary: 45000 },
    { id: 102, name: "Mary Smith", email: "mary@example.com", dept: "Finance",
salary: 55000 }
];

function renderTable() {
    const tbody = document.querySelector("#employeeTable tbody");
    tbody.innerHTML = "";
    employees.forEach((emp, index) => {
        tbody.insertAdjacentHTML("beforeend", `

<tr>
    <td>${emp.id}</td>
    <td>${emp.name}</td>
    <td>${emp.email}</td>
    <td>${emp.dept}</td>
    <td>${emp.salary}</td>
    <td>
        <button class="btn btn-warning btn-sm" onclick="openModal('edit', ${index})">Edit</button>
        <button class="btn btn-danger btn-sm" onclick="deleteEmployee(${index})">Delete</button>
    </td>
</tr>
`);

    });
}

function openModal(mode, index = null) {
    const modalTitle = document.getElementById("modalTitle");
```

```
const modalActionBtn = document.getElementById("modalActionBtn");
const form = document.getElementById("employeeForm");

if (mode === "add") {
    modalTitle.textContent = "Add Employee";
    modalActionBtn.textContent = "Save";
    form.reset();
    document.getElementById("editIndex").value = "";
} else {
    modalTitle.textContent = "Edit Employee";
    modalActionBtn.textContent = "Update";
    const emp = employees[index];
    document.getElementById("empId").value = emp.id;
    document.getElementById("empName").value = emp.name;
    document.getElementById("empEmail").value = emp.email;
    document.getElementById("empDept").value = emp.dept;
    document.getElementById("empSalary").value = emp.salary;
    document.getElementById("editIndex").value = index;
}

new bootstrap.Modal(document.getElementById("employeeModal")).show();

document.getElementById("employeeForm").addEventListener("submit",
function(e) {
    e.preventDefault();
    const index = document.getElementById("editIndex").value;
    const empData = {
        id: parseInt(document.getElementById("empId").value),
        name: document.getElementById("empName").value,
        email: document.getElementById("empEmail").value,
        dept: document.getElementById("empDept").value,
        salary: parseFloat(document.getElementById("empSalary").value)
    };

    if (index === "") {
        employees.push(empData);
    } else {
        employees[index] = empData;
    }

    renderTable();
}

bootstrap.Modal.getInstance(document.getElementById("employeeModal")).hide();
});

function deleteEmployee(index) {
```

```
employees.splice(index, 1);
renderTable();
}

renderTable();
</script>
</body>
</html>
```

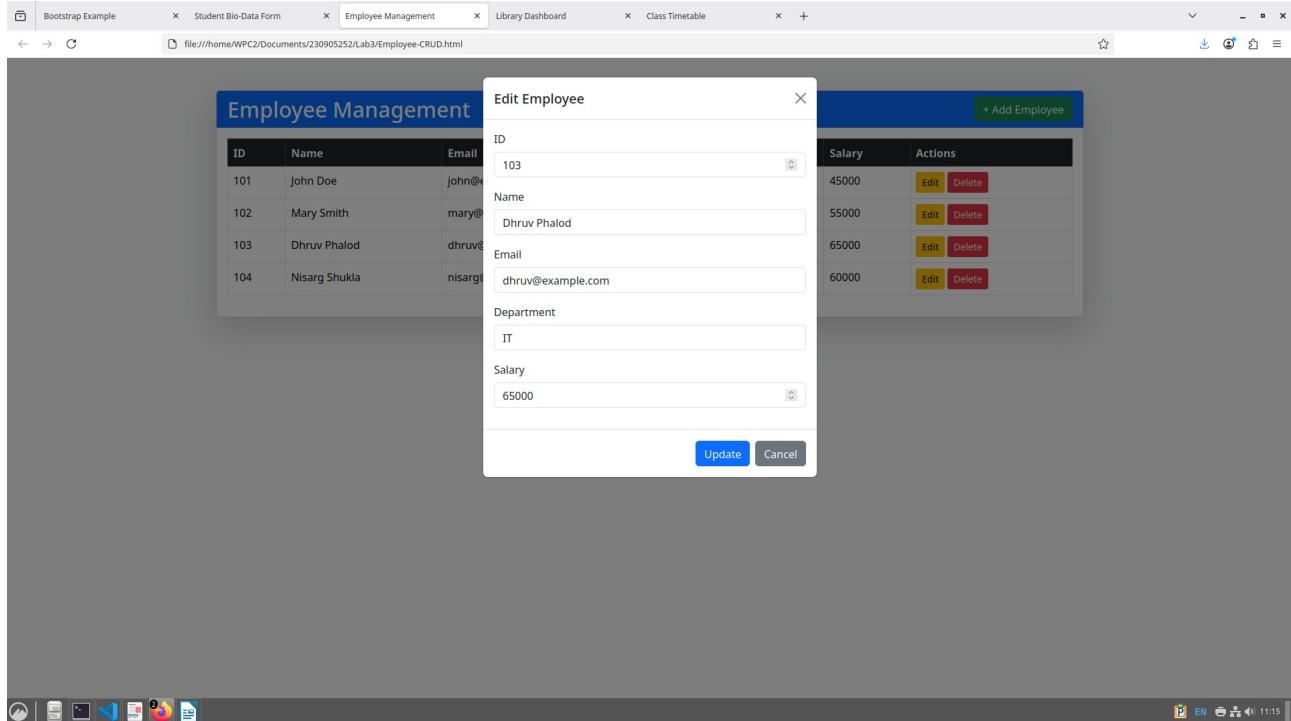
Output:

The screenshot shows a web browser window with multiple tabs. The active tab is 'Employee Management'. A modal dialog box is open, titled 'Add Employee', containing fields for ID (104), Name (Nisarg Shukla), Email (nisarg@example.com), Department (IT), and Salary (60000). Below the modal, a table lists existing employees with their details and actions (Edit, Delete).

ID	Name	Email	Department	Salary	Actions
101	John Doe	john@example.com	HR	45000	Edit Delete
102	Mary Smith	mary@example.com	Finance	55000	Edit Delete
103	Dhruv Phalod	dhruv@example.com	IT	65000	Edit Delete

The screenshot shows the same web browser window after the new employee has been added. The table now includes a new row for Nisarg Shukla with ID 104, Name Nisarg Shukla, Email nisarg@example.com, Department IT, and Salary 60000. The edit and delete buttons are also present for this new entry.

ID	Name	Email	Department	Salary	Actions
101	John Doe	john@example.com	HR	45000	Edit Delete
102	Mary Smith	mary@example.com	Finance	55000	Edit Delete
103	Dhruv Phalod	dhruv@example.com	IT	65000	Edit Delete
104	Nisarg Shukla	nisarg@example.com	IT	60000	Edit Delete



3. Create a web page using bootstrap as mentioned. Divide the page into 2 parts top and bottom, then divide the bottom into 3 parts and design each top and bottom part using different input groups, input, badges, buttons and button groups. Make the design more attractive.

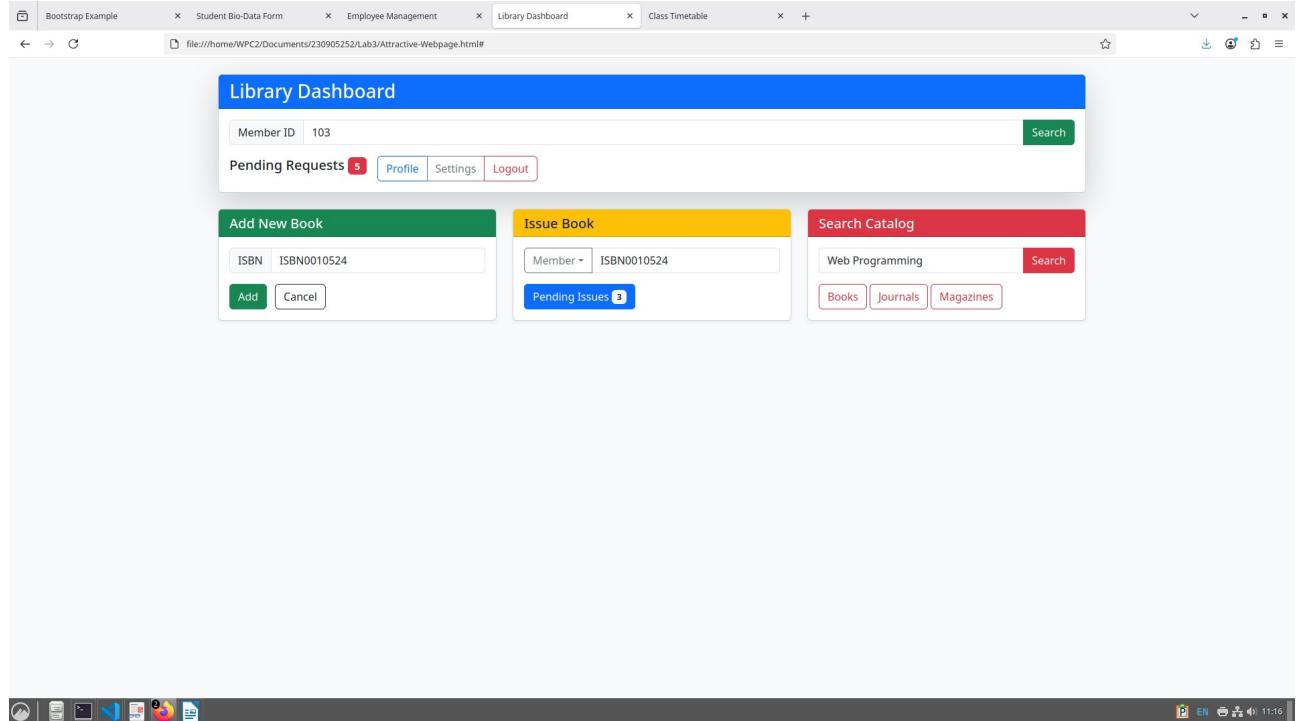
Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Library Dashboard</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap/dist/css/bootstrap.min.css" rel="stylesheet">
  <script
    src="https://cdn.jsdelivr.net/npm/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body class="bg-light">
  <div class="container mt-4">
    <div class="card shadow-lg mb-4">
      <div class="card-header bg-primary text-white">
        <h3 class="mb-0">Library Dashboard</h3>
```

```
</div>
<div class="card-body">
  <div class="input-group mb-3">
    <span class="input-group-text">Member ID</span>
    <input type="text" class="form-control" placeholder="Enter member ID">
    <button class="btn btn-success">Search</button>
  </div>
  <div class="d-flex align-items-center">
    <h5 class="me-3">Pending Requests <span class="badge bg-danger">5</span></h5>
    <div class="btn-group">
      <button class="btn btn-outline-primary">Profile</button>
      <button class="btn btn-outline-secondary">Settings</button>
      <button class="btn btn-outline-danger">Logout</button>
    </div>
  </div>
</div>
<div class="row">
  <div class="col-md-4 mb-4">
    <div class="card shadow-sm h-100">
      <div class="card-header bg-success text-white">
        <h5 class="mb-0">Add New Book</h5>
      </div>
      <div class="card-body">
        <div class="input-group mb-3">
          <span class="input-group-text">ISBN</span>
          <input type="text" class="form-control" placeholder="Enter ISBN">
        </div>
        <button class="btn btn-success me-2">Add</button>
        <button class="btn btn-outline-dark">Cancel</button>
      </div>
    </div>
  </div>
  <div class="col-md-4 mb-4">
    <div class="card shadow-sm h-100">
      <div class="card-header bg-warning text-dark">
        <h5 class="mb-0">Issue Book</h5>
      </div>
      <div class="card-body">
        <div class="input-group mb-3">
          <button class="btn btn-outline-secondary dropdown-toggle" type="button" data-bs-toggle="dropdown">Member</button>
          <ul class="dropdown-menu">
            <li><a class="dropdown-item" href="#">Member A</a></li>
            <li><a class="dropdown-item" href="#">Member B</a></li>
          </ul>
        </div>
      </div>
    </div>
  </div>
</div>
```

```
<input type="text" class="form-control" placeholder="Book ID">
</div>
<button class="btn btn-primary">
    Pending Issues <span class="badge bg-light text-dark">3</span>
</button>
</div>
</div>
<div class="col-md-4 mb-4">
<div class="card shadow-sm h-100">
    <div class="card-header bg-danger text-white">
        <h5 class="mb-0">Search Catalog</h5>
    </div>
    <div class="card-body">
        <div class="input-group mb-3">
            <input type="text" class="form-control" placeholder="Search by
title or author">
            <button class="btn btn-danger">Search</button>
        </div>
        <div class="d-flex flex-wrap gap-1">
            <button class="btn btn-outline-danger">Books</button>
            <button class="btn btn-outline-danger">Journals</button>
            <button class="btn btn-outline-danger">Magazines</button>
        </div>
    </div>
</div>
</div>
</div>
</body>
</html>
```

Output:



4. Design your class timetable using bootstrap table and carousel.

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Class Timetable</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link href="https://cdn.jsdelivr.net/npm/bootstrap/dist/css/bootstrap.min.css" rel="stylesheet">
    <script src="https://cdn.jsdelivr.net/npm/bootstrap/dist/js/bootstrap.bundle.min.js"></script>
    <style>
        td, th { text-align: center; vertical-align: middle; }
    </style>
</head>
<body class="bg-light">

<div class="container mt-4">
    <h2 class="text-center mb-4">Weekly Class Timetable</h2>

    <div class="card shadow-lg mb-5">
```



```
<div class="carousel-inner">
  <div class="carousel-item active">
    <h5 class="text-primary">Monday</h5>
    <ul class="list-group">
      <li class="list-group-item">08:00-09:00 → PE-1</li>
      <li class="list-group-item">09:00-10:00 → PCAP</li>
      <li class="list-group-item">10:30-11:30 → CD</li>
      <li class="list-group-item">11:30-12:30 → 0E</li>
    </ul>
  </div>
  <div class="carousel-item">
    <h5 class="text-primary">Tuesday</h5>
    <ul class="list-group">
      <li class="list-group-item">09:00-11:30 → CD Lab (C1)</li>
      <li class="list-group-item">13:00-14:00 → PE-2</li>
      <li class="list-group-item">14:00-15:00 → EEFM</li>
    </ul>
  </div>
  <div class="carousel-item">
    <h5 class="text-primary">Wednesday</h5>
    <ul class="list-group">
      <li class="list-group-item">08:00-09:00 → PE-2</li>
      <li class="list-group-item">09:00-10:00 → EEFM</li>
      <li class="list-group-item">10:30-11:30 → PE-1</li>
      <li class="list-group-item">11:30-12:30 → PCAP</li>
      <li class="list-group-item">14:00-17:00 → WP Lab (C1)</li>
    </ul>
  </div>
  <div class="carousel-item">
    <h5 class="text-primary">Thursday</h5>
    <ul class="list-group">
      <li class="list-group-item">09:00-11:30 → PP Lab (C2)</li>
      <li class="list-group-item">13:00-14:00 → CD</li>
      <li class="list-group-item">14:00-15:00 → 0E</li>
    </ul>
  </div>
  <div class="carousel-item">
    <h5 class="text-primary">Friday</h5>
    <ul class="list-group">
      <li class="list-group-item">08:00-09:00 → CD</li>
      <li class="list-group-item">09:00-10:00 → 0E</li>
      <li class="list-group-item">10:30-11:30 → PE-2</li>
      <li class="list-group-item">11:30-12:30 → EEFM</li>
      <li class="list-group-item">14:00-16:30 → PP Lab (C1) + CD Lab
(C2)</li>
    </ul>
  </div>
```

```
<div class="carousel-item">
    <h5 class="text-primary">Saturday</h5>
    <ul class="list-group">
        <li class="list-group-item">08:30-11:30 → WP Lab (C2)</li>
        <li class="list-group-item">13:00-14:00 → PE-1</li>
        <li class="list-group-item">14:00-15:00 → PCAP</li>
    </ul>
</div>
</div>
<button class="carousel-control-prev" type="button" data-bs-target="#timetableCarousel" data-bs-slide="prev">
    <span class="carousel-control-prev-icon"></span>
</button>
<button class="carousel-control-next" type="button" data-bs-target="#timetableCarousel" data-bs-slide="next">
    <span class="carousel-control-next-icon"></span>
</button>
</div>
</div>
</div>

</body>
</html>
```

Output:

Bootstrap Example Student Bio-Data Form Employee Management Library Dashboard Class Timetable

file:///home/WPC2/Documents/230905252/Lab3/Class-Timetable.html

Weekly Class Timetable

Full Week Grid

Day	08:00-09:00	09:00-10:00	10:00-10:30	10:30-11:30	11:30-12:30	12:30-13:00	13:00-14:00	14:00-15:00	15:00-15:30	15:30-16:30
Monday	PE-1	PCAP		CD	OE					
Tuesday			CD Lab (C1)				PE-2	EEFM		
Wednesday	PE-2	EEFM		PE-1	PCAP				WP Lab (C1)	
Thursday			PP Lab (C2)				CD	OE		
Friday	CD	OE		PE-2	EEFM				PP Lab (C1) + CD Lab (C2)	
Saturday			WP Lab (C2)				PE-1	PCAP		

Daily View**Monday**

08:00–09:00 → PE-1
 09:00–10:00 → PCAP
 10:30–11:30 → CD
 11:30–12:30 → OE

Bootstrap Example Student Bio-Data Form Employee Management Library Dashboard Class Timetable

file:///home/WPC2/Documents/230905252/Lab3/Class-Timetable.html

Weekly Class Timetable

Full Week Grid

Day	08:00-09:00	09:00-10:00	10:00-10:30	10:30-11:30	11:30-12:30	12:30-13:00	13:00-14:00	14:00-15:00	15:00-15:30	15:30-16:30
Monday	PE-1	PCAP		CD	OE					
Tuesday			CD Lab (C1)				PE-2	EEFM		
Wednesday	PE-2	EEFM		PE-1	PCAP				WP Lab (C1)	
Thursday			PP Lab (C2)				CD	OE		
Friday	CD	OE		PE-2	EEFM				PP Lab (C1) + CD Lab (C2)	
Saturday			WP Lab (C2)				PE-1	PCAP		

Daily View

Tuesday

09:00–11:30 → CD Lab (C1)
 13:00–14:00 → PE-2
 14:00–15:00 → EEFM

Bootstrap Example Student Bio-Data Form Employee Management Library Dashboard Class Timetable

file:///home/WPC2/Documents/230905252/Lab3/Class-Timetable.html