

# Equity Research News Tool - Project Report

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## 1. Introduction

The Equity Research News Tool is a web-based application designed to fetch and display relevant news articles based on user queries. It utilizes the NewsAPI service to retrieve news articles and provides users with summarized information about current market trends, stock movements, and financial insights. The application is developed using Python and Streamlit, making it a lightweight and interactive tool.

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## 2. Objectives

- To provide users with real-time financial news based on their queries.
  - To integrate NewsAPI for fetching relevant articles.
  - To allow users to customize their search parameters.
  - To enhance user experience with a clean and interactive UI.
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## 3. Technology Stack

- Programming Language: Python
  - Framework: Streamlit
  - APIs Used: NewsAPI
  - Environment Management: dotenv (for API key management)
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## 4. Methodology

1. Data Retrieval: The application fetches news articles from NewsAPI based on the user's search query.
  2. Preprocessing: Filters are applied to sort news articles based on relevance and language.
  3. Display & Interaction: The results are displayed using Streamlit's interactive components, allowing users to view article titles, descriptions, and direct links.
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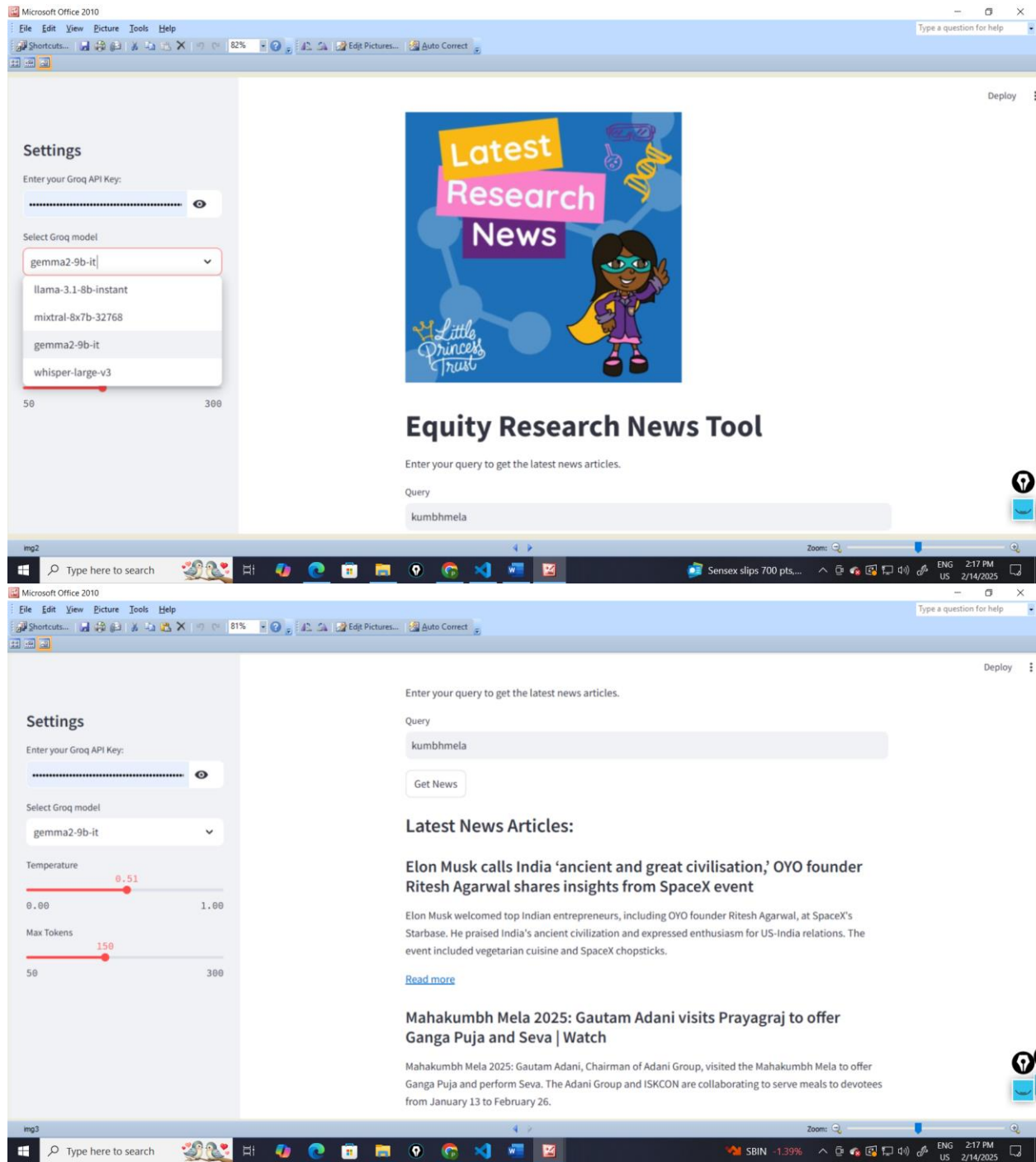
## 5. Implementation Details

- Environment Setup: The required dependencies are managed using a virtual environment.
  - API Integration: The NewsAPI key is stored securely in an .env file.
  - User Interface:
    - A search bar allows users to input their queries.
    - A sidebar provides settings for model selection and parameter adjustments.
    - Retrieved articles are displayed with titles, descriptions, and links.
  - Error Handling: The application gracefully handles cases where no relevant news is found.
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## 6. Pipeline of the Project

1. User inputs a search query.
  2. The application sends a request to NewsAPI.
  3. NewsAPI returns a set of relevant articles.
  4. The application extracts and processes article details.
  5. The UI displays the top 5 relevant news articles with their titles, descriptions, and links.
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## 7. Results and Output



## 8. Conclusion

The Equity Research News Tool efficiently fetches and displays relevant financial news articles. With real-time updates and a user-friendly interface, it serves as a valuable resource for market analysts and investors.

Future Enhancements:

- Addition of sentiment analysis for news articles.

- Integration with AI-based summarization models.
- Multi-language support for global accessibility.