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Test plan of a simple calculator app

Test cases for calculator app

Addition:

- Add two positive number
- Add two negative number
- Add zero to a number
- Add a positive number with a negative number
- Add two large number
- Add two floating point number
- Add two numbers with very small decimal values
- Add two large positive numbers that exceed the maximum value for the data type
- Add the smallest and largest possible numbers within the range of the data type
- Check that system is working or not if one or both input is empty

Subtraction:

- Subtract two positive number
- Subtract two negative number
- Subtract a number from zero
- Subtract a positive number from a negative number
- Subtract a negative number from a positive number
- Subtract two floating point number
- Subtract a floating point number from a decimal number
- Subtract two numbers with very small decimal values

Multiplication:

- Multiply two positive number
- Multiply two negative number
- Multiply a number with zero
- Multiply a positive number with a negative number
- Multiply two floating point number
- Multiply a floating point number with a decimal number
- Multiply a number with zero

Division:

- Divide two positive number
- Divide two negative number
- Divide a positive number by a negative number and vice versa
- Do above steps with two floating point numbers
- Divide a floating point number with a decimal number and vice versa
- Divide a number by zero and check that it is showing error or not
- Divide zero with a positive number

Other:

- Do mixed calculation with multiple numbers. For example, use all four operators and parenthesis in a single calculation
- Check modulus operator is calculating properly

Test strategies for calculator app

Functional Testing:

- Check memory operations like clearing, recalling and storing is working properly
- Do all kind of basic arithmatic operations according to test cases
- Check decimal and floating point number transiton
- Check operations with parenthesis

UI/UX Testing:

- Check all the buttons are working properly
- Check calculator layout is showing properly on different devices
- Check all the buttons are working consistently
- Check error massage is showing properly by dividing a number with zero

Performance Testing:

- Test the calculation speed
- Test maximum range of a mixed calculation

Test Data

Take a some numbers including positive number, negative number, positive floating number, negative floating number, zero and a number larger than display range

Identifying Potential Issues

Some potential issues are incorrect result showing, UI behaves inconsistently, wrong error massege showing and systems lags during complex operations