The engineering wiki

Updated 9 November 2026

https://docs.gurbanisoul.com/

Sri Guru Granth Sahib Ji — all 1,430 Angs, 60,658 lines — kept **verbatim**, cited by Ang, and never altered. This wiki explains how: the pipeline that proves the text against the source Bir, the database and the read-only API built from it, the website (**gurbanisoul.com**[1]) and the Gurbani Soul iOS app that show it, and the checks every change passes before it reaches anyone. It is written for engineers first, and for anyone who wants to understand how the scripture is kept whole.

> **Prime directive:** the Gurmukhi text is sacred and **verbatim**. It is never edited, normalized, or corrected. Every change is proven against the source PDF. See **the integrity chain** and **Scripture integrity** (in sggs-data).

Interactive on the web: the live status of the API.

Choose your path

Platform engineer

the API, the search and verification engines, the data pin and the delivery pipeline, in order.

Data engineer

the line record, the corpus pipeline and its gates, the editorial ledger, and how a dataset reaches production.

iOS engineer

Gurbani Soul: the contract and parity, the database pair and launch integrity, Nitnem, and how the app takes a release.

Reviewer or scholar

what the project promises, where the text is proven, what a review checks, and how to say no.

New to the project? **Your first week** is five days to a merged change.

Ten minutes to your first search

1. Clone the platform: `git clone https://github.com/Algorythmos-AI/sggs-platform.git && cd sggs-platform`
2. `make doctor` — checks Python 3.12, Node 22 and whether the database is installed.

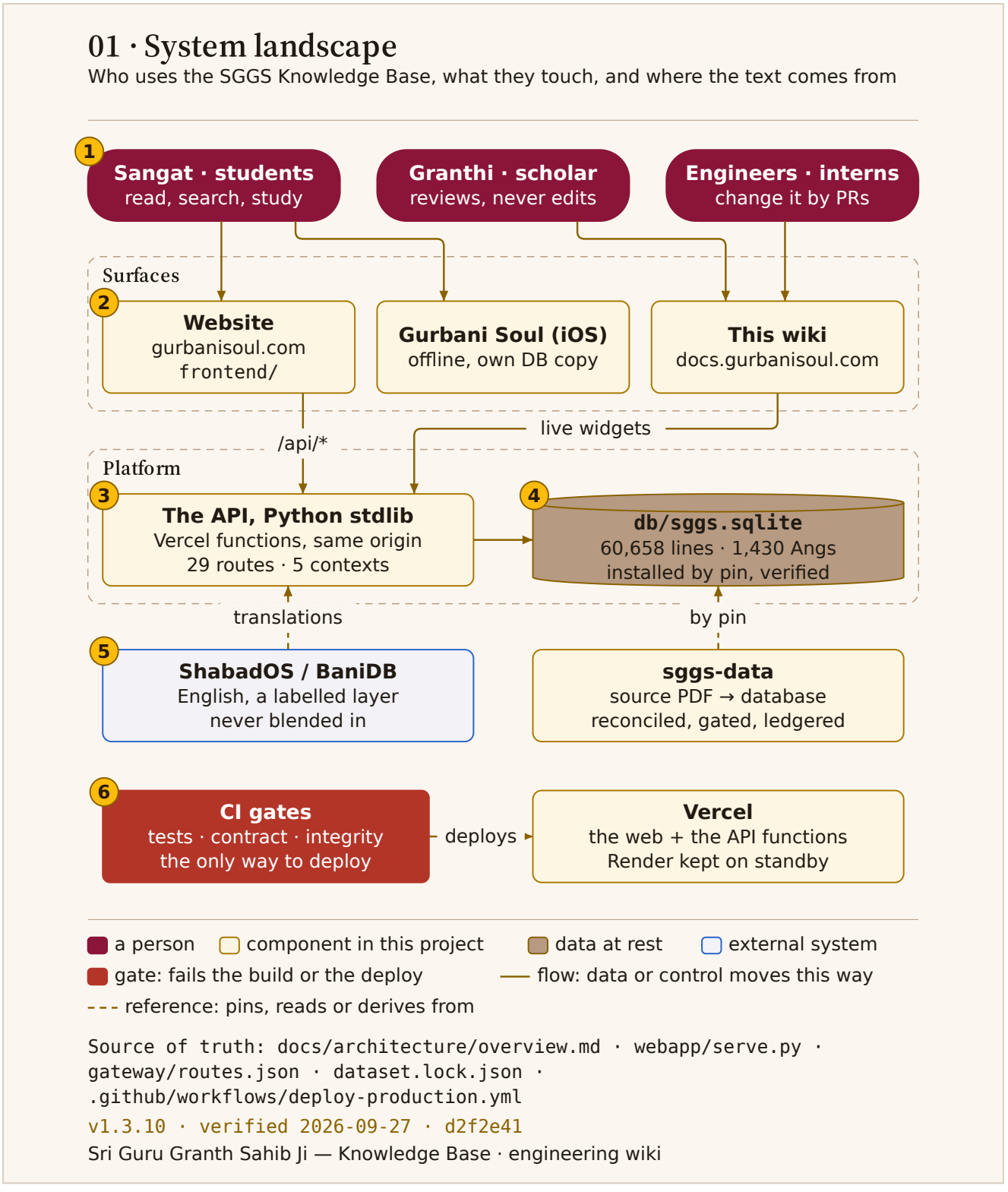
3. `make dataset` — downloads the pinned database (~104 MiB), verifies its sha256, installs it.
4. `cd webapp && python3 serve.py` — the API and the website on **http://localhost:7777**.
5. Search. Every line comes back verbatim, with its Ang — or try it here, against production:

> Interactive on the web: a search, traced through each tier.

The whole walk-through, with what to do when a step fails: **Run it locally**.

The whole system

The people, the three surfaces, the one read-only API, the pinned database and where the text comes from — press *Next* on the site to build it up step by step:



Poster 01 — The system landscape: the people, the three surfaces (web, iOS, wiki), the one read-only API, the pinned database, and where the verbatim text comes from

1. **The people.** Three kinds of people meet the system: the sangat and students who read, search and study; Granthis and scholars who review anything flagged in the text but never edit it; and engineers and interns, who change code and documentation only through reviewed pull requests.

2. **Three surfaces.** The website (gurbanisoul.com, a static Astro site), the Gurbani Soul iOS app (fully offline, with its own copy of the database) and this wiki. All three show scripture verbatim, cited by Ang.
3. **One read-only API.** The API is Python standard-library code (webapp/serve.py and the five bounded contexts in webapp/sggs/: reader, search, verify, insights, knowledge) answering 29 routes. It runs as Python functions inside the same Vercel project as the website, so the browser calls it same-origin under /api/* with no CORS; gateway/routes.json decides which function answers which path. The wiki's live widgets call it the same way.
4. **The pinned database.** db/sggs.sqlite holds 60,658 verbatim lines over 1,430 Angs with FTS5 indexes, opened read-only. It is never committed here: dataset.lock.json names the sggs-data commit and the sha256 of the exact object, and make dataset installs it verified. The app builds its own copy from the same pin.
5. **Where the text comes from.** sggs-data turns the source Bir PDF (1,483 pages) into the corpus and the database through character-exact reconciliation, golden checks and a scholar-reviewed editorial ledger, then publishes the result by commit and checksum — the pin. The English layer from ShabadOS / BaniDB is a separate, labelled table the API reads beside the Gurmukhi, never blended into it.
6. **Only CI deploys.** A pull request runs the gates (tests, the golden contract, dataset integrity, security, the docs gates). Merging to integration deploys staging; a release merge to main runs the gated production deploy to Vercel — the website and the API functions together — verified by the running commit, and cuts the tag. The single Render API stays deployed as the rollback. Nobody deploys by hand.

Find your way

Scripture 101

what the Granth is, its structure, the script and its Unicode, and how answers about it are given.

Architecture

three repositories, one read-only API in five contexts, a pinned database: the system and how its parts fit.

Data

a line record, the corpus pipeline and its gates, the dataset pin, the editorial ledger, the integrity chain.

Search & verification

the search waterfall, the Roman fold, the verification engine and the harnesses that hold them.

The API

29 read-only routes, the contract that pins them, versioning and caching, and a reference to try.

The iOS app

Gurbani Soul: how it takes a release, its parity with the API, its launch-integrity check, Nitnem.

Ship & operate

Decisions

why the system is the way it is, one decision record at a time.

branching, environments, the CI gates, releases and the runbooks for when something goes wrong.

Glossary

every term the wiki uses, from Ang to X-Service.

Writing these docs

how a page, a diagram, a poster or a widget gets onto this site, and the gates it passes.

Latest changes

v1.7.7[2]	2026-11-25	The release that brings the daily Hukamnama from Sri Harmandir Sahib to every Gurbani Soul reader on the App Store: iOS 1.7.7 turns the feature on in App Store builds (G3 copy review signed by the owner 2026-11-25), and they register with this release's production Hukamnama service · 1 removed · 3 changed
v1.7.6[3]	2026-11-24	A one-day greeting for Guru Nanak Dev Ji's 557th Parkash Gurpurab on gurbanisoul.com · 1 added · 2 changed
v1.7.5[4]	2026-11-22	The daily Hukamnama gets faster recovery when a day is held: a held day can be approved from the alert on the owner's phone, a day approved just after midnight still reaches readers' phones, and a stopped service is noticed within minutes · 3 added · 1 fixed

The newest releases, read from the changelog at build. Every release and what it changed: **Releases** · the full **changelog on GitHub**[5].

Links

1. https://gurbanisoul.com/
2. https://github.com/Algorythmos-AI/sggs-platform/releases/tag/v1.7.7
3. https://github.com/Algorythmos-AI/sggs-platform/releases/tag/v1.7.6
4. https://github.com/Algorythmos-AI/sggs-platform/releases/tag/v1.7.5
5. https://github.com/Algorythmos-AI/sggs-platform/blob/integration/CHANGELOG.md

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Sri Guru Granth Sahib Ji — Knowledge Base wiki. Generated from commit 7783889. Updated 9 November 2026. This copy may be out of date; the page is at https://docs.gurbanisoul.com/