

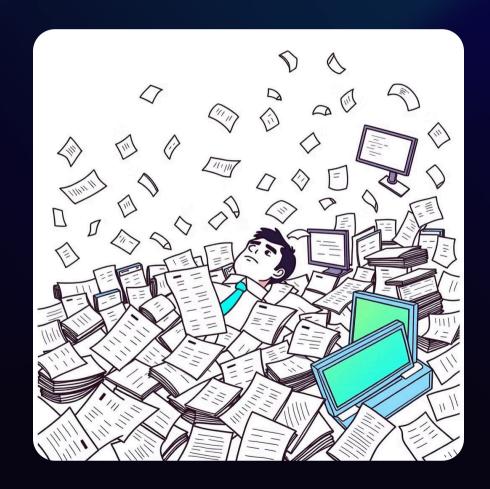
Natural Language to SQL Agent Chatflow

Team Auyrmaidy Zhurek

The Problem: Data Access Bottlenecks

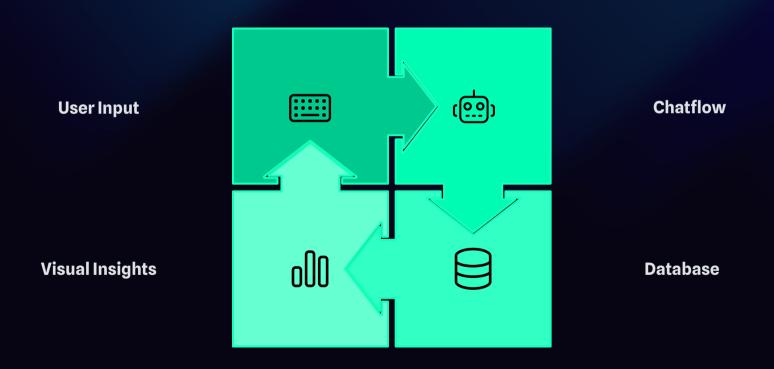
In today's fast-paced business environment, timely access to data is critical. However, many organizations face significant hurdles:

- Long queues for Business Intelligence (BI) teams: Requests pile up, creating backlogs and frustrating stakeholders.
- Non-technical staff can't query databases directly: A major barrier to self-service analytics and broader data democratization.
- **Delays lead to slower, less informed decisions:** Missed opportunities and reduced agility.



Our Solution: NL-SQL-Chatflow

Chatflow agent is designed to empower all users, regardless of technical expertise, to interact with their databases using natural language. It seamlessly translates your questions into actionable SQL queries and presents the results in clear human readable text, visual formats.



Ask any question, get insights instantly.

Robust Technical Architecture

Our solution is built on a modern, flexible architecture designed for scalability and performance, leveraging cutting-edge AI and cloud technologies.

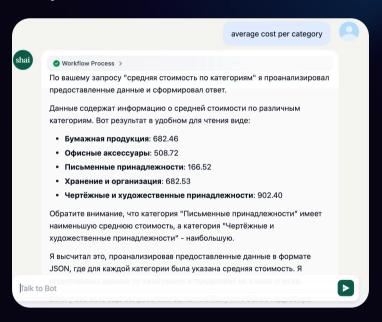


This modular design ensures efficiency and allows for future enhancements.

Live Demo: Natural Language to Insight

Watch BI-GPT in action as it processes natural language queries, generates SQL, and delivers interactive visualizations.

Query & SQL



Visualization



Clarity and speed at your fingertips.

Key Differentiators & Unique Features

There are several components that provide superior performance and user experience.



Custom RAG Model



Business Glossary



Interactive Visuals

Leveraging a self-made Hugging Face RAG model for contextual accuracy. Enhanced understanding via TXT files for domain-specific terminology.

Dynamic Charts.js
visualizations embedded
directly into the interface.



Clean Web Interface



Lightweight Infrastructure

Wrapped into an intuitive and user-friendly web application.

Cost-effective and agile with Cloudflare & Ngrok.

Scaling and Evolution

Our vision for it extends beyond the hackathon, with clear phases for growth and integration.

Near Term (Next 3-6 Months)

- Role-based Access Control: Ensure data security and compliance with PII.
- Multi-language Support: Expand accessibility to global teams.
- Agent: Use "Agent" components in SHAI.PRO platform.
- Multiple: Add support for multiple queries.

Medium Term (6-12 Months)

- Integration with BI Tools: Connect with Power BI,
 Tableau for advanced dashboards.
- Model Fine-tuning: Adapt LLM on company-specific data for even greater accuracy.

We are committed to continuous development to meet evolving user needs.

Meet the Team

Our diverse team brings a blend of expertise in AI, software engineering, and data analytics, united by a passion for innovation.



Software Engineer

Bakhtiyar



Data Engineer

Miras

working @ForteBank



Al Engineer

Arlan



Al Engineer

Bekzat