

Tech Challenge

For this exercise, please create a simple risk application.

Data Files and Description:

- “Settled.csv”
 - Customer - a customer identifier
 - Event - event identifier
 - Participant - participant identifier
 - Stake - dollar amount bet
 - Win - dollar amount won (zero if bet not won)
- “Unsettled.csv”
 - Customer - a customer identifier
 - Event - event identifier
 - Participant - participant identifier
 - Stake - dollar amount bet
 - To Win - dollar amount that will be won if bet is successful

Tasks:

1. In your “user interface” (the form the interface takes is open to your interpretation), identify settled bet history for a customer that shows they are winning at an unusual rate, where the business rule is:
 - A customer wins on more than 60% of their bets (i.e. in the settled bets data, they have a value in the “win” column for more than 60% of their bets)
2. Identify unsettled bets that exhibit high risk characteristics, where risky bets are defined as:
 - All upcoming (i.e. unsettled) bets from customers that win at an unusual rate should be highlighted as risky (it is up to you how this is shown)
 - Bets where the stake is more than 10 times higher than that customer’s average bet in their betting history should be highlighted as unusual (again, it is up to you how this is shown)
 - Bets where the stake is more than 30 times higher than that customer’s average bet in their betting history should be highlighted as highly unusual
 - Bets where the amount to be won is \$1000 or more.

Requirements and notes:

- To make it easier to process CSVs, you’re free to edit and remove header rows
- You are free to use whatever technology/language/framework/approach that you want
- Please store your code in a git repository - we want to see your commits (i.e. not just a single commit of all code, we’d like to see the evolution of the solution, so commit early and commit often)
- There should be some evidence of testing
- Please include a README file, content to be determined by you
- Solutions should be all inclusive, with instructions on how to run it
- This challenge should take 3 to 4 hours... please feel free to time box if you can’t complete everything in a reasonable time frame. We will use what you have completed to start out discussions.