

Soham Kotkar — Sovereign Polyglot Fusion Layer (Final Integration)

Duration: 7 Days

Objective:

Fuse Bhavesh LM Core + Soham Polyglot Layer + Karthikeya Vaani RL-TTS into one unified multilingual KSML-driven inference engine.

DAY-BY-DAY BREAKDOWN

DAY 1 — Unified Inference Engine

Deliverables:

- `/sovereign.infer` endpoint
- Accepts: `text`, `lang`, `target_lang`, `tone`
- Runs: Bhavesh → KSML → RL → Adapter → Vaani-prep

Acceptance:

- Single call produces multilingual aligned output.

DAY 2 — Multilingual Adapter Registry

Deliverables:

- `adapters/registry.json` with metadata (`lang`, `tokens`, `VRAM`, `version`)
- NAS sync script
- Auto-selection of adapter per language

Acceptance:

- Auto-loaded adapters for all 39 languages.

DAY 3 — Cross-Language Evaluation Engine

Deliverables:

- metrics.py with BLEU, ROUGE, COMET-lite
- eval_cards/<lang>.json for 20 languages

Acceptance:

- Automated accuracy report generation.

DAY 4 — Vaani Prosody Multilingual Mapper

Deliverables:

- /compose.prosody_map
- Map: language \rightarrow tone \rightarrow prosody_hint
- Validate with Karthikeya (needs 5 test languages)

Acceptance:

- Audio output for 5 languages through Vaani RL.

DAY 5 — Cross-Layer RL Loop

Deliverables:

- RL updates triggered by:
 - LM output
 - KSML labels
 - Vaani user feedback
- Episodes merged into one reward store

Acceptance:

- Unified reward table updated live.

DAY 6 — 50-Language Target Preparation

Deliverables:

- Add stubs for 10 more languages (Thai, Burmese, Sinhala, Dzongkha, Tibetan, Pashto, Dari, Vietnamese, etc.)
- Scraper templates
- MCP connectors added

Acceptance:

- All 50 languages have dataset entries + connectors.

DAY 7 — Deployment + Task Bank Delivery

Deliverables:

- Documentation
- Runbook
- PR to Vinayak
- Full smoke suite

Acceptance:

- Vinayak validates → system ready for Gurukul/Uniguru integration.

This 7-day task completes Layer 3 of the Sovereign Language System:

- Layer 1: LM Core → Bhavesh
- Layer 2: Polyglot Understanding → Soham
- Layer 3: Multilingual TTS & Reasoning → Soham + Karthikeya