**Exercise 2: Writing Basic JUnit Tests**

Scenario:  
You need to write basic JUnit tests for a simple Java class.   
Code:  
Calculator.java

public class Calculator {

public int add(int a ,int b)

{

return a+b;

}

public int subtract(int a,int b)

{

return a-b;

}

public int multiply(int a,int b)

{

return a\*b;

}

public int divide(int a,int b)

{

if(b==0) throw new IllegalArgumentException("cannot divide by zero");

return a/b;

}

}

CalculatorTest.java  
import static org.junit.Assert.*assertEquals*;

import static org.junit.Assert.*assertThrows*;

import org.junit.jupiter.api.Test;

public class CalculatorTest {

Calculator calculator=new Calculator();

*@Test*

void testAdd()

{

*assertEquals*(5,calculator.add(2, 3));

}

*@Test*

void testSub()

{

*assertEquals*(-1,calculator.subtract(2, 3));

}

*@Test*

void testmul()

{

*assertEquals*(6,calculator.multiply(2, 3));

}

*@Test*

void testdiv()

{

Exception exception=*assertThrows*(IllegalArgumentException.class,()->{

calculator.divide(10,0);

});

*assertEquals*("cannot divide by zero",exception.getMessage());

}

}

Output:  
