

# Stock Analysis Dashboard

An end-to-end interactive solution transforming raw market data into decision-ready insights for investment professionals and traders.



## Project Overview

# Delivering Actionable Market Intelligence

This comprehensive dashboard solution converts complex market data into clear, actionable insights across four specialized analytical views. Each module addresses critical business questions—from volatility assessment to performance benchmarking.

The system analyzes price movements, volume trends, volatility patterns, and trading behaviors to enable faster, more confident decision-making in today's dynamic markets.



# Four Powerful Dashboard Modules

## Interactive Stock Insights

High-level market overview providing executive-level visibility into overall market health, momentum, and key performance indicators.

## Stock Analysis

Comparative performance analysis identifying strong performers and price stability leaders across multiple stocks.

## Open vs Close Analysis

Intraday trading behavior tracking to pinpoint optimal entry-exit patterns and assess intraday risk exposure.

## Price Volatility

Comprehensive volatility measurement over time, critical for risk profiling and portfolio balancing strategies.

# Interactive Stock Insights Dashboard

The Command Center for Market Health

**Purpose:** Provides instant market overview for quick executive consumption and signal detection.

## Key Performance Indicators:

- Total Volume Traded (Billions)
- Days Traded & Maximum Volume Day
- Average Daily % Change
- Total Return % & Volatility Score

## Visual Components:

- Price Timeline Charts
- Volume & Volatility Dual Axis
- Real-time KPI Cards

This module serves as your market momentum tracking center, enabling rapid assessment of overall trading conditions.



# Stock Analysis Dashboard

## Comparative Performance Intelligence

Compare stock-wise performance and identify market leaders through comprehensive price behavior analysis.

### Core Metrics:

- Sum of High vs Sum of Close
- Average Close Price by Stock
- High vs Low Price Comparison
- Price Distribution Patterns



Features ranked stock tables and bar chart visualizations that help investment teams quickly identify strong performers and assess price stability across their portfolio.



# Open vs Close Analysis

## Mastering Intraday Trading Patterns

01

### Track Gain Percentage

Monitor the difference between opening and closing prices to identify profitable trading windows.

02

### Calculate Average & Sum of Gains

Aggregate performance metrics across time periods to spot consistent patterns and trends.

03

### Analyze Monthly Patterns

Identify seasonal and monthly variations in intraday price movements for strategic planning.

Visual tools include time series comparisons and color-coded gain/loss charts that make optimal entry-exit timing immediately apparent to traders.

# Price Volatility Dashboard

## Risk Profiling and Market Fluctuation Analysis

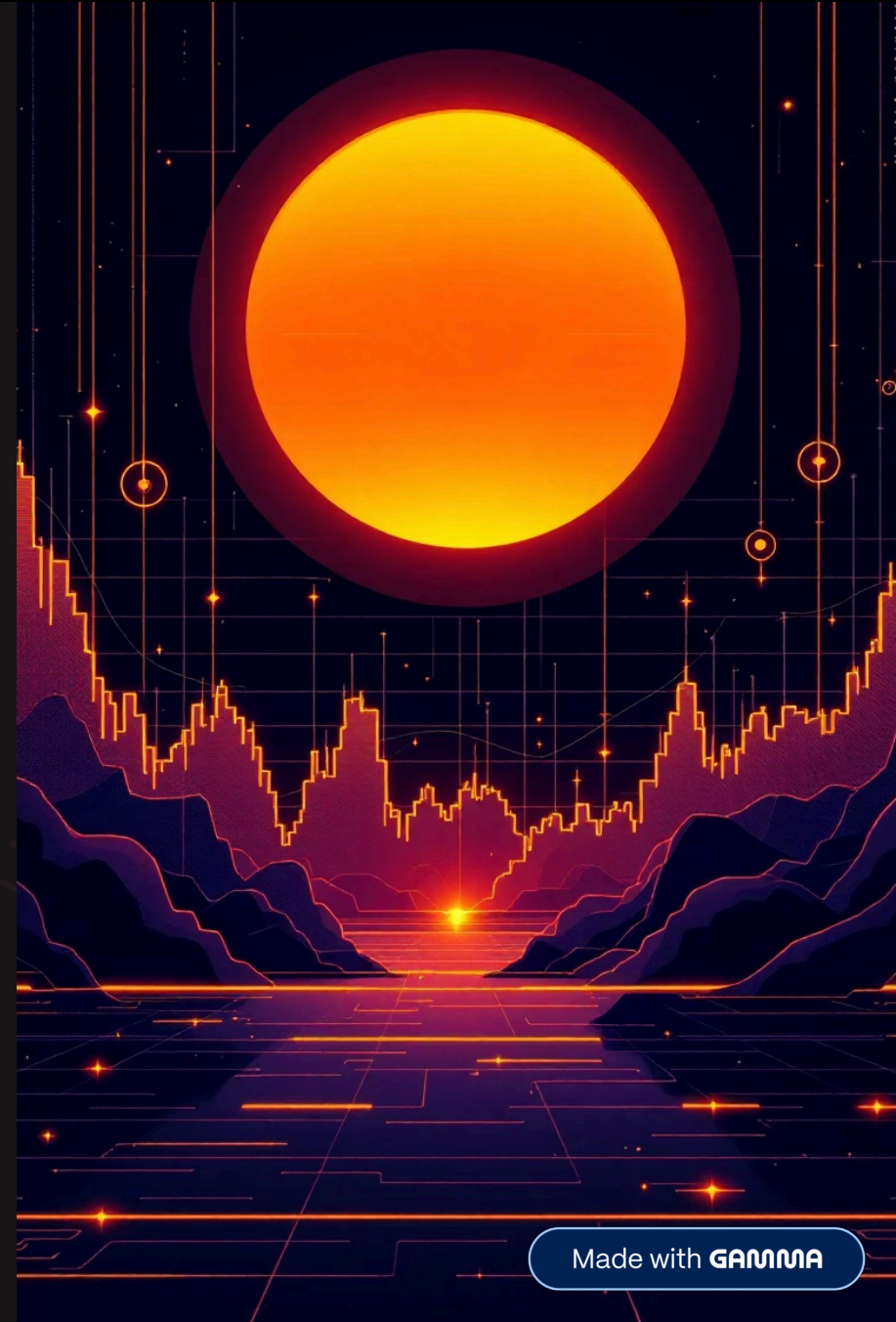
Comprehensive volatility measurement enables sophisticated risk management and hedging strategies.

### Critical Metrics Tracked:

- Highest Volatility by Trading Day
- Average Volatility Calculations
- Monthly & Quarterly Trend Analysis
- High vs Low Price Scatter Analysis

### Business Applications:

- Portfolio risk assessment
- Hedging strategy development
- Position sizing optimization
- Market timing decisions



# Powerful DAX Measures

Optimized Calculations Driving Insights

## Return & Change Metrics

- Average Daily % Change
- Total Return Percentage
- Intraday Difference

## Risk Indicators

- Volatility Score
- Price Range Analysis
- Standard Deviation

## Volume Analytics

- Max Volume Day
- Total Volume Traded
- Average Daily Volume

## Price Aggregations

- Sum & Avg of High/Low
- Open/Close Comparisons
- Price Distribution

These reusable measures are performance-optimized and serve as the analytical foundation across all dashboard modules.



# Technology Stack



## Power BI

Industry-leading business intelligence platform handling data modeling, relationship management, and interactive visualization rendering.



## Excel & CSV

Source data integration from market feeds, enabling seamless ingestion of trading data and historical market information.



## DAX Language

Advanced calculation engine powering complex analytical measures, time intelligence, and dynamic aggregations across datasets.



## Star Schema Design

Optimized data architecture using dimensional modeling principles for fast query performance and scalable analytics.

# Business Impact & Value Delivered

4

## Specialized Dashboards

Each targeting distinct analytical needs

15+

## Key Metrics

Comprehensive performance indicators

100%

## Data-Driven

Decisions backed by real-time insights

This solution transforms market complexity into clarity, enabling investment professionals to make faster, more confident decisions. From executive oversight to granular volatility analysis, every dashboard component delivers actionable intelligence that drives portfolio performance and risk management excellence.

