

Consulting Services for Applied AI & Data Engineering Residency and Implementation Program

Laxmi Sunrise Bank Limited ("the Bank") invites Expressions of Interest (EOI) from qualified national and international consulting firms having proven expertise in Artificial Intelligence (AI), Large Language Models (LLMs), Data Engineering, Machine Learning and implementation of AI solutions within the banking and financial services sector.

The Bank intends to engage a consulting partner to design and deliver an Applied AI & Data Engineering Residency Program that combines institutional capability development with the design, development, testing and pilot implementation of AI-enabled banking solutions.

1. Objectives

The objectives of the engagement are to:

- Build practical Artificial Intelligence and Data Engineering capability within the Bank.
- Develop AI-enabled decision-support solutions for selected banking processes.
- Strengthen the Bank's enterprise data engineering and AI implementation capability.
- Transfer knowledge and implementation capability to designated Bank employees.
- Establish AI solutions that comply with applicable regulatory, governance and information security requirements.
- Develop sustainable internal capability to operate, govern, maintain and further enhance AI solutions independently.

2. Scope of Work

The selected consulting firm shall undertake the following activities:

A. Applied AI & Data Engineering Residency Training Program

The consulting firm shall:

- Design and deliver an implementation-oriented Applied AI & Data Engineering Residency Training Program, where the consulting firm's technical experts work closely with designated Bank personnel through structured learning, mentoring and collaborative development of the identified AI solutions.
- Conduct the program primarily on-site in Kathmandu, Nepal, through classroom sessions, workshops, mentoring and hands-on project implementation. The bidder shall specify the proposed duration, on-site commitment, composition and seniority of resources to be deployed in Kathmandu, and any activities proposed to be undertaken remotely or offshore.
- Utilize the Bank's business processes and data to develop practical implementation capability rather than providing only theoretical instruction.
- Build capability in Artificial Intelligence, Large Language Models (LLMs), Data Engineering, Retrieval-Augmented Generation (RAG), Machine Learning, AI Governance and related implementation practices.

- Ensure structured knowledge transfer enabling Bank employees to independently operate, troubleshoot, modify, deploy, govern and further enhance the agreed components of the developed AI solutions.

B. Design and Development of AI Models

As part of the residency program, the consulting firm shall design, develop, test and pilot the following AI-enabled models.

i. Corporate Credit Analysis and Underwriting Assistant

The AI model shall:

- Utilize approved credit policies, methodologies and relevant historical credit data to support analysis, testing and model development.
- Standardize financial statement information received in different formats.
- Perform financial statement analysis, trend analysis and ratio analysis.
- Generate draft financial analysis and credit assessment reports in accordance with the Bank's approved credit appraisal framework.
- Assist Relationship Managers and Credit Officers in preparing high-quality credit applications.

ii. AI-Assisted Retail Underwriting Model

The AI model shall:

- Read the Bank's approved retail lending policies and product parameters.
- Analyze customer loan applications against product eligibility criteria.
- Assess compliance with approved product parameters.
- Identify exceptions and deviations requiring further review.
- Generate decision-support recommendations for Credit Officers.
- Ensure that all final lending decisions remain with authorized Bank officials.

C. Data Engineering

The consulting firm shall establish the required data engineering framework, including but not limited to:

- Data extraction and transformation.
- Standardization of structured and unstructured data.
- Financial data normalization.
- Development of reusable data pipelines.
- AI-ready data architecture.
- Data validation and quality management.

- Integration with existing banking applications and databases, where required.

3. Large Language Model (LLM) Requirements

The proposed solution shall:

- Utilize an appropriate Large Language Model (LLM) or equivalent foundation model.
- Be compatible with the Bank's approved enterprise AI platform.
- Support deployment within the Bank's approved infrastructure, including on-premises and/or private cloud environments.
- Support Retrieval-Augmented Generation (RAG) or equivalent knowledge retrieval mechanisms where appropriate.
- Permit future fine-tuning, enhancement and adaptation using the Bank's own data.
- Support API-based integration with the Bank's existing technology ecosystem.
- Support future replacement or upgrading of the underlying LLM without requiring redevelopment of the overall solution.
- Ensure that prompts, embeddings, vector databases, model configurations and related AI assets remain under the Bank's ownership and control.
- Not require Bank data to be transmitted to or processed by any public AI service unless specifically approved in writing by the Bank.

4. Knowledge Transfer

The selected consulting firm shall ensure effective transfer of knowledge to designated Bank employees covering:

- Operation of AI models.
- Data engineering practices.
- AI governance.
- Model validation and monitoring.
- Prompt engineering.
- AI solution enhancement and maintenance.
- Deployment and operational support.
- Future development of AI use cases.

Knowledge transfer shall be considered successfully completed only when designated Bank personnel

demonstrate the ability to independently operate, troubleshoot, modify and deploy the agreed components of the solutions. The consulting firm shall propose an appropriate methodology for assessing and demonstrating such capability.

5. Deliverables

The selected consulting firm shall deliver, at a minimum:

- Applied AI & Data Engineering Residency Program.
- Training materials.
- Two functional AI-enabled banking solutions developed, tested and deployed in the Bank's approved environment for pilot implementation, meeting mutually agreed acceptance criteria.
- Data engineering framework.
- Reusable data pipelines.
- Technical architecture documentation.
- Source code.
- Configuration files.
- Deployment artefacts.
- System documentation.
- User documentation.
- Operational manuals.
- AI governance documentation.
- Model validation documentation.
- Knowledge transfer documentation.
- Final implementation report.

6. Acceptance Criteria and KPIs

At the inception stage, the selected firm, in consultation with the Bank, shall establish baseline performance measures and measurable acceptance criteria for each solution. These shall include, as applicable, accuracy of data extraction and mapping, accuracy and consistency of analysis, adherence to defined credit/product parameters, quality and traceability of generated outputs, processing time, system performance, security requirements, user acceptance and successful deployment in the Bank's approved environment.

Final acceptance shall be subject to achievement of the agreed minimum performance thresholds, successful User Acceptance Testing (UAT), completion of security and regulatory requirements, documentation and successful knowledge transfer.

7. Ownership and Intellectual Property

The selected consulting firm shall ensure that:

- All AI models, source code, prompts, workflows, configurations, documentation, deployment artefacts, training materials and all other deliverables developed specifically for the Bank under this engagement shall be handed over to Laxmi Sunrise Bank Limited upon successful completion of the assignment.
- Laxmi Sunrise Bank Limited shall own all deliverables developed specifically for the Bank under this engagement.
- The Bank shall have perpetual rights to use, operate, maintain, modify, enhance and further develop the delivered AI models independently or through any third party.
- Where proprietary frameworks or reusable components of the consulting firm are utilized, the Bank shall receive a perpetual, irrevocable and royalty-free license to use such components to the extent necessary for operation, maintenance and future enhancement of the delivered solution.

8. Regulatory, Governance and Security Requirements

The proposed solution shall comply with all applicable Nepal Rastra Bank regulations, guidelines and other applicable legal and regulatory requirements relating to Artificial Intelligence and information security.

The proposed solution shall incorporate, at a minimum:

- Explainable AI.
- Human oversight and human-in-the-loop decision making.
- Audit trails.
- Data lineage.
- Model validation and monitoring.
- Access controls.
- Role-based authorization.
- Information security controls.
- Data privacy and confidentiality safeguards.
- Logging and monitoring mechanisms.
- Business continuity arrangements.
- Operational resilience mechanisms.
- A Kill Switch or equivalent mechanism enabling the Bank to immediately suspend AI operations whenever required.



- Appropriate mechanisms to prevent unauthorized disclosure, retention or transfer of Bank data.

9. Submission Requirements

Interested firms shall submit:

- Company profile and organizational structure.
- Details of AI/ML/LLM and data engineering solutions successfully implemented in production environments, preferably within banking, financial services or other regulated sectors.
- Details of similar assignments completed during the last five years, including scope, technology used, implementation status and outcomes achieved.
- Named client references, including contact details, which the Bank may independently verify.
- Architecture and implementation overview of at least one comparable AI solution;
- Proposed methodology, solution architecture and implementation approach for this engagement.
- Proposed technology stack, LLM/model strategy and approach to RAG, fine-tuning and data engineering, as applicable;
- Proposed data-security, deployment and AI-governance architecture.
- Proposed residency model, clearly identifying activities and resources to be deployed on-site in Kathmandu and those proposed remotely/offshore
- Proposed knowledge-transfer methodology and approach for demonstrating independent capability of Bank personnel
- Names and CVs of key experts committed to the assignment, including their individual roles and relevant AI implementations
- Indicative implementation schedule, milestones and resource deployment plan
- Details of third-party technologies, licenses and recurring dependencies, if any; and
- Commercial Proposal: The bidder shall provide an indicative commercial proposal with a clear breakdown of costs relating to residency/training, model development and implementation, on-site/offshore resources, infrastructure, third-party licenses/subscriptions, and post-implementation support. All recurring costs and external technology dependencies shall be separately identified.

The Bank may require shortlisted firms to demonstrate a comparable working AI solution and/or present the architecture and implementation of previously deployed solutions as part of the evaluation process.

The indicative commercial proposal may be considered by the Bank along with technical capability, proposed approach and other evaluation parameters for shortlisting. Shortlisting shall not constitute final selection or acceptance of the commercial proposal.

10. Submission Deadline

Interested consulting firms shall submit their Expression of Interest within 15 days from the date of publication of Expressions of Interest notice.

The Bank reserves the right to accept or reject any or all Expressions of Interest without assigning any reason whatsoever.