

2.7.0

[Options](#)

89 specs, 0 failures

finished in 0.053s

## Game

## constructor

- has ten frames
- the current frame number is 0
- has the player
- has a score of 0
- is first roll is true

## is first roll

- first roll has knocked down less than ten pins
- first roll has knocked down ten pins

## receive roll

- first frame in a consecutive pair is an open frame
  - updates the frame's first roll
  - updates the frame's second roll
  - updates the current frame number

- there is no previous frame
  - updates the frame's score
  - updates the game's score

- second frame in the consecutive pair is an open frame
  - updates the frame's score
  - updates the games's score

- second frame in the consecutive pair is a spare
  - does not update the frame's score
  - does not update the games's score

- second frame in the consecutive pair is a strike
  - does not update the frame's score
  - does not update the games's score

- first frame in a consecutive pair is a spare
  - updates the frame's first roll
  - updates the frame's second roll
  - updates the current frame number

- there is no previous frame
  - does not update the frame's score
  - does not update the game's score

- second frame in the consecutive pair is an open frame
  - updates the first frame's score

```
    updates the second frame's score
    updates the games's score

second frame in the consecutive pair is a spare
    updates the first frame's score
    does not update the second frame's score
    updates the games's score

second frame in the consecutive pair is a strike
    updates the first frame's score
    does not update the second frame's score
    updates the games's score

first frame in a consecutive pair is a strike
    updates the frame's first roll
    updates the current frame number

there is no previous frame
    does not update the frame's score
    does not update the game's score

second frame in the consecutive pair is an open frame
    updates the first frame's score
    updates the second frame's score
    updates the games's score

second frame in the consecutive pair is a spare
    updates the first frame's score
    does not update the second frame's score
    updates the games's score

second frame in the consecutive pair is a strike
    does not update the first frame's score
    does not update the second frame's score
    does not update the games's score

first and second frames in a consecutive triple are strikes

third frame in the consecutive triple is an open frame
    updates the first frame's score
    updates the second frame's score
    updates the third frame's score
    updates the games's score

third frame in the consecutive triple is a spare
    updates the first frame's score
    updates the second frame's score
    does not update the third frame's score
    updates the games's score

third frame in the consecutive triple is a strike
    updates the first frame's score
    does not update the second frame's score
    does not update the third frame's score
    updates the games's score
```

Frame

```
constructor
  has an ID
  has zero pins recorded for first roll
  has zero pins recorded for second roll
  has zero pins recorderd for first extra roll
  has zero pins recorderd for second extra roll
  is not a strike
  is not a spare
  has a score of zero

setFirstRoll
  can set first roll
  cannot set first roll to more than 10 pins
  is a strike if 10 pins are knocked down
  is not a strike if less than 10 pins are knocked down

setSecondRoll
  can set second roll
  cannot set second roll if the total is more than 10 pins
  is a spare if 10 pins are knocked down
  is not a spare if less than 10 pins are knocked down
  is open if less than 10 pins are knocked down

setFirstExtraRoll
  cannot be set for frames 1 - 9
  cannot be set for final frame if it is Open
  cannot be set to more than 10 pins
  can be set for final frame if it is a Spare
  can be set for final frame if it is a Strike

setSecondExtraRoll
  cannot be set for frames 1 - 9
  cannot be set for final frame if is Open
  cannot be set for final frame if is a Spare
  cannot be set if the total of extra rolls is more than 10 pins
  can be set for final frame if it is a Strike

calculate score
  calculates score given previous total and bonus
  throws an error if previous total is missing
  throws an error if bonus is missing for a strike/spare frame
  does not throw an error if bonus is missing for an open frame

Player
  constructor
    has a name
```