AI-Powered News Aggregation & Chatbot

Overview

You are tasked with developing an AI-powered system that extracts news articles from multiple Australian news outlets, categorizes and summarizes them, and then presents daily highlights in a user-friendly UI. Additionally, a chatbot should be implemented to allow users to ask questions about the highlights using Retrieval-Augmented Generation (RAG).

Tasks & Problems to Solve

Step 1: Efficient News Extraction & Data Processing

- Ensure the system extracts news from **sports, lifestyle, music, and finance** categories from multiple Australian news outlets using an optimized pipeline
- Ensure a user can easily trigger this pipeline as required

Step 2: Categorize and Summarize

- **Accurate classification:** Assign articles to the correct category (**sports, lifestyle, music, or finance**) based on content and metadata.
- **Detect duplicate or similar news:** Implement clustering, indexing, or both (or any other solution) to identify articles that report the same story across multiple sources.

Step 3: Setup News Highlights per category based on frequency and keywords

- Prioritize highlights based on important keywords e.g. "**Breaking News**" or/and frequency across sources.

Step 4: UI for Daily Highlights

- Create a **simple UI** (feel free to build a web-based dashboard) that presents the top highlights.
- Show news based on categories with the following key details:
  - Title, author & source(s)
  - Frequency of the article
  - Any other useful fields.

Step 5: Implement a Chatbot

Your Task:

- Implement a chatbot where users can ask questions about the daily news highlights.
- Use RAG to generate the response based on the user input by understanding the context. i.e. the news/highlight they are asking about.

The submission ✍️

Submit your challenge to info@foboh.com.au, provide a link to the git repo and the URL to the application by **end of day Sunday** Aug 3, 2025

You should also include a README with any instructions. Tests are not mandatory but will be considered bonus points if you provide them.