Team 9

Quick Calc

Test Procedure

Revision History

Authors	Description of Change	Sections	Rev	Date
Brody Whelan	Added test cases arithmetic operators, history, binary, and hexadecimal	1,2,3	1	12/06/2023

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1 Team Description

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2 Introduction

Quick Calc is a calculator program that allows the user to complete a variety of calculations depending on their needs. This application does so by allowing users to perform arithmetic operations like addition, subtraction, modulo, multiplication and division. You can also convert a number to its binary or hexadecimal form.

2.1 Identification

Requirement Document Tested:	12-06-2023
Requirement Document Revision:	12-05-2023
Revision Release Date:	12-06-2023

3 Test Procedures

3.1 Test Case 1

Description: Testing arithmetic operators and history function

Precondition:

1) Entering more than one operator between number inputs will result in an error.

Step Number	Action	System Response	Requirement Tested (if applicable)
1	User enters the first digit 500+7059.3	50+7059.3 is outputted to the display bar	
2	User enters equals button	The result 7559.3 is outputted to the display bar and the calculation is sent to the history log	
3	User takes the result % 25	7559.3%25 is displayed	
4	User enters the equals button	The result outputted is 9.300000000000182 and the calculation is sent to log	Showing if addition works with integers
5	User hits the clear button	The display bar has not output	
6	User enters 70.3+= by mistake	Error is displayed and not sent to history log	Invalid operations do not work
7	User hits clear then enters -10000 + 50600 =	40600 is displayed	
8	User enters %17=	4 is displayed and the calculation and result are sent to the log	
9	User hits the history button	A new window with the previous calculations is shown: 500+7059.3 = 7559.3 7559.3%25 = 9.300000000000182 -10000+50600 = 40600 40600%17 = 4	History log should display all successful calculations

3.2 Test Case 2

Description: Testing hexadecimal conversion, binary conversion, and clear history

Precondition:

1) To use a bin or hex button the user must enter the number they want to convert first.

2) If the history log is open and the user wants to clear the log, they must close the window and re-open the history.

Step Number	Action	System Response	Requirement Tested (if applicable)
1	User enter 453	453 is outputted to the display bar	
2	User hits hex button	1c5 is outputted to the display bar and sent to the history	
3	User clears the input and enters 5011	5011 is displayed	
4	User selects the Bin button	1001110010011 is displayed and appended to the history log	
5	User hits the history button to look at their past calculations	The history opens in a new window with the following: 453 in hexadecimal: 1c5 5011 in binary: 1001110010011	
6	User closes the history log and hits the C-H button to clear the history	The history log is cleared	

3.3 Test Case 3

Description: Testing trigonometric and log functions

Precondition:

1) To use a trig or log button the user must enter the number they want to convert first.
2) Trig functions only work for numbers in radians.

Step Number	Action	System Response	Requirement Tested (if applicable)
1	User enters 50000	50000 is displayed	
2	The user hits the sin button to convert the sin	-0.9998401890897896 is displayed and the calculation is sent to the history log	
3	The user hits clear and enters 210	210 is displayed	
4	The user hits the cos button	-0.8838 is displayed and the calculation is sent to the history log	
5	The user enters 150	150 is displayed to the log	
6	The user hits the log button	2.1760912590556813 is displayed and sent to the history	
7	The user hits the clear button and enters 9000	The display is cleared and 9000 is displayed	
8	The user hits the ln button to take the nautral log	9.104979856318357 is outputted and sent to history	

4 Verification Cross Reference Matrix

Requirement Identifier	Where Tested
Arithmetic operators	History log
Binary and Hexadecimal conversions	History log
Updating and clearing the history log	History log