

# PRODUCT DOCUMENT

1.Overview .....	2
1.0 StockMood Platform Overview .....	2
1.1 Background.....	2
Problem Statement .....	2
Project Purpose .....	2
Target Audience .....	2
1.2 Product.....	2
1.21 Main Functions .....	3
1. Traditional Stock price valuation	
2. Industry specific relative valuation .....	3
3. Sentiment Analyzer	
4. AI stock generic Q&A assistant .....	3
5.Userspace/portfoliointegration.....	3

# 1.Overview

## 1.0 StockMood Platform Overview

StockMood is a smart platform that helps retail investors make informed, sentiment-aware decisions in the fast-changing Indian stock market. It tackles the risks of hype-driven investing—especially around nano and micro-cap stocks—by offering real-time sentiment insights, data-driven analysis, and valuation tools. Using NLP, machine learning, and traditional financial metrics, StockMood helps users cut through noise, spot real opportunities, and invest more confidently and responsibly.

## 1.1 Background

### **Problem Statement**

In the rapidly growing Indian economy, retail investors are increasingly drawn to the allure of multibagger success stories, particularly in nano and micro-cap stocks. However, this ambition often leads to financial losses. The rise of social media influence on daily decision-making has exacerbated the issue, with investors relying on misleading recommendations, pump-and-dump schemes, and disinformation. The lack of financial literacy, combined with limited time for quality research, leaves these investors vulnerable to poor investment choices. How can we empower retail investors in India with the tools and knowledge to make informed and sustainable investment decisions in this dynamic market?

### **Target Audience**

StockMood is designed for retail investors in India who are navigating the complexities of a fast-paced and emotionally influenced stock market. This includes individuals drawn to high-potential nano and micro-cap stocks, often influenced by trending content and advice circulating on social media platforms. The platform particularly caters to first-time and novice investors who may lack formal financial education or the time required for thorough research. It also serves young professionals, students, and side-investors who are eager to grow their wealth but seek reliable, data-backed tools to make smarter investment decisions. By focusing on this diverse and growing group, StockMood aims to build a more informed, resilient, and confident community of retail investors.

## 1.2 Product

### 1.21 Main Functions

#### 1. Traditional Stock price valuation

This feature performs a 10-year Free Cash Flow to the Firm (FCFF) valuation to estimate a stock's intrinsic value. It calculates the present value of projected cash flows and derives a final fair stock price. **Additionally, it includes a sensitivity analysis that lets users explore "what-if" scenarios by adjusting key variables like ROCE (Return on Capital Employed) and growth rates, helping investors understand the potential impact of different market conditions and assumptions.**

#### 2. Industry specific relative valuation

This feature provides an interactive table listing all stocks within the same industry as the selected stock. Each row represents a peer stock, and columns display key financial metrics such as P/E, ROE, ROCE, and Sales/Capital ratio—balancing popular indicators with deeper valuation parameters. **Users can select the metrics they believe are most relevant, which are then used to train a machine learning model. Upon clicking the "Predict" button, the model estimates the fair value of the selected stock based on industry trends and chosen variables.** The page also includes visualizations like industry market share and other relevant insights, helping users evaluate a stock's standing and performance in its competitive landscape.

#### 3. Sentiment Analyzer

**The Sentiment Analysis page uses social media APIs** to track and interpret how the selected stock is being discussed online. A two-level Sankey diagram first shows the volume of mentions, followed by the type of content—such as memes, due diligence, news, announcements, and reports. It also features a time-series visualization that compares historical mention frequency with stock price movements, helping users identify if the stock's value is influenced by social buzz. Finally, the page provides an overall sentiment score, generated using natural language processing techniques that classify each mention as positive or negative. This empowers investors to understand market mood and anticipate emotionally driven price shifts.

#### 4. AI stock generic Q&A assistant

#### 5. User space/ portfolio integration

