# DS 2500 - Fall 2025
# Team and Topic Report Requirements

**Deadline:** October 24, 2025 @ 11:59pm Eastern

**Total Points**: 260 pts

## Finding Team Members

You are free to find team members on your own. Please note that all team members must be from the same lecture section.

If you would like to be *randomly assigned to a team*, please fill this [Google Form](#) by **Tuesday, October 14, 2025 11:59 PM**. If you fill the Google Form, we expect that you will not join a team outside of the one that we assign you. We will send your team assignments via email by the end of the week to give you plenty of time to work on the first milestone.

## Requirement

1. **# of Team Members:** Teams must be of 2-4 people (only 2, 3, or 4 are allowed). All team members must be in the same section.
2. **Report Format**: Use the template provided below for the report. You can copy and paste the template to a Google Doc or Word Document and fill in all the answers. Submit as PDF on Canvas.
3. **Report Submission**: Only one team member submits on Canvas, but make sure to add the full names of all your team members on the PDF.

## Evaluation Criteria

- Problem statement is clear and specific (80 points)
- Data sources are realistic and reasonable for the problem/topic. (80 points)
- All the required information is provided including all team member information (40 points)
- Report uses the provided template (30 points)
- Writing is clear, well-organized, and professional (30 points)

Reports will be graded on completeness and above evaluation criteria. TAs will provide feedback.

## Template

**Question 1: What is your team's section?**
        Your section:

Section 1: 09:50 am - 11:30 am at SH 105 (Deahan Yu)
Section 2: 01:35 pm - 03:15 pm at SH 335  (Deahan Yu)
Section 3: 03:25 pm - 05:05 pm at SH 335 (Deahan Yu)
Section 4: 03:25 pm - 05:05 pm at EV 102 (Hye Sun Yun)
Note: all members of your team must be in the same section.

**Question 2: Who are your team members?**
Name 1: Alexander Zheng
Name 2: Andrew Kwon
Name 3:
Name 4:

**Question 3: What are you trying to do? (problem or topic) Describe in a couple sentences**
- We aim to predict short-term stock returns (1-day, 3-day, and 7-day periods) using social media sentiment, mention volume, and engagement metrics from r/WallStreetBets. Specifically, we will analyze whether stocks with high positive sentiment and engagement on WSB outperform the market, and whether we can build a predictive model to identify which stocks discussed on WSB are likely to see price increases in the following week.

**Question 4: Why is this important? Short summary (2-3 sentences) of who cares about this problem, what impact it has, what implications better solutions might have.**
- With over 15 million retail investors coordinating on r/WallStreetBets, understanding the relationship between social media sentiment and market movements has significant implications for multiple stakeholders. Retail investors can benefit from distinguishing legitimate investment opportunities from hype-driven pumps, while institutional investors and hedge funds are increasingly monitoring social sentiment as an alternative data source for their trading strategies. Additionally, financial regulators like the SEC need tools to identify potential market manipulation and coordinated trading activity that could destabilize markets or harm inexperienced investors.

**Question 5: What dataset(s) are you interested in working with? Add links if possible.**
- Reddit r/WallStreetBets data: Scraped using PRAW (Python Reddit API Wrapper) to collect post titles, body text, scores, comments, awards, and timestamps from the past 6 months (approximately 3,000-5,000 posts)
    - Reddit: https://www.reddit.com/r/wallstreetbets/
    - API Documentation: https://www.reddit.com/dev/api/
    - PRAW Library: https://praw.readthedocs.io/
- Historical stock price data: Downloaded via Yahoo Finance API (yfinance Python library) for all stocks mentioned in WSB posts, including daily open/close prices, volume, and returns
    - Yahoo Finance: https://finance.yahoo.com
    - yfinance documentation: https://pypi.org/project/yfinance/