Runshop Tech Test : Bet Resolution

Runshop has a number of models which produce model selections for different sports events. These model selections consist of a fixture, a market, a market selection, a value and a bottom price. All the bets placed within runshop belong to a selection; there may be many bets made against any selection.

Fixtures are broken down into two categories, individual and participant. Individual fixtures are sporting events where there are many “runners” in a single event (e.g. golf or horse racing), participant fixtures are events where there are two participants competing against each other (e.g. cricket or football).

Your task is to develop a user interface to support our operational team to resolve the bets in the bets_placed.csv file. To resolve any bet the user would be expected to input some information that would allow your system to determine if a bet has won or a bet has lost. You can use any information in other files that may help you to complete this task.

You can assume any outcome for the events you wish.

Requirement:

- Develop an intuitive user interface that our operational team can use to efficiently resolve bets in the bets_placed.csv.
- You will be marked based on your code structure and design.
- We will give extra credit to innovative approaches to resolving bets that would make our operators more efficient.

Extra Credit: (if you have time)

1) Write tests for the UI and any backend components. Explain your reasoning for the tests and provide instructions to run them.
2) Extend the UI to view cumulative Profit and Loss of bets executed by each trader.

Attached (6 files):

1. markets_table.csv: Contains information about the different markets available for betting.
2. individual_fixtures.csv: Lists individual fixtures such as horse racing events.
3. participant_fixtures.csv: Lists participant fixtures such as cricket or football matches.
4. model_selections.csv: Details the selections made by the models for each fixture.
5. bets_placed.csv: Contains records of all bets placed.
6. traders.csv: Information about the traders who executed the bets.

Technology Recommendations:

- Frontend: JavaScript/TypeScript and React (Material-UI is preferred).
- Backend: Any language of your choice.
- Provide clear instructions for running your application.

Submission:

- Submit your code with a README in a git bundle.

  https://stackoverflow.com/questions/11792671/how-to-git-bundle-a-complete-repo/11795549#11795549

Definitions:

- **Bet Resolution**
  A bet resolution is a binary outcome. Won or Lost.

- **Match Odds**
  A market for the game outcome of a participant fixture. Examples include:
  Football - { market: “Match Odds”, selection: ”Draw” }
  Cricket - { market: “Match Odds”, selection: ”Home” }

- **Line market**
  A market where we select over or under a certain value. Examples include:
  Football - { market: “Total goals”, selection: “Over”, value: “3” }
  Cricket - { market: “Total runs 20th over first innings”, selection “Under”, value: “150”}.
  There are no line markets for individual fixtures in the dataset.