Arkoo Prebuild Intelligence Platform: AI Meeting Intelligence and Task Management

A PGDM student at Lexicon MILE's HyperBuild AI Lab built and deployed a live platform for Arkoo Prebuild that turns recorded meetings into minutes, owned tasks and email alerts.

About Arkoo Prebuild

Arkoo Prebuild Pvt. Ltd. is a Pune-based prebuild construction and infrastructure execution company. Its work runs across Production, Operations, Project Management and Sourcing, and a typical project also touches Purchase, Quality, Store, Dispatch, Finance, HR and Safety. You can learn more at arkooprebuild.com.

Execution in this industry is meeting-heavy. Daily production reviews, site-coordination calls and cross-department planning sessions produce the decisions and commitments that keep a project on schedule. One missed handoff, such as Production waiting on a Purchase clearance or Dispatch waiting on a Quality sign-off, can delay an entire project. As part of the Business Immersion Program (BIP), a PGDM student at Lexicon MILE's HyperBuild AI Lab worked with Arkoo's leadership and department heads on this live problem, not a simulated case study.

Challenges Faced

A large share of Arkoo's operational decisions were made verbally, in daily and weekly review meetings, and none of those discussions were systematically captured. Action items were rarely written down, ownership of tasks was informal, and managers had no reliable way to know whether commitments made in a meeting were ever completed on the ground. Follow-up happened ad hoc over WhatsApp and phone calls.

This is a common pattern. Planning research for the project cited two figures on the general cost of undocumented meetings: 67% of employees across studied organisations report leaving meetings unsure of their action items, and managers spend an estimated four hours a week compiling notes and task lists by hand. Triangulating that research with consultations inside Arkoo surfaced four root causes:

- **Decision preservation gap.** There was no recording, transcript or written record of any meeting, so verbal decisions were never referenced again.
- **Lack of clear ownership.** Tasks were assigned only in conversation, with no owner or deadline tracked in any system.
- **Manual notification friction.** Managers chased follow-ups individually, which wasted time and left accountability inconsistent.
- **Accountability blind spots.** No dashboard showed what was done, pending or delayed, so delays surfaced late.

The project's central question was how meeting audio could be converted, automatically and with minimal manual effort, into a structured record of decisions and owned, deadline-tracked tasks, while keeping sensitive meeting and task data accessible only to approved stakeholders.

Research Method: Our Problem-Solving Approach

We used a build-oriented, mixed-methods design suited to a product-development project. Desk research sized the problem in general enterprise settings, and primary research took place inside Arkoo itself. We ran no external customer survey, because the customer here is the host organisation. Both streams fed a Product Requirements Document (Version 1.0, April 2026) and a technical development blueprint (May 2026), which drove the build.

- **Secondary research.** We benchmarked the scale and cost of undocumented meetings, and confirmed that mature speech-to-text, summarisation and data-extraction models made a purpose-built meetings-to-tasks product feasible.
- **Stakeholder consultation.** We held structured discussions with Arkoo's leadership and department heads across Production, Project Management, Quality, Purchase, Dispatch, Store, Finance, HR and Safety.
- **Pain-point mapping.** For each department we documented the current pain and its operational impact, which became the basis of the requirements.
- **Build and live evaluation.** After go-live, we evaluated real usage from the production dashboard: meetings processed, tasks generated and stakeholder adoption.

From this work we defined three core requirements:

1. Capture every meeting automatically, by live browser recording or file upload, without a dedicated note-taker.
2. Convert the audio into a transcript, an executive Minutes of Meeting and explicit, owner-assigned action items with minimal manual editing.
3. Give every stakeholder, from Admin to Vendor, a role-appropriate view of their own meetings and tasks, with an automatic email the moment a task is assigned.

Solutions Delivered

We built the Arkoo Prebuild Intelligence Platform, a single web application that combines an AI meeting-intelligence pipeline with a role-based task-execution terminal. It is fully built and in live use at Arkoo, not a prototype. Here is how a meeting moves through it:

1. **Sign-in and verification.** Users sign in with Google, and the system checks an approved Stakeholders Master Directory. Self-registration is disabled, so only pre-approved stakeholders get access.
2. **Meeting capture.** An Admin or Manager records a live meeting in the browser, with a real-time waveform, or uploads an audio file (.mp3, .wav or .m4a, up to 100 MB).
3. **Speech-to-text.** The audio is transcribed word for word, in Hindi or English.
4. **AI analysis.** Google Gemini builds the Minutes of Meeting, an executive summary, key takeaways and the explicit task commitments made.
5. **Task allotment.** Extracted tasks are saved, and the assigned stakeholder receives an automatic task-assignment email.
6. **Task execution.** The stakeholder manages the task in the Task Management Terminal, updating status, checklists and discussion threads, and attaching voice-note comments.

The platform has eight modules: Dashboard, Meetings, Record Meeting, Tasks (Kanban and list views), Stakeholders, Role Management, Settings and Recycle Bin. Settings holds the Google Drive connection and AI provider configuration, and the Recycle Bin lets Admins restore or permanently purge deleted items.

Access is governed by an administrator-controlled Role-Based Access Control (RBAC) system covering six stakeholder types: Admin, Manager, Employee, Vendor, Supplier and Other. Only Admins and Managers can record or upload meetings. Employees, Vendors and Suppliers see only the tasks assigned to them or their department, and system-level settings are restricted to Admins. Every role change and deletion passes a two-stage confirmation. This makes the platform safe to use with external vendors and suppliers without exposing internal data.

Business Impact

The platform is in real operational use at Arkoo, and the figures below come from its live production dashboard as of the August 2026 reporting date, not from a simulated dataset:

- **10** registered stakeholders across 8 departments
- **30+** meetings recorded or uploaded, all processed successfully
- **36** tasks tracked, drawn from meetings and manual entries

What the live data shows:

- **The core pipeline works in daily use.** Every recorded meeting produced a transcript, an executive summary and suggested tasks.
- **Decisions are now preserved.** Meetings that once lived only in the memory of whoever attended are now searchable records with minutes and action items.
- **Role-based visibility holds in production.** The same Task Management Terminal shows Admins the full task list and Employees a scoped view.
- **Managers have a live dashboard.** It tracks task status, priority distribution and departmental activity in real time.

The planned next steps are to:

- add automated overdue escalation to managers, to turn pending tasks into measurable completions
- improve owner matching against the stakeholder directory, so fewer tasks stay unassigned
- benchmark transcription accuracy and task-extraction precision against the project's targets of 90% and 85%
- add Slack and Teams status sync and calendar-triggered auto-recording
- generalise the platform beyond a single organisation, if it is taken to wider commercial rollout

The platform currently serves Arkoo as a single-tenant system, so these figures reflect Arkoo's own team.

AI Tech Stack Used

Layer	Technology
Speech-to-text	OpenAI Whisper and Groq (Whisper Large v3), for Hindi and English
AI analysis	Google Gemini API for minutes and action-item extraction, with Groq and NVIDIA NIM as fallback model providers
Frontend	React 19, TypeScript, Vite, Tailwind CSS
Backend	Node.js and Express
Database and authentication	Google Firebase Firestore and Firebase Auth (Google sign-in)
Email	Nodemailer over Gmail SMTP
Cloud storage	Google Drive API, for backup export of meeting audio and attachments

The stack evolved during the project. The original blueprint specified Node.js, Express and PostgreSQL on Replit with Google Drive storage and Anthropic's Claude API for task extraction. During the build we moved to Firebase and Google Gemini, which suited rapid iteration and the AI providers available at the time.

Students Involved

This project was researched, designed and built by **Anusha Dayanand Kanna**, a student of the PGDM program (Batch 2025–27) at Lexicon MILE, as part of the Business Immersion Program at HyperBuild AI Lab.

She worked under the guidance of Prof. Deepak Gupta, Head – AI & Analytics, Mr. Manish Chaubey, Manager IT & HyperBuild, and Dr. Raju Varghese, Director, Global Programs & International Campus, with structured support from BIP Coordinator Dr. Poulami Banerjee. Arkoo Prebuild's leadership team, department heads and end users took part in the requirement discussions and gave access to the live application for evaluation.