REQUEST FOR QUOTATION (RFQ)

Design, Development, Deployment, Hosting and Handover of GyaanMap Goa API-Based Educational Web Platform

Issuing Authority: Nirmala Institute of Education, Panaji, Goa

RFQ No.: _____ Date of issue: _____ Last date/time for submission: _____

Maximum total price: ₹2,00,000 inclusive of all applicable taxes, first-year hosting and six-month software warranty

Implementation: 28 calendar days from work order | Hosting: 12 months from final acceptance | Warranty: 6 months from final acceptance

LIMITED RFQ — circulation to identified vendors. Issue and award are subject to institutional and GSRF grant procurement rules.

1. Invitation and background

Nirmala Institute of Education invites fixed-price quotations from identified software development service providers for a complete, operational GyaanMap Goa platform. The project, "Integrating Real-World Goan Contexts into the School Curriculum through GyaanMap Goa", links textbook concepts with Goa-specific heritage, culture, geography, biodiversity and other local contexts. The approved project proposal identifies web portal development as a ₹2,00,000 budget head within the broader research project.

The platform is intended for teachers, learners and community users. Curriculum analysis, academic resource curation, translations and pilot-school logistics are project-team responsibilities, not software vendor content-production obligations.

2. Procurement particulars

Item	Requirement
Procurement	Limited Request for Quotation; one financial quote and signed compliance declaration
Contract	Single vendor, end-to-end, fixed price
Ceiling	₹2,00,000 inclusive of taxes and all specified services
Evaluation	Lowest-priced substantially compliant quotation (L1); no scored technical evaluation
Development	28 calendar days from work order
Hosting	12 months from final acceptance, included

	in price
Software warranty	6 months from final acceptance, included in price
Submission address / email	To be specified by issuing authority
Quote validity	Proposed 60 days; confirm before issue

3. Scope of work

3.1 Design and planning

- Requirements workshop and approved Software Requirements Specification (SRS).
- Architecture diagram, database entity-relationship design, role-permission matrix, API contracts, interface wireframes and implementation plan.
- Agree sample dataset, hosting capacity, acceptance tests and data import format with the project team in Week 1.

3.2 Database and data model

Implement a relational schema covering curricula and versions, classes, subjects, chapters, concepts, Goa-specific contexts, resource metadata, many-to-many concept/context/resource mappings, language variants, users/roles, workflow states and administrative audit logs. Provide stable identifiers, indexes, migrations, referential integrity, backup and restore procedures.

3.3 REST API

Implement versioned HTTPS/JSON APIs for classes, subjects, chapters, concepts, contexts, resources, mappings, languages and protected administration. Provide pagination, filtering, search, validation, standard HTTP status codes, consistent error handling, authentication and role-based authorisation. Supply OpenAPI 3.x documentation, sample requests and automated tests. APIs must be independently usable without either interface.

3.4 Public portal

Responsive, publicly accessible portal with class → subject → chapter → concept navigation; keyword search and filters; concept pages with related Goan contexts, linked text, image, audio, video and external resources; attribution and licence information; teacher guidance where supplied; English, Konkani and Marathi language selection. Missing translations must be indicated rather than automatically invented.

3.5 Administrative application

Secure Administrator, Contributor and Reviewer roles; curriculum and resource CRUD; CSV import/export with validation; draft → review → approved → published workflow; association of resources with multiple concepts; publication controls and audit trail. Both interfaces shall consume the common API; routine administration shall not bypass backend authorisation and validation.

3.6 Out of scope

Original textbook analysis, creation of media, academic verification, bulk translations, advanced GIS, AI recommendations, native mobile apps, large-scale video hosting, training of school cohorts and pilot logistics. External media links are acceptable where rights and availability permit.

4. Mandatory open-source and technical conditions

All software required to build and operate the delivered application—including operating system, database, language runtimes, web/application servers, frameworks, libraries and essential dependencies—must be Free and Open-Source Software (FOSS), licensed to permit inspection, modification and redistribution subject to licence conditions. No compulsory proprietary runtime, closed-source database or vendor-exclusive application service is permitted. Commercial infrastructure rental is allowed where the software remains portable.

Layer	Preferred FOSS	Permissible equivalent
OS	GNU/Linux	Supported FOSS Linux distribution
Database	MariaDB Community Server	PostgreSQL or equivalent
Backend	Python 3 + FastAPI	Django REST Framework or equivalent
Public portal	Vue.js	React, Svelte or equivalent
Administration	Streamlit	FOSS web administration framework
Web server	Nginx	Apache HTTP Server, Caddy or equivalent
Version control	Git	Equivalent FOSS solution

Preferred technologies are not exclusive. Bidders may propose technically equivalent FOSS alternatives and must disclose deviations. A complete software component and licence inventory is mandatory at handover.

- HTTPS, secure password hashing, least-privilege roles, input validation, protection against common OWASP vulnerabilities and audit logs.
- UTF-8 and Unicode support, including Devanagari for Marathi and Konkani; extensible language tagging.
- Responsive interface and accessibility-oriented design aligned with WCAG 2.2 AA for core workflows.
- Documented reproducible deployment on compatible Linux infrastructure.

- Indicative performance acceptance: 50 simulated concurrent public users; 95% of ordinary read-only API requests within 2 seconds under agreed dataset and hosting test conditions; no critical failure during a 30-minute test.

5. Vendor-provided first-year hosting

The vendor shall provide, configure, secure and operate hosting for 12 months beginning on final acceptance. The quoted contract price shall include application and database hosting, storage, HTTPS certificate, monitoring, routine infrastructure security updates, daily automated database backups, at least seven days rolling retention, restoration assistance and basic incident handling. Target monthly availability is 99%, excluding pre-notified maintenance and documented force majeure.

The vendor shall disclose hosting provider, region, resources, storage limits, backup method, monitoring and support arrangements. Domain ownership and DNS control should remain with the institution. All institutional data must be exportable; a complete migration package and reasonable exit assistance shall be provided without withholding data. Indicative Year-2 renewal charges must be disclosed separately and do not form part of L1 price comparison.

6. Implementation, milestones and payment

Milestone	Deadline	Acceptance evidence	Payment
M1	End Week 1	Approved SRS, architecture, ERD, wireframes and API contracts	20%
M2	End Week 2	Working database, core APIs, authentication, documentation and tests	30%
M3	End Week 3	Integrated public and admin applications with multilingual and content workflows	30%
M4	End Week 4	Testing, defect correction, production deployment, training, complete handover and sign-off	20%

Payments are subject to written milestone acceptance, valid invoice and applicable institutional finance rules. The hosting and warranty duties continue after final payment. Extensions require prior written approval. Any liquidated damages clause must be approved by the institution; proposed rate is 0.5% of contract value per completed week of vendor-attributable delay, capped at 5%.

7. Six-month software warranty

For six months from final acceptance, the vendor shall correct without additional charge defects in delivered features, APIs, database integration, authentication/authorisation, software security and deployment compatibility attributable to the delivered software. Warranty does not include new modules, new content or changes beyond the approved scope. Hosting, backup and infrastructure obligations continue for 12 months irrespective of warranty expiry.

Severity	Initial response	Target workaround / resolution
Critical	4 business hours	2 business days
High	1 business day	3 business days
Medium	2 business days	7 business days
Low	3 business days	Next agreed maintenance release

8. Acceptance and verification

The project team shall supply or approve a representative sample dataset by Week 1. Suggested acceptance fixtures: 3 classes, 3 subjects, 10 chapters, 30 concepts, 20 contexts and 50 resources, with sample multilingual records. These are testing fixtures, not vendor content-creation obligations.

ID	Acceptance test
AT-01	Create/edit/retrieve curriculum hierarchy
AT-02	Map one concept to multiple contexts and resources
AT-03	Reuse a resource across multiple concepts
AT-04	Public search and filters work
AT-05	Language variants display correctly
AT-06	Unauthorised protected operations are blocked
AT-07	Contributor/reviewer/publishing workflow works

AT-08	API accessible independently of frontend
AT-09	CSV import/export with validation
AT-10	Backup and successful restore
AT-11	Responsive browser/device demonstration
AT-12	Agreed load/security test evidence
AT-13	Source, documentation and credentials handed over
AT-14	Reproducible deployment
AT-15	Live vendor-hosted HTTPS application
AT-16	Automated backup and monitoring demonstrated
AT-17	Full data and deployment export demonstrated
AT-18	All mandatory software components have FOSS licences
AT-19	Dependency/licence register supplied
AT-20	Both interfaces use common API
AT-21	Migration to another compatible Linux host demonstrated

All mandatory tests must pass; critical/high security defects must be corrected before final acceptance. Written acceptance shall be signed by the authorised institutional representative.

9. Quotation submission and selection

Each invited vendor shall receive identical RFQ documents and deadlines. Submission shall contain the signed bidder information form, mandatory compliance declaration, proposed stack/hosting details, confirmation of delivery and warranty, deviations (if any), and the financial quotation. There is no scored technical bid or 70-mark qualification threshold. The institution shall verify administrative and mandatory technical compliance and compare inclusive total prices of substantially compliant quotations. The lowest-priced substantially compliant offer (L1) may be recommended for award subject to price reasonableness, due diligence and competent approval. Any material clarification affecting scope shall be circulated equally to all invitees.

10. Contractual terms

- The contract is fixed price; no extra charge for expressly included functionality, taxes, first-year hosting, six-month warranty, documentation or training.

- The institution or designated project authority shall receive agreed ownership/assignment rights in project-specific commissioned code, database design, scripts and documentation, subject to GSRF/IP conditions. Third-party FOSS retains its own licence.
- The institution shall approve an appropriate open-source licence for project-specific code after GSRF/IP and dependency review; the bidder shall cooperate and shall not introduce incompatible dependencies.
- Vendor shall protect project data, use least-privilege access, and return/delete copies as contractually instructed on exit, subject to law and legitimate retention duties.
- Scope changes, costs and deadline variations require written approval; oral instructions do not authorise extra payments.
- Termination for material breach shall follow written notice and reasonable cure opportunity, subject to the signed contract. Indian law applies; jurisdiction/dispute procedure to be finalised by institution.
- Vendor shall provide one approximately two-hour admin training session and one approximately two-hour technical handover session.

11. Annexure A — Bidder particulars

Field	Response
Legal name	_____
Entity type	_____
Registered address	_____
Contact person	_____
Email and phone	_____
PAN	_____
GSTIN (if applicable)	_____
Relevant completed projects	_____
Authorised signatory / date	_____

12. Annexure B — Mandatory compliance checklist

Requirement	Compliant (Y/N)	Deviation / evidence
28-day delivery		
Mandatory FOSS components		
API-first independent backend		
MariaDB/FastAPI/Vue/Streamlit or FOSS		

equivalent		
Multilingual English/Konkani/Marathi support		
Public search and mapping		
Admin review/publish workflow		
First-year vendor hosting included		
Six-month software warranty included		
Source code and migration handover		
Open-source licensing cooperation		
All-inclusive price ≤ ₹2,00,000		

13. Annexure C — Financial quotation

Cost head	Amount (₹)
Requirements, design and database	
API development and documentation	
Public web application	
Administrative application	
Testing, deployment, training, handover	
First-year hosting and infrastructure	
Six-month warranty and support	
Subtotal excluding taxes	
Applicable taxes	
GRAND TOTAL INCLUDING TAXES (maximum ₹2,00,000)	
Indicative Year-2 hosting/maintenance (not evaluated)	

Declaration: The grand total includes all mandatory services. No undisclosed software licence, hosting or support charge is required for the contracted periods.

14. Annexure D — Proposed stack and hosting declaration

Bidder to specify: database/version; backend framework/version; public frontend/version; admin framework/version; Linux distribution; reverse proxy; hosting provider and region; storage and compute allocation; backup schedule; monitoring; migration method; deviations and justification.

15. Annexure E — FOSS and IP undertaking

We certify that the proposed operational software components are FOSS-compliant; will supply a complete dependency and licence register; will not introduce compulsory proprietary runtime dependencies; will deliver project-specific source code, scripts and documentation; and will cooperate with the institution-approved open-source licensing arrangement, subject to applicable GSRF/IP conditions.

Bidder signature: _____ Date: _____ Seal: _____