

Kerala Real Estate Regulatory Authority



**Call for Expression of Interest for the
Development of
Agentic Chat bot for K-RERA**

Introduction

Kerala Real Estate Regulatory Authority was constituted by the Government of Kerala under the aegis of the Real Estate (Regulation and Development) Act 2016 to usher in greater accountability and deliver value through regulatory compliance, furthering a sense of conduct and public confidence in the real estate sector while also fostering a healthy and competitive sector.

Real Estate (Regulation and Development) Act 2016 is a landmark legislation designed to regulate and promote the real estate sector. Backed by the overarching mandate, K-RERA aims to be an influential advocate of the real estate segment, ensuring accountability, citizen-centric measures, and enhanced financial discipline, safeguarding the interests of the consumer.

The Authority shall strive to facilitate the growth and promotion of a healthy, transparent, efficient, and competitive real estate sector while protecting the interests of allottees, promoters, and real estate agents. The authority also has an adjudicating mechanism for speedy dispute redressal regarding registered real estate projects and an Appellate Tribunal to hear appeals from the decisions, directions, or orders of the Real Estate Regulatory Authority.

1. Background and Current Challenges

K-RERA currently manages a complex regulatory environment with the following operational pain points:

- **High Volume of Inquiries:** A large number of repetitive queries regarding project registration, agent licensing, and complaint filing are handled manually, consuming significant staff resources.
- **Data Silos:** Information is fragmented across multiple platforms, including the web portal database, Google Sheets, and manual systems, which hinders comprehensive data analysis.

2. Scope of Work

K-RERA intends to outsource the development of two primary AI-based technology solutions:

A. Agentic AI Chatbot System A dual-chatbot system designed to serve different stakeholders:

- **Public Chatbot:** Targeted at homebuyers, developers, and the general public to provide real-time, accurate information on registration procedures and RERA Act provisions.
- **Authority Chatbot:** A specialized tool for K-RERA officials to assist with internal information retrieval.

- Key Features: Must integrate with the existing web portal database (Microsoft SQL) , Website (MySQL), and Google Sheets for comprehensive data access while maintaining strict access controls.

3. Technical Requirements

The successful bidder must demonstrate proficiency in the following areas:

- Data Integration: Ability to connect disparate data sources (SQL databases, Google Sheets, etc.) while ensuring data integrity, synchronization, and security.
- Access Control & Role-Based Authentication: Implementation of strict role-based access control (RBAC) to ensure segregation of public and internal data, with secure authentication mechanisms for authority users.
- Agentic AI Architecture: Experience in designing agentic AI systems capable of task orchestration, context retention, and autonomous information retrieval across multiple data repositories.
- API Development & Integration: Capability to design and consume secure APIs for seamless interaction between the chatbot, K-RERA web portal, website, and external data sources.
- Data Security & Compliance: Adherence to best practices for data encryption (at rest and in transit), secure credential management, and compliance with applicable IT security and government data protection guidelines.
- Scalability & Performance: Ability to design scalable architecture capable of handling concurrent users, high query volumes, and future expansion without performance degradation.
- Logging, Monitoring & Audit Trails: Provision for comprehensive logging of chatbot interactions, system activities, and data access to support monitoring, troubleshooting, and audit requirements.

- **Accuracy & Validation Mechanisms:** Implementation of validation layers to ensure responses are sourced only from authorized and updated datasets, minimizing the risk of inaccurate or outdated information.
- **Maintainability & Upgradability:** System architecture should support easy updates to data sources, workflows, and AI models with minimal downtime.
- **Deployment & Support:** Experience in deployment, documentation, training of K-RERA officials, and post-deployment technical support and maintenance.

4. Objectives and Benefits

- **Data Consolidation:** Seamless aggregation of data from multiple sources, including Microsoft SQL databases, MySQL website databases, and Google Sheets, into a unified interface, enabling real-time access to information.
- **Real-Time Decision Support:** Consolidated and up-to-date data availability will support informed and timely decision-making by K-RERA officials, reducing dependency on manual data compilation.
- **Operational Efficiency:** Significant reduction in manual workload by automating responses to routine queries, thereby accelerating project registration processes and grievance redressal.
- **Improved Accuracy and Consistency:** Elimination of discrepancies arising from multiple data sources by ensuring uniform, validated, and authoritative responses across public and internal channels.
- **Enhanced Transparency:** Improved public trust through real-time access to accurate regulatory information, registration status, and procedural guidance.
- **Scalability and Adaptability:** The system can scale to accommodate future data sources, additional workflows, and evolving regulatory requirements without major architectural changes.

5. The EOI process

Various Government Departments approach Kerala Start-up Mission for the development of mobile and web applications. These requests are met through a facilitation devised by KSUM. Kerala Start-up Mission facilitates the entire process by helping departments to finalise technical specifications, circulating the same among start-ups, conducting an initial technical assessment, and shortlisting for the committee to take the final decision.

The following are the steps involved:

- Call for Expression of Interest among start-ups incubated/registered with KSUM
- Submission of EOI (in the link provided by KSUM)
- KSUM to organize interaction with the Department for clarifying doubts and queries of interested start-ups.
- Technical Proposals are then obtained from start-ups that have submitted their interest.
- Technical proposals are then evaluated.
- Start-ups that qualify the technical evaluation are then asked to submit the financial proposal.
- L1 among the start-ups is identified by the method of Quality and Cost Based Selection (QCBS), wherein 70% marks are given for the technical proposal and 30% for the financial proposal.
- The L1 start-up is then recommended to the Department. Kerala Real Estate Regulatory Authority
- KSUM ensures that the start-up delivers the product to the Department and the Department is satisfied with the work.

- The payment is made directly by the department to the start-up after signing an Agreement.
- The Department is also expected to do the Security auditing of the application developed by the start-up through CERT-K

NOTE: Eligibility for Start-up to participate in the EOI

The start-up has to be registered with Kerala Start-up Mission and Start-up India, and have preferable experience with the Real Estate Vertical.