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.*

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

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| Test | Place a breakpoint on line 37  d.roll(); |
| Prediction | The dice isn’t a fair dice and not returning truly random faces. |
| Result | The dice values seem to be random. |
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| Notes | * There is something wrong with DiceValue.*getRandom*(); it seems that SPADE is never returned. * *RANDOM*.nextInt(DiceValue.***SPADE***.ordinal());   value is too low. It needs to be 1 above the value of  DiceValue.***SPADE***.ordinal() |

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

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| --- | --- |
| Test | Add 1 to DiceValue.***SPADE***.ordinal().  Line 26 is of DiceValue is now  **int** random = *RANDOM*.nextInt(DiceValue.***SPADE***.ordinal() + 1); |
| 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 | * 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.*



