

News Summarization & Hindi Text-to-Speech Application

Overview:

This project extracts the latest news articles related to a given company, performs sentiment analysis, and the summarized content into Hindi speech using text-to-speech (TTS). The web-based application allows u to input a company name and receive a structured sentiment report with an audio output.

Features:

- News Extraction: Fetches at least 10 unique articles related to the given company.
- Sentiment Analysis: Categorizes each article as Positive, Negative, or Neutral.
- Comparative Analysis: Provides insights on how news coverage varies.
- Hindi Text-to-Speech (TTS): Converts the sentiment summary into Hindi audio.
- User-Friendly Interface: Uses Streamlit for a simple and interactive UI.
- REST API Integration: Uses Flask to fetch news, analyze sentiment, and generate TTS.

Installation & Setup:

1. Clone the Repository:

```
git clone <your-repo-link>  
cd <your-repo-folder>
```

2. Install Dependencies:

```
pip install -r requirements.txt
```

3. Run the Backend API:

```
python api.py
```

4. Start the Web Application:

```
streamlit run app.py
```

API Endpoints:

| Endpoint | Method | Description | Example |
|-------------------------|--------|---------------------------------------|---------------------|
| ----- ----- ----- ----- | | | |
| /news | GET | Fetches news articles for a company | /news?company=Tesla |
| /tts | GET | Generates Hindi TTS audio for summary | /tts?company=Tesla |

Example Output:

Input:

```
{ "Company": "Tesla" }
```

Output:

```
{ "Company": "Tesla", "Articles": [ ... ], "Final Sentiment Analysis": "Teslas latest news coverage is mostly p
```