

## 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

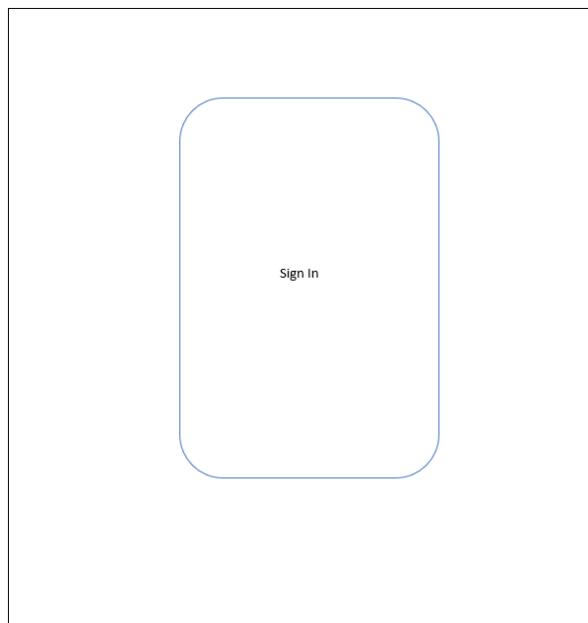
### Manager

- 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



## Kush Shah, Stephen Wang

