

Interactive News Chatbot

User Interactions

Overview

The **Interactive News Chatbot** is a versatile tool designed to provide users with real-time information across various domains, including trending news, topic-specific articles, weather updates, commodity prices, and translations. It leverages OpenAI GPT-4 for natural language understanding and integrates multiple APIs for accurate and efficient data retrieval.

Chatbot Interactions and Examples

1. Fetch Trending News

Command: **trending**

- **User Input:**

Unset

You: **trending**

- **Chatbot Response:**

Unset

Chatbot: Here are the current trending topics:

1. Israel strikes and Hezbollah mortar fire strain Lebanon ceasefire - BBC.com
2. 'Moana 2' Is Biggest Debut Ever For Walt Disney Animation Studios - Cartoon Brew
3. China bans exports to US of gallium, germanium, antimony in response to chip sanctions - The Associated Press
4. McMillian's pick 6 helps Broncos spoil career nights by Winston, Jeudy and beat Browns 41-32 - The Associated Press
5. Tesla CEO Elon Musk denied \$56bn pay package once again by Delaware judge - TESLARATI

- **Function Called:**

Unset

```
{  
  "function": "get_trending_topics",  
  "parameters": {}  
}
```

- **Purpose:** Retrieves and displays a list of trending topics globally.
-

2. Fetch Topic-Specific News

Command: **fetch news about Tesla**

- **User Input:**

Unset

You: **fetch news about Tesla**

- **Chatbot Response:**

Unset

Chatbot: Here are the top 5 articles for 'Tesla':

1. Tesla Model 3, Model Y and Cybertruck owners finally get SiriusXM access

Description: Tesla is finally adding SiriusXM integration to its best-selling models. The long-requested feature is coming to the Model 3, Model Y and Cybertruck (the three most popular EVs in the US) as part of the 2024 Tesla Holiday Update.

(URL:

https://consent.yahoo.com/v2/collectConsent?sessionId=1_cc-session_32506aa4-e972-4eb1-89bc-fb240c7e4353)

2. VW launches \$5.8bn tie-up with Tesla rival Rivian

Description: The firms will share EV technology as they face slowing demand and competition from Chinese rivals.

(URL: <https://www.bbc.com/news/articles/c5yr90lmjpno>)

- **Function Called:**

Unset

```
{
  "function": "fetch_news",
  "parameters": {
    "topic": "Tesla",
    "page_size": 5
  }
}
```

- **Purpose:** Fetches the latest news articles on the specified topic and displays them with summaries and URLs.
-

3. Summarize Specific Article

Command: `summarize article 2`

- **User Input:**

Unset

You: `summarize article 2`

- **Chatbot Response:**

Unset

Chatbot: VW has launched a \$5.8bn collaboration with Tesla rival Rivian to share EV technology, tackling slowing demand and increasing competition from Chinese manufacturers.

- **Function Called:**

Unset

```
{
  "function": "summarize_article_by_index",
  "parameters": {
    "index": 2
  }
}
```

- **Purpose:** Summarizes the article specified by its index in the previously fetched list.
-

4. Fetch and Summarize News

Command: `fetch news about cyclone Fengal`

- **User Input:**

Unset

You: `fetch news about cyclone Fengal`

- **Chatbot Response:**

Unset

Chatbot: Here are the latest articles about 'cyclone Fengal':

1. Indian region devastated by Cyclone Fengal (VIDEO)

Cyclone Fengal has devastated several areas of southern India, striking the country on Saturday. The states of Tamil Nadu and Karnataka, as well as the Puducherry union territory, have been particularly affected.

2. India: Several dead as cyclone Fengal brings heavy rainfall

Cyclone Fengal has caused significant damage and several deaths in parts of southern India, while northern Kerala is on red alert.

- **Function Called:**

Unset

```
{
  "function": "fetch_and_summarize",
  "parameters": {
    "topic": "cyclone Fengal"
  }
}
```

- **Purpose:**
 - Fetches articles related to the specified topic (`cyclone Fengal`).
 - Summarizes the fetched content for concise user consumption.

5. Weather Updates

Command: **give me current weather in Chennai**

- **User Input:**

Unset

You: **give me current weather in Chennai**

- **Chatbot Response:**

Unset

Chatbot: **Current weather in Chennai:**



Temperature: 28.12°C



Feels like: 33.77°C



Humidity: 88%



Conditions: Mist



Wind speed: 3.6 m/s



Last updated: 2024-12-04 18:42:28

- **Function Called:**

Unset

```
{  
  "function": "get_weather",  
  "parameters": {  
    "city": "Chennai"  
  }  
}
```

- **Purpose:** Fetches real-time weather data for the specified city.

6. Fetch Commodity Prices

Command: **Latest gold, silver and fuel price in India in rupees**

- **User Input:**

Unset

You: Latest gold, silver and fuel price in India in rupees

- **Chatbot Response:**

Unset

Chatbot:

1. Current Exchange Rate: 1 USD = 74.50 INR

2. Price Comparison Table:

Commodity	Price (INR)	24h Change
Gold	198,299.80	-402.30
Silver	2,319.93	-26.82
Crude Oil	5,219.47	2.98

3. Quick Analysis:

- Gold and Silver experienced price drops, with Silver dropping 1.16% and Gold 0.2%.
- Crude Oil showed a slight increase of 0.06%.

- **Function Called:**

Unset

```
{
  "function": "get_commodity_prices",
  "parameters": {
    "commodities": ["Gold", "Silver", "Crude Oil"],
    "currency": "INR"
  }
}
```

- **Purpose:** Fetches and converts live commodity prices into the specified currency.

7. Multilingual Support: Translation

Command: **translate in French**

- **User Input:**

Unset

You: translate in French

- **Chatbot Response:**

Unset

Chatbot:

1. Taux de change actuel: 1 USD = 74,50 INR

2. Tableau de comparaison des prix:

Marchandise	Prix (INR)	Changement en 24h
Or	198,299.80	-402.30
Argent	2,319.93	-26.82
Pétrole brut	5,219.47	2.98

3. Analyse rapide:

- L'or et l'argent ont tous deux connu une baisse de leurs prix, l'argent ayant une chute plus significative de 1,16%.
- Le pétrole brut, en revanche, a montré une légère augmentation de son prix de 0,06%.

- **Function Called:**

Unset

```
{
  "function": "translate_text",
  "parameters": {
    "target_lang": "fr"
  }
}
```

- **Purpose:** Translates the previously fetched or generated content into the specified target language.
-

8. Fetch and Summarize News in German

Command: **Erhalten Sie die neuesten Nachrichten über Korea**

- **User Input:**

Unset

You: Erhalten Sie die neuesten Nachrichten über Korea

- **Chatbot Response:**

Unset

Chatbot: Here are the latest articles about 'Korea':

1. "Verbotenes" Lied verfolgt Südkoreas
Universitätszulassungsprüfungsstudenten

Südkorea beobachtet seine jährliche Phase der Stille, während sich eine halbe Million Schüler auf die wichtigste Prüfung des Landes vorbereiten. Dies beinhaltet das Grounding von Flugzeugen und das Stoppen von Bauarbeiten, um Lärm und Ablenkungen zu minimieren.

2. Die Next-Gen-Batterien des Rivian R2 werden in den USA von LG Energy hergestellt.

Rivian wird seine nächste Generation von Batterien für das R2-Modell in den USA in Partnerschaft mit LG Energy herstellen. Dies stellt eine Verlagerung der Zellenproduktion dar, von Südkorea in die Vereinigten Staaten.

3. Russland und Nordkorea schwören, einander zu verteidigen

Russland und Nordkorea haben jeweils einen gegenseitigen Verteidigungsvertrag ratifiziert, der sich verpflichtet, sich im Falle eines Angriffs zu verteidigen. Dieser Schritt könnte potenziell zu einer erhöhten Beteiligung der beiden Länder an internationalen Angelegenheiten führen.

- **Function Called:**

Unset

```
{
  "function": "fetch_and_summarize",
  "parameters": {
    "topic": "Korea",
    "target_lang": "de"
  }
}
```

- **Purpose:**
 - Fetches and summarizes the latest articles about Korea.
 - Translates the summaries into German (**de**) for the user's preferred language.

This example showcases the chatbot's capability to fetch and summarize news while supporting multilingual interactions.

Key Highlights

- **Multilingual Support:** Automatically translates summaries into the user's preferred language.
- **Efficient Summarization:** Concise, easy-to-read summaries of the latest news articles.
- **Topic-Specific Retrieval:** Focuses on the topic requested by the user.

Functions and Their Purpose

1. `get_trending_topics`

Purpose:

Retrieves the latest trending topics globally.

Parameters:

- **None**

Output:

A list of trending topics with headlines and sources.

2. `fetch_news`

Purpose:

Fetches a list of articles related to a specified topic.

Parameters:

- **topic:** (*string, required*)
The topic to fetch news articles about.
Example: "Tesla"
- **target_lang:** (*string, optional*)
The language in which the news articles should be translated.
Default is English ("en").
Example: "de" (German)
- **page_size:** (*integer, optional*)
The number of articles to fetch. Default is 5.
Example: 5

Output:

A list of articles, each containing:

- Title
- Description
- URL

3. `summarize_article_by_index`

Purpose:

Summarizes an article based on its index in a fetched list.

Parameters:

- **index:** (*integer, required*)
The index of the article to summarize (based on the order in the fetched list).
Example: 2

Output:

A concise summary of the article.

4. `fetch_and_summarize`

Purpose:

Fetches and summarizes articles for a specified topic.

Parameters:

- **topic:** (*string, required*)
The topic for which news articles are to be fetched and summarized.
Example: "Climate Change"
- **target_lang:** (*string, optional*)
The language in which the summaries should be translated. Default is English ("en").
Example: "fr" (French)

- **page_size:** (*integer, optional*)
The number of articles to fetch and summarize. Default is 5.
Example: 3

Output:

A list of summarized articles, each containing:

- Title
- Summary
- Optional URL

5. `get_weather`

Purpose:

Retrieves current weather data for a specified city.

Parameters:

- **city:** (*string, required*)
The name of the city to fetch weather information for.
Example: "Chennai"
- **units:** (*string, optional*)
The temperature unit. Options: "metric" (Celsius) or "imperial" (Fahrenheit). Default is "metric".
Example: "imperial"

Output:

Weather details, including:

- Temperature
- Feels like temperature
- Humidity
- Conditions
- Wind speed
- Timestamp

6. `get_commodity_prices`

Purpose:

Fetches live prices of specified commodities and converts them into the desired currency.

Parameters:

- **commodities:** (*array, required*)
A list of commodities to fetch prices for.
Valid Options: "Gold", "Silver", "Crude Oil", "Platinum", etc.
Example: ["Gold", "Silver"]
- **currency:** (*string, optional*)
The target currency for price conversion. Default is "USD".
Example: "INR"

Output:

A table with:

- Commodity names
- Prices in the specified currency
- 24-hour price changes and trends

7. `translate_text`

Purpose:

Translates text into a specified target language.

Parameters:

- `target_lang: (string, required)`
The language code for translation.
Example: "es" (Spanish)

Output:

The translated text in the target language.

Key Features

1. **News Retrieval:** Fetches and summarizes articles on demand.
 2. **Weather Updates:** Provides real-time weather data.
 3. **Commodity Prices:** Retrieves live prices with conversion and analysis.
 4. **Multilingual Support:** Translates content into user-specified languages. And understands any language input queries.
 5. **Contextual Summarization:** Allows article-specific summaries.
 6. **Secure and Accurate:** Ensures safe responses with proper API integration and validation.
 7. **Parameter Flexibility:** Optional parameters allow for tailored responses based on user needs.
 8. **Output Structure:** Consistent and user-friendly output formats across all functions.
 9. **Multilingual Support:** The `fetch_news`, `fetch_and_summarize`, and `translate_text` functions provide seamless integration with multiple languages.
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Conclusion

The Interactive News Chatbot demonstrates robust functionality and versatility in delivering accurate, real-time information. With its seamless integration of APIs and GPT-4 capabilities, it serves as a powerful tool for multilingual, topic-specific, and user-centric interactions.

The above documentation offers a clear and detailed reference for each chatbot function and its parameters, ensuring accurate implementation and user understanding.