

Project Description

Project Name: Employee Shift Management System

The Employee Shift Management System is a full-stack web application built to simplify how organizations schedule employees, manage work availability, and track time-off requests. Designed with a focus on practicality, clarity, and reliability, it provides both managers and employees with a centralized interface to plan, review, and adjust work schedules efficiently.

This system eliminates the need for manual spreadsheets and disconnected communications, offering a real-time scheduling workflow that automatically prevents double-bookings, overlapping shifts, and violations of employee availability or approved leave. This application will improve administrative efficiency.

Tech Stack: React.js, HTML, CSS3, Bootstrap, Node.js, Express, MongoDB, Render, Docker

Objectives

- Build a reliable and easy-to-use platform for managing employee schedules.
- Eliminate conflicts caused by manual scheduling and communication gaps.
- Improve workforce visibility across multiple roles and locations.
- Provide a scalable foundation for analytics and performance tracking.

Core Features

Employee Management

- Create, read, update, and delete (CRUD) employee records.
- Store employee details such as name, email, role, hourly rate, and assigned location.
- Activate or deactivate employees to control scheduling eligibility.
- Search and filter employees by name, role, or site location.

Shift Scheduling

- Full CRUD operations for shift assignments.
- Automatically checks for overlapping shifts, unavailable employees, or approved time-off conflicts.
- Supports multiple locations and job roles.
- Shift status tracking: scheduled, completed, missed, canceled.
- Allows managers to modify or cancel shifts at any time.

Availability & Time-Off Tracking

- Employees can define their weekly availability using day and time windows.

- Managers can view availability when assigning shifts.
- Employees can submit time-off requests with start/end dates and reasons.
- Approved time off automatically blocks scheduling for that employee during the selected dates.

User Stories

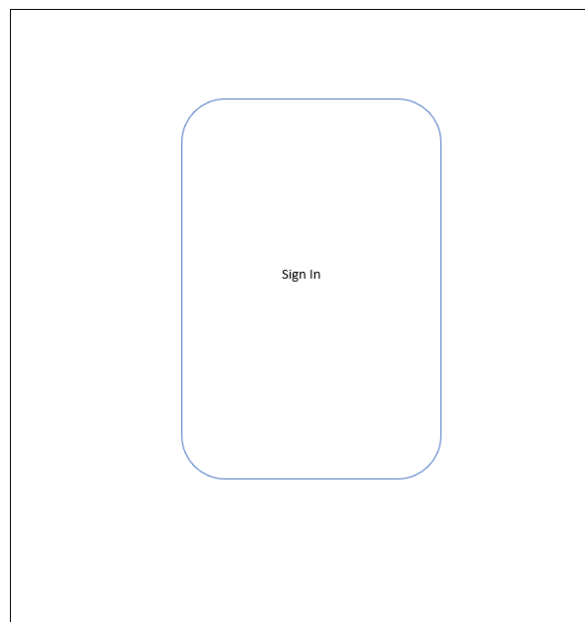
Manager

- *As a manager, I want to create and edit shifts easily, so scheduling errors are minimized.*
- *As a manager, I want to view staffing coverage per hour, so I can identify under-scheduled periods.*
- *As a manager, I want to approve or reject employee time-off requests directly from the dashboard.*

Employee

- *As an employee, I want to see my assigned shifts and time-off approvals, so I can plan my work week.*
- *As an employee, I want to submit my availability, so I am only scheduled during my preferred hours.*
- Provides actionable insights for optimizing labor allocation.

Design Mockup



Manager Scope

Tabs (Employees | Availabilities | Shift Management | Settings)

Description

Add Employees

Employees Information

Manager Scope And Employee Scope

Tab (Employees | **Availabilities** | Shift Management | Settings)

Description

Weekly View of Availability

Calendar View

The diagram illustrates the layout of a 'Manager Scope And Employee Scope' interface. At the top, a header bar contains the title 'Manager Scope And Employee Scope'. Below this is a horizontal tab bar with four tabs: 'Employees', 'Availabilities' (which is highlighted in red), 'Shift Management', and 'Settings'. Underneath the tabs is a large rectangular area labeled 'Description'. The main content area is enclosed in a large rounded rectangle and contains two vertically stacked, rounded rectangular panels. The top panel is labeled 'Weekly View of Availability' and the bottom panel is labeled 'Calendar View'.

Manager Scope And Employee Scope

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graph TD; subgraph Header [Manager Scope And Employee Scope]; direction LR; subgraph Tabs; direction LR; T1[Employees]; T2[Availabilities]; T3[Shift Management]; T4[Settings]; end; end; Description[Description]; subgraph QuickOverview [Quick Overview]; end; subgraph MainContent; direction TB; AddShift[Add Shift]; EmployeesInfo[Employees Information]; end;
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Navigation Bar: Tabs (Employees | Availabilities | **Shift Management** | Settings)

Description

Quick Overview

Add Shift

Employees Information