SYST10199

Web Programming

_

ACTIVITY 109

Summer 2019, Week 4

Problem

Design a game of one-dice Pig and write a simple program for two human players.

Implement using unobtrusive Javascript and functional programming

Additional Information

Describe the problem

From Wikipedia, https://en.wikipedia.org/wiki/Pig (dice game)

Play

Each turn, a player repeatedly rolls a dice until either a 1 is rolled or the player decides to "hold":

- If the player rolls a 1, they score nothing and it becomes the next player's turn.
- If the player rolls any other number, it is added to their turn total and the player's turn continues.
- If a player chooses to "hold", their turn total is added to their score, and it becomes the next player's turn.
- The first player to score 100 or more points wins.

For example, the first player, Anne, begins a turn with a roll of 5. Anne could hold and score 5 points, but chooses to roll again. Anne rolls a 2, and could hold with a turn total of 7 points, but chooses to roll again. Anne rolls a 1, and must end her turn without scoring. The next player, Bob, rolls the sequence 4-5-3-5-5, after which he chooses to hold, and adds his turn total of 22 points to his score.

Design solution