

SmartTrendAI - Project Report

Title: AI-Powered Market Trend Analyzer (Python 3.14 compatible)

Submitted by: Pankaj Gupta

Aim:

Build a system that analyzes online text (tweets, news, reviews) to detect trending topics and sentiment for marketing insights.

Tools:

Python, NLTK, VADER, scikit-learn, matplotlib, streamlit

Workflow:

Data collection -> Preprocessing -> Sentiment analysis -> Trend detection -> Visualization

How to run:

1. Install dependencies: `pip install -r requirements.txt`

2. Console demo: `python src/main.py`

3. Web app: `streamlit run app.py`

Conclusion:

This tool helps marketing teams detect rising topics and understand customer sentiment quickly, enabling faster data-driven decisions.