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Insight AI - BI & Market Analysis Platform

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ABSTRACT

InsightAI is an AI-powered Business Intelligence Platform that analyzes companies and generates useful business insights. It uses React, Node.js, Express.js, MongoDB, and the Gemini API. The system provides company details, SWOT analysis, revenue information, and competitor insights. It also offers Google Jobs and LinkedIn Jobs search links for job opportunities. Users can save reports, view analysis history, and download reports as PDF files.

Keywords: InsightAI, Business Intelligence, Artificial Intelligence, Gemini API, SWOT Analysis, Company Analysis, Revenue Analysis, Competitor Analysis, Job Vacancies, React.js, Node.js, Express.js, MongoDB, PDF Report Generation.

INTRODUCTION

InsightAI is an AI-powered Business Intelligence Platform designed to analyze companies and provide valuable business insights. It uses the Gemini API to generate company analysis reports, including company details, SWOT analysis, revenue information, and competitor insights.

The system is developed using React.js, Node.js, Express.js, and MongoDB. It also provides Google Jobs and LinkedIn Jobs search links to help users explore job opportunities. Users can save reports, view previous analyses, and download reports in PDF format.

The main objective of InsightAI is to simplify business research, save time, and support better decision-making through AI-powered analysis.

In today's digital world, businesses need accurate information and proper analysis to understand their performance, identify opportunities, and make effective decisions. Business Intelligence (BI) helps organizations collect, analyze, and interpret business-related information. However, manually gathering company information, analyzing competitors, and preparing reports can be time-consuming. To address these challenges, **InsightAI – Autonomous Business Intelligence Platform** is developed as an AI-powered solution for company analysis and business research.

InsightAI uses Artificial Intelligence to analyze company information and generate structured business reports. The platform integrates the Gemini API to provide insights about company profiles, industries, CEOs, products and services, strengths, weaknesses, opportunities, and threats through SWOT analysis. It also includes annual and monthly revenue information and competitor analysis, where relevant information is available.

The application is developed using **React.js** for the frontend, **Node.js and Express.js** for the backend, and **MongoDB** for storing analysis reports. The system provides a user-friendly interface that allows users to enter company details and view the generated analysis. It also includes Google Jobs and LinkedIn Jobs search links to help users explore employment opportunities related to their interests.

Another important feature of InsightAI is report management. Users can save their analysis reports, access previously generated reports through the history feature, and download reports in PDF format for future reference. These features make business information easier to organize and access.

The main objective of InsightAI is to simplify company research, reduce manual effort, and provide business insights through AI-powered analysis. The platform can be useful for students, researchers, professionals, and business users who need an accessible way to explore company information and support informed decision-making.

LITERATURE SURVEY/REVIEW

Business Intelligence (BI) systems help organizations collect, process, and analyze data to support effective decision-making. Traditional business analysis often requires users to gather information from multiple sources and prepare reports manually. This process can be timeconsuming and may make it difficult to obtain a complete view of a company's performance.

Artificial Intelligence (AI) has introduced new approaches to business analysis by enabling automated information processing and insight generation. AI-powered language models, such as Google's Gemini, can interpret prompts and generate structured responses about companies, industries, products, and market conditions. These capabilities can be used to support business research and report generation

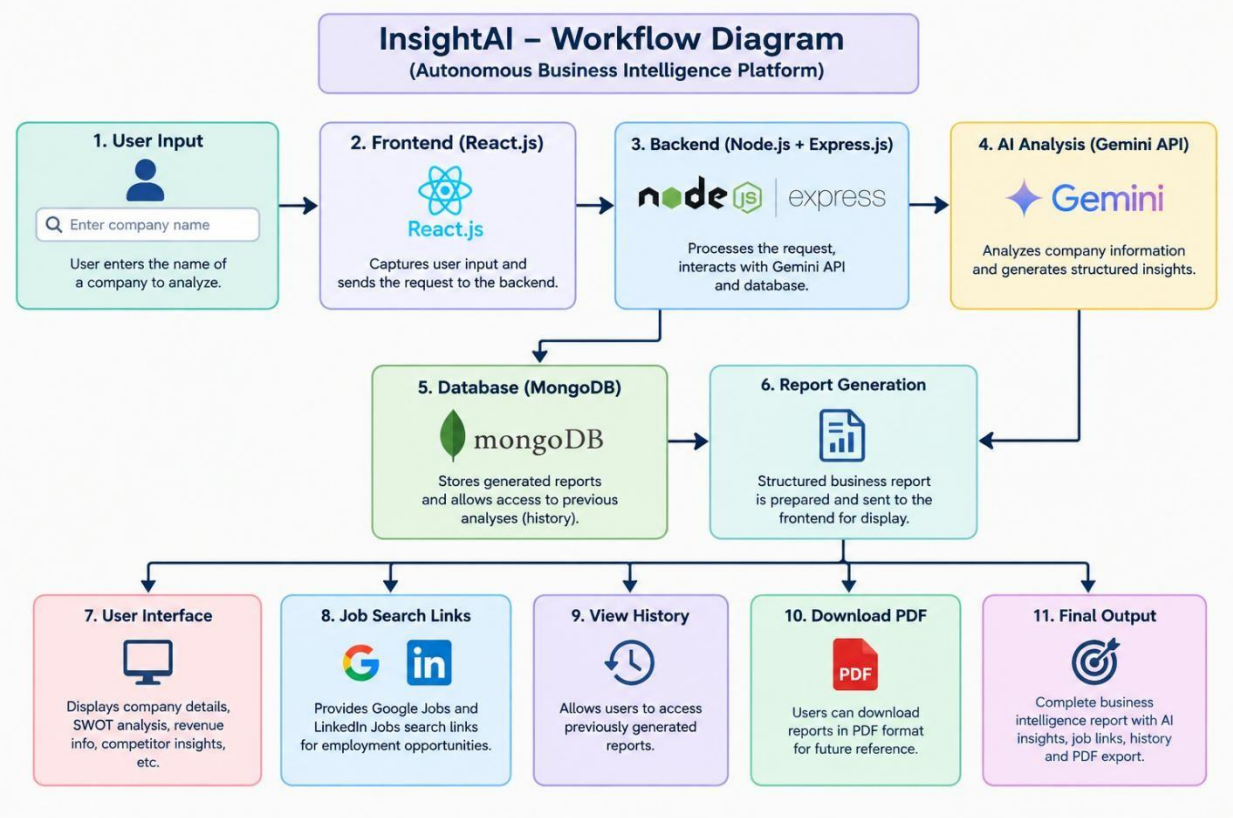
METHODOLOGY

The methodology of InsightAI – Autonomous Business Intelligence Platform involves developing an AI-powered web application to analyze company information and generate business reports. The system uses React.js for the frontend, Node.js and Express.js for backend processing, and MongoDB for storing and retrieving reports. Users enter a company name, which is sent to the Gemini API for AI-based analysis. The system generates structured insights, including company details, products and services, SWOT analysis, revenue information, and competitor details, depending on data availability. The generated reports are displayed through a user-friendly interface and saved in the database for future reference. The application also provides Google Jobs and LinkedIn Jobs search links to help users explore employment opportunities. Finally, users can view previous reports through the history feature and download reports in PDF format. This methodology combines AI analysis, database management, and web technologies to simplify company research and support informed decision-making.

CONTENT

InsightAI is an AI-powered Business Intelligence Platform that provides company analysis and business insights through a web-based application. It uses the Gemini API to generate company reports based on user input. The system provides information about company profiles, industry, products and services, SWOT analysis, revenue details, and competitors, depending on data availability. React.js is used to develop the user interface, while Node.js and Express.js handle backend processing. MongoDB stores generated reports and allows users to access their previous analyses through the history feature. The application also provides Google Jobs and LinkedIn Jobs search links for exploring employment opportunities

WORKFLOW DIAGRAM



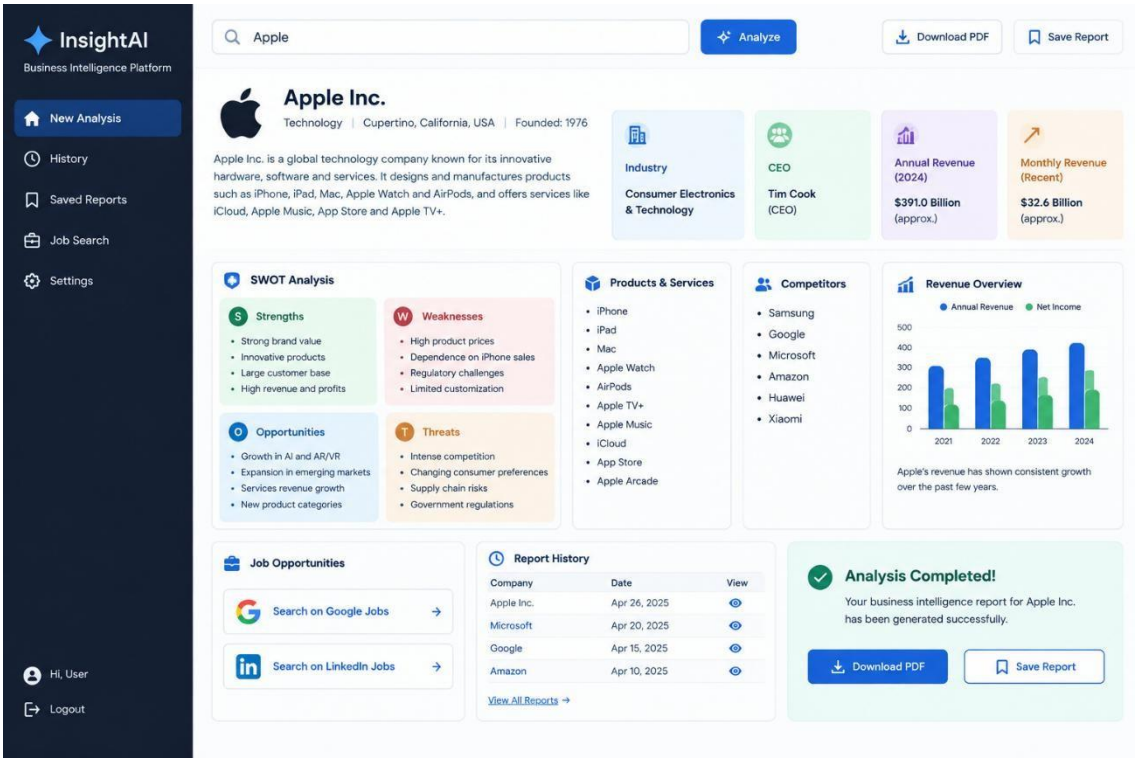


Fig. 1: *Sample output*

RESEARCH AND REVIEWS:

Research in Artificial Intelligence (AI) and Business Intelligence (BI) shows that AI technologies can help organizations analyze business data, identify trends, and make better decisions. AI-powered systems can automate information processing and generate useful insights, reducing the time required for manual analysis. Existing research also highlights the importance of data accuracy, reliability, and clear presentation of analytical results. Based on these findings, InsightAI integrates the Gemini API to generate company analysis reports, including company details, SWOT analysis, revenue information, and competitor insights. The platform uses React.js, Node.js, Express.js, and MongoDB to provide a user-friendly interface and manage generated reports. Additional features, such as job-search links, report history, and PDF downloads, make business information easier to access and organize. Thus, InsightAI aims to simplify company research and support informed decision-making while recognizing that AI-generated information should be verified for accuracy.

RESULTS AND DISCUSSION

The InsightAI – Autonomous Business Intelligence Platform provides an integrated solution for analyzing company information and generating structured business reports. The system uses the Gemini API to generate insights about company profiles, products and services, SWOT analysis, revenue information, and competitors, depending on data availability. The results are displayed through a user-friendly interface developed using React.js, while Node.js and Express.js handle backend processing. MongoDB is used to store generated reports, allowing users to access previous analyses through the report history feature.

DISCUSSION

The platform also provides Google Jobs and LinkedIn Jobs search links to help users explore employment opportunities. The PDF download feature enables users to save reports for future reference. These features reduce the need to collect and organize company information manually. However, the accuracy and completeness of the results depend on the information available to the Gemini API, and AI-generated insights should be verified before being used for important business decisions. Overall, InsightAI demonstrates how AI and modern web technologies can be combined to simplify business research, improve report accessibility, and support informed decision-making.

CONCLUSION

InsightAI – Autonomous Business Intelligence Platform provides an efficient way to analyze company information using Artificial Intelligence. By integrating the Gemini API with React.js, Node.js, Express.js, and MongoDB, the system generates structured business reports containing company

details, SWOT analysis, revenue information, and competitor insights. Features such as report history, PDF downloads, and Google Jobs and LinkedIn Jobs search links improve accessibility and usability. The platform reduces the effort required for manual business research and helps users organize company-related information in one place. Although the accuracy of the analysis depends on data availability and AI-generated responses, InsightAI demonstrates the potential of AI-powered tools to simplify business research and support informed decision-making.

FUTURE SCOPE

The future scope of InsightAI – Autonomous Business Intelligence Platform includes several enhancements to improve its accuracy, functionality, and usability. The system can be integrated with reliable real-time data sources to provide updated company information, revenue details, and competitor analysis. Advanced data visualization techniques can be introduced to display business performance through interactive charts and graphs. Machine learning algorithms could be incorporated to identify market trends and support future business predictions.

REFERENCES

1. React Team (2024). *React Documentation*. Available at: https://react.dev/
2. OpenJS Foundation (2024). *Node.js Documentation*. Available at: https://nodejs.org/en/docs
3. OpenJS Foundation (2024). *Express.js Documentation*. Available at: https://expressjs.com/
4. cs/MongoDB, Inc. (2024). *MongoDB Documentation*. Available at: https://www.mongodb.com/do
5. Google (2024). *Gemini API Documentation*. Available at: https://ai.google.dev/geminiapi/docs
6. Axios (2024). *Axios Documentation*. Available at: https://axios-http.com/docs/intro
7. Parallax (2024). *jsPDF Documentation*. Available at: https://github.com/parallax/jsPDF
8. Google (2024). *Google Search and Job Listings*. Available at: https://www.google.com/search?q=Google+Jobs
9. LinkedIn (2024). *LinkedIn Jobs*. Available at: https://www.linkedin.com/jobs/
10. Fielding, R. T. (2000). *Architectural Styles and the Design of Network-based Software Architectures*. Doctoral dissertation, University of California, Irvine. Available at: https://www.ics.uci.edu/~fielding/pubs/dissertation/top.htm