**Monthly Status Report — AI Meeting Summarizer**

**Period:** May 8, 2025 – May 21, 2025  
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**Project Overview**

Privacy-first, full-stack system for meeting audio transcription, NLP-powered summary/action/decision extraction, and Nextcloud event scheduling.

* **Frontend:** React + Vite + Tailwind (100% dark mode support, responsive, modern UI)
* **Backend:** Flask (modular, RESTful, robust CORS, professional logging)
* **Calendar Integration:** Nextcloud only (Zoho fully deprecated)
* **Test Coverage:** Near 100% (frontend and backend, with automated E2E and integration testing)
* **Documentation:** All major code files fully documented with docstrings; onboarding guide and troubleshooting included.

**Key Features & Technical Progress**

**Backend (Flask)**

* **Robust Error Handling:**
  + All endpoints catch malformed JSON and return HTTP 400 (never 500).
  + All API responses now use standard REST codes (400/415/500/etc).
* **Logging & Audit:**
  + All API events, transcripts, and errors logged to files.
* **NLP Improvements:**
  + Expanded action phrase database for more accurate action/decision detection.
  + Person/entity extraction more robust with gendered name lists and edge case handling.
* **Calendar Integration:**
  + Nextcloud endpoints finalized and tested.
  + Meeting duration is parameterized and exposed in UI.
* **Testing:**
  + All edge cases tested (including bad requests and CORS).

**Frontend (React + Vite + Tailwind)**

* **UI/UX Polish:**
  + Modern cards/panels, subtle shadows, brand colors, all panels visually consistent.
  + All action blocks wrap/center long text, pickers visually improved.
  + Full dark mode, instant toggle, mobile/responsive friendly.
* **Bug Fixes & Upgrades:**
  + Duplicate "Schedule Event" button removed (now only appears in ReviewPanel).
  + Error/alert banners styled and visible for all user error states.
  + File upload panel now shows accurate file size/name and handles edge cases.
* **Testing:**
  + Automated tests for file upload, transcription, action extraction, calendar event creation, and error paths.
  + Playwright/E2E audio file tests, integration with cross-platform paths.
* **Documentation:**
  + Full module/function/class documentation in every major JS and Python file.
  + User guide with screenshots and troubleshooting, distributed as ZIP.
  + All tests documented and organized by function.

**Test & Coverage**

* **Backend Coverage:**
  + 96%+ coverage for all backend Python files (including all endpoints, NLP, and calendar).
  + All routes tested for correct status codes and malformed input.
* **Frontend Coverage:**
  + 96%+ statements/branches/functions/lines (with remaining lines only in unreachable or legacy UI branches).
  + Full docstrings on every test file; both unit and integration tests run on all platforms.

**Documentation**

* **README:**
  + Up to date, includes setup, testing, and troubleshooting.
* **API Docs:**
  + All routes, expected inputs/outputs, and error codes documented.
* **Source Code:**
  + All code modules (Python and JS) are documented with author, date, and full explanations.

**Recent Issues & Resolutions**

* **BadRequest JSON:** Fixed, all endpoints now return 400 for malformed JSON.
* **Duplicate buttons:** Fixed in UI logic; ReviewPanel exclusively manages event scheduling.
* **File size/format:** UI now blocks uploads >25MB and enforces audio-only.
* **Dark mode and accessibility:** Universal support across all panels and forms.
* **Calendar event length:** Exposed as user-configurable field.
* **User onboarding:** Guide and troubleshooting zipped for end users.

**Roadmap & Next Steps**

* Expand dashboard: show event and transcript history.
* Optional: Support recurring/complex calendar events.
* Dockerize for production and enable CI/CD demo deploy.
* Continue NLP and entity extraction enhancements for real-world audio.

**Summary**

The **AI Meeting Summarizer** is now a professional-grade, privacy-focused, Nextcloud-integrated solution with best-in-class UI/UX, near-perfect test coverage, and comprehensive documentation. All major issues are resolved; the project is ready for demo, onboarding, and production launch.