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Programming II

ID: 91

Calulator Project

How-to-Document

Ports used:

Angular: 4200

Springboot: 8081

Calculator Features :

Simple features:

- Addition
- Subtraction
- Division
- Multiplication
- Modulo
- Additive inverse
- Multiplicative inverse
- Square root
- squared
- Decimals
- Backspace
- Clear all

More advanced features:

Multiple operations are allowed

For example you can add 1 to 3 then multiply the result by 4 then get its multiplicative inverse.

User guide:

1. Screen only shows numbers and no operators (same as the ios calculator)
    a. That is to escape the mathematical error when ignoring order of operations by considering each operation enteres the one and only operation.
2. User can enter digits up to 12 if we considered the point a digit
3. User enters number. Next step is one of 3:
    a. He enters another number which means the 2 numbers entered are digits of the same number (sceen updated).
    b. He enters a one variable operation as square root, additive inverse and so on. Then, the calculation takes place and the result shows on the screen (without the need for pressing equal). Then user is allowed to do (b) all over again or (c).
    c. He enters a dual variable operation as addition, multiplication and so on. Then, if we've got only one number in our stack and no operators (before we push current operator), we wait for the other number without updating screen But, if we've got 2 numbers and one previous operator on stack, calculation is done. Result shows on screen. Stack has result and our current operator waiting for the next number.
4. If user entered multiple 2 variable operators consecutively, only last one is considered.
5. Alerts take place when user does the following:
    a. Tries to backspace a newly calculated result.
    b. Divides by zero.
    c. Enters a number that exceeds precision.
    d. Enters the point more than one time per number.

Joe Calculator

			0
%	CE	C	⌫
^(-1)	^2	^(1/2)	/
7	8	9	*
4	5	6	-
3	2	1	+
-/+	0	.	=