



Case Study: Increasing SQL Development Productivity with Generative AI in the Telecommunications Industry

Company Background

Coginiti works with a leading communications company which provides Internet, TV, mobile, and voice services to millions of households and businesses. With such a large customer base, effective business intelligence and data analysis is critical for making informed decisions.

Challenge

A department of 50 business intelligence developers is responsible for writing complex SQL queries to transform data from the company's massive data platforms for reporting and analysis purposes. Writing these SQL queries can be tedious and time-consuming, especially for more complicated queries involving multiple joins, subqueries, and analytical functions.

Solution

To increase developer productivity and streamline the SQL development process, the company implemented Coginiti Team to use its built-in generative AI capabilities specifically tailored to help data professionals.

How it Works

Coginiti's AI assistant is seamlessly built into Coginiti Team, the developers' collaborative data operations platform. The company can choose its preferred large language model for its developers. As of now, the company has tested several large language models including Chat GPT, Anthropic Claude, and other models, using Amazon Bedrock.

At any time, developers can ask the AI assistant for help. Let's look at a couple of examples of how the developers can use Coginiti's AI assistant:

1. Turn plain English into computer code

The generative AI system allows developers to describe the data they need to extract in plain English, along with any filtering, grouping, or analytical requirements. A developer might ask the AI assistant to:

"Get the total revenue and average monthly payment for each customer type and state, ordered by total revenue descending, for the last 12 months where the customer has been active for at least 6 months."

The AI system analyzes this request and generates the full SQL query, considering the relevant data platform table structures and optimizing the query for efficient execution. Throughout the coding process, developers can accept or reject the AI's suggestions, keeping full control over the final SQL query.



2. Faster Error Identification and Resolution

Developers use the AI to analyze their SQL code and pinpoint errors, inefficiencies, or potential issues that may be difficult for humans to identify. For example, when developers do not understand the errors in their code, they use the assistant and ask for an explanation. This accelerates the error identification and resolution process, saving developers valuable time and effort.

3. Faster Error Identification and Resolution

By using AI's ability to understand best practices, coding standards, and database schema intricacies, developers receive suggestions and recommendations to write more optimized, efficient, and maintainable SQL code. This leads to higher overall code quality and better performance.

Results and Benefits

After deploying Coginiti Team's AI assistant, the company's business intelligence team experienced significant productivity gains:

1. **Time Savings:** On average, each developer saved approximately one hour per day in SQL query development time, thanks to the AI assistant.
2. **Faster Insights:** With quicker SQL development turnaround times, the team can provide data insights and reports to stakeholders more rapidly.
3. **Optimized Performance:** Using AI developers are now optimizing their queries and following best practices which improves data platform performance and reduces compute costs.
4. **Enhanced Collaboration:** By using the AI assistant and Coginiti Team's collaborative capabilities, junior developers quickly learn and adopt best practices, facilitating knowledge sharing across the team.

Conclusion

By integrating Coginiti's generative AI assistant into their SQL development workflow, the company's business intelligence team was able to significantly boost productivity, reduce development time, and deliver higher-quality data insights faster.

Connect with Coginiti's team of experts to learn how your team can use AI to empower your team to work more efficiently. Email us: info@coginiti.co