Deliverable 2: Test Cases

Software Requirements: Linux/Ubuntu, the latest version of the sugar-labs calculate activity, specifically functions.py file, and bash scripting capability.

Hardware Requirements: A device that is is capable of utilizing linux/ubuntu

Time constraints: Complete all test cases by November 24th.

Requirements Traceability: Test script for each function, and output files for each script.

Test Case 1
Name: Test Add 1
Purpose: To test the add(x,y) method inside of the functions.py file
Test Items: the add(x,y) method
Test Input: Enter in two non-negative, numerical values x and y; x = 10, y = 10
Expected Output: 20

Test Case 2
Name: Test Add 2
Purpose: To test the add(x,y) method inside of the functions.py file
Test Items: the add(x,y) method
Test Input: Enter in two negative, numerical values x and y; x = -10, y = -10
Expected Output: -20

Test Case 3
Name: Test Subtract 1
Purpose: To test the sub(x,y) method inside of the functions.py file
Test Items: sub(x,y)
Test Input: Enter in two non-negative, numerical values x and y, such that x > y; x = 50, y = 10
Expected Output: 40

Test Case 4
Name: Test Subtract 2
Purpose: To test the sub(x,y) method inside of the functions.py file
Test Items: sub(x,y)
Test Input: Enter in two non-negative, numerical values x and y, such that x < y; x = 10, y = 60
Expected Output: -50

Test Case 5
Name: Test Divide 1
Purpose: To test the divide(x,y) method inside of the functions.py file
Test Items: divide(x,y)

Test Input: Enter in two non-negative, numerical values x and y, such that the one to be divided by is a zero.; x = 10, y = 0
Expected Output: An error; “Can not divide by 0”

Test Case 6
Name: Test Divide 2
Purpose: To test the divide(x,y) method inside of the functions.py file
Test Items: divide(x,y)
Test Input: Enter in two non-negative, numerical values x and y; x = 10, y = 2
Expected Output: 5

Test Case 7
Name: Test Multiply 1
Purpose: To test the mul(x,y) method inside of the functions.py file
Test Items: mul(x,y)
Test Input: Enter in two non-negative, numerical values x and y; x = 10, y = 10
Expected Output: 100

Test Case 8
Name: Test Multiply 2
Purpose: To test the mul(x,y) method inside of the functions.py file
Test Items: mul(x,y)
Test Input: Enter in negative, numerical values x and y; x = -5, y = -5
Expected Output: 25

Test Case 9
Name: Test Multiply 3
Purpose: To test the mul(x,y) method inside of the functions.py file
Test Items: mul(x,y)
Test Input: Enter in negative, numerical value and a non-negative, numerical value x and y; x = 5, y = -5
Expected Output: -25

Test Case 10
Name: Test Factorial 1
Purpose: To test the factorial(n) method inside of the functions.py file
Test Items: factorial(n)
Test Input: Enter in a non-negative, numerical value n; n = 3
Expected Output: 6