# Sales Call Intelligence Platform - Project Structure

## 1. High-Level Architecture

+----------------+  
 | GoTo Connect |  
 | API |  
 +--------+-------+  
 |  
 Fetch audio recordings  
 |  
 v  
 +----------------+  
 | Supabase |  
 | Storage & DB |  
 +--------+-------+  
 |  
 +------------------+------------------+  
 | |  
+-------v--------+ +------v--------+  
| Speech-to-Text | | NLP Analysis |  
| (AssemblyAI) | | Objections, |  
| | | Sentiment |  
+-------+--------+ +------+--------+  
 | |  
 +------------------+------------------+  
 |  
 v  
 +----------------+  
 | Dashboard |  
 | Admin / Sales |  
 +----------------+

## 2. Modules / Components

### A. Backend

* **API Integration Module**
  + Authenticate & fetch recordings from GoTo Connect API
  + Store raw audio in Supabase Storage
  + Support manual upload via UI
* **Processing Module**
  + Call AssemblyAI API to convert audio → transcript
  + NLP module: detect objections, sentiment, key sales signals
  + Timestamp mapping for transcript highlighting
* **Database Module**
  + Supabase tables for:
    - Users (role = admin / sales manager)
    - Calls (metadata, audio URL, status)
    - Transcripts (text + timestamps)
    - Signals (keywords, sentiment)
* **Scheduler / Worker**
  + Automatic fetch & process recordings at intervals
* **Health Module**
  + Pipeline status: last fetch, last processed call, errors

### B. Frontend

* **Login / Authentication**
  + Supabase Auth (roles: Admin / Sales Manager)
* **Audio Management**
  + Upload audio file or import via link
  + Trigger speech-to-text processing
* **Call Detail View**
  + Audio playback
  + Highlighted transcript
  + Detected objections / sentiment markers
* **Dashboards**
  + **Admin Dashboard**
    - View all calls, transcripts, signals
    - Manage users, roles
    - System health & logs
  + **Sales Manager Dashboard**
    - View own calls only
    - Transcript & signals
    - Personal performance analytics

### C. Storage

* **Supabase Storage**
  + /audio/raw → Original audio recordings
  + /audio/processed → Optional processed audio
  + /transcripts → For faster retrieval

## 3. Database Schema

**users**

| id | name | email | role |
| --- | --- | --- | --- |
| 1 | John | … | admin |
| 2 | Jane | … | sales\_manager |

**calls**

| id | user\_id | date | duration | audio\_url | status |
| --- | --- | --- | --- | --- | --- |
| 1 | 2 | 2025-08-28 | 12:30 | /audio/raw/1.mp3 | processed / pending |

**transcripts**

| id | call\_id | text | timestamps |
| --- | --- | --- | --- |
| 1 | 1 | “Hello…” | [{start:0,end:3}…] |

**signals**

| id | call\_id | type | content |
| --- | --- | --- | --- |
| 1 | 1 | objection | “price too high” |
| 2 | 1 | sentiment | negative |

## 4. Folder Structure

project-root/  
│  
├─ backend/  
│ ├─ api/ # GoTo Connect API integration  
│ │ └─ fetchRecordings.js  
│ ├─ processors/ # Speech-to-text & NLP  
│ │ ├─ assemblyAI.js  
│ │ └─ nlp.js  
│ ├─ db/ # Supabase DB models & queries  
│ │ ├─ users.js  
│ │ ├─ calls.js  
│ │ ├─ transcripts.js  
│ │ └─ signals.js  
│ ├─ scheduler/ # Cron jobs / workers  
│ │ └─ processQueue.js  
│ └─ health/ # Health check API  
│ └─ health.js  
│  
├─ frontend/  
│ ├─ components/  
│ │ ├─ AudioUploader.js  
│ │ ├─ TranscriptViewer.js  
│ │ ├─ CallCard.js  
│ │ └─ SignalMarker.js  
│ ├─ pages/  
│ │ ├─ login/  
│ │ ├─ dashboard/  
│ │ │ ├─ AdminDashboard.js  
│ │ │ └─ SalesDashboard.js  
│ │ ├─ call-detail/  
│ │ └─ health/  
│ └─ utils/ # API calls, auth, role-checks  
│  
├─ scripts/ # Deployment scripts  
├─ tests/ # Unit & integration tests  
└─ README.md

## 5. Tech Stack

| Layer | Technology / Tool |
| --- | --- |
| Backend | Node.js / Express / Lovable |
| Frontend | React + TailwindCSS |
| Auth & DB | Supabase |
| Storage | Supabase Storage |
| Speech-to-Text | AssemblyAI |
| NLP Analysis | OpenAI GPT API or custom NLP |
| Scheduler | Cron / Supabase Functions |
| Deployment | Vercel / Supabase |

## ✅ Key Features

* Role-based access (Admin = all, Sales Manager = own only)
* Audio import (file or link) and processing
* Speech-to-text via AssemblyAI
* Transcript highlighting & signal detection
* Admin & Sales Manager dashboards
* System health monitoring