Knowledge Base AI Assistant for Major Czech Bank

1,200+ documents
made queryable using natural language

Increase productivity
in back-office support

3,000+ pages
of texts referenced in AI answers

The AI Assistant solution saves employees time by asking the knowledge base corpus in natural language and giving referenced answers in real time.

Raiffeisen Bank

Business needs

The solution needed to meet the following specifications:

› Reduce back-office support time spent on calls and tickets

› Improve employee satisfaction by simplifying access to the knowledge base

› Enable real-time questioning by users in natural language

› Ensure the relevancy of the answers by providing references to the source texts

Project background

A major Czech bank launched an AI initiative to **enhance operational efficiency** within its digital strategy. As a key component, the bank aimed to **streamline employee workflows** by addressing challenges in navigating the intricate bank knowledge base.

Teaming up with Profinit for AI expertise, the bank gained seasoned consultants and deep insights into AI and Machine Learning. The collaboration resulted in the **successful design, implementation, and launch of an AI Assistant MVP**. Over 100 employees are piloting the solution, marking a significant step towards optimising daily operations.

Challenge

The essential component was to comply with **strict banking regulations** and data protection. The challenge was manoeuvring through a labyrinth of **over a thousand interconnected documents**, characterised by **jumbled business terms**, while ensuring a user-friendly environment for employees to leverage the AI assistant effortlessly.

It was necessary to enable **cross-verification of AI responses** with relevant references and document links to secure users' trust. Additionally, crafting an **iterative, testable, and scalable solution** became imperative to accommodate evolving requirements while maintaining operational simplicity and efficiency.

Solution & results

Our project approach centred on **cloud infrastructure**, leveraging MS Azure Services and the **OpenAI API** for GPT pre-trained models. A robust data pipeline facilitated the quick processing of thousands of texts, ensuring **swift user interactions**. The scalable solution is poised for knowledge base expansion and mass user adoption.

The crucial part of the solution is the text pre-processing module, tailored for the GPT model context and **enhanced answer accuracy**. Employing various techniques and an AI validator tool in the background ensures **continuous system improvement** by validating each response for increased accuracy.

Tech stack

MS Azure, Python, OpenAI, GPT

"**In our efforts to enhance operational efficiency, the collaboration with Profinit has helped us tremendously. Profinit's expertise in AI and machine learning, combined with their strategic approach to data processing and security, has not only met but exceeded our expectations.**"

Lukáš Mazánek
Chief Data Officer at Raiffeisenbank CZ

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