<C++ Calculator>

Version <1.0>

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⦁Purpose

The purpose of this document is to show all of the test cases that were used to ensure the completeness of our Calculator. While also covering the hardware and software specs that are needed to ensure no problems across machines. By using multiple testing methods like black and white box testing to generate test cases we hope to find all or most of the bugs in our program with documentation.

| Name/ID | Testing Features | input | Expected output | Actual output |
| --- | --- | --- | --- | --- |
| Exit | First if statement to exit program | 0 | Program ends |  |
| Multiplication | Checks multiply function | 2 \* 3 | 6 |  |
| Division | Checks divide function | 6/2 | 3 |  |
| Divison\_0 | Checks divide function dividing by Zero | 5/0 | Runtime\_error |  |
| Add | Checks add function | 2 + 4 | 6 |  |
| Subtract | Checks subtract function | 7-5 | 2 |  |
| Subtract negative | Checks subtract when the return value is negative | 5-7 | -2 |  |
| Exponent | Checks exponent function | 2^3 | 8 |  |
| Modulus | Checks Modulus function | 6%4 | 2 |  |
| Precendence\_1 | Checks precedence and stack functions | 2 + 3 \* 5 | 17 |  |
| Precendence\_2 | Checks precedence and stack functions | (2^3)+5 | 13 |  |
| Precendence\_3 | Checks precedence and stack functions | (2+3) \* 5 | 25 |  |
| Precendence\_4 | Checks precedence and stack functions | 2 / 3 + 5 \* 6 | 20 |  |
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⦁Hardware

There are no hardware specifications required for our C++ calculator other than a basic computer machine that can compile and run the files.

⦁Software

The hardware specifications for our C++ Calculator is running the current version of C++20 to ensure all functions and keywords work as they should