



peopleTECH

A Quest Global Company

PeopleTech's Generative AI KMS for Industrial Documentation Analysis

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Proposed Solution [POC] Overview

Using Generative AI-Powered Approach can be effectively applied to simplify and enhance the client's document analysis processes, providing value through innovative technology.

Model Training



- The scope involves manual methods to use of the 12 documents and performing preprocessing techniques.
- Then utilize Natural Language Processing (NLP) techniques to train a model on existing documents.
- Incorporate multimodal AI to process text, diagrams, and tables integrated with AWS Sagemaker.

Generative AI



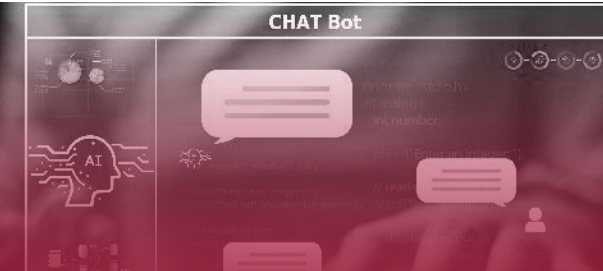
- Use fine-tuned large language model (LLM) to:
 - Generate summaries for technical documents.
 - Create explanations for complex machinery concepts.
- Enable context-aware responses to queries using custom prompts with Amazon Lex.
- Enable users to securely access industrial documentation over a mobile/web application using Amazon Cognito, API gateway, AppSync, Lambda services.

POC UI & Backend Features



Backend – Powered by AWS AI Services

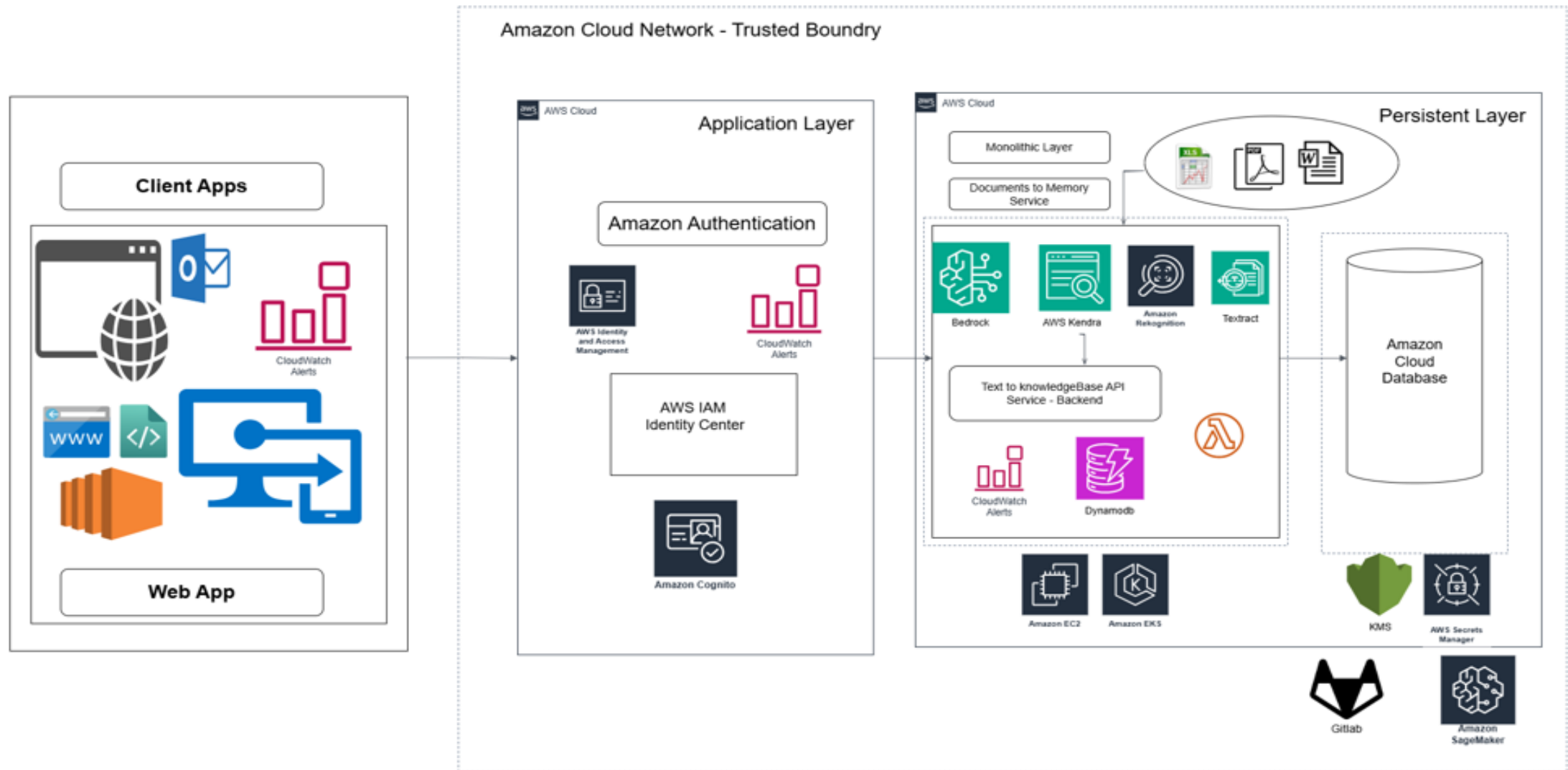
- Pre-stored Training Materials
- Document Upload and Knowledge Base Expansion
- Versatile Content Retrieval
- Intelligent Answer Generation
- Source Referencing for Answers
- Prompt Engineering for Clean, Structured Answers
- Automated Response Cleaning for Improved Readability



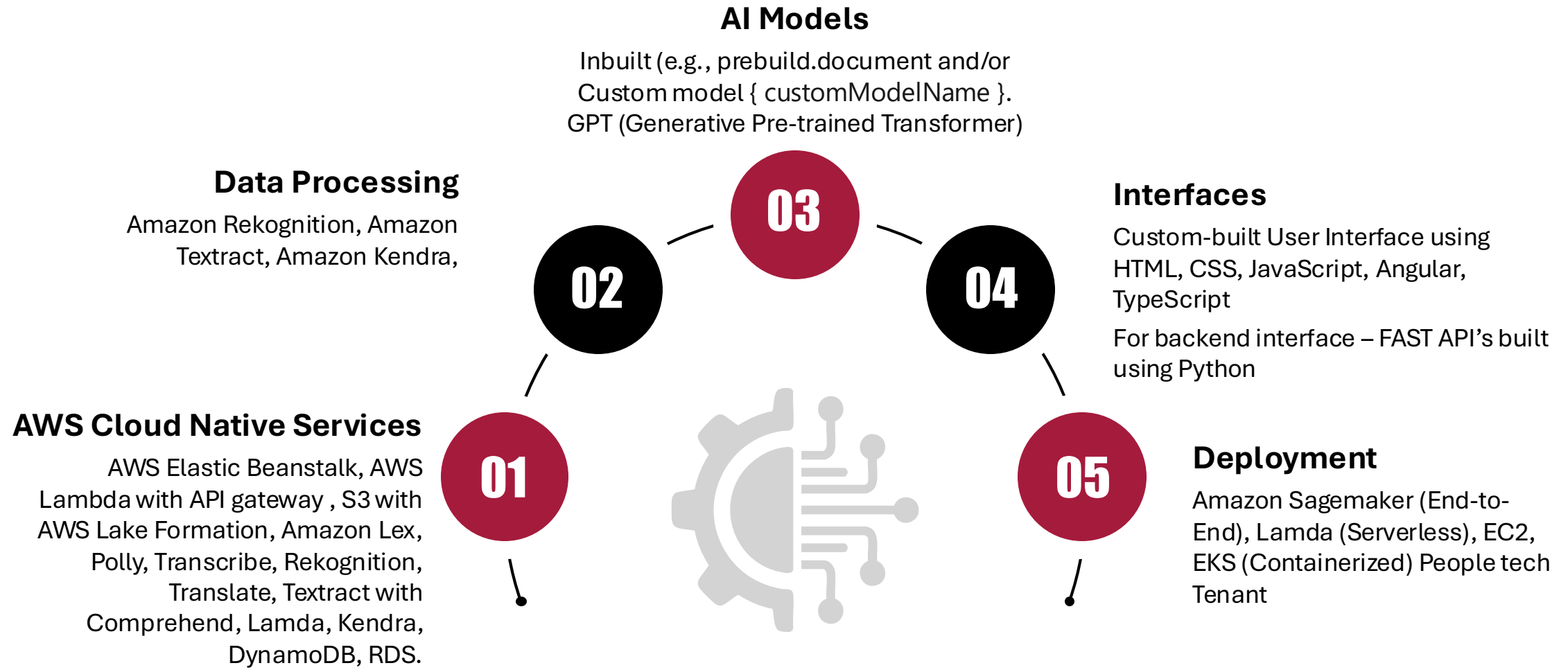
Front End – A web-based UI Chat Module

- Start New Chat
- Auto-Generated Chat Names
- Export Individual Messages
- Export Entire Chats
- Response Rating
- Feedback on Responses
- Response Regeneration
- Chat Invites
- Invite Notifications
- Dark Mode
- Chat Search

Solution Architecture – AWS



Technology Stack for Implementation



Template: High Level Timelines and Deliverables

Discovery & Analysis	Architecture & Design	Execution	Stabilize	UAT/Go-Live	Post Go-Live support
Assessment and Planning <ul style="list-style-type: none"> ➤ Identify stakeholders ➤ Understand current env workloads ➤ Identify document assets ➤ Identify Functional and performance requirements ➤ Prepare and review architecture & design ➤ Develop overall strategy and execution plan ➤ Develop communication plan 	Environment Setup and PoC <ul style="list-style-type: none"> ➤ Identify Ci/Cd guidelines and best practices ➤ Setup AWS AI services environment (Dev) ➤ Configure AI components ➤ Configure security & permissions ➤ Prepare test strategy & Plan ➤ Execute POC & verify poc acceptance criteria 	Docu Search Modernization <ul style="list-style-type: none"> ➤ Phase wise docu analysis kickoff ➤ Execute sprint deliverables & Show tells ➤ Unit testing ➤ Prepare test cases & execution ➤ Component wise testing ➤ Integration testing ➤ Multiple iterations 	Optimization and Testing <ul style="list-style-type: none"> ➤ Optimize components and assets ➤ Security & Governance Validation ➤ Full Load Testing ➤ Cost Optimization ➤ Bug fixing 	Cutover and Go-Live <ul style="list-style-type: none"> ➤ Cutover communication to stakeholders ➤ Cutover component/assets execution to new production environment ➤ Post go-live support 	Post-Migration Review and Optimization <ul style="list-style-type: none"> ➤ Triage bugs; Park enhancements to PBL
Deliverables <ul style="list-style-type: none"> • Asset inventory document • Product backlog • Technical design document • Overall execution plan • Identify team and initiate onboarding 	Deliverables <ul style="list-style-type: none"> • Setup Dev/QA environment • Architecture & design reviews • Backlog with functional & non-functional stories • Demo of agreed upon POC • Initial performance report • Updated technical document & Test Plan 	Deliverables <ul style="list-style-type: none"> • QA and sign-off • Weekly status reports • Daily scrum reports • Sprint wise retro report 	Deliverables <ul style="list-style-type: none"> • Test results pre/post optimization • Cost optimization recommendations • Cutover & rollback plan • Setup UAT environment 	Deliverables <ul style="list-style-type: none"> • Updated project documentation • UAT results 	Deliverables <ul style="list-style-type: none"> • Retro notes; PBL • Project closure report • Handover project documentation • Long term support & maintenance

Thank You !



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