**Claude Breakdown: Chunk 4 — SOP Structure, Storage, and Update Workflow**

**✅ Scope**

Define how ClubOS V2 stores, retrieves, and updates SOPs; how AI locates and applies them; and how Claude proposes updates, merges, or rewrites. Ensures all SOPs are modular, auditable, and human-approved.

**🔁 Cross-Referenced Corrections**

| **Early Plan** | **Final Decision** |
| --- | --- |
| Static SOP files | ✅ SOPs stored as modular DB records with version history |
| Claude updates directly | ✅ Claude proposes changes — no live write without approval |
| AI matches SOPs by pattern | ✅ AI uses vector match + category confidence filtering |

**🔧 Dependencies**

* Claude with file parsing + structured JSON output
* Supabase / Postgres for SOP record store
* GPT-based vector search layer (e.g. Pinecone, pgvector, or native DB)
* Claude SOP editor tool interface (used by admin/human)

**📋 Tasks**

**[4.1] SOP Schema**

Each SOP stored in structured format:

{

"sop\_id": "tech-013",

"title": "TrackMan frozen mid-session",

"category": "tech",

"subcategory": "TrackMan",

"trigger\_phrases": ["screen stuck", "no ball tracking"],

"primary\_action": "reset\_trackman",

"fallback\_action": "escalate",

"priority\_weight": 0.9,

"mergeable": true,

"linked\_logs": ["log-9031", "log-9121"],

"version": 3,

"last\_updated\_by": "mike",

"status": "active"

}

**[4.2] Retrieval Logic**

When AI classifies a message:

* It queries the SOP vector store using:
  + Message intent
  + Category
  + System state (e.g. booking present, bay active)
* Returns only:
  + Highest match (if confidence > threshold)
  + Matches in correct category + location scope

**[4.3] Claude Update Pipeline**

When a message or thread doesn’t match any SOP:

* Claude proposes a **new SOP draft**, or:
  + Suggests **merge** of two existing rules
  + Flags a rule as **too vague / conflicting**
* Operator sees:
  + Diff of change
  + Thread(s) that triggered it
  + Options: accept, edit, discard

No changes made live without human confirmation.

**[4.4] Versioning + Rollbacks**

* Every change creates a version snapshot:
  + version: 4, source: Claude, status: pending\_review
* Previous versions stored for:
  + Rollback
  + Change log diffs
  + Conflict resolution

**[4.5] Redundancy Handling + Merge Flow**

* Claude runs weekly similarity clustering across SOPs
* Flags high-overlap pairs
* Suggests one of:
  + Merge → New rule summary
  + Re-tag one with subdomain (e.g. golf, pickleball)
  + Archive lesser-used duplicate

**✅ Expected Behavior**

* AI matches customer problems to clean, single-source SOPs
* All SOPs are structured, filterable, versioned, and human-verifiable
* Claude only proposes logic, never edits DB directly
* Weekly SOP cleanup keeps knowledge store lean and aligned

**Chunk 5: Knowledge Upload, Feedback Dashboard, and Learning Controls**