

GEN AI FOR PLATFORM SUPPORT - INTEGRATED PLATFORM ENVIRONMENT



Pilot-AI
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PROBLEM STATEMENT

Agentic Functionalities: The Integrated Platform Environment (IPE) should provide agentic functionalities for resolving incidents, enabling operators to execute automations and access necessary tools directly from the IPE console.

AI Chatbot: The IPE should feature an AI chatbot that facilitates contextual conversations with a GPT backend regarding current issues.

Context-Aware Data Retrieval: The IPE should offer context-aware data retrieval to extract critical information such as connectivity and dependencies through straightforward queries.

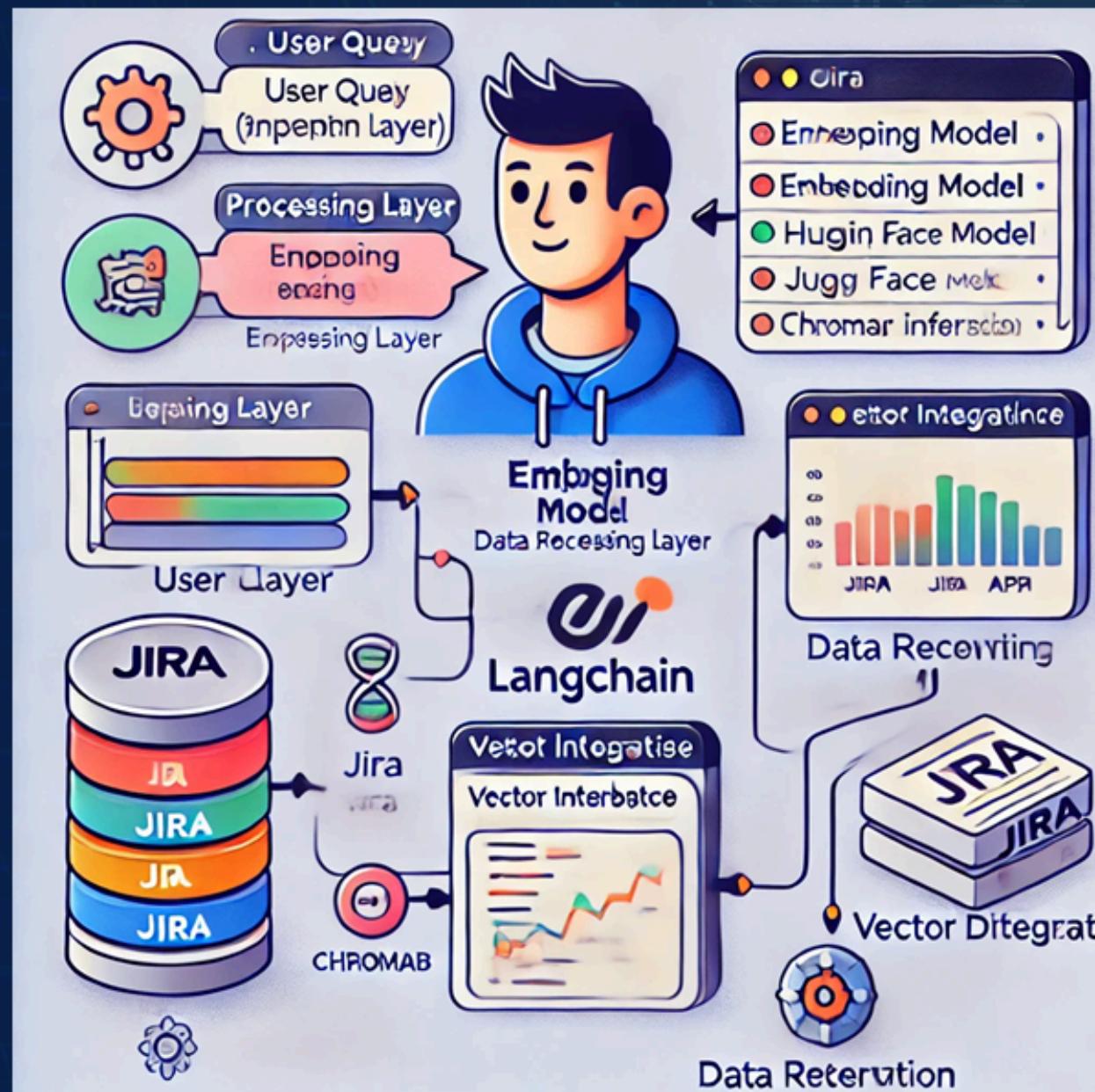
PROPOSED SOLUTION



- Used LLAMAIndexJiraReader to fetch Jira data.
- Converted the data into LangChain document format.
- Indexed the documents using ChromaDB.
- Integrated HuggingFaceEmbeddings for similarity-based retrieval.



SOLUTION ARCHITECTURE



Layered Architecture: Multi-layered system for processing Jira documents. Each layer represents a critical stage in transforming raw data into intelligent, searchable information.

Embedding and Vector Processing: Utilizes advanced embedding models to convert text into vector representations. This transformation enables semantic understanding and sophisticated search capabilities across document collections.

Jira Document Integration: The core of the system revolves around extracting and processing documents from Jira.

Langchain Framework: Powerful, modular solution for intelligent document processing. Langchain provides the underlying framework that enables seamless integration of various AI and machine learning models.

Data Visualization and Retrieval: A comprehensive approach to data retrieval, with visual elements showing how documents are transformed, embedded, and made searchable. The system supports multiple embedding models and provides intuitive interfaces for querying and extracting relevant information.

TECHNOLOGICAL COMPONENTS



Frontend	Streamlit	Responsive and interactive user interface
Backend	ChromaDB	Server-side logic and API handling
AI and Machine Learning	Hugging Face Transformers	NLP tasks and model integrations
Data Processing and Storage	Pandas	Data manipulation
Automation	Ansible	Automation scripts
Error Handling	Sentry	Error tracking
Auditing	ELK Stack	Logging and Auditing
Monitoring	Prometheus	Monitoring and Alerting.

ACCURACY & EFFECTIVENESS



1.

Interpretation of Emails and Documents

2.

Incident Resolution

3.

Health Checks and Monitoring

4.

AI Chatbot Performance

5.

Data Extraction and Integration

6.

Minimization of False Positives/Negatives

7.

Proactive Recommendations

8.

User Feedback and Continuous Improvement

BENEFITS & IMPACT



Impact

- Reduced Time and Effort
- Minimized Context Switching
- Accurate RCA Summarization
- Contextual Insights
- Scalable Solution
- User-Friendly Interface

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THANK YOU!