WordGolf Game Design

Hole Class

Attributes:

- **holeNumber** (integer): the number of the hole.
- **targetDistance** (integer): the target distance for the hole.

Constructors:

- **Hole(holeNumber: integer, targetDistance: integer)**: constructs a new hole object with the given hole number and target distance.

Methods:

- **getHoleNumber(): integer**: returns the hole number.
- **getTargetDistance(): integer**: returns the target distance.
- **reachedTargetDistance(distance: integer): boolean**: returns true if the given distance equals the target distance, false otherwise.

WordGolf Class

Attributes:

- **holes** (Hole[]): an array of Hole objects, representing the two holes in the game.
- **totalStrokes** (integer): the total number of strokes taken so far.

Constructors:

- **WordGolf()**: constructs a new WordGolf object with two randomly generated holes.

Methods:

- **generateRandomTargetDistance(): integer**: returns a random integer between 50 and 100, representing the target distance for a hole.
- **getSentence(): String**: prompts the user to input a sentence and returns it.
- **validateSentence(sentence: String): boolean**: returns true if the given sentence is valid (1 to 4 words without punctuation), false otherwise.
- **computeYardage(sentence: String): integer**: computes the yardage gained from the given sentence using the rules in the "Yardage Calculation" section.
- **playHole(hole: Hole): integer**: plays the given hole, returning the number of strokes taken to reach the target distance.
- **playGame(): void**: plays the entire game, outputting the results of each stroke and the final score.