DataArt

Case Study

Boosting Airport Customer Engagement: DataArt's Accelerator for Enhanced Productivity

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Challenge

DataArt embarked on a challenge to reinvent the customer engagement system for a busy UK airport. Travelers used the "Contact Us" form on the website to address their queries and issues. These messages were forwarded to the duty managers, who had to manually respond after their shifts. This process was repetitive and time-consuming, adding to their workload and causing delays in responses. The existing system placed extra strain on the duty managers and impacted the efficiency of customer service.

Goal

Classify irrelevant requests and provide accurate answers using frequently asked questions (FAQ) information.

Solution

- Amazon Bedrock models and DataArt's TRAG Accelerator, to develop a solution that auto-responds to most queries and routes others to the appropriate department.

- The solution employed a Retrieval Augmented Generation (RAG) approach to extract and generate replies from the FAQ section, with FAQs stored in a vector database for efficient semantic search using text embeddings.

- AI21 Jurassic LLM that can be accessed via Amazon Bedrock API was employed for request classification.

- Anthropic's Claude was used for response generation.

- A vector database, built using Titan Embeddings, stored all the airport FAQs for efficient information retrieval.

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Outcomes

DataArt successfully delivered significant business benefits for the airport, such as saving time, cutting operational costs, and improving overall productivity and passenger satisfaction:

- Reduced time to handle each request by more than 95%

- Achieved 100% accuracy in generating draft replies for FAQs

- Reduced workload for several full-time employees resulting in an annualized ROI of over 4%

- Enabled the team to focus on more critical tasks

- Improved overall business performance

Accelerated development

Additionally, the production-ready architecture and MVP accuracy in the PoC phase enabled the team to iterate four times faster, allowing them to develop production solutions in just 2-4 weeks.

Tech Stack

- Amazon Bedrock

- DataArt TRAG Accelerator

- AI21 Jurassic

- Anthropic Claude 2
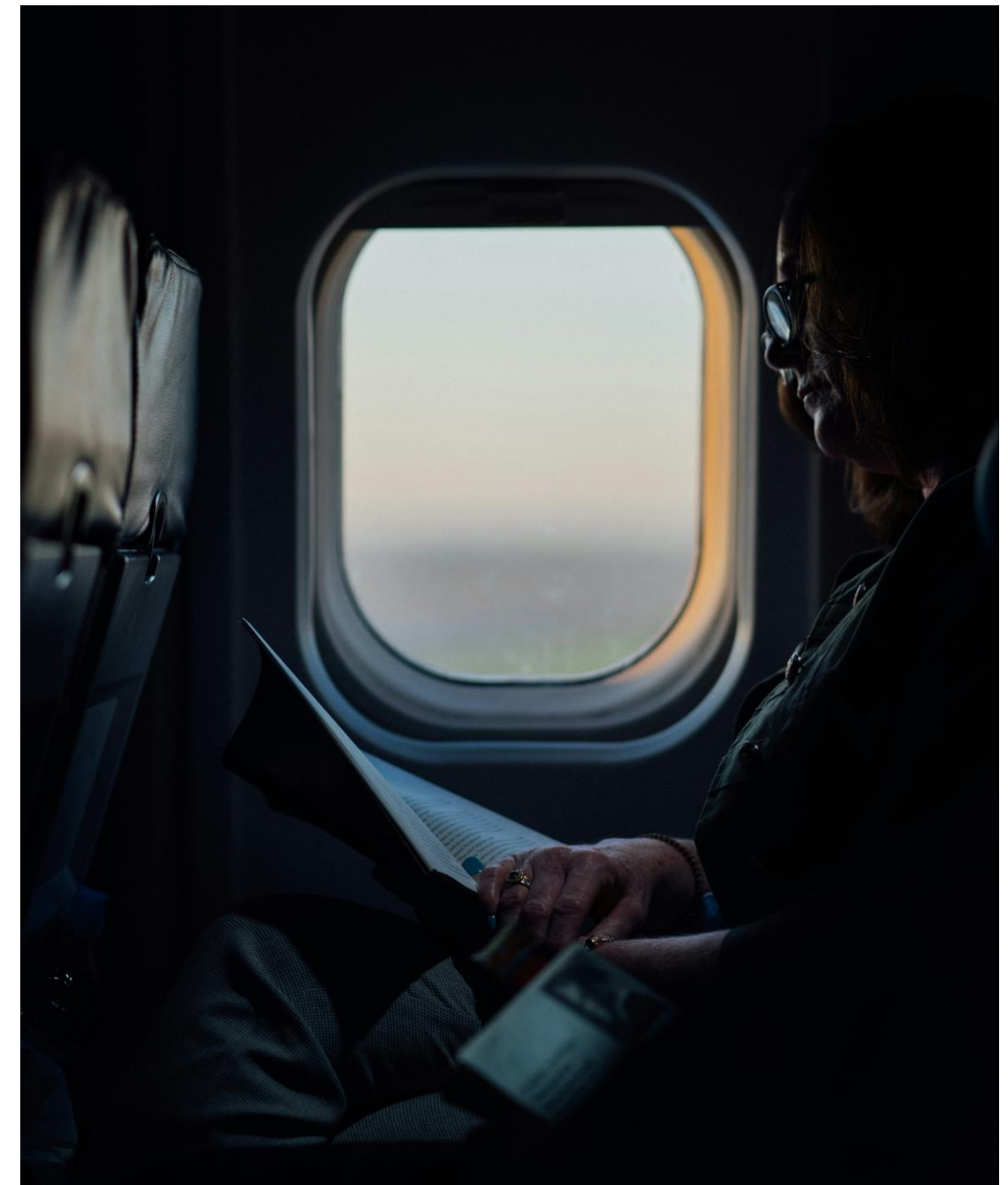
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With over 400 successfully completed projects, DataArt is your trusted technology partner for enhancing business agility and driving cost efficiencies using powerful solutions from Amazon Web Services (AWS).

For the past decade, more than 100 clients from the global travel, transportation, and hospitality industries have chosen DataArt for its exceptional quality, domain expertise, and software engineering skills.

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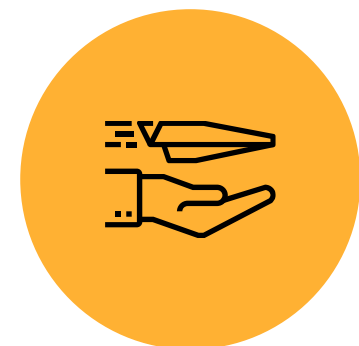
Have questions?

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