SOEN 6011 : SOFTWARE ENGINEERING PROCESSES

SUMMER 2021

SUPER CALCULATOR

PROBLEM - 6

Unit Test Cases

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PROBLEM 6 - F2: $tan(x)$

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PROBLEM 6 - F3: Hyperbolic Sine, $sinh(x)$

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PROBLEM 6 - F5

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Team please add your content here

PROBLEM 6 - F7 : x^y

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Problem 6 - Unit Test Case Description

This section presents the unit test cases implemented using **JUnit4** for Super Calculator (F7-Power Function) which are traceable to requirements.

Test Case : F7_TestCase_1

Test Case ID	F7_TestCase_1
Requirement ID	F7-R1
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = 0.0, exponent = 0.0
Expected Output	1.0
Actual Output	1.0
Test Result	Success

Test Case : F7_TestCase_2

Test Case ID	F7_TestCase_2
Requirement ID	F7-R2
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = 0.0, exponent = 3.0
Expected Output	0.0
Actual Output	0.0
Test Result	Success

Test Case : F7_TestCase_3

Test Case ID	F7_TestCase_3
Requirement ID	F7-R3
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = 7.0, exponent = 0.0
Expected Output	1.0
Actual Output	1.0
Test Result	Success

Test Case : F7_TestCase_4

Test Case ID	F7_TestCase_4
Requirement ID	F7-R4
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = -4.0, exponent = 0.0
Expected Output	1.0
Actual Output	1.0
Test Result	Success

Test Case : F7_TestCase_5

Test Case ID	F7_TestCase_5
Requirement ID	F7-R5
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = 7.0, exponent = 1.0
Expected Output	7.0
Actual Output	7.0
Test Result	Success

Test Case : F7_TestCase_6

Test Case ID	F7_TestCase_6
Requirement ID	F7-R6
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = 5, exponent = 9
Expected Output	1953125.0
Actual Output	1953125.0
Test Result	Success

Test Case : F7_TestCase_7

Test Case ID	F7_TestCase_7
Requirement ID	F7-R6
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = -3, exponent = 4.4
Expected Output	3.1631
Actual Output	3.1631
Test Result	Success

Test Case : F7_TestCase_8

Test Case ID	F7_TestCase_8
Requirement ID	F7-R6
Action	The user inputs a base input and click power function button followed by giving exponent input and click result(=) button.
Input(s)	base = -9, exponent = 3
Expected Output	-729
Actual Output	-729
Test Result	Success

Test Case Results for F7

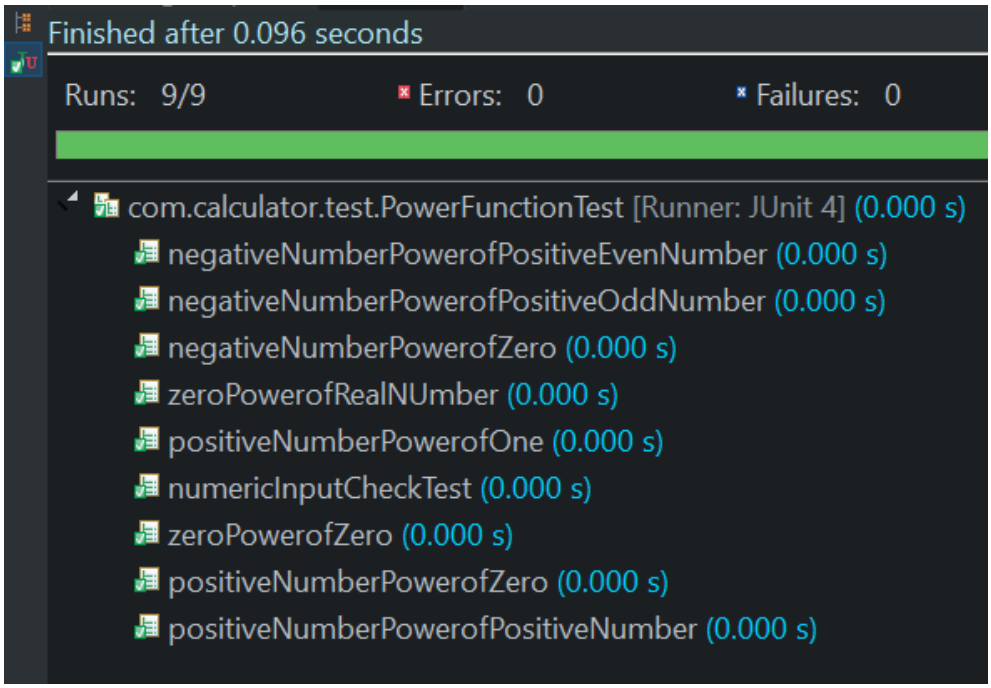

Figure 1: Test case result of function F7 : x^y using Junit4