Assert Violation

Description

The Solidity assert() function is meant to assert invariants. Properly functioning code should never reach a failing assert statement. A reachable assertion can mean one of two things:

- 1. A bug exists in the contract that allows it to enter an invalid state;
- 2. The assert statement is used incorrectly, e.g. to validate inputs.

Remediation

Consider whether the condition checked in the assert() is actually an invariant. If not, replace the assert() statement with a require() statement.

If the exception is indeed caused by unexpected behaviour of the code, fix the underlying bug(s) that allow the assertion to be violated.

Example:

Code:

```
pragma solidity ^0.4.19;

contract AssertConstructor {
  function AssertConstructor() public {
    assert(false);
  }
}
```

Explanation:

In the example, the assert function is improperly utilized to verify input. Replace it with require statement. In addition, the assert function should return true when utilized in code.