AI-Enabled Field Management Application

Project Objective

Develop a smart, AI-driven platform to manage IT field engineers, enhance communication, automate job tracking, streamline invoicing, and improve service delivery for clients.

Stakeholders

Admin, Project Manager, Field Engineer, Client, Accounts Team

Modules Overview

1. Login and User Role Management

2. Engineer Scheduling & Job Tracking

3. Geo-Tagging & Location Alerts

4. Real-Time Communication

5. Voice-to-Text Note Capture

6. Timesheet Logging

7. Invoice Management

8. Engineer Profile Management

9. Reporting & Analytics

10. Calendar & Meeting Integration

11. To-Do, Maps, and Transport Tools

12. Freelancer Onboarding Portal

13. Engineer Assignment & Search

14. Workflow Automation

Functional Requirements

Detailed under each section in full document.

Flow Diagrams

Geo-Tag Notification, Job Scheduling, Voice to Email, Invoice Workflow

Non-Functional Requirements

Platform, Authentication, Security, Offline Mode, Performance, Integration, AI Services

Tech Stack Suggestions

Frontend: ReactJS, Backend: Node.js/Python, DB: PostgreSQL/MongoDB, AI: Azure/Google AI, etc.

Admin Panel Features

User & Role Management, Form Builder, Workflow Designer, Reporting, Integration Setup

Deployment & Hosting

Azure/AWS/GCP, CI/CD, Backups

Future Enhancements

AI Auto Assignment, Chatbot Assistant, Predictive Maintenance, Auto-Reconciliation