CS410 Project Proposal

1. **What are the names and NetIDs of all your team members? Who is the captain? The captain will have more administrative duties than team members.**

Name	NetID	Captain	Group
Justyn Lao	justynl2	Justyn Lao	Dyno

2. **What is your free topic? Please give a detailed description. What is the task? Why is it important or interesting? What is your planned approach? What tools, systems or datasets are involved? What is the expected outcome? How are you going to evaluate your work?**

   a. My free topic is Sentiment Analysis on the NBA Subreddit, specifically Sentiment Analysis on some of the top players in the league. The objective is to analyze posts and comments relating to players and determine how generally well liked or disliked they are in the context of the subreddit. Depending on how much data there is, I may analyze additional players and a few or many seasons.

   b. This project will be interesting for NBA fans to figure out which players might be the most popular, and can also be expanded to other sports like the NFL, NHL, MLB, etc., and even other non-sports subreddits.

   c. My rough plan is to:

      i. Retrieve posts/comments using the Python Reddit API Wrapper (PRAW)

      ii. Use Natural Language Toolkit (NLTK) to compile and analyze the text data

      iii. Create visualizations of results using a library (undecided for now) such as Matplotlib, Plotly, Seaborn, etc.

      iv. Display visualizations and analysis on a dashboard of sorts by making a web application with Flask

3. **Which programming language do you plan to use?**
    a. I plan to use Python, along with several Python libraries/frameworks
4. **Please justify that the workload of your topic is at least 20*N hours, N being the total number of students in your team. You may list the main tasks to be completed, and the estimated time cost for each task.**

Tasks	Estimated Time to Complete
Retrieve and clean/organize data	6 hours
Sentiment Analysis Process with NLTK	8 hours
Create key visualization graphs for individual players and the entire collection	5 hours
Make frontend of web application	5 hours
Total:	**24 hours**