**New College Lanarkshire**

15

**Testing Assessment**

**Part 3**

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Code:

**package** testAssessment;

**import** javax.swing.JOptionPane;

**public** **class** AddTwoNumbers

{

**public** **static** **void** main(String[] args)

{

String n1 = JOptionPane.*showInputDialog*(**null**, "First Number");

String n2 = JOptionPane.*showInputDialog*(**null**, "Second Number");

**while** (!*isNumber*(n1))

{

n1 = JOptionPane.*showInputDialog*(**null**,

"Invalid first number. Please insert another number");

}

**while** (!*isNumber*(n2))

{

n2 = JOptionPane.*showInputDialog*(**null**,

"Invalid second number. Please insert another number");

}

**while** (!*inRange*(n1))

{

n1 = JOptionPane.*showInputDialog*(**null**,

"Invalid first number. Please insert another number");

}

**while** (!*inRange*(n2))

{

n2 = JOptionPane.*showInputDialog*(**null**,

"Invalid second number. Please insert another number");

}

**int** result = **new** Integer(n1) + **new** Integer(n2);

JOptionPane.*showMessageDialog*(**null**, "The result of the addition of: "

+ n1 + " and: " + n2 + " is " + result);

}

**private** **static** **boolean** isNumber(String n)

{

**try**

{

Integer.*parseInt*(n);

**return** **true**;

}

**catch** (NumberFormatException nfe)

{

**return** **false**;

}

}

**private** **static** **boolean** inRange(String n)

{

**int** number1 = Integer.*parseInt*(n);

**if** (number1 > 9 || number1 < 1)

{

**return** **false**;

}

**else**

{

**return** **true**;

}

}

}

I have elected to run 10 boundary test cases as well as 10 equivalence class tests in order to make sure the program only takes numbers between 1 and 9 and to make sure an exception is shown for numbers out with this and non-numeric inputs.

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**Test Log Sheets Number: 1**

Tester: Program:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case** | **Strategy** | **Input** | **Expected Result** | **Actual Result** | **Comments** |
| 1 | Boundary / B3 | 9+3 | 12 | 12 |  |
| 2 | Boundary / B2 | 1+10 | “Invalid second number, please enter insert another number” | “Invalid second number, please enter insert another number” |  |
| 3 | Boundary / B1 | 0+5 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 4 | Boundary / B6 | 40+3 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 5 | Boundary / B5 | 5 + -20 | “Invalid second number, please enter insert another number” | “Invalid second number, please enter insert another number” |  |
| 6 | Boundary / B4 | 10 + 4 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 7 | Boundary / B3 | 3 + 9 | 12 | 12 |  |
| 8 | Boundary / B6 | 2 + 2 | 4 | 4 |  |
| 9 | Boundary / B1 | -1 + 5 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 10 | Boundary / B4 | 9+11 | “Invalid second number, please enter insert another number” | “Invalid second number, please enter insert another number” |  |

**Test Log Sheets Number: 2**

Tester: Program:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case** | **Strategy** | **Input** | **Expected Result** | **Actual Result** | **Comments** |
| 11 | Equivalence / E1 | “abc” + 5 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 12 | Equivalence / E1 | 7 + “abcyd” | “Invalid second number, please enter insert another number” | “Invalid second number, please enter insert another number” |  |
| 13 | Equivalence / E2 | “abcdefg” + “abcdefg” | Invalid first and second number, re-enter both. | Invalid first and second number, re-enter both. |  |
| 14 | Equivalence / E2 | “abfxaafg” + 5 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 15 | Equivalence / E3 | 4 + “abcdefghijklmnopqrs” | “Invalid second number, please enter insert another number” | “Invalid second number, please enter insert another number” |  |
| 16 | Equivalence / E3 | “anbshyunijklkeapqrs” + 8 | “Invalid first number, please enter insert another number” | “Invalid first number, please enter insert another number” |  |
| 17 | Equivalence / E2 | 2 + “adfgndfo” | “Invalid second number, please enter insert another number” | “Invalid second number, please enter insert another number” |  |
| 18 | Equivalence / E3 | “abcdefghijklmnopqrs” + “abcdefghijklmnopqrs” | Invalid first and second number, re-enter both. | Invalid first and second number, re-enter both. |  |
| 19 | Equivalence / E1 | “abcyd” + “abcyd” | Invalid first and second number, re-enter both. | Invalid first and second number, re-enter both. |  |
| 20 | B1 / E2 | -1 + “abfxaafg” | Invalid first and second number, re-enter both. | Invalid first and second number, re-enter both. |  |