

This code processes a JSON file containing news articles, extracts important information from each article, and creates a summarized timeline of events. It automates the process of extracting and summarizing information from news articles. It transforms raw JSON data into a human-readable format.

First, I have imported the necessary libraries, JSON to read and parse the JSON file containing the news articles and date-time to handle and format dates.

Then I have defined 3 functions which are `extract_events`, `format_timeline_summary`, and `read_json_file`.

1. `extract_events` function takes a list of events (news articles) and extracts important information such as it extracts and formats the date, extracts the title and extracts the first sentence from the article's body as a brief detail. It creates a summary of each event and adds it to a timeline list.
2. The `format_timeline_summary` function formats each event in the timeline into a more readable summary format. It combines the date, event title, and details into a structured string and adds it to a summary list.
3. **The `read_json_file` function** reads a JSON file from the specified file path and returns the parsed data. It read the JSON file containing the news article. Then it extracts and summarizes events from JSON data and formats it to a readable summary. Then it prints the summary and the generated output is saved to a text file.