Tennis Calculator

1.Introduction

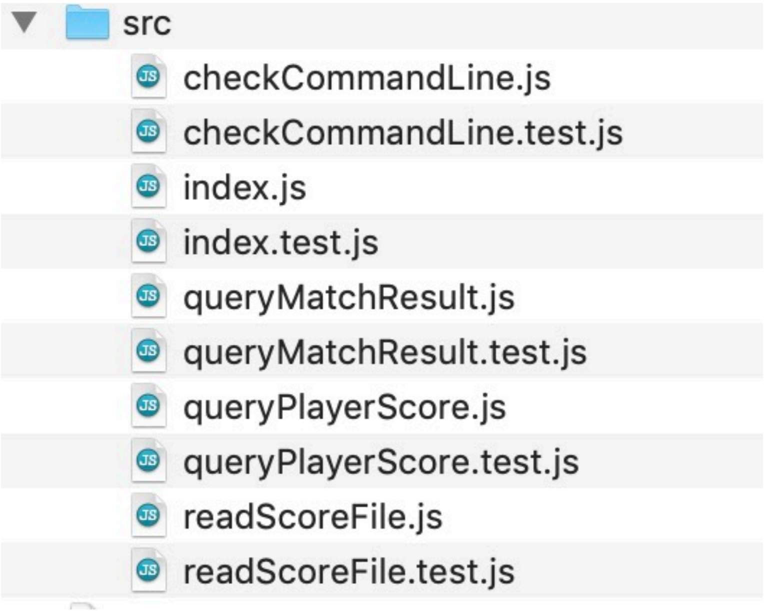
The tennis calculator takes a set of scores as inputs and produces useful statistics based on those scores. This calculator considering about the game score difference, and it should over 2 to win a set, and whoever when 2 sets first win a match.

Technical stack:

Node.js. (JavaScript)

Jest (Testing Library)

2. File structure



src

checkCommandLine.js

checkCommandLine.test.js

index.js

index.test.js

queryMatchResult.js

queryMatchResult.test.js

queryPlayerScore.js

queryPlayerScore.test.js

readScoreFile.js

readScoreFile.test.js

index.js : run the main tasks, print the result in console for 2 queries.

checkCommandLine.js: contain the functions about command line input validations.

readScoreFile.js: read the given txt file to an array.

queryMatchResult.js: contain the functions for query the match score result.

queryPlayerScore.js: contain the functions for a summary of games won and lost for a particular player.

3. How to use

Open the whole tennis_caculator_app folder in Visual Studio Code(or other IDE).

Then open the terminal, and run the following command:

cd tennis_caculator_app

(if open the terminal in vs code there is no need for this command, no need to go to src folder)

yarn tennis-caculator   01 "Person A"

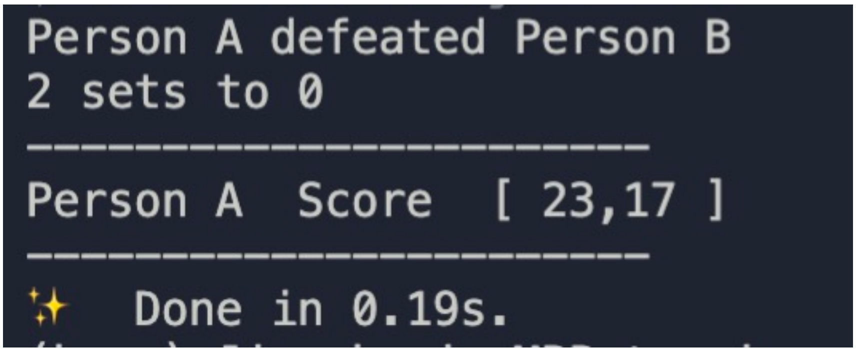
(Or **npm run yarn tennis-caculator   01 "Person A"** if use npm package manager,

Or **node ./src/index 01 "Person A"** if do not have yarn package manager locally, same as below)

01 : query match ID

"Person A": query player name (should input with double quotes)

The outcome should be:



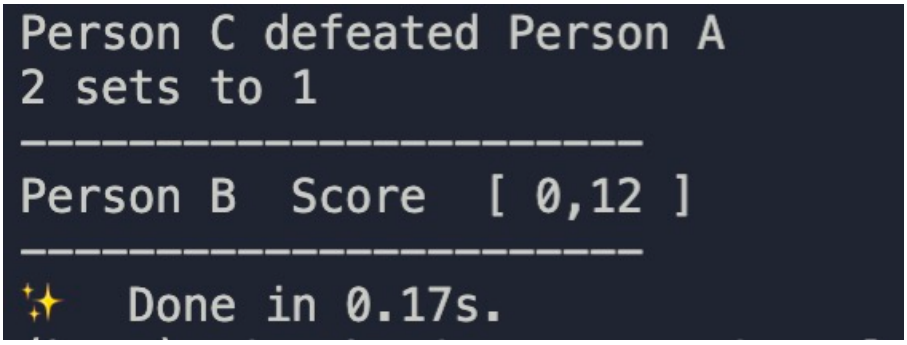
```
Person A defeated Person B
2 sets to 0
-----------------------
Person A  Score  [ 23,17 ]
-----------------------
✨  Done in 0.19s.
```

yarn tennis-caculator   02 "Person B"

(Or **npm run 02 "Person B",**

Or **node ./src/index 02 "Person B"**)

The outcome should be:



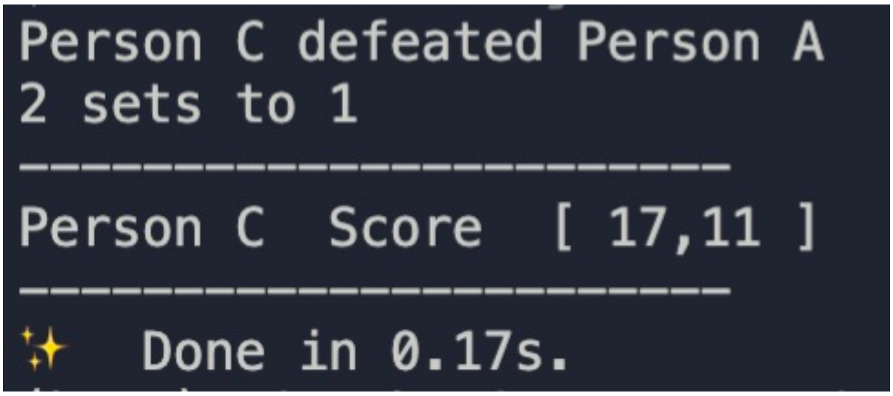
```
Person C defeated Person A
2 sets to 1
-----------------------
Person B  Score  [ 0,12 ]
-----------------------
✨  Done in 0.17s.
```

yarn tennis-caculator   02 "Person C"

(Or **npm run 02 "Person C",**

Or **node ./src/index 02 "Person C"**)

The outcome should be:



```
Person C defeated Person A
2 sets to 1
-----------------------
Person C  Score  [ 17,11 ]
-----------------------
✨  Done in 0.17s.
```

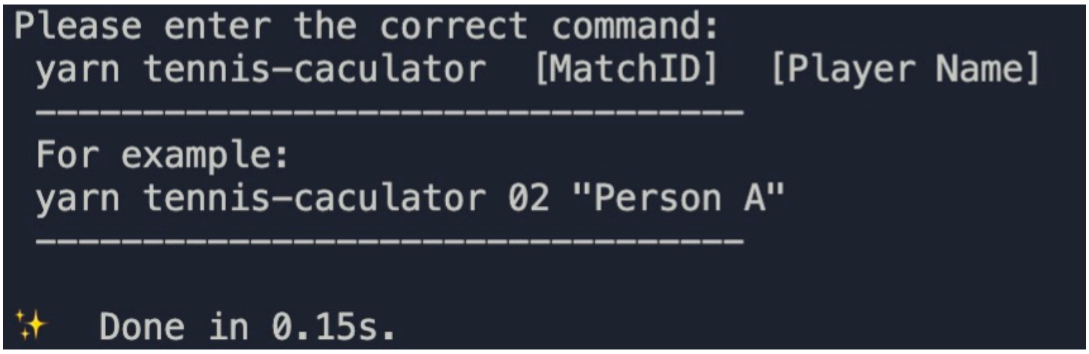
4.Validations

There are also some validations for user input in command line.

1.If the input argument number is not 2, for example enter

yarn tennis-caculator   02

The outcome should be:



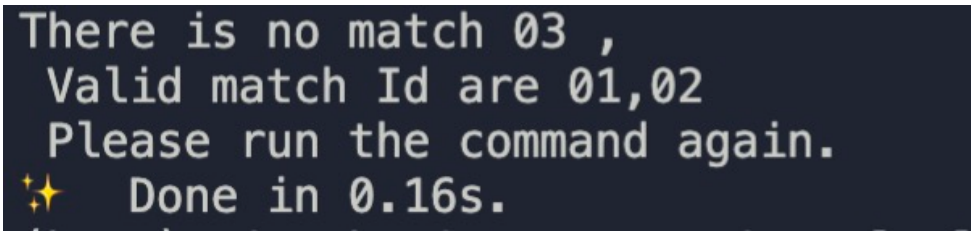
```
Please enter the correct command:
 yarn tennis-caculator  [MatchID]  [Player Name]
 ---------------------------------
 For example:
 yarn tennis-caculator 02 "Person A"
 ---------------------------------

✨  Done in 0.15s.
```

2.If the input match Id is not valid, for example enter

yarn tennis-caculator   03 "Person A"

The outcome should be:

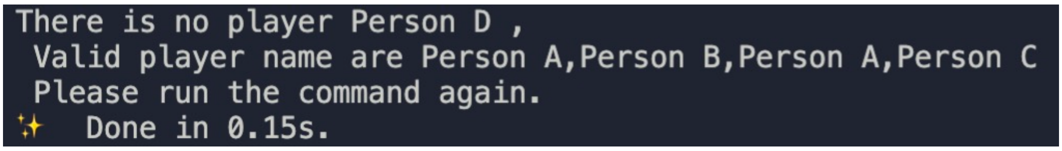


```
There is no match 03 ,
 Valid match Id are 01,02
 Please run the command again.
✨  Done in 0.16s.
```

3.If the input player name is not valid, for example enter

yarn tennis-caculator   02 "Person D"

The outcome should be:



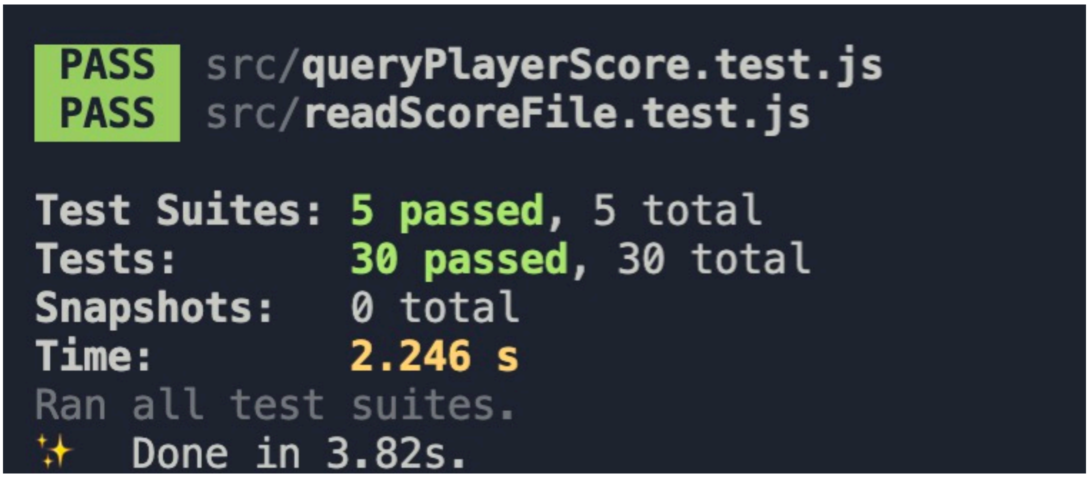
```
There is no player Person D ,
 Valid player name are Person A,Person B,Person A,Person C
 Please run the command again.
✨  Done in 0.15s.
```

5.Test

There are altogether 30 test cases, to see the test result, simply run

yarn test

(run this command your node version should be over 10, if your node version is not over 10, run **nvm install 10** for upgrading)



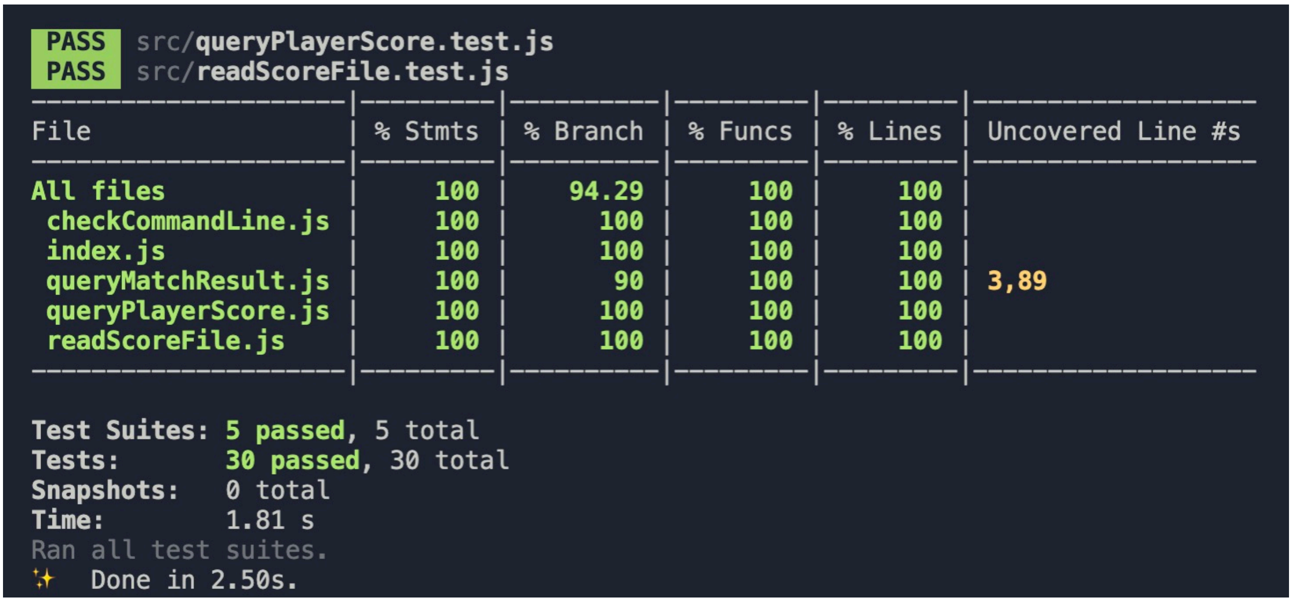
```
PASS  src/queryPlayerScore.test.js
PASS  src/readScoreFile.test.js

Test Suites: 5 passed, 5 total
Tests:       30 passed, 30 total
Snapshots:   0 total
Time:        2.246 s
Ran all test suites.
✨  Done in 3.82s.
```

Test result should be:

Run the following command to see the test coverage:

yarn test —coverage



```
PASS  src/queryPlayerScore.test.js
PASS  src/readScoreFile.test.js
---------------------|---------|----------|---------|---------|-------------------
File                 | % Stmts | % Branch | % Funcs | % Lines | Uncovered Line #s
---------------------|---------|----------|---------|---------|-------------------
All files            |     100 |    94.29 |     100 |     100 |
 checkCommandLine.js |     100 |      100 |     100 |     100 |
 index.js            |     100 |      100 |     100 |     100 |
 queryMatchResult.js |     100 |       90 |     100 |     100 | 3,89
 queryPlayerScore.js |     100 |      100 |     100 |     100 |
 readScoreFile.js    |     100 |      100 |     100 |     100 |
---------------------|---------|----------|---------|---------|-------------------

Test Suites: 5 passed, 5 total
Tests:       30 passed, 30 total
Snapshots:   0 total
Time:        1.81 s
Ran all test suites.
✨  Done in 2.50s.
```