User Story 1 - *Multiply*	**Description: As a user, I would like to be able to multiply two numbers together and view the result.**		
Acceptance Criteria:	~~Given that the user has entered a valid number in the First Number and Second number fields and has selected "Multiply" from the Operation dropdown, when the Calculate button is clicked, then the Answer field will display the product of the 2 numbers.~~	~~Given that the user has not made any entry at all in either the First Number or the Second Number field, when they click the Calculate button, then the system will replace the omitted value with 0 and perform the operation specified, displaying the result in the Answer field.~~	~~Given that the user made an entry of one or more spaces only, in either the First Number or the Second Number field, when they click the Calculate button, then the system will replace the omitted number with 0 and perform the operation specified, displaying the result in the Answer field.~~
Kellie Acceptance Criteria	**Given that**… the user inputs a valid number into fields	**Given that**… the user inputs a decimal into the field	**Given that**… the user inputs zero
	WHEN the clear button is pressed	**WHEN** the calculate button is pressed	**WHEN** the calculate button is press
	THEN all fields are cleared oppose to just the answer field.	**THEN** the answer will be rounded to a whole number.	**THEN** the output will always be zero.

User Story 2 - *Divide*	**Description: As a user, I would like to be able to divide two numbers and view the result.**		
Acceptance Criteria:	Given that the user has entered a valid number in the First Number and Second number fields and has selected "Divide" from the Operation dropdown, when the Calculate button is clicked, then the Answer field will display the dividend from the First Number divided by the Second Number.		
Kellie Acceptance Criteria:	**Given that**… the user inputs zero into the first number	**Given that**… the user inputs 0 divided by a number	
	WHEN the calculate button is pressed	**WHEN** the calculate button is pressed	
	THEN the answer will output/divisor will be undefined.	**THEN** the answer will give 0 as the quotient.	

Equivalence Partitioning

- equivalence class partitioning (**ECP**) is a software testing technique that divides the input data of a software unit into partitions of equivalent data from which test cases can be derived. In principle, test cases are designed to cover each partition at least once.

	Valid	**Invalid**	**Invalid**
	Real numbers	Non-numerical	Empty Input Field

Decision Table:

Conditions		**Test Case 1**	**Test Case 2**	**Test Case 3**	**Test Case 4**	**Test Case 5**	**Test Case 6**	**Test Case 7**	**Test Case 8**
		T	F	T	F	T	F	T	F
		~	T	F	-	~	T	F	F
		~	~	T	T	F	F	-	F
Actions									

Test Scenarios:

1. Check system behavior when given two integers to multiplication functionality and the result is the product of the two numbers.

2. Check system behavior if the calculate button is clicked without any values entered, the result equals undefined due to omitted input filed.

3. Check system behavior when the user inputs valid numbers and the clear button is clicked all fields are cleared as opposed to just the answer field is cleared.

4. Check system behavior when the user inputs a decimal into the field and the calculate button is clicked and the answer will be rounded to a whole number.

5. Check system behavior when the user inputs zero the calculate button is clicked the output will always be zero.

6. Check system behavior when the user inputs zero into the first number then the calculate button is clicked the answer will output/divisor will be undefined.

7. Check system behavior when the user inputs 0 divided by a number the calculate button is clicked the answer will give 0 as the quotient.

Test Cases:

TC1 -

Description:

Check system behavior if the calculate button is clicked without any values entered, the result equals undefined due to omitted input filed.

Test Preconditions:

Navigate to URL: https://testsheepnz.github.io/minimum-viable-calculator.html

Test Script (actions/steps):

In the First number field, leave blank
In the Second number field, leave blank
Select operation “Divide”
Click Calculate

Test Postconditions (expected results):

Answer field displays: “Divide by zero error!"

TC2 -

Description:

Check system behavior when the user inputs valid numbers and the clear button is clicked all fields are cleared as opposed to just the answer field is cleared.

Test Preconditions:

Navigate to URL: https://testsheepnz.github.io/minimum-viable-calculator.html

Test Script (actions/steps):

In the First number field input “22”
In the Second number field, “80”
Select operation “Multiply”
Click Clear

Test Postconditions (expected results):

All fields empty still display numbers except for the Answer field

TC3 -

Description:

Check system behavior when the user inputs a decimal into the field and the calculate button is clicked and the answer will be rounded to a whole number.

Test Preconditions:

Navigate to URL: https://testsheepnz.github.io/minimum-viable-calculator.html

Test Script (actions/steps):

In the First number field input “283”

In the Second number field input “33”
Select operation “Divide”
Click Calculate

Test Postconditions (expected results):
Answer field displays: “8.575757575757576”

Test Execution:

TC1 -

Description:
Check system behavior if the calculate button is clicked without any values entered, the result equals undefined due to omitted input filed.

Test Preconditions:
Navigate to URL: https://testsheepnz.github.io/minimum-viable-calculator.html

Test Script (actions/steps):
In the First number field, leave blank
In the Second number field, leave blank
Select operation “Divide”
Click Calculate

Test Postconditions (expected results):
Answer field displays: “Divide by zero error!"

STATUS: FAILED

TC2 -

Description:
Check system behavior when the user inputs valid numbers and the clear button is clicked all fields are cleared as opposed to just the answer field being cleared.

Test Preconditions:
Navigate to URL: https://testsheepnz.github.io/minimum-viable-calculator.html

Test Script (actions/steps):
In the First number field input “22”
In the Second number field, “80”
Select operation “Multiply”
Click Clear

Test Postconditions (expected results):
All fields empty still display numbers except for the Answer field

STATUS: FAILED

TC3 -

Description:

Check system behavior when the user inputs a decimal into the field and the calculate button is clicked and the answer will be rounded to a whole number.

Test Preconditions:

Navigate to URL: https://testsheepnz.github.io/minimum-viable-calculator.html

Test Script (actions/steps):

In the First number field input “283”
In the Second number field input “33”
Select operation “Divide”
Click Calculate

Test Postconditions (expected results):

Answer field displays: “8.575757575757576”

STATUS: FAILED

Defects Report

TC1 - Empty number input Field

Description:

Check system behavior if the calculate button is clicked without any values entered, the result equals undefined due to omitted input filed.

Steps to Reproduce:

1. go to app URL
2. Leave the first number blank
3. Leave the second number blank
4. Select operation “Divide”
5. Click Calculate

Expected Results:

Undefined or null

Actual Results:

“Divide by zero error!”

Environment:

Google Chrome on Mac iOS Monterey

TC2 - Clear Button Functionality

Description:
Check system behavior when the user inputs valid numbers and the clear button is clicked all fields are cleared as opposed to just the answer field being cleared.

Steps to Reproduce:
1. go to app URL
2. In the First number field input “22”
3. In the Second number field, “80”
4. Select any operation
5. Click Clear

Expected Results:
All fields are cleared after the clear button is clicked

Actual Results:
All fields empty still display numbers except for the Answer field

Environment:
Google Chrome on Mac iOS Monterey

TC3 - Empty number input Field

Description:
Check system behavior when the user inputs a decimal into the field and the calculate button is clicked and the answer will be rounded to a whole number.

Steps to Reproduce:
1. go to app URL
2. In the First number field input “283”
3. In the Second number field input “33”
4. Select operation “Divide”
5. Click Calculate

Expected Results:
Rounded to a whole number : 9

Actual Results:
Answer field displays: “8.575757575757576”

Environment:
Google Chrome on Mac iOS Monterey