



TEAM - 5



TEAM AND PROBLEM STATEMENT

Team Name : Team 5

Problem Statement ID : SIH1329

Problem Statement : The project addresses the need for a 360-degree feedback software for monitoring Government of India-related news stories in regional media using Artificial Intelligence and Machine Learning.

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ABSTRACT :

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In today's fast-paced digital landscape, real-time media monitoring is crucial for effective governance and public communication. This project introduces an AI-driven 360-degree feedback system to track Government of India-related news across regional media. Using Artificial Intelligence (AI) and Machine Learning (ML), the system scrapes news articles and scans e-papers using Optical Character Recognition (OCR). It also processes YouTube news bulletins to extract relevant content. This ensures comprehensive media coverage and timely insights.

To enhance analysis, the system employs Natural Language Processing (NLP) to classify news based on government departments. It also performs sentiment analysis to categorize news as Positive, Neutral, or Negative. When negative news is detected, real-time alerts are sent to officials for immediate action. This enables proactive decision-making and better crisis management. Automated tracking helps in identifying key trends and emerging issues.

A user-friendly dashboard with multilingual support allows officials to filter and analyze reports efficiently. This platform streamlines media monitoring, reducing manual effort and response time. By automating news tracking, classification, and sentiment analysis, the system improves government decision-making. It also aids in managing public perception and strengthening policy communication. Ultimately, this technology-driven approach enhances governance and transparency.



SOLUTION :

01

Automated Data Collection:

- Develops a system to scrape news articles and videos from multiple sources, including websites, e-newspapers, and YouTube channels.
- Extracted data is processed to identify key details like headline, content, publication date, and source URL.

02

Categorization and Sentiment Analysis:

- Classifies articles based on the ministry's jurisdiction using an accurate machine learning model.
- Performs sentiment analysis (Positive, Neutral, or Negative) for actionable insights.

03

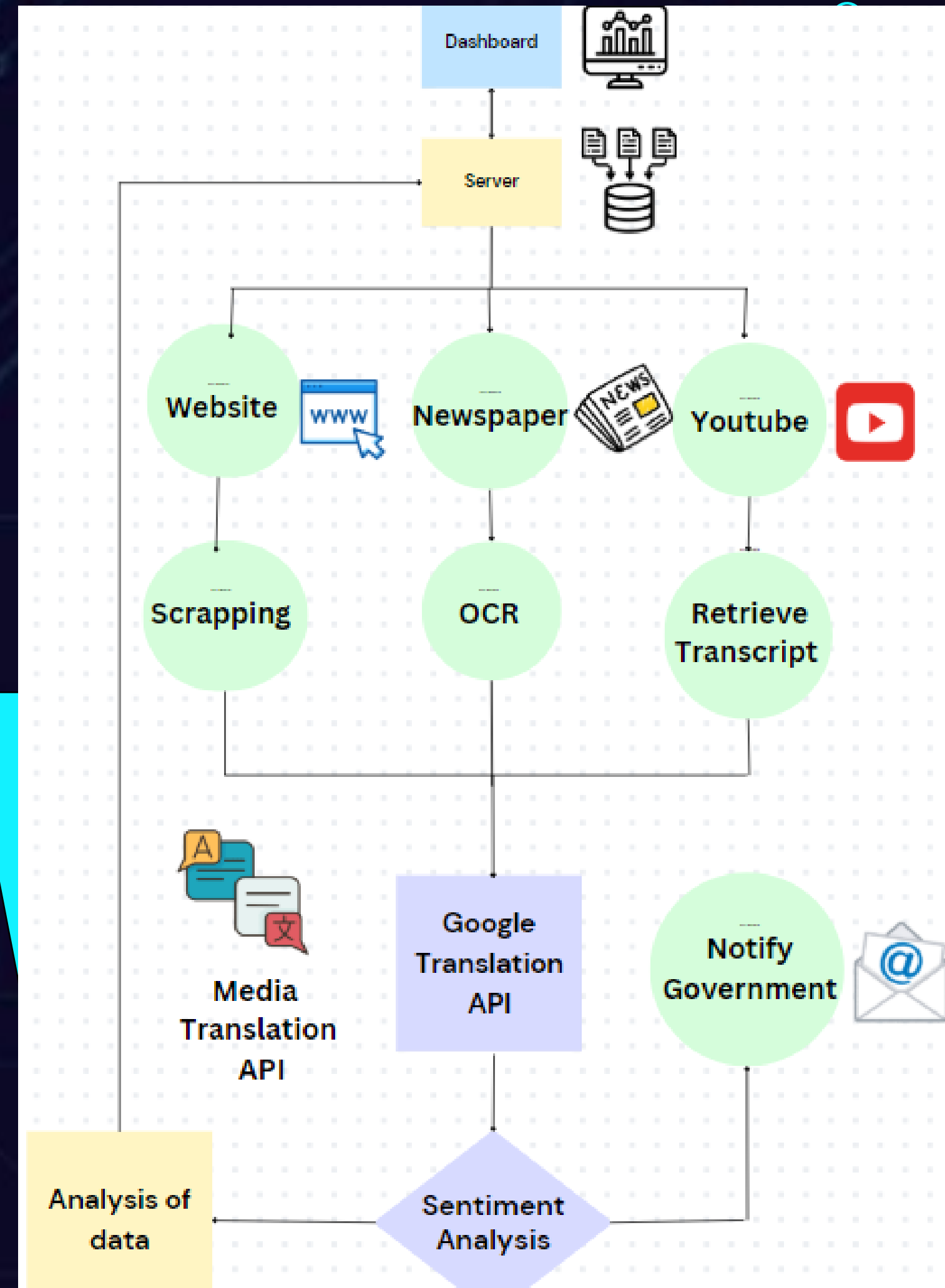
Real-Time Alerts and Notifications:

- Sends alerts for negative news articles to respective government departments via email for immediate response.
- Provides timely updates on critical news events.

04

User-Friendly Interface:

- Displays news on a simple and intuitive dashboard that supports multiple languages (English, Hindi, and regional languages).
- Offers features like manual refresh, automatic hourly updates, and easy filtering by sentiment and ministry.



Approach details :

- Crawled 12000+ news articles and videos using Python BeautifulSoup and Selenium Library.
- Applied clustering on these articles to label them into different categories to prepare labeled dataset.
- Trained this dataset of articles using BERT model to generate department predictions.
- implemented sentiment analysis on news articles.
- Sending mail of Negative News to respective departments using NodeMailer and Gmail - SMTP
- Integrated this model and crawling functionality with a Django backend and wrote APIs for generating predictions and sentiments.
- Merged this backend with a simple and attractive UI where user can give triggers to load latest news articles with their analysis.

- Implemented video news analysis using Selenium library by first extracting audio and converting it into text. Then applied classification and sentiment analysis on the extracted text.
- Developed the same functionalities for news in Telugu, Hindi and others languages as well using Google Translate API.

Technology Stack :

- **AI:** PyTorch, TensorFlow, and BERT libraries for creating ML models.
- **Crawling:** BeautifulSoup, Selenium
- **Server:** Django backend.
- **Frontend:** HTML , CSS, JavaScript .



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Trump Says US Is 'In Mourning' After No Survivors From Plane Crash



Nothing Phone 3a Series

India Launch Date Set for March 4; Flipkart Availability Confirmed



Exposed DeepSeek Database Revealed Chat Prompts

China-based DeepSeek has exploded in popularity, drawing greater scrutiny. Case in point: Security researchers found more than 1 million records, including user data and API keys, in an open database.

MOST RECENT



Maha Kumbh stampede: Judicial commission to finish probe in a month

Harish Kumar and panel members



IT minister Hari Kumar

Privacy issue with china's DeepSeek



IND vs ENG, 3rd T20I

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China's AI DeepSeek

DeepSeek tech wipeout erases more than \$1 trillion in market cap

SENTIMENT ANALYSIS

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About: Focus on health programs

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NEUTRAL: 10%
NEGATIVE: 5%

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About: Focus on financial stability

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DEPARTMENT OF INTERNAL SECURITY

About: Improving internal security measures

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NEUTRAL: 15%
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MINISTRY OF CULTURE

About: Promoting literature and arts

POSITIVE: 78%
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టిబి నిర్మూలన కోసం 100 రోజుల
సుదీర్ఘ ప్రచారాన్ని
ప్రారంభించిన హెం
వ్యవహారాల మంత్రిత్వ శాఖ
హెం వ్యవహారాల మంత్రిత్వ శాఖ

About: Focus on health programs

POSITIVE: 85%
NEUTRAL: 10%
NEGATIVE: 5%

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2023-24 వార్షిక నివేదికను
విడుదల చేసిన ఆర్థిక మంత్రిత్వ
శాఖ
ఆర్థిక మంత్రిత్వ శాఖ

About: Focus on financial stability

POSITIVE: 72%
NEUTRAL: 23%
NEGATIVE: 5%

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BNSS నిబంధనల అమలుకు
మార్గదర్శకాలను జారీ చేసిన
హెం వ్యవహారాల మంత్రిత్వ
శాఖ
అంతర్గత భద్రతా విభాగం

About: Improving internal security measures

POSITIVE: 80%
NEUTRAL: 15%
NEGATIVE: 5%

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2024 సంవత్సరానికి సాహిత్య
అకాడమీ వార్షిక పురస్కారాలను
ప్రకటించింది
సంస్కృతి మంత్రిత్వ శాఖ

About: Promoting literature and arts

POSITIVE: 78%
NEUTRAL: 18%
NEGATIVE: 4%

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హాకీ ఇండియా లీగ్ 2024-25 కోసం
అధికారిక ప్రసార భాగస్వామిగా
దూరదర్శన్ ప్రకటించబడింది
సమాచారం మరియు ప్రసార మంత్రిత్వ
శాఖ

About: Expanding sports broadcasting

POSITIVE: 81%
NEUTRAL: 14%
NEGATIVE: 5%

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జపాన్ తో ద్వైపాక్షిక
సంబంధాలను బలోపేతం
చేసిన భారతదేశం



ఏఐ ఆధారిత ఇ-ఫైలింగ్
వ్యవస్థను ప్రారంభించిన సుప్రీం
కోర్టు



తిరిగి ఉపయోగించగల స్పేస్
వాహనాన్ని విజయవంతంగా
పరీక్షించిన భారతదేశం



అండర్-19 ప్రపంచ కప్ గెలిచిన
భారత క్రికెట్ జట్టు
యువ వ్యవహారాలు మరియు క్రీడల



జాతీయ సైబర్ భద్రతా
వ్యూహాన్ని ప్రవేశపెట్టిన
భారతదేశం



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India Hosts G20 Summit

India successfully hosted the G20 summit, focusing on global economic stability and sustainable development.

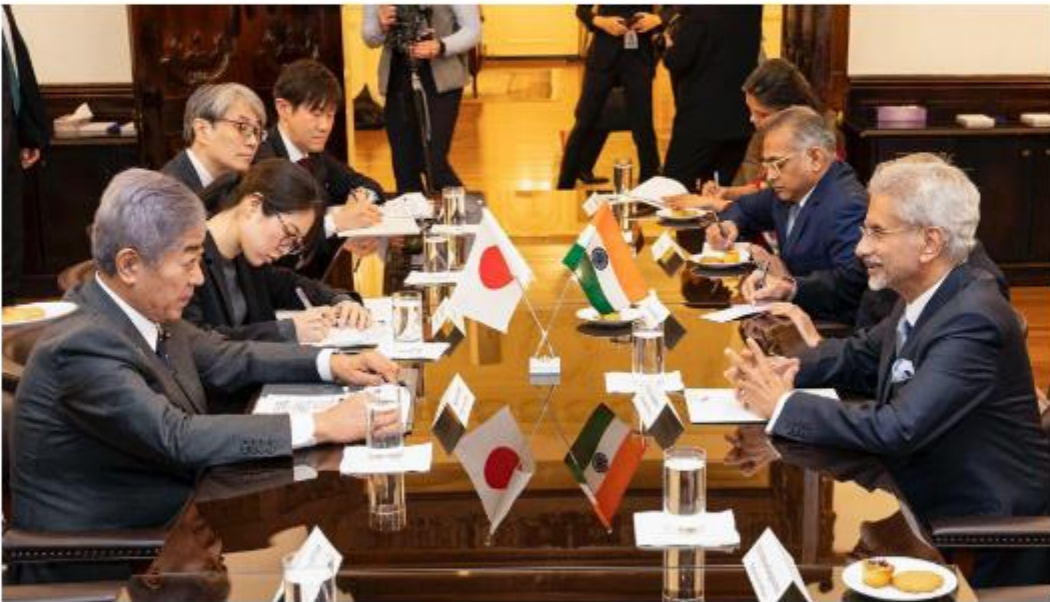
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External Affairs

Positive:60%

Neutral:20%

Negative:20%



India and Japan Strengthen Bilateral Ties

India and Japan have agreed to enhance their strategic partnership, focusing on defense cooperation and economic collaboration.

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External Affairs

Positive:41%

Neutral:36%

Negative:12%



India-US Trade Talks Yield Positive Outcomes

Recent trade discussions between India and the United States have led to agreements aimed at reducing tariffs and enhancing market access.

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External Affairs

Positive:80%

Neutral:10%

Negative:10%

Team Member Details

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Team Leader Name: Harsha Vardhan

Stream : AIML

Year : III

Branch : B.Tech

Team Member 1 Name: Badugu Ajay

Stream : AIML

Year : III

Branch : B.Tech

Team Member 2 Name: Hima Padmavathi

Stream : AIML

Year : III

Branch : B.Tech

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Stream : AIML

Year : III

Branch : B.Tech