

# Customer Data NL2SQL Agent: Empowering Business with AI-Driven Data Access

### The Data Accessibility Bottleneck

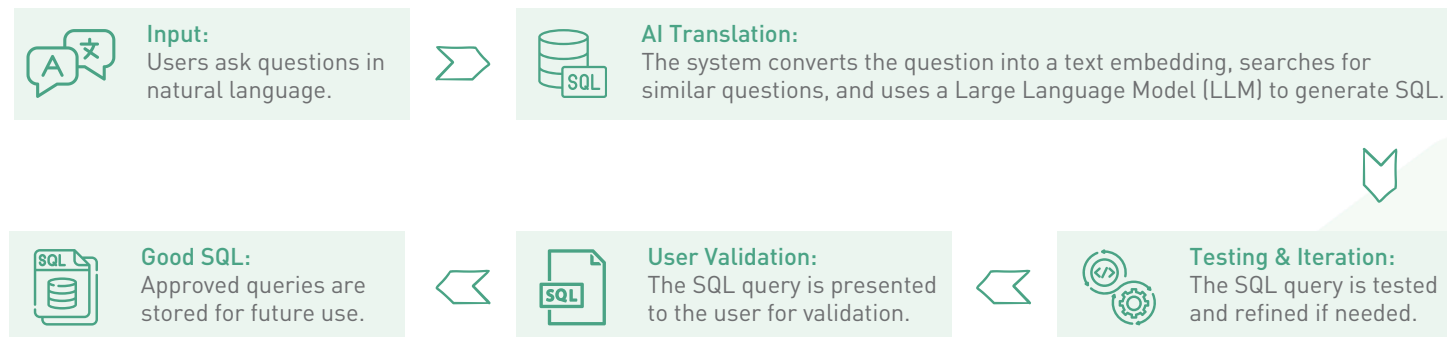
Business teams require complex customer insights to make informed decisions, but they often lack the necessary SQL expertise to access this data directly. Customer data is often highly intricate and difficult to manage, involving numerous touchpoints and interactions across different systems. This creates a bottleneck, as data teams are overloaded with report requests and spend a lot of time on manual SQL query writing. This process can take anywhere from 2 to 20 hours, slowing down the process of getting insights. The lack of direct access to data leads to missed opportunities and delays in decision-making. Many questions revolve around identifying specific groups of customers and analyzing their interactions and journeys over a wider lifecycle phase or phases, which further complicates the data analysis process.



### The Solution:

Our Customer Data NL2SQL agent is designed to bridge the gap between business questions and data insights. It empowers business users with a conversational approach to data analysis, using AI to translate natural language questions into SQL queries. It is designed to be fully transparent by allowing SQL analysts to review and approve queries.

### How It Works:



# /// Solution Overview

The system's key components include a vector database that stores table schemas and validated SQL queries, an LLM that generates the SQL, and a feedback loop that enables continuous improvement.

## Key Benefits:



### Increased Accessibility:

Non-technical users can directly access data, eliminating the need to learn SQL.



### Improved Efficiency:

Reduces the time needed to generate SQL queries, making the process much faster.



### Faster Insights:

Business teams get answers to their questions in minutes, not hours or days, speeding up decision making.



### Enhanced Productivity:

Allows technical staff to focus on more complex tasks, and non-technical staff to engage directly with databases.



### Reduced Bottlenecks:

Data teams can focus on strategic projects rather than spending time on routine report requests.



### Cost Reduction:

Significantly reduces the time and resources spent on manual SQL query writing, saving on labor costs.



### Transparency:

SQL analysts maintain control and can review and approve all queries, ensuring accuracy and data governance.

## The Transformation

By using our NL2SQL agent, organizations can transform their approach to data access and analysis. This leads to:

### Empowered Business Users:

Business teams gain self-service analytics capabilities, allowing them to explore data and derive insights independently. They can easily analyze customer interactions over their lifecycle and understand the journey and outcomes of specific groups of customers.

### Strategic Focus for Data Teams:

Data teams can shift their focus from generating reports to complex, strategic tasks.

### Optimized Resource Allocation:

Reduces the time spent on manual SQL query writing, improving resource allocation.

### Data-Driven Decision Making:

Organizations can make faster, more informed decisions, driving better business outcomes.

### Improved Collaboration:

The transparent process allows technical and non-technical teams to collaborate more effectively on data analysis and insights.

### Conclusion

Our Customer Data NL2SQL Agent is a powerful tool that transforms how organizations interact with their data. It empowers business teams with direct access to data, and frees up data teams to focus on more strategic projects. The process is designed to be accurate, iterative, and user-friendly. With our NL2SQL agent, your organization can unlock the power of its data and gain a competitive advantage.

