

Gen AI Intelligent Search

MS Teams Integrated Chatbot

Client is a North American leader in the building materials industry committed to delivering exceptional products and services to local construction trades.

Impact



Seamless data extraction & summarization of structured data based on user's intent



Improved Information Retrieval & speed to insights



Near real-time responses to business queries

BUSINESS CONTEXT

Brillio enabled client to leverage Generative AI to improve the decision making and information analysis, summarization via providing trends and charts by answering **critical business questions** pertaining to **sales and inventory** data.



OBJECTIVE

Establish a single source of information retrieval & synthetization for Branch Managers & Sales Reps ensure respective role level security is in place and enable end-consumers with near real time insights & information about their respective branch, products, customers sales rep performance

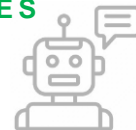


SOLUTION HIGHLIGHTS

Brillio facilitated a comprehensive discovery phase to identify the appropriate use cases, ensuring a thorough understanding of the schema and data mappings. Developed a Microsoft Teams bot utilizing the Azure Bot service to streamline user queries. Also designed and deployed a Natural Language querying tool for an SQL database leveraging Azure OpenAI, employing a text-to-SQL-to-text approach. Through meticulous prompt engineering, optimized the conversion of natural language text to SQL queries and back to natural language responses, significantly improving query accuracy and user experience.



KEY FEATURES



Structured & Enhanced readability of bot response in Natural Language with description table, data csv, summary and graph generation



Chain of thought Prompting to handle complex & multiple intents



Conversation Memory: Identifying user as follow-up and reconstruction of query using memory



CHALLENGES

- ✓ Role level security
- ✓ Multiple intent & ambiguous entities
- ✓ Latent business conditional filters

AI Enabled BI

Client is a global leader in developing of personal-computer software systems and applications

Impact



Real-time Business Insights & Data analysis



Improved productivity & speed to insights



Self-service & enablement for teams across the Org

BUSINESS CONTEXT

Customer wanted to enable Business users with the ability to interact with Power BI reports via Natural language by integrating OpenAI service with Power BI, so business users can directly generate insights via natural language in Power BI



OBJECTIVE

Integration of ChatGPT with Power BI enabling faster querying and information retrieval



SOLUTION HIGHLIGHTS

Brillio helped client in Integration of a PowerApps chatbot into Power BI with ChatGPT language processing capabilities. This Enabled seamless data analysis through natural language-based prompts. The chatbot processes the user's request and retrieves the relevant data from Power BI's semantic model
Also designed and deployed a Natural Language querying tool for Power BI's semantic data leveraging Azure OpenAI, employing a text-to-SQL-to-text approach. Through meticulous prompt engineering, optimized the conversion of natural language text to SQL queries and back to natural language responses, significantly improving query accuracy.



KEY FEATURES



Self-Service capabilities



Improved efficiency



Enhanced access control



CHALLENGES



Lack of accuracy & consistency

Lack of consistency in response of insights generated compared to dashboard KPIs.



Latency to Insights

Limited scalability of the process and latency of insights based on data volume