
Bug 4

SPADE not being returned from `DiceValue.getRandom()`

I found and fixed bug 4 while solving bug 3. So I copied the relevant logs below.

H1. The bug is somewhere in the rolling of the dice. So within `public DiceValue roll()` function of the Dice class.

Test	Place a breakpoint on line 37 <code>d.roll();</code>
Prediction	The dice isn't a fair dice and not returning truly random faces.
Result	The dice values seem to be random.
Notes	<ul style="list-style-type: none">There is something wrong with <code>DiceValue.getRandom()</code>; it seems that SPADE is never returned.<code>RANDOM.nextInt(DiceValue.SPADE.ordinal());</code> value is too low. It needs to be 1 above the value of <code>DiceValue.SPADE.ordinal()</code>

H2. Given than spades aren't being returned which would change dice odds, in turn changing the game odds.

Test	Add 1 to <code>DiceValue.SPADE.ordinal()</code> . Line 26 of <code>DiceValue</code> is now <code>int random = RANDOM.nextInt(DiceValue.SPADE.ordinal() + 1);</code>
Prediction	The odds should be 0.42
Result	The odds are 0.50 228 turns later. End Game 99: Fred now has balance 200 Win count = 18422, Lose Count = 18502, 0.50
Notes	<ul style="list-style-type: none">Is that another bug that wasn't in the bug report? Or Just part of this bug? Adding it as another bug anyway.

Sample Output? There is no output produced from this bug.

----- N/A -----

Before and after screen shot of the bug.

```
public static DiceValue getRandom() {  
    int random = RANDOM.nextInt(DiceValue.SPADE.ordinal());  
    return values()[random];  
}
```

```
public static DiceValue getRandom() {  
    int random = RANDOM.nextInt(DiceValue.SPADE.ordinal() + 1);  
    return values()[random];  
}
```