

# Employee Management & Tracking System (HRMS)

## - Project Documentation

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### Technologies Used

Category	Tech Stack
Frontend	Next.js, or Bootstrap
Backend	Node.js, Next.js API Routes / Express.js
Database	MongoDB (Mongoose ODM)
Authentication	JWT with secure HTTP-only cookies
Notifications	Nodemailer (Email), Web Push (Optional)
Location Tracking	Manual Form Entry, Optional: GPS (React Native/PWA)
Reporting & Charts	Recharts / Chart.js

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### Main Modules and Feature Breakdown

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#### 1. Employee Module

- Add, View, Edit employee records
  - Auto-generated **unique employee ID**
  - Employee types: Permanent / Prohibition
  - Assign department & manager
  - Secure login credentials
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#### 2. Team Management

- Assign teams under managers
  - View team list per manager or department
  - Admin can reorganize teams
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### 3. Leave Management

- Leave categories: Sick, Casual, Earned, etc.
  - Leave balance tracking
  - Admin can customize leave rules
  - Shift and workday settings (Mon–Sat, etc.)
  - Auto check-in for holiday/Sunday workers
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### 4. Attendance System

- Manual and automatic check-in system
  - Track: Present, Absent, Leave, WFH, WFO, Week-Off
  - Reports:
    - Daily
    - Weekly
    - Monthly
    - Yearly
    - Filters by employee, branch, department, designation
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### 5. Distance Tracking (Remote Employees)

- Manual form-based distance entry:
    - Start/End location
    - Distance (KM)
    - Sites visited
  - (Optional Advanced): Real-time GPS via React Native or PWA
  - Route logging & visit logs
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### 6. Branch Management

- Admin can add/edit branch locations
  - Used for filtering and reporting
  - Branch-level access (optional)
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## 7. Notifications

- Leave requests and approvals
  - Internal announcements or notices
  - Email notifications
  - Push notifications (optional)
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## 8. Reports

- Happiness Index (form-based employee survey)
  - Filters:
    - Employee
    - Branch
    - Department
    - Date range
  - Exports:
    - Excel
    - PDF
  - Visual summary using charts/graphs
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## 9. Payroll System

- Manage base salary, bonuses, deductions
  - Monthly salary reports
  - Generate payslips (PDF/Excel)
  - (Optional) Bank integration for salary payout
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## 10. Expenses

- Employees can submit travel/expense claims
- Manager/Admin can approve
- Expense reports by:
  - Employee
  - Branch , Department

## **Additional Features for HRMS Expansion**

### **1. Real-Time On-Field Employee Tracking**

- Log start location and route of field employees.
- Track number of sites visited during the day.
- Capture timestamps and route sequence:  
*Example: Office → Site 01 → Site 02 → Site 03*
- Total distance traveled in KM (manual or GPS-based).
- (Optional) Visualize route using Google Maps API.

### **2. Site Visit Reporting**

- Maintain daily logs of site visits by each employee.
- Automatically calculate and show the number of sites visited.
- Store location and visit time for every site.

### **3. Sunday Overtime Attendance**

- System auto-detects Sunday work (`Date.getDay() === 0`).
- Allow manual or automatic entry of overtime hours.
- Highlight Sunday work in attendance and salary reports.

### **4. Employee Document Upload & Management**

- Upload and store important documents:
    - PAN Card
    - Aadhar Card
    - Offer Letter
  - Secure file storage (initially in `/public`, later on Cloudinary or S3).
  - Store and link file URLs in the employee's database record.
  - Display/download documents from the employee profile section.
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## Project Timeline (Estimated: 3–4 Months)

Week	Module(s)	Goals
Week 1–2	Project Setup, Auth System	Set up Next.js, MongoDB, JWT auth, Admin/Manager/Employee roles
Week 3–4	Employee Module	CRUD for Employees, Unique IDs, Login credentials, Employee Type
Week 5	Manager & Team Management	Assign managers to employees, and View teams
Week 6–7	Leave Management	Leave types, balance logic, admin rules, holiday auto-check-in
Week 8–9	Attendance System	Daily check-in/out, present/absent/leave tracking, reporting by filters
Week 10	Distance Tracking (Manual)	Distance entry form, KM calculation, site count, reports
Week 11	Branch Management	Add/edit branches, filter views/reports by branch
Week 12	Notifications	Email notifications for leave/announcements
Week 13	Reports Module	Attendance, leaves, remote vs office workers, exports
Week 14–15	Payroll + Expenses	Basic payroll, generate salary reports/slips, and expense claim approval
Week 16	UI Polishing + Deployment	Mobile responsiveness, dashboards, host on Vercel, test all flows