Reference

Environment variables

10 min read · Updated 22 November 2026

Every environment variable the API, the website, the wiki and the tools read — who reads it and what it changes — generated from the code that reads it.

https://docs.gurbanisoul.com/reference/environment/

59 variables, found by scanning the code for the places that read them. Each row names the files that read the variable and what it changes; the descriptions are kept beside this page in `docs/reference/environment.descriptions.json`. Names only: where a variable holds a token or a secret, its value lives in the GitHub environment or the hosting project, never in the repository (**environments**). Variables the CI runner sets for itself (`CI`, `GITHUB_OUTPUT`, `GITHUB_REPOSITORY`) are not listed.

The API and its services

Read by the API process (`webapp/serve.py`) and the services beside it at start-up.

Variable	Read by	What it changes
`HUKAMNAMA_ALERT_NTFY_URL`	`services/hukamnama/hukamnama/alerts.py`	`https://ntfy.sh/<topic>` (or a self-hosted ntfy server): the Hukamnama service posts every new alert there at once, so it reaches the owner's phone; the dead-man check reads the same value as a repository secret. The topic is the secret (16–64 letters, digits, - or _). Unset: no phone alerts; malformed: the service refuses to start.
`HUKAMNAMA_API`	`webapp/hukamnama_page.py`	The origin of the public Hukamnama API (`https://api.gurbanisoul.com`) the web server reads each day's record from to fill the Hukamnama pages, feeds, sitemap and embed. Unset (the default), or without a page shell for the language, the pages are not served. On Vercel the `all` function sets it per environment from `hukamnama_api` in `gateway/routes.json`; a value set on the project wins, and an empty one turns the pages off. Must be `https://…` (or a local `http://127.0.0.1:` / `http://localhost:` address).
`HUKAMNAMA_APNS_KEY_FILE`	`services/hukamnama/hukamnama/__main__.py`	Path to the APNs Auth Key (`.p8`, PEM) the Hukamnama service signs its provider token with, as a Render secret file (`/etc/secrets/…`); needed only when `HUKAMNAMA_SEND=on`. The key itself never goes in an environment variable or the repository.
`HUKAMNAMA_APNS_KEY_ID`	`services/hukamnama/hukamnama/__main__.py`	The 10-character Key ID of that APNs Auth Key (Apple Developer → Keys); the `kid` of the provider token.

Variable	Read by	What it changes
`HUKAMNAMA_APNS_TEAM_ID`	`services/hukamnama/hukamnama/__main__.py`	The Apple Developer Team ID that owns the APNs key; the `iss` of the provider token.
`HUKAMNAMA_APNS_TOPIC`	`services/hukamnama/hukamnama/__main__.py`	The APNs topic (the app's bundle id); default `org.sggs.app`.
`HUKAMNAMA_APPROVE_BASE_URL`	`services/hukamnama/hukamnama/alerts.py`	The https origin the phone alert's Approve and Review buttons call (this service's own Render URL, not the edge). Default: Render's `RENDER_EXTERNAL_URL`. Must be `https://…`.
`HUKAMNAMA_APPROVE_SECRET`	`services/hukamnama/hukamnama/alerts.py`, `services/hukamnama/hukamnama/api.py`	Turns on one-tap approve from the phone alert: a `held_veto` alert then carries an Approve button (and a Review page) for the exact run hs.sgpc.net resolved to, signed with this secret (HMAC). The service re-proves the range against the corpus before publishing. Unset (the default): no buttons, and `/owner/approve` answers 404. A long random value set only in Render's environment; never committed, never sent in an alert.
`HUKAMNAMA_ARCHIVE`	`services/hukamnama/hukamnama/__main__.py`	Where the Hukamnama service keeps every distinct page it fetched from SGPC, gzip under each Amritsar date with an index of every fetch, kept 60 days (unset: no archive); the same as `serve --archive`. The image sets `/var/data/archive`.
`HUKAMNAMA_COMMIT`	`services/hukamnama/hukamnama/api.py`	The source commit the Hukamnama service reports on `/health` so a deploy is verified by identity; the image bakes it from Render's `RENDER_GIT_COMMIT` (falls back to that, then `unknown`).
`HUKAMNAMA_DB`	`services/hukamnama/hukamnama/__main__.py`	The scripture database the Hukamnama service reads (default `db/sggs.sqlite`); the same as its `--db` option.
`HUKAMNAMA_ENV`	`services/hukamnama/hukamnama/alerts.py`	`staging` (the default) or `production`: the environment name the Hukamnama service puts in its phone alerts' titles.
`HUKAMNAMA_MEANING`	`services/hukamnama/hukamnama/__main__.py`	`on` adds the English translation (Dr. Sant Singh Khalsa) to the Hukamnama service's public snapshot as a separate, labelled layer (`lines[].en` and `translation`); anything else (the default) leaves it out, and switching it off removes it from the files on the next sync. The Gurmukhi is identical either way.
`HUKAMNAMA_ORIGIN_REQUIRED`	`services/hukamnama/hukamnama/api.py`	`on` makes the Hukamnama service answer `403` on `/v1/*` to any request without the edge's secret (`/health` stays open). Anything else (the default) leaves direct calls allowed. Needs `HUKAMNAMA_ORIGIN_SECRET`.

Variable	Read by	What it changes
HUKAMNAMA_ORIGIN_SECRET	services/hukamnama/hukamnama/api.py	The secret the edge Worker sends in X-Origin-Auth. When set, the Hukamnama service believes a request's client address (X-Client-IP) only with it, and limits every other request by its socket's own address. Set the same value on the Worker (ORIGIN_SECRET). Never committed.
HUKAMNAMA_PEER_URL	services/hukamnama/hukamnama/peer.py	The other Hukamnama service's own https origin (production's on staging, staging's on production). The service then checks the other's /health every 5 minutes, 05:15–14:15 IST, and raises peer_down on its own phone alerts when the other is unreachable, reports ok=false or its poller has stopped, after 3 failed checks in a row and once a day. Unset: no watch. Not https://: the service refuses to start.
HUKAMNAMA_PUBLIC_ACCESS_KEY_ID	services/hukamnama/hukamnama/r2.py	The access key id of an R2 API token scoped to the public snapshot bucket only (Object Read & Write). Not the backup's token.
HUKAMNAMA_PUBLIC_BUCKET	services/hukamnama/hukamnama/r2.py	The R2 bucket the Hukamnama service writes its public snapshot to, for the edge Worker to serve (unset: no bucket). Needs HUKAMNAMA_R2_ENDPOINT and the two HUKAMNAMA_PUBLIC_… keys; with any of them missing the service refuses to start.
HUKAMNAMA_PUBLIC_DIR	services/hukamnama/hukamnama/__main__.py	Where the Hukamnama service writes its public snapshot: one file per published day plus an index, rewritten when a day is published, corrected or held (unset: no snapshot); the same as serve --public-dir.
HUKAMNAMA_PUBLIC_SECRET_ACCESS_KEY	services/hukamnama/hukamnama/r2.py	The secret of that R2 API token. Set only in the host's environment (Render); never in the repository or a log.
HUKAMNAMA_SEND	services/hukamnama/hukamnama/__main__.py	on makes the Hukamnama service push each published Hukamnama to registered devices through APNs; anything else (the default) keeps sending off. With on and no usable APNs key the service refuses to start.
HUKAMNAMA_STATE	services/hukamnama/hukamnama/__main__.py	The Hukamnama service's own state database: each day's fetched Hukamnama, the gate's decision and the audit trail (default hukamnama-state.sqlite); the same as its --state option.
HUKAMNAMA_VERCEL_PROJECT	services/hukamnama/hukamnama/purge.py	The id or name of the Vercel project whose CDN copy of the Hukamnama pages the service purges (see HUKAMNAMA_VERCEL_PURGE_TOKEN).

Variable	Read by	What it changes
`HUKAMNAMA_VERCEL_PURGE_TOKEN`	`services/hukamnama/hukamnama/purge.py`	A Vercel access token for the web project's team, used only to delete the `hukamnama` cache tag from the CDN after a published Hukamnama day is corrected or withdrawn. Set only in the host's environment (Render); never in the repo. With `HUKAMNAMA_VERCEL_PROJECT` and `HUKAMNAMA_VERCEL_TEAM`; with any of the three missing the service refuses to start (all unset: no purge).
`HUKAMNAMA_VERCEL_TARGET`	`services/hukamnama/hukamnama/purge.py`	Which of the project's environments the CDN purge clears: `production` or `preview` (unset: Vercel's default).
`HUKAMNAMA_VERCEL_TEAM`	`services/hukamnama/hukamnama/purge.py`	The Vercel team id of that project (see `HUKAMNAMA_VERCEL_PURGE_TOKEN`).
`LITESTREAM_SHA256`	`services/hukamnama/fetch_litestream.py`	Build-time only, from the Hukamnama Dockerfile's build arg: the sha256 of that Litestream release archive, copied from the release's `checksums.txt`; the image build fails on a mismatch.
`LITESTREAM_VERSION`	`services/hukamnama/fetch_litestream.py`	Build-time only, from the Hukamnama Dockerfile's build arg: the Litestream release the image installs for the state backup to R2. Bumped together with `LITESTREAM_SHA256`.
`PORT`	`services/hukamnama/hukamnama/__main__.py`, `webapp/serve.py`	The port to listen on, set by the host (Render, a container platform). The API prefers it to `SGGS_PORT`; the Hukamnama service defaults to 8080 without it.
`RENDER_EXTERNAL_URL`	`services/hukamnama/hukamnama/alerts.py`	Set by Render to the service's own `https://<name>.onrender.com` URL; the Hukamnama service uses it as the default approve-button origin (`HUKAMNAMA_APPROVE_BASE_URL`).
`RENDER_GIT_COMMIT`	`services/hukamnama/hukamnama/api.py`, `webapp/serve.py`	Injected by Render: the commit being served, reported by `/api/health` → `commit` so a deploy is verified by identity.
`SGGS_ACCESS_LOG`	`webapp/serve.py`	`0` turns off the one-line JSON access log written per request (default on); the generators that drive the API in-process set it.
`SGGS_COMMIT`	`webapp/serve.py`	The source commit `/api/health` reports when the host does not inject `RENDER_GIT_COMMIT`; the generated API functions set it at deploy time.
`SGGS_DB`	`webapp/sggs/core.py`	The database file the API opens read-only; a per-context function points it at its own slice of the database. Default: `db/sggs.sqlite`.
`SGGS_MAX_WORKERS`	`webapp/serve.py`	How many requests the threaded server handles at once before new ones queue (default 48).

Variable	Read by	What it changes
`SGGS_MODULES`	`webapp/serve.py`	Which bounded contexts this process serves: `all` (the default, the whole API) or a comma list such as `search` or `insights,knowledge`. An unknown name stops the server.
`SGGS_OPEN_BROWSER`	`webapp/serve.py`	`1` opens the site in the desktop browser when the server starts; never set on a host.
`SGGS_PORT`	`webapp/serve.py`	The API's local port when `PORT` is not set (default 7777), e.g. to run a second server beside another worktree's.

The website build

Read by the Astro build of the website. `PUBLIC_` variables are compiled into the pages, so they are switches and public addresses, never secrets.

Variable	Read by	What it changes
`PUBLIC_APP_STORE_LIVE`	`frontend/src/site.ts`	`1` once the app is live on the App Store: the pages show the store link, the Smart App Banner and the install URL; otherwise "Coming soon". Set in the production project on launch day.
`PUBLIC_CONTRIBUTE_MODE`	`frontend/src/contribute.ts`	Which payment links the Contribute page carries: `live`, `test` (Stripe test mode, for staging) or `off` (the default, no links). A link that does not fit the mode fails the build.
`PUBLIC_I18N_PREVIEW`	`frontend/src/i18n/locales.ts`	`all` also builds every drafted language that has a catalog, for a reviewer to read on real pages; never set for production.
`PUBLIC_I18N_PSEUDO`	`frontend/src/i18n/t.ts`	`1` builds every catalog string as pseudo-text, so a string that bypasses the catalog, or a layout that cannot take a longer translation, stands out.
`PUBLIC_NEWSLETTER_FORM_URL`	`frontend/src/components/Newsletter.astro`, `frontend/src/pages/[lang]/privacy.astro`	The launch-notice sign-up form's address; without it the sign-up band is not built and the privacy page leaves out its section.

The wiki build

Read by the wiki's build and its review scripts.

Variable	Read by	What it changes
`DOCS_API`	`docs-site/scripts/visual-qa.mjs`	Where the wiki's visual review script sends `/api` requests so live widgets show real data (default: production).
`DOCS_PAGE_ACTIONS`	`docs-site/plugins/features.mjs`	`0` builds the wiki without the page menu (copy, view as Markdown, assistant links, print), should it misbehave in production.
`DOCS_PDF`	`docs-site/plugins/features.mjs`	`1` also builds a PDF of every page; CI sets it for every build it tests or deploys, a local build is quicker without.

Variable	Read by	What it changes
PUBLIC_DOCS_COMMIT	docs-site/astro.config.mjs, docs-site/plugins/export-pages.mjs, docs-site/plugins/remark-code-excerpt.mjs, docs-site/scripts/review-pack.mjs, docs-site/src/components/Footer.astro	The commit the wiki documents: it pins code excerpts and repository links, and is shown in the footer and in the sggs-docs-commit meta tag the deploy smoke test checks. CI passes it; locally it is read from git.
VERCEL_BYPASS	docs-site/scripts/visual-qa.mjs	The protection-bypass secret the wiki's visual review script sends to reach a protected base URL such as the staging alias.

Tools, CI and release scripts

Read by the generators, gates and deploy scripts, locally and in GitHub Actions.

Variable	Read by	What it changes
COUPLING_ENFORCE	tools/docs_coupling.py	Turns the docs-impact check (tools/docs_coupling.py) into a gate: when 1/true/on, a page that declares covers: and was neither updated, re-stamped nor named on its own Docs-impact: docs/<page>.md — <reason> line fails the run. On in docs-coupling.yml since 2026-11-22; release pull requests and bot branches are reported but never fail.
DOCS_HEALTH_TOKEN	tools/docs_check.py	A GitHub token that can read this repository's pull requests. docs_check.py --health reads each merged pull request's description with it (its Docs-impact lines) to measure the coupling debt; falls back to GH_TOKEN/GITHUB_TOKEN, and without any token the debt is labelled an upper bound.
GH_TOKEN	scripts/data/fetch_dataset.py, scripts/release/check_release_complete.py, tools/docs_check.py, tools/fetch_sibling_docs.py, tools/gen_repo_map.py	A GitHub token for reading the private sibling repositories and their releases: the dataset download, the pinned sibling docs, the repository-map check, the release-complete check and the sibling pin lag on the docs-health page. Preferred over GITHUB_TOKEN.
GITHUB_TOKEN	scripts/data/fetch_dataset.py, scripts/release/check_release_complete.py, tools/docs_check.py, tools/fetch_sibling_docs.py, tools/gen_repo_map.py	The fallback GitHub token when GH_TOKEN is not set (the token GitHub Actions provides); read by the same scripts.
SGGS_READ_TOKEN	tools/fetch_sibling_docs.py	The third fallback for reading the pinned sibling docs, after GH_TOKEN and GITHUB_TOKEN; in CI it is the read-only token for the sibling repositories.
VERCEL_AUTOMATION_BYPASS_SECRET	scripts/ci/hukamnama_morning.py, scripts/ci/verify_functions.py, tools/contract_http.py	Vercel's protection-bypass secret, sent as x-vercel-protection-bypass so the contract replay and the function verification can reach a protected staging or preview deployment.

Variable	Read by	What it changes
`VERCEL_DOCS_BYPASS_SECRET`	`scripts/ci/docs_smoke.py`	The wiki project's protection-bypass secret, sent by the post-deploy smoke test to reach a protected wiki deployment.
`VERCEL_ENV`	`tools/build_api_functions.py`	Set by Vercel itself in every deployment (`production`, `preview` or `development`); never set by hand. The generated `all` function reads it to choose the Hukamnama API of the environment it runs in (`hukamnama_api` in `gateway/routes.json`; staging is a preview deployment).
`VERCEL_ORG_ID`	`scripts/ci/vercel_api.py`	The Vercel team the API calls of `scripts/ci/vercel_api.py` are made in; required with `VERCEL_TOKEN`.
`VERCEL_PROJECT_ID`	`scripts/ci/vercel_api.py`	The Vercel project `scripts/ci/vercel_api.py has-production` asks about.
`VERCEL_TOKEN`	`scripts/ci/vercel_api.py`	A Vercel API token for `scripts/ci/vercel_api.py` (which deployment serves a domain, a deployment's target, whether a project has a production deployment).

How this page stays true

`tools/gen_env_vars.py --check` runs in the docs job and in `make docs-check`: a new read of a variable without a description, a description for a variable nothing reads any more, or a page that differs from the code fails it. To add a variable, read it in the code, add one sentence to the descriptions file and run `python3 tools/gen_env_vars.py`.

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