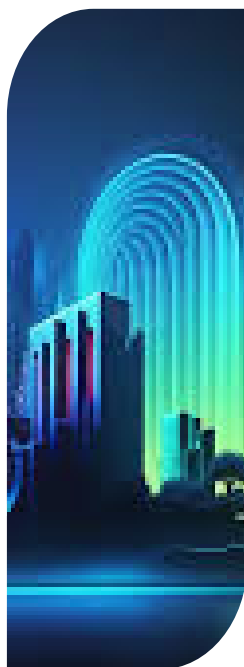The SUDO Series

Generative AI Use Cases

Generative AI Use Cases for Consumer Goods

INNOVATE. OPTIMIZE. LEAD

SUDO

powered by aws

Engineering Design & VA

Key Benefits

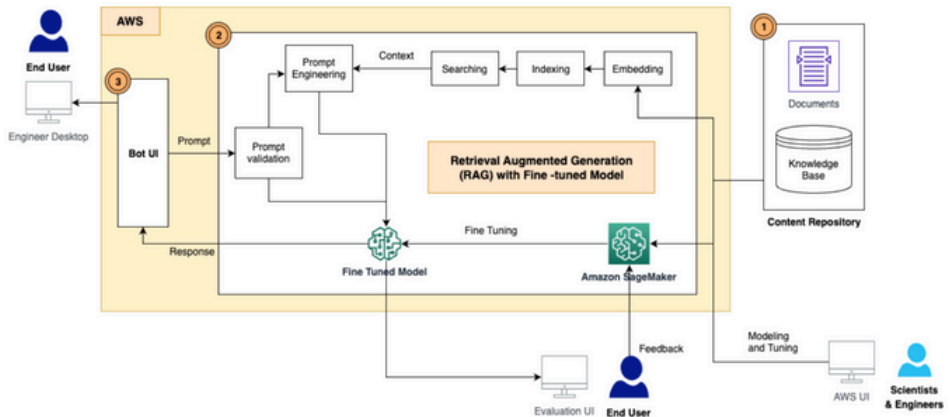Improved Quality

Increased revenue

Engineer Productivity

Summarise Informatio

Solution

A digital assistant for engineers that uses a combination of **Retrieval Augmented Generation (RAG)** with a Fine-tuned Model. The core service used for model tuning and hosting is Amazon SageMaker.

How It Works

An engineer sends a prompt through a Bot UI. The system uses RAG to search a content repository (documents, knowledge base) for relevant context. This context is combined with the original prompt and sent to a fine-tuned model to generate a precise response. Scientists and engineers can provide feedback to continuously improve the model via further fine-tuning in Amazon SageMaker.

Planogram Management

Key Benefits

Personalised Recommendation

Increased revenue
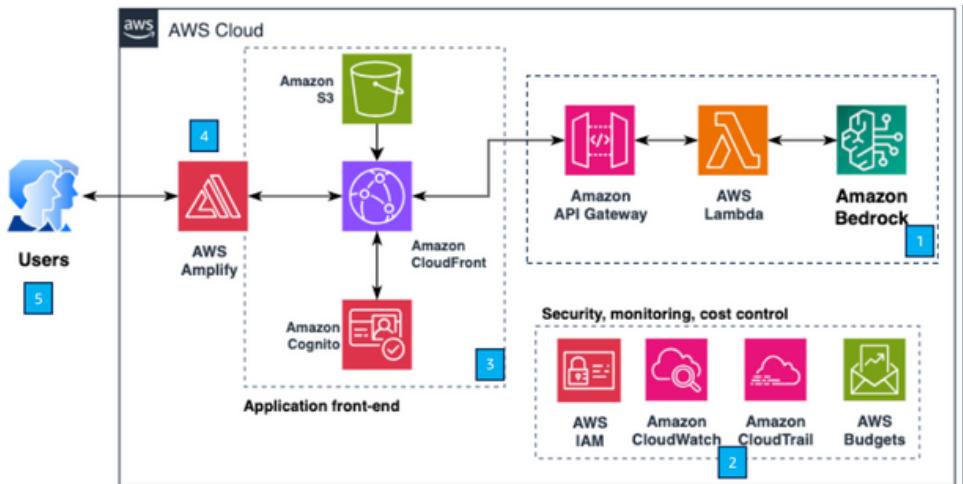
Reduced Human Error

Solution

A generative AI application built on AWS that can both design and validate retail planograms. The reference architecture includes **AWS Amplify** for the front-end, with a back-end powered by **Amazon API Gateway**, **AWS Lambda**, and **Amazon Bedrock** for the AI capabilities.

How It Works

For Design: The system automates planogram design based on specified criteria like store layouts, product assortments, and target demographics. It ingests and analyzes large amounts of sales data and consumer behavior patterns to recommend the most effective product placements.

For Validation: A user can provide an image of an existing planogram and a set of rules (e.g., "no cases larger than a 6-pack on the top shelf"). The foundation model then analyzes the image to check for violations. The model can be further fine-tuned with specific planogram images to improve accuracy.

Revenue Growth Management

Key Benefits

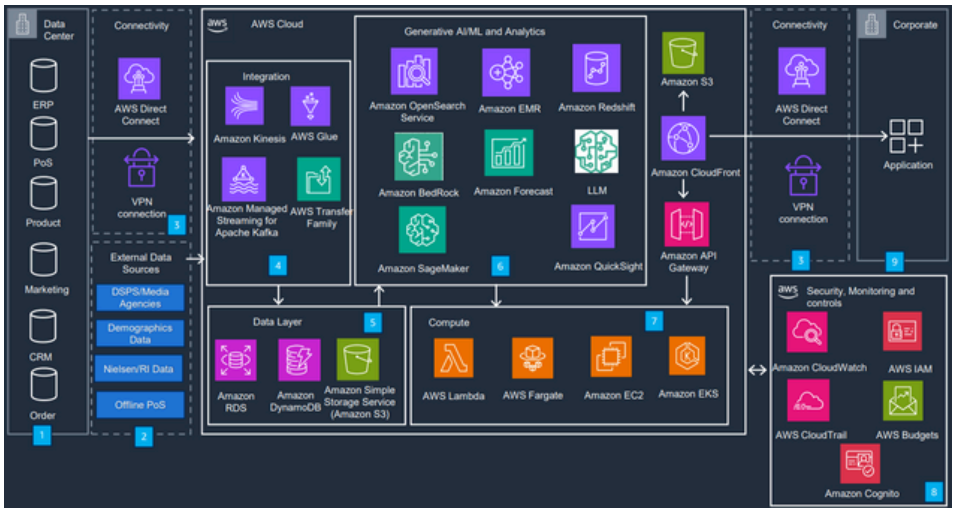Personalised Recommendation

Increased revenue

Reduced Human Error

Solution

A comprehensive data and analytics platform powered by generative AI on AWS. The architecture ingests data from various sources (on-premise ERP, external data) into a data layer on AWS . The core "Generative AI/ML and Analytics" layer uses services like **Amazon Bedrock**, **Amazon SageMaker**, and **Amazon Forecast** to generate insights .

How It Works

The solution analyzes large volumes of data from diverse sources to uncover insights and better respond to consumer demand. It can simulate a high number of promotional scenarios to identify the most impactful ones and allocate resources more efficiently. It also enables dynamic pricing, allowing for real-time price adjustments based on demand, competition, and inventory levels.

Gen AI Use Cases

Proactive Engagement with Hyper Personalization

Key Benefits: This approach transforms marketing by delivering more relevant content to individual users.

Solution: Integrating Generative AI into AWS Communication Developer Services (CDS).

How It Works: AI is used to create scalable, omnichannel marketing campaigns that are hyper-personalized based on user data and engagement history.

Conversational AI

Key Benefits: It is a powerful tool for enhancing customer interaction and satisfaction by understanding context and delivering relevant answers.

Solution: Integrating Gen AI with AWS CDS, for example, to create a two-way SMS chat with a Gen AI chatbot.

How It Works: This enables customers to have intelligent, open-ended dialogues through the same channels used for outbound marketing, with the AI providing personalized responses.

Get answers with a Wickr LLM bot.

Key Benefits: It provides answers from a LLM in a secure, end-to-end encrypted interface. When configured correctly, the bot has no "memory" and does not store questions or answers. It can also be connected to a custom LLM on private hardware for use in environments with intermittent internet

Solution: A Wickr Bot integration.

How It Works: Technical teams can build and deploy a Wickr Bot that brings Gen AI services to edge devices through a simple chatbot interface.

Image Recognition

Key Benefits: Allows users in the field to process photos and videos to receive alerts or metadata.

Solution: A Wickr Bot integrated with Amazon Rekognition.

How It Works: The bot is built to identify objects, scenes, actions, and more from images that are uploaded through the chat interface.

Transcribe speech.

Key Benefits: Allows users to receive text versions of audio messages automatically.

Solution: A Wickr Bot integrated with Amazon Transcribe.

How It Works: The bot automatically transcribes voice messages sent through Wickr and replies with the text.

Translate messages.

Key Benefits: Enables seamless multilingual communication within a secure environment.

Solution: A multilingual Wickr Bot that uses Amazon Translate.

How It Works: The bot translates messages between different languages as they are sent in the chat

⊑SUDO

Helping Organizations Accelerate Digitally

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