# Project Repository

<https://github.com/agaba01/ITC515Assignment04>

# Bug Report

## Bug 1

Compiled the source code and executed the first test case to reproduce bug 1 which is documented in the UAT document located in the project repository/UAT folder.

### Replication

Output from the test demonstrating the buggy behavior is illustrated in the below figure 1 where we can see that even after consecutive wins of Fred, balance didn’t increase. Figure 1 shows that Fred won in turn 22,23, and 24 but balance didn’t increase.



Figure 1 - Bug-1

### Simplification

Developed a test class called “testGame” and first test method testBug1() to test the bug 1 where game is not paying at correct level.

*# javac -cp junit-4.12.jar;\* testGame.java*

Compiled the testGame class and executed the first test case using Junit runner classes at the command line using below command,

*#java -cp \*;. org.junit.runner.JUnitCore testGame*

*Figure 1 illustrates a simple UNIT TEST CASE to reproduce the bug.*

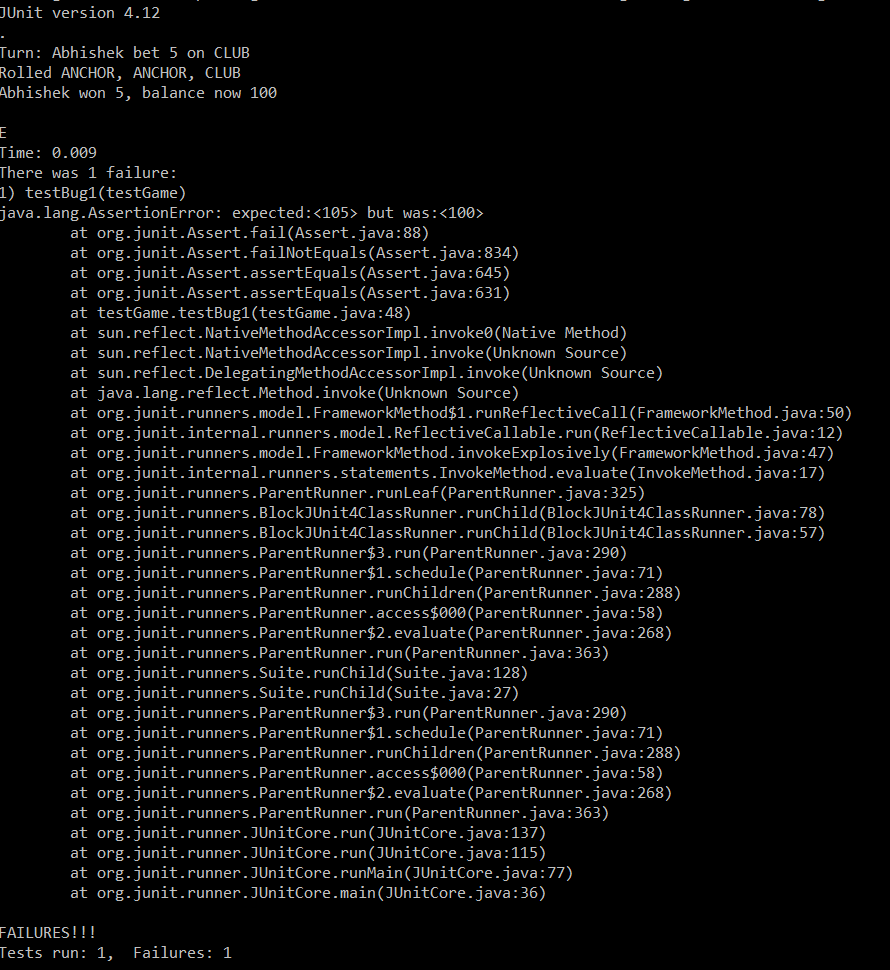


Figure - Bug 1 Unit Test

### Tracing

Before and After screenshots (show variable values)

### Resolution

Output of correct operation after resolution

## Bug 2

Compiled the source code and executed the second test case to reproduce bug 2 which is also documented in the UAT document located in the project repository/UAT folder.

### Replication

Output from the test demonstrating the buggy behavior is illustrated in the below figure 2 where we can see that player (Fred) cannot reach the betting limit which is 0 and games ends with $5 remaining.



Figure 3 - Bug2

### Simplification

Debugging log

### Tracing

Before and After screenshots (show variable values)

### Resolution

Output of correct operation after resolution

## Bug 3

Compiled the source code and executed the program to simulate the third test case which is also documented in the UAT documented located in the project repository/UAT folder.

### Replication

Output from the test demonstrating the buggy behaviour Is illustrated in the below figure 3 and figure 4, in two different iterations of the program, win ratio is 0.40 and 0.61, where as it should be 0.42 based on the 8% bias to the house.

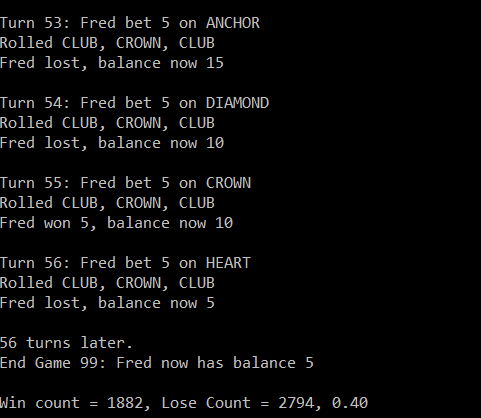


Figure - Bug 3 (a)



Figure - Bug 3 (b)

### Simplification

Debugging log

### Tracing

Before and After screenshots (show variable values)

### Resolution

Output of correct operation after resolution