InsightsPro: Success Stories

1. Gen AI Platform using Insights Pro for a Leading Pharmaceutical firm

The client is a leading healthcare company which is known for manufacturing various medical products, including pharmaceuticals, nutraceuticals, and consumer products.
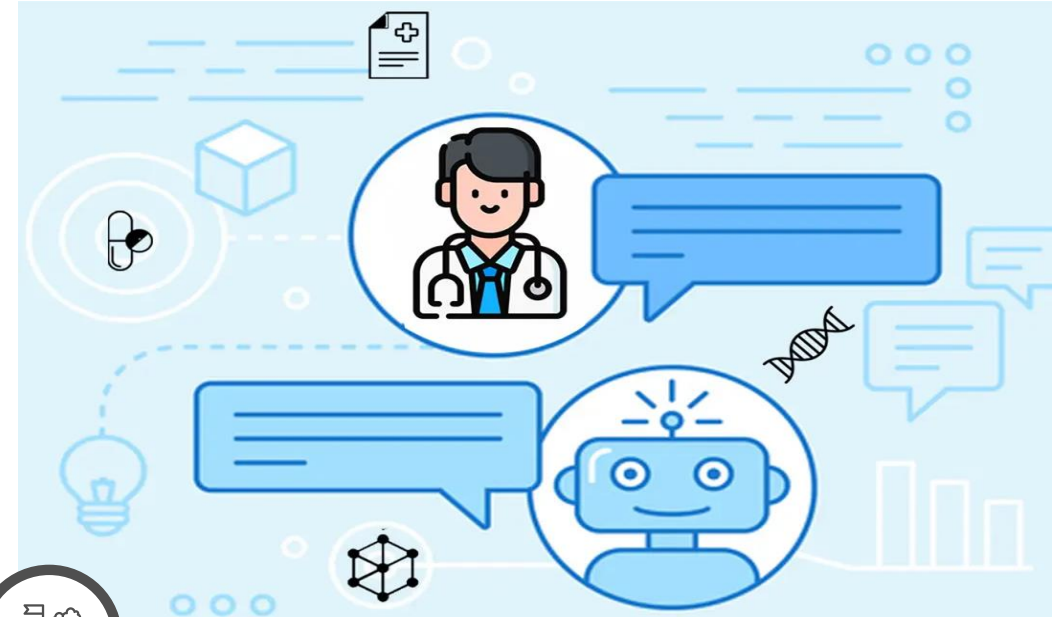
Current Scenario

- The client has developed 2 medications namely, M1 and M2 for treating certain kidney conditions and various mental health conditions respectively

- M1 has a potential risk of causing liver problems and therefore, is available only through a limited distribution program. To better monitor these patients, the client wants to track the patient journey for this drug

- M2 is used to treat various mental health conditions and the client wants to understand the revenue growth, market share etc. of the drug based on prescription details

Problem Statement

Client engaged TA to build a gen AI platform using Insights Pro to:

- UC1: Understand the patient journey for drug M1, to understand which patients have continued or discontinued the medication and analyze this information by age groups, dosage, etc.

- UC2: Understand the market performance of drug M2, to gauge the market share, growth, etc. at different time periods

Challenges

- Training Gen AI to be aware of complex business context and table structures through prompt engineering

- User questions are complex requiring multiple pass throughs, like finding out difference between shipment dates across patients

- Database was structured as an OLTP database, meaning multiple tables had to be queried to answer questions

Business Outcome

- Built a platform which can automatically analyze large volumes of structured data and generate actionable insights without the need for manual intervention, saving time and resources

- User persona-based ad-hoc insights generation by asking queries in natural language leading to reduced dependence on technical teams and specialists

- Reduced the manual effort required by the business teams to analyze the data and generate the relevant insights

- Enabled the client to drill down and generate deeper insights from the underlying data by continuous interactive prompting
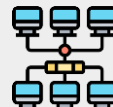
Key Features of Insights Pro

Speed and Efficiency: Enabling faster decision making by quickly and efficiently processing data & generating insights

24x7 Availability: Ensuring 24x7 access to the platform for uninterrupted insights delivery

Real Time Decisions: Leveraging live data streams to support real-time decision making

Versatility: The platform is data and domain agnostic, thereby ensuring flexibility/ease of use across the entire organization

Contextuality: Understands the column definition and context based on the conversation in the user-session

Scalability: The platform can be scaled across different verticals & user-personas while ensuring reliable performance

2. Query to Insights Solution for a leading Home Appliances Brand leveraging GenAI

Client is an American multinational heating, ventilation, air conditioning, refrigeration, and fire and security equipment corporation

Current Scenario

- Client's Finance Department and Executive Leadership accesses insights on their Accounts Receivables using traditional dashboards

- However, they require multiple dashboards according to user personas making it a complex landscape

- Users also need to have technical know how to navigate and get to the data / insights they need from the dashboard

Problem Statement

Client engaged Tiger Analytics to create a solution that could:

- Meet specific needs and preferences of business users to offer a more **intuitive** and **user-friendly interface** compared to a generic dashboard

- Summarize insights for easy consumption of Executive

Future Requirement

- Derive cognitive insights from Account Receivables data, addressing business inquiries

- Leverage the power of LLMs to give the users ability to **converse in natural language** with the data

- **On-the-go charts** rather than fixed dashboards

- **Summarization** ability to provide actionable insights

Key Challenges

- Inconsistency in responses to complex questions

- Silent hallucinations of LLM providing incorrect results without proper model tuning

- High latency of responses

- Implementation challenges in client environment because of VPN requirements

Business Outcomes

Sample Output *(Illustrative)*
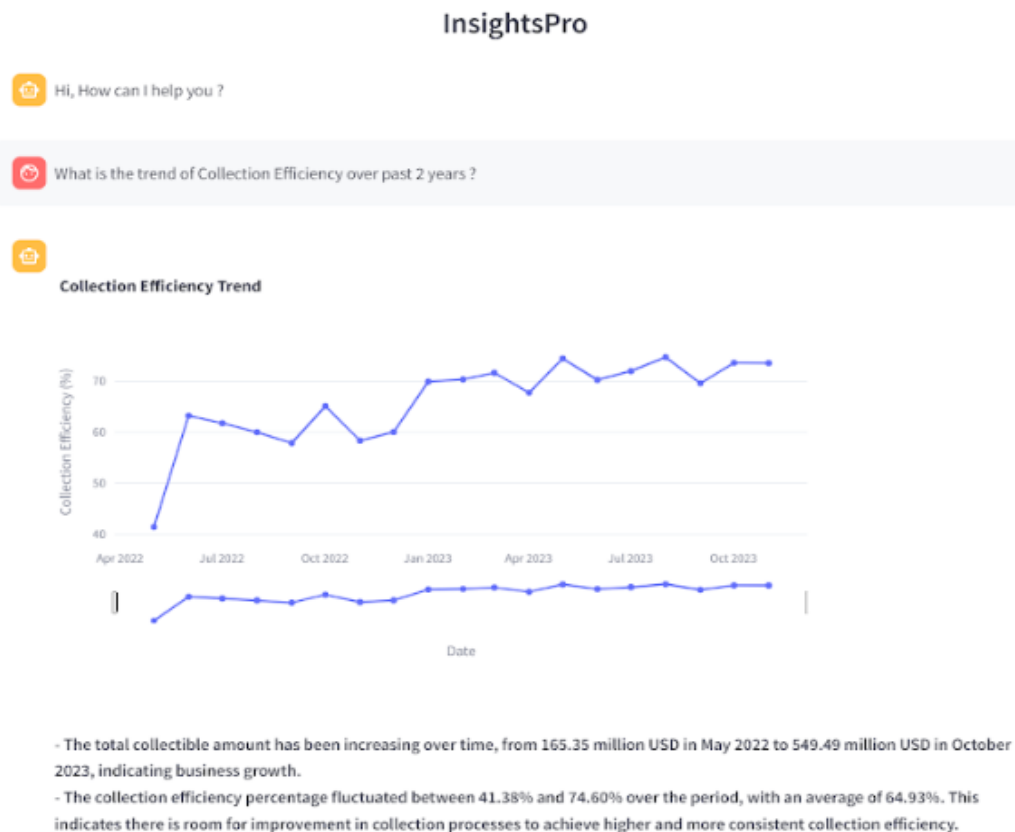
Solution Benefits and Performance

- The solution enables users to access vital information swiftly and efficiently with insights generated instantly, allowing users to grasp key insights immediately

- Consistency and Accuracy – With an accuracy of 79%, the solution ensures that responses are consistently coherent and contextually relevant, thereby delivering actionable insights that drive informed decision-making

- Fast Execution – Low average latency at ~25 seconds

3. Query to Insights Solution for a Large Luxury Apparel & Accessories Retailer

Client is a fortune 500 specialty retailer of modern, fashion-inspired collections of intimate apparel and beauty products with 1,300+ retail stores across 70 countries

Current Scenario	Expected Solution

Current Scenario

Client has access to **traditional dashboards** where users can access information as per their personas

Multiple dashboards need to be built according to user personas adding to further complexities

To make business decisions, leadership must wait for a few business days for the analysts to come back with insights

Expected Solution

Client sought a solution that enables:

- Access to necessary information **without** the need for building **numerous dashboards** or relying on analysts to provide insights

- Leverage the power of LLMs to give the users ability to query for insights through **natural language** in **Voice / Text mode**

- **On-the-go charts** rather than fixed dashboards

- **Summarization** ability to provide actionable insights

⚠ Problem Statement

Client engaged Tiger Analytics to create a solution that could:

- Craft **human-like, easily understandable** responses that offer actionable insights **swiftly** on store sales and traffic

- Summarize insights for easy consumption of executives and key business stakeholders

- Enable **Speech and Text based interaction** for user querying

Key Challenges

- Difficulty in transforming data tables into actionable recommendations due to hallucinations generated by the LLM

- Inconsistent chart output and difficulty in visualizing two or more metrics in a single graph

- Challenge with date columns due to the unique definitions of date ranges such as week-to-date, previous week, YTD etc.

Business Outcomes

Solution Performance and Value Delivered

- Solution enables users to access vital information in audio and text format, swiftly and efficiently with insights generated instantly, allowing users to grasp key insights immediately

- Consistency & Accuracy – With an accuracy of 92.5% in SQL generation, 86.5% in chart generation and 83.8% in insights generation, the solution ensures that responses are consistently coherent and contextually relevant, thereby delivering actionable insights that drive informed decision-making

- Evaluation was performed across various business metrics that include Sales to plan, ADS, AUR, ATC, Total Footfall, Conversion % etc. covering different timeframes Yesterday, Last week, WTD, MTD, Last month, QTD, YTD etc.

- Fast Execution – Average latency of 18.81 seconds

Sample Output *(Illustrative)*

4. Gen AI based Query to Insights Conversational Agent for a Large Health Insurance Company

Client is a not-for-profit health service corporation based in the US, offering affordable healthcare and health insurance coverage to over 3.2 million individuals, families and employers

Existing Setup

- Client developed a VBA dashboard to generate reports each month on the aggregated data.
- This interface has limited scalability, complex and time-consuming insights delivery process, with manual report generation by analysts

Business Need

A natural language conversational agent that can instantly respond to the questions from the business users and generate summarized responses based on the information available from the structured data (healthcare and health insurance).

Problem Statement

Client engaged Tiger Analytics to build a Gen AI platform :

- Query to Insights: Conversational agent that can instantly answer the questions asked by the business users anytime, anywhere providing key insights through summarized responses, charts and graphs based on structured healthcare and insurance data

Challenges

- Data security concerns (Data exposure to Enterprise LLMs) - Addressed by not showing data to the GPT models and instead only sending in the prompt and data dictionary
- Identification of the right chart types for the data and handling accuracy issues in conversational threads - Addressed by prompt engineering

Value Delivered & Next Steps

Value Delivered

- *Experience the practical feasibility of a Gen AI solution that operates with limited resources, ensuring effective real-world applications*

- *An inaugural solution that navigates through complex healthcare insurance calculations*

- *Executives gain on-demand access to information & insights in the preferred format, to make informed decisions with greater agility.*

Next Steps & Future Enhancements

Improve quality of outputs
- *Generate better quality of outputs through business context specific prompt fine-tuning of LLMs*
- *Bring more deep dive insights on data, develop chain of thought to arrive at an analysis type of output*

Scalability
- *Assess methods to scale the setup to large data sources and calculations of complex business metrics*
- *Setup user persona-based learning to provide more contextual outputs*