

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.

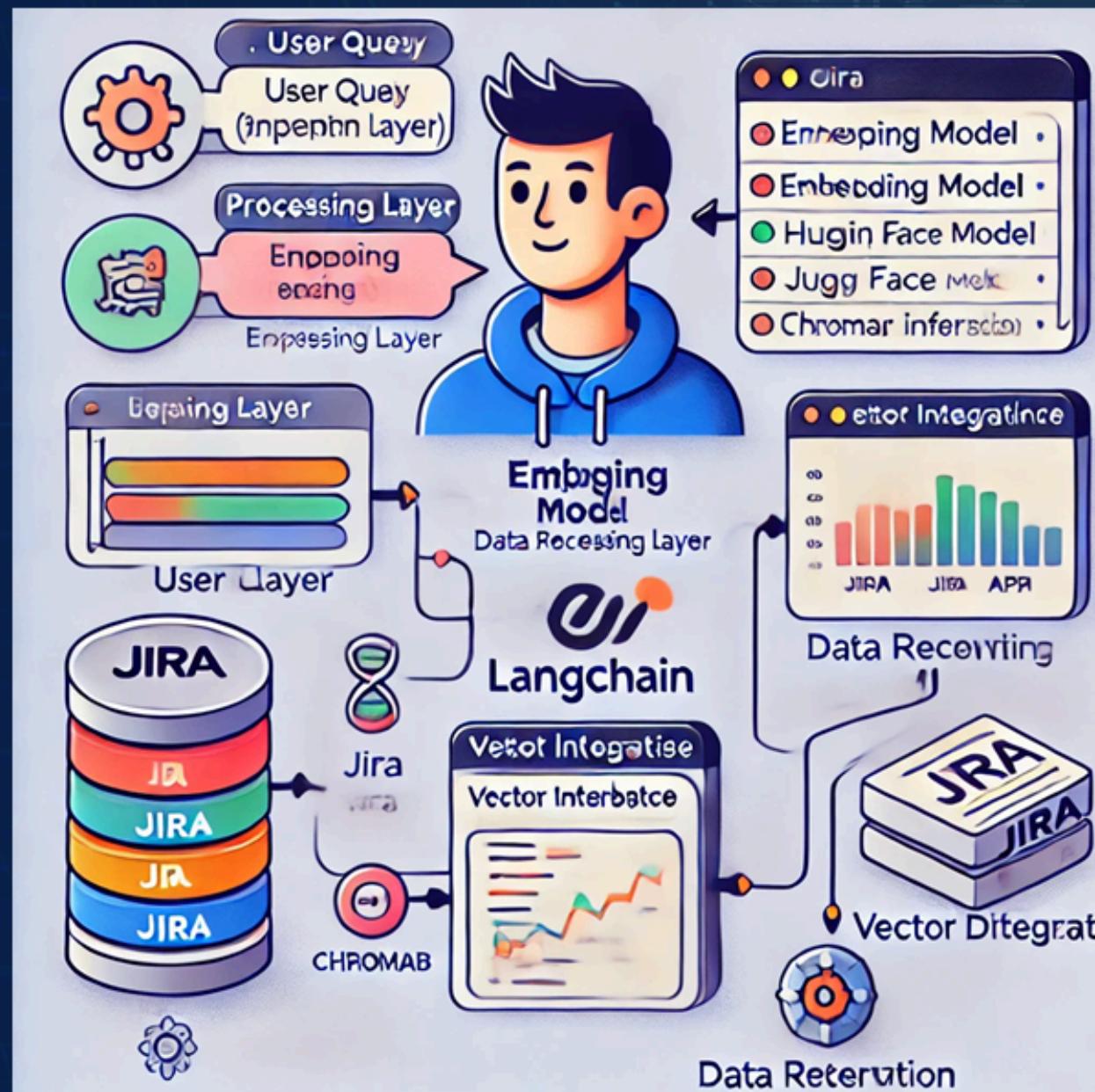
PROPOSED SOLUTION



- 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

Benefits

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RESULTS



Langtrace AI StreamLit Chatbot

Total spans ingested this month
51/5,000
Get more FREE credits for feedback

Metrics Traces Human Evaluations Datasets Prompts Settings

Seeing related spans as separate rows? Learn how to group spans

| Start Time | Status | Session ID | Namespace | User IDs | Prompt IDs | Vendors | Models |
|------------------------|---------|------------|----------------------|----------|------------|---------------------|-------------------------|
| Mar 26, 2025, 16:56:21 | Success | | Chroma.__init__ | | | langchain community | |
| Mar 26, 2025, 16:44:00 | Success | | BaseChatModel.invoke | | | langchain core | models/gemini-2.0-flash |
| Mar 26, 2025, 16:44:00 | Success | | BaseRetriever.invoke | | | langchain core | |
| Mar 26, 2025, 16:43:59 | Success | | Chroma.add_texts | | | langchain community | |

Search Bar: app.langtrace.ai/project/cm8po46ei003fue8mvw5lh1rm/traces

System tray: Search, File, Home, Task View, Start, Edge, Google Chrome, Taskbar icons, ENG IN, 03:25, 19-03-2025

Langtrace AI StreamLit Chatbot

Trace Details

Attributes

Events

problem in detail.)
Details about the company Atlassian (the makers of Jira)?
***Something else entirely?**

The more information you give me, the better I can assist you.
type: ai
content: database issue from jira
type: human
content: Answer the question only from the below context. If u cant answer from context, Just say i dont know Question : database issue from jira Context : complete implementation1
h2. Summary
This incident is related to a database issue.
h2. Context
N/A
h2. Acceptance criteria
N/A
h2. Other information
N/A
type: system

Search Bar: app.langtrace.ai/project/cm8po46ei003fue8mvw5lh1rm/traces

System tray: Search, File, Home, Task View, Start, Edge, Google Chrome, Taskbar icons, ENG IN, 03:25, 19-03-2025

JIRA connection and Query answered by Chat Bot



THANK YOU!