Bowling recruitment challenge

Submitting your solution

To submit your solution, please create a new git repo on your own account and send us back the url. Please make sure all access rights are set correctly.

Tips

Please follow all the best practices you know to solve this project in the best way possible. This includes writing clean code, optimized use of git, possible dependency management, testing...

Please include any steps necessary to execute the program.

Challenge

- The `BowlingGame` module should evaluate the score at the end of the game, when all frames have been played.
- There is no need to write a UI, just the code to calculate the score is sufficient.
- A gutter game (20 times 0 pin) should score 0
- An all one game (20 times 1 pin) should score 20
- A spare followed by a 3 should score 16
- A strike followed by a 3 and a 4 should score 24
- The perfect game (12 times 10) should score 300

Scoring Bowling

Rolls	1 – 4	4 – 5	6 - /	5 - /	X	0 – 1	7 - /	6 - /	X	2 - / - 6
Total score	5	14	29	49	60	61	77	97	117	133

X = Strike   / = Spare

The game consists of 10 frames as shown above.

In each frame the player has two opportunities to knock down 10 pins.

The score for the frame is the total number of pins knocked down, plus bonuses for strikes and spares.

A spare is when the player knocks down all 10 pins in two tries. The bonus for that frame is the number of pins knocked down by the next roll. So in frame 3 above, the score is 10 (the total number knocked down) plus a bonus of 5 (the number of pins knocked down on the next roll.)

A strike is when the player knocks down all 10 pins on his first try. The bonus for that frame is the value of the next two balls rolled.

In the tenth frame a player who rolls a spare or strike is allowed to roll the extra balls to complete the frame. However no more than three balls can be rolled in tenth frame.