Employee Attendance System

Tech Stack

- Frontend: React + Redux Toolkit/Zustand
- Backend: Node.js + Express
- Database: MongoDB or PostgreSQL

What to Build

An attendance tracking system with 2 user roles:

1. Employee - Mark daily attendance
2. Manager - View and manage team attendance

Features

Employee Features

1. Register/Login
2. Mark attendance (Check In / Check Out)
3. View my attendance history (calendar or table)
4. View monthly summary (Present/Absent/Late days)
5. Dashboard with stats

Manager Features

1. Login
2. View all employees attendance
3. Filter by employee, date, status
4. View team attendance summary
5. Export attendance reports (CSV)
6. Dashboard with team stats

Required Pages

Employee:

- Login/Register
- Dashboard
- Mark Attendance

- My Attendance History
- Profile

Manager:

- Login
- Dashboard
- All Employees Attendance
- Team Calendar View
- Reports

Database Schema

Users:

```
- id
- name
- email
- password (hashed)
- role (employee/manager)
- employeeId (unique, e.g., EMP001)
- department
- createdAt
```

Attendance:

```
- id
- userId
- date
- checkInTime
- checkOutTime
- status (present/absent/late/half-day)
- totalHours
- createdAt
```

API Endpoints

Auth

```
POST /api/auth/register
POST /api/auth/login
GET  /api/auth/me
```

Attendance (Employee)

```
POST /api/attendance/checkin        - Check in
```

```
POST /api/attendance/checkout        - Check out
GET  /api/attendance/my-history      - My attendance
GET  /api/attendance/my-summary      - Monthly summary
GET  /api/attendance/today           - Today's status
```

Attendance (Manager)

```
GET /api/attendance/all              - All employees
GET /api/attendance/employee/:id     - Specific employee
GET /api/attendance/summary          - Team summary
GET /api/attendance/export           - Export CSV
GET /api/attendance/today-status     - Who's present today
```

Dashboard

```
GET /api/dashboard/employee          - Employee stats
GET /api/dashboard/manager           - Manager stats
```

Dashboard Requirements

Employee Dashboard:

- Today's status (Checked In / Not Checked In)
- This month: X present, Y absent, Z late
- Total hours worked this month
- Recent attendance (last 7 days)
- Quick Check In/Out button

Manager Dashboard:

- Total employees
- Today's attendance: X present, Y absent
- Late arrivals today
- Chart: Weekly attendance trend
- Chart: Department-wise attendance
- List of absent employees today

Additional Features

Attendance History Page:

- Calendar view showing present/absent/late days
- Color coding: Green (Present), Red (Absent), Yellow (Late), Orange (Half Day)

- Click on date to see details
- Filter by month

Reports Page (Manager):

- Select date range
- Select employee or all
- Show table with attendance data
- Export to CSV button

Deliverables

1. GitHub Repository with clean code
2. README.md with:
   - Setup instructions
   - How to run
   - Environment variables
   - Screenshots
3. .env.example file
4. Working application
5. Seed data (sample users and attendance)

Evaluation (100 Points)

- Functionality: 40 points
- Code Quality: 25 points
- UI/UX: 15 points
- API Design: 10 points
- Database: 5 points
- Documentation: 5 points

Submission

- Submit: GitHub repository link & preview url

Good luck!