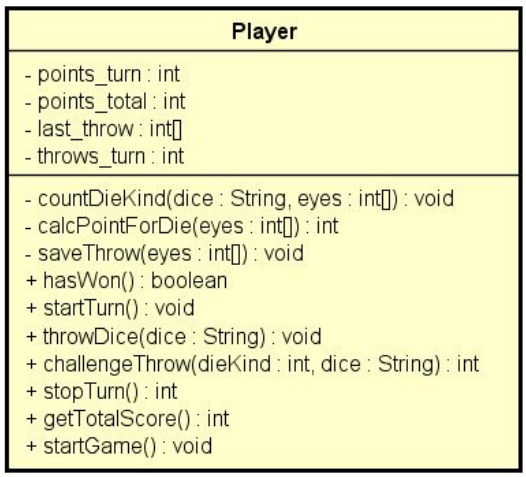
Group

261825 - Christoffer Thygesen
246676 - Signe Rasmussen

Design



Each game starts with calling startGame() to ensure the total points for the player starts at 0.
At the start of a turn call startTurn() to set the points and throws of that turn to 0.
Call throwDice() for each throw with the die kinds the player wants to save, separated by comma. The function stopTurn() returns the score for the turn.
When calling hasWon() it returns true if the player has reached 25000 total points or more.
The function getTotalScore() returns the total score.
The helpingfunction countDieKind() takes 2 variables, the string dice, and int array eyes, and counts up each eye in the string.
The helping function calcPointForDie() takes an int array and returns the points. This is will be needed when calculating points dice thrown.
The function saveThrow() takes an int array and saves the dice thrown last turn, used for the next turn.
The function challengeThrow() takes 2 variables, an int and a string. The int is dieKind and is the number the player is throwing for, and the string is the list of dice thrown. Returns the points for that throw.

Test list

Total score must start at 0

One die of one should give 100

One die of five should give 50

One die of two, three, four or six should give 0

Two dice of one should give 200

Three dice of twos, fours, fives, sixes should give their eye count times 100

Four dice of twos, fours, fives, sixes should give their eye count times 1000

three dice of ones should give 1000

Four dice of ones should give 10000

When a turn starts the players points for that turn must be 0

If a throw does not result in any point the points for that turn must be 0

A player can only throw a challenge throw if the player got three of a kind on their first turn

If player reached 25000 or more they win

if challenge throw is won, the player should get 4 of a kind points for the matching eye

if challenge throw is cancelled, player should get points for his current throw

If the challenge is lost the player will get -500 points for that turn

A challenge throw can only be called once per player turn

> (We decided that the challenge throw only works once as that makes the most sense when a player physically throws dice, since they must remove the four dice they wish to rethrow)

A challenge throw also counts additional points from any point giving dice on that throw

A player should maximally be able to throw seven dice

Challenge throws can only be thrown when the previous dice throw had three of a kind of want to try to get four of a kind for

A conclusion about your experience with TDD

Our experience with Test Driven Development is quite good. The design of the code is based on making it able to pass one test at a time and by so it becomes much more manageable to implement the code without designing a bloated system, since we will only implement code when we have designed a test that the code should be able to pass. This ensures that we have control over whether the code lives up the expectations we set for its features. By having the test it can constantly be checked whether the we get our expected result . This removes the fear of making a mistake when refactoring the code.