

Sports betting data instructions

1. The CSV contains raw sports betting data that is scraped/ obtained from a data API. Each row contains information about the odds at specific sportsbooks. For example, in the first line, id **35BD9B7B0DC5** would mean:
At Sportsbook 5Dimes you can bet Kansas City Chief to win the first half (1st Half Moneyline) of the Super Bowl at odd +100 (winning \$100 by risking \$100)
2. The data, while very useful, is not very usable at this state because it does not help us to determine if a given odd is advantageous to the bettor. In order to do so, we would like to have a “2-sided” market to determine what would be the market “implied” odds for a specific event.
3. In the same example above, in the 2nd row you would see the odd for Philadelphia Eagles winning the first half at the same Sportsbook (5Dimes) being -120 (risking 120 to win 100). The 2 sided market for 1st half moneyline for the game at 5Dimes would be +100/ -120
4. For the rest of the exercise, you can refer to the attached ‘superbowl_lines.xlsx’ for illustration.
5. Our task here is to construct a two sided market for all betting propositions using data from all the sports books. For example, data from “1st Half Money Line” tab should be transformed into “1st Half Money Line 2 sided”. Below are some basic requirements:
 - a. These fields are part of the unique identifiers for the prop, so we should include them all:
name, market_name, bet_points, is_main, is_live, home_rotation_number, away_rotation_number, deep_link_url, player_id, game_id, game_sport, game_league, game_start_date, game_home_team, game_away_team, game_is_live
 - b. We should try to make sure we include all the books and their odds and all the books that are available. Some books may not have all the propositions.
6. It is not trivial to find the correct hedge line. Here are some example of matching propositions:
 - a. Philadelphia Eagles (*Home Team*) MoneyLine vs Kansas City Chief (*Away Team*) MoneyLine
 - b. 1st Half Total Points Over 25.5 vs 1st Half Total Points Under 25.5
 - c. Philadelphia Eagles (*Home Team*) -10.5 vs Kansas City Chief (*Away Team*) +10.5

It is part of the task to identify as many matching propositions as possible in order to construct the two sided market

7. We encourage you to submit your solution using python. If that poses difficulty, please reach out to us.
8. As part of the assessment, we value accuracy, performance, and code clarity.

You are encouraged to reach out if you have any questions.