**🗓 AI Meeting Summarizer — Monthly Status Report**

**Period**: May 1 – May 12, 2025  
**Prepared for**: Eric Andrew Morse  
**Status**: On Track ✅

**✅ Key Features Implemented**

**🎤 Audio Processing & Transcription**

* Integrated **AssemblyAI** for audio-to-text transcription.
* Preprocessing includes:
  + Conversion to 16kHz mono WAV using FFmpeg.
  + Silence trimming with FFmpeg filters.
* Logged all transcripts with timestamps to transcripts/.

**🧠 Natural Language Processing**

* Used **NLTK sentence tokenizer** to segment transcripts.
* Extracted:
  + **Summaries** (non-action, non-decision sentences).
  + **Actions** using keyword heuristics.
  + **Decisions** based on presence of “decided”/“decision”.
* Assigned actions to people using regex-based name extraction.

**🗓 Calendar Integration (Zoho)**

* Successfully connected to **Zoho Calendar API**.
* Implemented:
  + Automatic event creation from action items.
  + Manual event creation from UI with default times.
* Token management:
  + OAuth flow implemented with zoho\_auth.py.
  + Access/refresh token securely stored in .app\_secrets/.
  + Auto-refresh logic implemented and tested.
* Calendar event creation errors are logged and handled gracefully.

**👤 User Authentication & Identity Display**

* OAuth 2.0 flow integrated for Zoho user auth.
* Displayed authenticated Zoho user’s name on the dashboard.

**🧪 Testing**

* Implemented unit tests for:
  + Token refresh
  + Token file read/write
  + Calendar event creation
* All tests pass ✅
* Improved test structure with monkeypatch, mock\_post, and temp files.

**🖥 Frontend (React + Tailwind)**

* Audio file upload and progress feedback.
* Displays transcript, summary, actions, and decisions.
* Create Calendar Event button shown for each action.
* “Connect to Zoho” button initiates auth.
* Displays logged-in Zoho user name.

**📁 Refactoring & Structure**

* Backend modularized:
  + run.py, zoho\_utils.py, calendar\_integration.py, zoho\_auth.py
* .app\_secrets/ directory handles secure local storage.

**📌 Next Steps**

* ✳ NLP Enhancements: Use LLM or spaCy for better action/decision detection.
* 🧠 Improve owner extraction via coreference or semantic linking.
* 🧪 Add integration tests (audio-to-calendar end-to-end).
* 🧭 Add dashboard navigation, event history, and settings.
* 🔐 Optional: Use encrypted storage for secrets.