```
import yfinance as yf import
pandas as pd from textblob
import TextBlob import
matplotlib.pyplot as plt

# ========== STEP 1: Download Financial Data ========== def
get_stock_data(ticker, start_date, end_date):
    data = yf.download(ticker, start=start_date, end=end_date)
return data

# ========== STEP 2: Calculate Trend Indicators ==========
def add_moving_averages(data):
    data['MA_50'] = data['Close'].rolling(window=50).mean()
data['MA_200'] = data['Close'].rolling(window=200).mean()
return data

def detect_trend(data):     if data['MA_50'].iloc[-1] >
data['MA_200'].iloc[-1]:
        return "Uptrend"     elif data['MA_50'].iloc[-1] <
data['MA_200'].iloc[-1]:
        return "Downtrend"
    else:
        return "Sideways"

# ========== STEP 3: Analyze Economic Indicators ==========
def analyze_economic_indicators(indicators):
    score = 0     if
indicators['gdp_growth'] > 2.0:
```

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score += 1     if
indicators['inflation'] < 3.0:
       score += 1     if
indicators['unemployment'] < 5.0:
       score += 1     return "Positive" if score >= 2
else "Negative"

# ========== STEP 4: Analyze Financial Reports (Text) ==========
def analyze_financial_report(text):     blob = TextBlob(text)
polarity = blob.sentiment.polarity     return "Positive" if polarity > 0
else "Negative"

# ========== STEP 5: Combine All for Final Trend Detection ========== def
detect_market_trend(stock_data, economic_indicators, report_text):
   stock_data = add_moving_averages(stock_data)     trend =
detect_trend(stock_data)     econ_sentiment =
analyze_economic_indicators(economic_indicators)     report_sentiment
= analyze_financial_report(report_text)

   print("\n--- Market Trend Report ---")     print("Stock
Trend:", trend)     print("Economic Indicators Sentiment:",
econ_sentiment)     print("Financial Report Sentiment:",
report_sentiment)

   if trend == "Uptrend" and econ_sentiment == "Positive" and report_sentiment ==
"Positive":
       return "Overall Market Trend: BULLISH"
   elif trend == "Downtrend" and (econ_sentiment == "Negative" or report_sentiment ==
"Negative"):        return "Overall Market Trend: BEARISH"
```

```
    else:
        return "Overall Market Trend: UNCERTAIN"

# ========== MAIN PROGRAM ========== if
__name__ == "__main__":
    # Get stock data     ticker = "AAPL"     start_date = "2022-
01-01"     end_date = "2024-12-31"     stock_data =
get_stock_data(ticker, start_date, end_date)

    # Economic indicators (mock data)
economic_indicators = {
        "gdp_growth": 2.5,
        "inflation": 2.0,
        "unemployment": 4.2
    }

    # Financial report sample (mock text)
report_text = """
    The company experienced strong revenue growth and significant improvements in net
income.
    Management is optimistic about the coming quarters.
    """

    # Run analysis
    result = detect_market_trend(stock_data, economic_indicators, report_text)
    print(result)
```

```
    # Optional: Plot     stock_data[['Close', 'MA_50',
'MA_200']].plot(title=f"{ticker} Price & Trends")     plt.show()
```

OUTPUT :

```
--- Market Trend Report ---
Stock Trend: Uptrend
Economic Indicators Sentiment: Positive
Financial Report Sentiment: Positive
Overall Market Trend: BULLISH
```