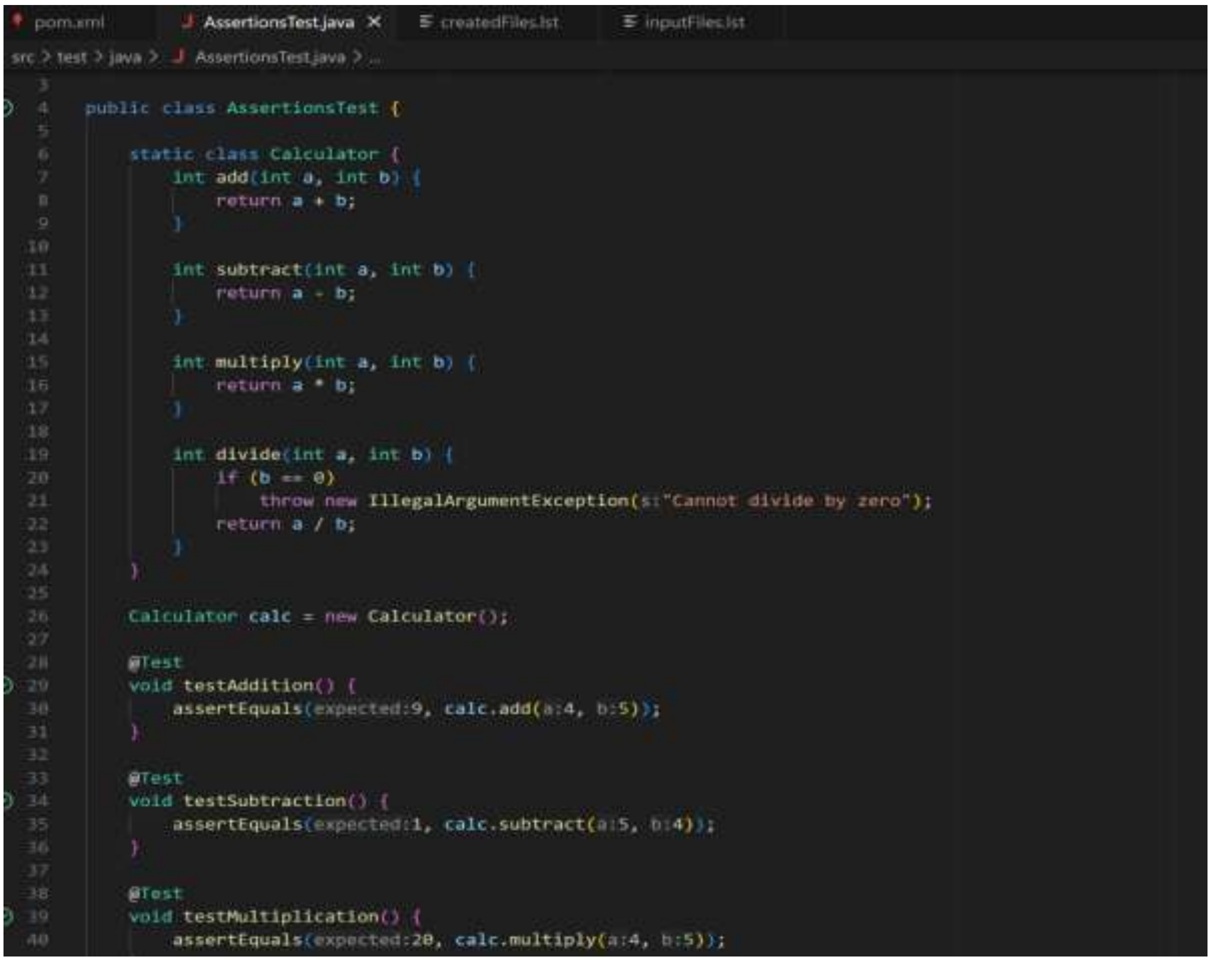
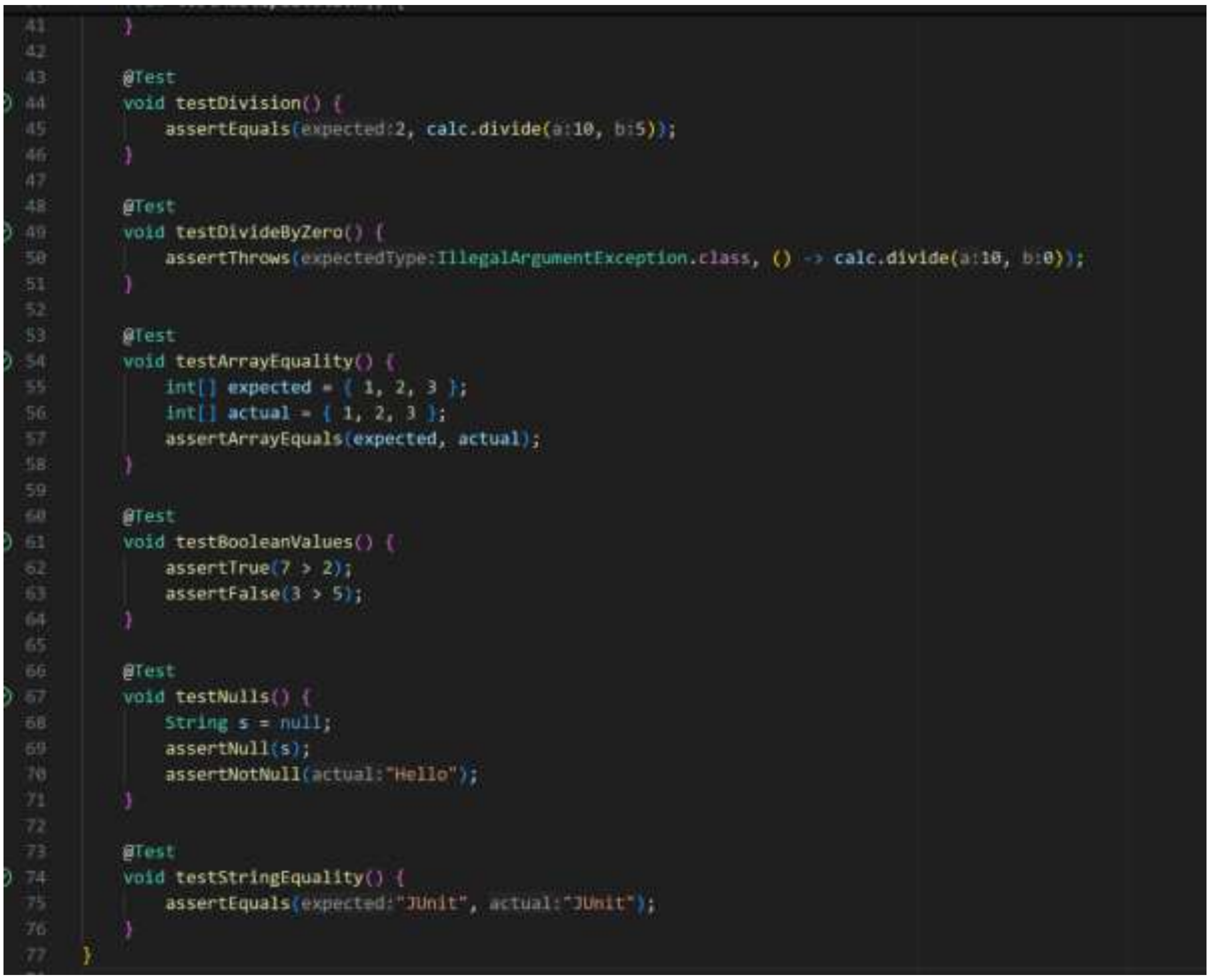
Week2_AssertionTest.java



```java

public class AssertionsTest {

    static class Calculator {
        int add(int a, int b) {
            return a + b;
        }

        int subtract(int a, int b) {
            return a - b;
        }

        int multiply(int a, int b) {
            return a * b;
        }

        int divide(int a, int b) {
            if (b == 0)
                throw new IllegalArgumentException(s:"Cannot divide by zero");
            return a / b;
        }
    }

    Calculator calc = new Calculator();

    @Test
    void testAddition() {
        assertEquals(expected:9, calc.add(a:4, b:5));
    }

    @Test
    void testSubtraction() {
        assertEquals(expected:1, calc.subtract(a:5, b:4));
    }

    @Test
    void testMultiplication() {
        assertEquals(expected:20, calc.multiply(a:4, b:5));
```



```java
    }

    @Test
    void testDivision() {
        assertEquals(expected:2, calc.divide(a:10, b:5));
    }

    @Test
    void testDivideByZero() {
        assertThrows(expectedType:IllegalArgumentException.class, () -> calc.divide(a:10, b:0));
    }

    @Test
    void testArrayEquality() {
        int[] expected = { 1, 2, 3 };
        int[] actual = { 1, 2, 3 };
        assertArrayEquals(expected, actual);
    }

    @Test
    void testBooleanValues() {
        assertTrue(7 > 2);
        assertFalse(3 > 5);
    }

    @Test
    void testNulls() {
        String s = null;
        assertNull(s);
        assertNotNull(actual:"Hello");
    }

    @Test
    void testStringEquality() {
        assertEquals(expected:"JUnit", actual:"JUnit");
    }
}
```