

## RealTicker – AI-Powered Stock Trend Analysis Dashboard

RealTicker is a web-based stock analysis application that combines market snapshots with AI-assisted historical trend analysis. The goal is to help users understand stock behavior clearly using structured, human-logical reasoning.

### Key Features

- Market snapshot (price, change %, volume)
- User-selectable analysis period (1, 3, 6 months)
- AI-assisted historical trend analysis
- Clear trend, risk, and action explanations
- Educational disclaimer (not financial advice)

### Architecture Overview

Frontend (React) → Backend (FastAPI) → AI Model (FLAN-T5 Base)

### Analysis Logic

Trend is calculated from historical price movement, not daily change.

Risk is calculated using price volatility.

Suggested actions depend on trend + risk combination.

### LLM Used

Model: google/flan-t5-base (Hugging Face)

Used for structured explanation support, not decision override.

### Tech Stack

Backend: Python, FastAPI, Transformers

Frontend: React.js, Fetch API

### Setup Steps

1. Setup backend virtual environment
2. Install dependencies
3. Run FastAPI using Uvicorn
4. Install frontend dependencies and start React app

### Disclaimer

This application is for educational purposes only and does not provide financial advice.