Steps:

###Fine tune the model to give 2 outputs, the sentiment on a scale of 1-5, and a domain among the list.###

1. Make the web scraper to obtain the data from WSJ. (Half done, need to scrape content)
2. Save the data in an easy to access format. ()
3. Come up with an algorithm to determine Market sentiment (EMA of sorts).

###Come up with a dashboard for the Market Sentiment data for each subcategory, for each time timeframe.###

I want you to determine the sentiment of the following news article to be among one of five categories based on the article’s title and content: {0: Largely Negative, 1: Slightly Negative, 2: Neutral, 3: Slightly Positive, 4: Largely Positive}

Then I want you to also determine the subcategory that the article belongs to among the following: { Banking, Insurance, Real Estate, Cryptocurrency, Industrials, Computers and information technology, Automotive, Retail, Energy, Healthcare, Materials, Telecom}

You can use the template below enclosed by ``` as an example for the output format:

```

Example template:

Article title: Bitcoin Bulls Cite a Simple Reason for Its Rally: Not Enough Coins

Article: Why did bitcoin soar to a record this week? Fans of the world’s largest cryptocurrency say it is due to old-fashioned laws of supply and demand.

Like the price of any commodity—whether it be gold, oil or soybeans—bitcoin’s price is sensitive to fluctuations in demand. And demand for bitcoin surged after the January launch of U.S. exchange-traded funds, known as “spot” bitcoin ETFs, that directly hold units of the digital currency. Since then, investors have poured billions of dollars into these ETFs. Those inflows prompted the funds to buy bitcoin to meet the demand, bidding up the price.

But what makes bitcoin different from just about any other commodity is its tightly constrained supply, a dynamic that can lead to sharp price spikes.

The computer code underpinning bitcoin imposes a hard limit of 21 million coins. More than 90% of them have already been created. To expand supply, number-crunching computers run algorithms to “mine” new coins. But they can only crank out about 900 new bitcoins a day, a rate expected to drop next month after a periodic event called the halving. The bitcoin supply is eventually set to stop growing when the final coin is mined, around the year 2140.

“Bitcoin is one of the scarcest assets in the world and it is becoming scarcer every day,” said Alex Thorn, head of research at Galaxy Digital.

There is no guarantee that bitcoin will keep rallying. Its current high prices could encourage holders to sell their coins and lock in profits. Bitcoin’s previous bull markets have been followed by devastating crashes: After its last peak in November 2021, bitcoin dropped more than 70% over the next year.

And skeptics—including government officials and Wall Street executives who have stayed on the sidelines of the rally—still dismiss bitcoin as a speculative asset with no intrinsic value.

Expected output:  
Sentiment - 3: Slightly Positive

Subcategory - Cryptocurrency

```

Article title: Saudi Aramco Hikes Dividend, Adjusts Spending

Article: Saudi Arabia’s national oil company hiked dividend payouts for last year after it achieved its second-highest ever net profit and said investment plans to 2028 would be reduced by an abandoned plan to boost production.

Saudi Arabian Oil Co., known as Aramco, said Sunday that it made $121.3 billion in net profit last year, compared with $161.1 billion in 2022, when oil prices swelled the company’s coffers to a new record. Aramco attributed the fall to lower crude-oil prices and volumes sold, but said last year’s net profit was its second-highest ever.

The company raised its base dividend for the fourth quarter by 4% to $20.3 billion and its performance-linked payout by 9% to $10.8 billion. Total dividends paid last year amounted to $97.8 billion, a 30% increase from 2022, it said.

“Our resilience and agility contributed to healthy cash flows and high levels of profitability, despite a backdrop of economic headwinds,” Aramco President and Chief Executive Amin H. Nasser said.

Aramco, which halted plans in late January to increase its maximum sustainable crude oil production capacity after Saudi Arabia chose to maintain it at 12 million barrels per day, said that it expected capital spending for 2024 would range from $48 billion to $58 billion and grow until around the middle of the decade.

However, the company said investment would be reduced by around $40 billion between 2024 and 2028 as a result of the decision to scrap plans to boost oil production.

Aramco spent $49.7 billion in 2023, up 28% on year, after narrowing in November its capital investment guidance range to $48 billion to $52 billion including external investments from around $45 billion to $55 billion originally. Organic investment amounted to $42.2 billion last year.

That move comes as the Middle Eastern Kingdom earlier this month joined with other OPEC+ members in extending voluntary production cuts into the second quarter of this year.

Aramco said it produced 12.8 million barrels of oil equivalent on average a day in 2023, compared with 13.6 million in 2022.

The company also said it aims to increase natural-gas production more than 60% by 2030 compared with 2021 levels.