**SER 515: Foundations of Software Engineering**

**Construction Lab 3**

**Team Members:**

**Nikil Suresh Raaju - 1232626514 - nsureshr**

**Anmol Nemagouda - 1231954271 - anemagou**

PS D:\Studies\ASU\Fall 2024\SER 515\SER515\_CLab3\_Anmol\_Nikil> javac -d build -cp "lib/junit-platform-console-standalone-1.9.2.jar;build" src/test/solid3/Smell1AlmostBestTest.java

PS D:\Studies\ASU\Fall 2024\SER 515\SER515\_CLab3\_Anmol\_Nikil> java -cp "lib/junit-platform-console-standalone-1.9.2.jar;build" org.junit.platform.console.ConsoleLauncher --class-path build

--scan-class-path

Running testNegativeExponent: Testing 2^-1....

Running testLargeExponent: Testing 2^31.....

Running testBaseOne: Testing 1^1000....

Running testPositiveBoundary: Testing 2^3...

Result: 8

Running testCaching: Testing if results are cached...

Running testMultipleCalls: Testing multiple calls with different exponents...

Running testZeroExponent: Testing 5^0 and -3^0...

Result for 5^0: 1

Result for -3^0: 1

Running testNegativeBase: Testing -2^3 and -2 ^4....

Running testLargeBase: Testing with a large base...

Thanks for using JUnit! Support its development at https://junit.org/sponsoring

.

+-- JUnit Jupiter [OK]

| '-- Smell1AlmostBestTest [OK]

| +-- testNegativeExponent() [X] Negative exponents should throw an exception ==> Expected java.lang.IllegalArgumentException to be thrown, but nothing was thrown.

| +-- testLargeExponent() [X] Large exponents may cause overflow ==> Expected java.lang.ArithmeticException to be thrown, but nothing was thrown.

| +-- testBaseOne() [OK]

| +-- testPositiveBoundary() [OK]

| +-- testCaching() [OK]

| +-- testMultipleCalls() [OK]

| +-- testZeroExponent() [OK]

| +-- testNegativeBase() [OK]

| '-- testLargeBase() [X] Large base may cause overflow ==> Expected java.lang.ArithmeticException to be thrown, but nothing was thrown.

+-- JUnit Vintage [OK]

'-- JUnit Platform Suite [OK]

Failures (3):

JUnit Jupiter:Smell1AlmostBestTest:testNegativeExponent()

MethodSource [className = 'solid3.Smell1AlmostBestTest', methodName = 'testNegativeExponent', methodParameterTypes = '']

=> org.opentest4j.AssertionFailedError: Negative exponents should throw an exception ==> Expected java.lang.IllegalArgumentException to be thrown, but nothing was thrown.

org.junit.jupiter.api.AssertionFailureBuilder.build(AssertionFailureBuilder.java:152)

org.junit.jupiter.api.AssertThrows.assertThrows(AssertThrows.java:73)

org.junit.jupiter.api.AssertThrows.assertThrows(AssertThrows.java:39)

org.junit.jupiter.api.Assertions.assertThrows(Assertions.java:3099)

solid3.Smell1AlmostBestTest.testNegativeExponent(Smell1AlmostBestTest.java:52)

java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:77)

java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

java.base/java.lang.reflect.Method.invoke(Method.java:568)

org.junit.platform.commons.util.ReflectionUtils.invokeMethod(ReflectionUtils.java:727)

[...]

JUnit Jupiter:Smell1AlmostBestTest:testLargeExponent()

MethodSource [className = 'solid3.Smell1AlmostBestTest', methodName = 'testLargeExponent', methodParameterTypes = '']

=> org.opentest4j.AssertionFailedError: Large exponents may cause overflow ==> Expected java.lang.ArithmeticException to be thrown, but nothing was thrown.

org.junit.jupiter.api.AssertionFailureBuilder.build(AssertionFailureBuilder.java:152)

org.junit.jupiter.api.AssertThrows.assertThrows(AssertThrows.java:73)

org.junit.jupiter.api.AssertThrows.assertThrows(AssertThrows.java:39)

org.junit.jupiter.api.Assertions.assertThrows(Assertions.java:3099)

solid3.Smell1AlmostBestTest.testLargeExponent(Smell1AlmostBestTest.java:31)

java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:77)

java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

java.base/java.lang.reflect.Method.invoke(Method.java:568)

org.junit.platform.commons.util.ReflectionUtils.invokeMethod(ReflectionUtils.java:727)

[...]

JUnit Jupiter:Smell1AlmostBestTest:testLargeBase()

MethodSource [className = 'solid3.Smell1AlmostBestTest', methodName = 'testLargeBase', methodParameterTypes = '']

=> org.opentest4j.AssertionFailedError: Large base may cause overflow ==> Expected java.lang.ArithmeticException to be thrown, but nothing was thrown.

org.junit.jupiter.api.AssertionFailureBuilder.build(AssertionFailureBuilder.java:152)

org.junit.jupiter.api.AssertThrows.assertThrows(AssertThrows.java:73)

org.junit.jupiter.api.AssertThrows.assertThrows(AssertThrows.java:39)

org.junit.jupiter.api.Assertions.assertThrows(Assertions.java:3099)

solid3.Smell1AlmostBestTest.testLargeBase(Smell1AlmostBestTest.java:85)

java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:77)

java.base/jdk.internal.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)

java.base/java.lang.reflect.Method.invoke(Method.java:568)

org.junit.platform.commons.util.ReflectionUtils.invokeMethod(ReflectionUtils.java:727)

[...]

Test run finished after 152 ms

[ 4 containers found ]

[ 0 containers skipped ]

[ 4 containers started ]

[ 0 containers aborted ]

[ 4 containers successful ]

[ 0 containers failed ]

[ 9 tests found ]

[ 0 tests skipped ]

[ 9 tests started ]

[ 0 tests aborted ]

[ 6 tests successful ]

[ 3 tests failed ]