

## Bug 01 Log

### What's Wrong?

Game does not pay out at correct level. When player wins on 1 match, balance does not increase.

### Additional Observations

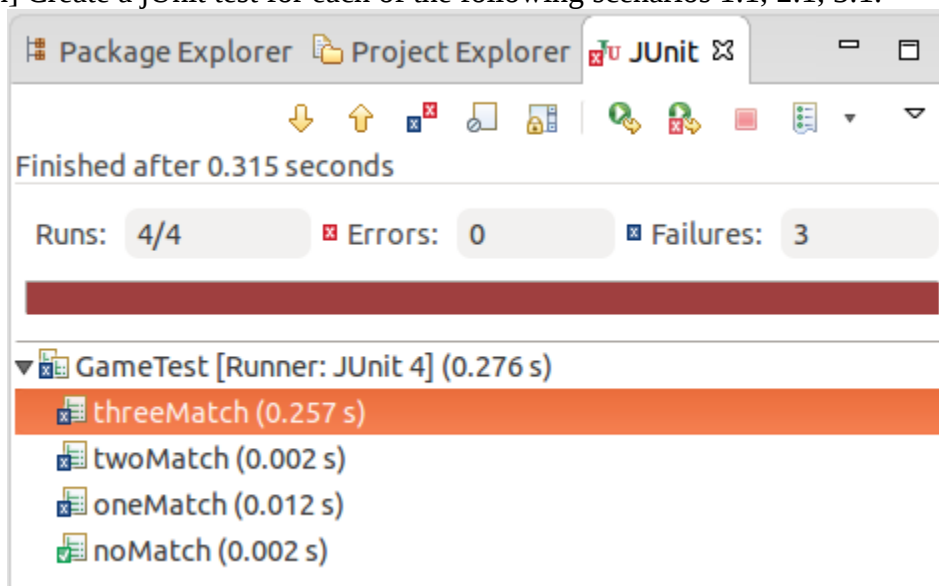
- Seemingly when a player wins one match with a payout of 2:1, the balance increases at 1:1
- Seemingly when a player wins one match with a payout of 3:1, the balance increases at 2:1

### Initial Hypothesis

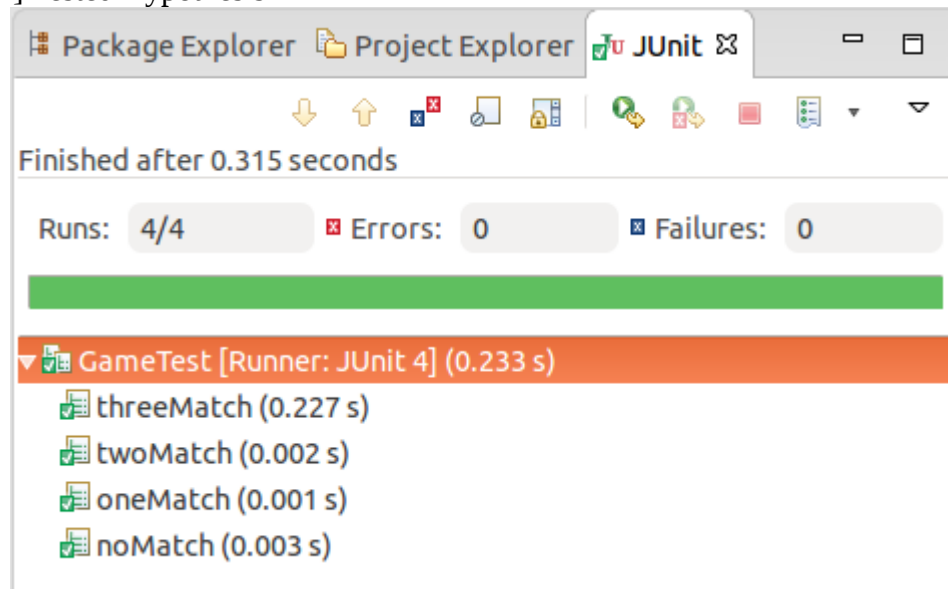
- The math being used to calculate the balance after each round is not taking the bet amount into account.

### Process

1. [Action] Read the code to familiarize oneself with methods and what they do.
2. [Observation] The ongoing balance is calculated using the `receiveWinnings` function
3. [Observation] The calculation for `winnings` appears to be correct
4. [Observation] The calculation for `receiveWinnings` appears to be correct
5. [Observation – New Hypothesis] The `takeBet` function appears to subtract the bet from the balance irrespective of whether the player wins or loses.
6. [Action] Define a test case in UAT format that will reliably reproduce the buggy behaviour. Commit the test case.
7. [Action] Define a test script in UAT format that will reliably reproduce the buggy behaviour. Commit the test script.
8. [Action] Create a jUnit test for each of the following scenarios 1:1, 2:1, 3:1.



9. [Action] Save StackTrace Output for examination.
10. [Observation] Player.takeBet and Player.recieveWinnings are both behaving as they should
11. [New Hypothesis] If takeBet and recieveWinnings are enacted using an if/else statement then the bug will be fixed.
12. [Action] Tested Hypothesis



13. [Observation] It worked.