Test Strategy for Player Class

Test Plan

1. Create a Player object with the default constructor.
2. Create a Player object with the non-default constructor:
   a. with valid field values
   b. with invalid field values
3. Test all get methods:
   a. Test getName()
   b. Test getFieldPosition()
   c. Test getTotalGoal()
   d. Test getKick()
   e. Test getGoal()
   f. Test getBehind()
   g. Test getPass()
   h. Test getPercent()
   i. Test getIsStar()
   j. Test getIsInjured()
   k. Test getIsReported()
4. Test all set methods:
   a. Test setName()
      i. with valid field values
      ii. with invalid field values
   b. Test setFieldPosition()
      i. with valid field values
      ii. with invalid field values
   c. Test setTotalGoal()
      i. with valid field values
      ii. with invalid field values
   d. Test setKick()
      i. with valid field values
      ii. with invalid field values
   e. Test setGoal()
      i. with valid field values
      ii. with invalid field values
   f. Test setBehind()
      i. with valid field values
      ii. with invalid field values
   g. Test setPass()
      i. with valid field values
      ii. with invalid field values

h. Test setPercent()
    i.   with valid field values
    ii.   with invalid field values
i. Test setIsStar()
    i.   with valid field values
    ii.   with invalid field values
j. Test setIsInjured()
    i.   with valid field values
    ii.   with invalid field values
k. Test setIsReported()
    i.   with valid field values
    ii.   with invalid field values

The Actual Tests

Test 1

Create a Player object with the default constructor.

Test data:

N/A

Expected results:

- name: "unknown"
- fieldPosition: "unknown"
- totalGoal: 0
- kick: 0
- goal: 0
- behind: 0
- pass: 0
- percent: 0.0
- isStar: false
- isInjured: false
- isReported: false

Actual results:

```
name: unknown
fieldPosition: unknown
totalGoal: 0
kick: 0
goal: 0
behind: 0
pass: 0
percent: 0.0
isStar: false
isInjured: false
isReported: false
```

Test Passed!

Test 2.1

Create an Employee object with the non-default constructor with valid field values.

Test data:

- name: "playerA1"
- fieldPosition: "Forward"
- totalGoal: 2
- kick: 4
- goal: 2
- behind: 1
- pass: 1
- percent: 100.0
- isStar: false
- isInjured: false
- isReported: false

Expected results:

- name: "playerA1"
- fieldPosition: "Forward"
- totalGoal: 2

- kick: 4
- goal: 2
- behind: 1
- pass: 1
- percent: 100.0
- isStar: false
- isInjured: false
- isReported: false

Actual results:

```
[user@sahara ~/Final Version]$ java Test
name: playerA1
fieldPosition: Forward
totalGoal: 2
kick: 4
goal: 2
behind: 1
pass: 1
percent: 100.0
isStar: false
isInjured: false
isReported: false
```

Test Passed!

Test 2.2

Create an Employee object with the non-default constructor with invalid field values.

Test data:

- name: "playerA1"
- fieldPosition: "GoalKeeper"
- totalGoal: -1
- kick: -1
- goal: -1
- behind: -1
- pass: -1

- percent: -1.0
- isStar: false
- isInjured: false
- isReported: false

Expected results:

- name: "playerA1"
- fieldPosition: "unknown"
- totalGoal: 0
- kick: 0
- goal: 0
- behind: 0
- pass: 0
- percent: 0.0
- isStar: false
- isInjured: false
- isReported: false

Actual results:

```
Invalid field position.
Invalid total goal.
Invalid kick.
Invalid goal.
Invalid behind.
Invalid pass.
Invalid percent.
name: playerA1
fieldPosition: unknown
totalGoal: 0
kick: 0
goal: 0
behind: 0
pass: 0
percent: 0.0
isStar: false
isInjured: false
isReported: false
```

Test 3

Test the accessor method getKick() after calling the default constructor.

Test data:

- N/A

Expected results:

- kick: 0

Actual results:

```
[user@sahara ~/Final Version]$ java Test
0
                                              _
```

Test Passed!

Test 4.1

Test the mutator method setKick() with valid value after calling the default constructor.

Test data:

- kick: 2

Expected results:

- kick: 2

Actual results:

```
[user@sahara ~/Final Version]$ java Test
2
```

Test Passed!

Test 4.2

Test the mutator method setKick() with invalid value after calling the default constructor.

Test data:

- kick: -2

Expected results:

- kick: 0

Actual results:

```
[user@sahara ~/Final Version]$ java Test
Invalid kick.
0
```

Test Passed!

Test 5

Test the display method toString() and display() after calling the default constructor.

Test data:

- N/A

Expected results:

- name: "unknown"
- fieldPosition: "unknown"
- totalGoal: 0
- kick: 0
- goal: 0
- behind: 0
- pass: 0
- percent: 0.0
- isStar: false
- isInjured: false
- isReported: false

Actual results:

```
[user@sahara ~/Final Version]$ java Test
name: unknown
fieldPosition: unknown
totalGoal: 0
kick: 0
goal: 0
behind: 0
pass: 0
percent: 0.0
isStar: false
isInjured: false
isReported: false
```

Test Passed!