Module 1: Critical Thinking Assignment

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**Abstract:** This assignment consists of two parts; Part1 and Part 2. Part 1 asks for two variable inputs, num1 and num2, to then find the addition result and subtraction result and output both to the console. Part 2 also asks for two variable inputs, num1 and num2, to then find the multiplication and division results and output both to the terminal as well.

**Part 1: Adding and Subtracting Two Numbers**

A screen shot of a computer code

Description automatically generated

A screenshot of a computer screen

Description automatically generated

A screenshot of a computer screen

Description automatically generated

This section was straight forward as it takes two integers as inputs and prints out both results in a formatted f-string. With the f-string formatting it cuts down on string concatenation and trying to figure out where to end double quotes and include the + or , to concatenate the strings together. Someone reading this code would be able to follow along easily and understand what is happening. This methodology will also output negative numbers.

**Part 2: Multiplying and Diving Two Numbers**

A computer screen with colorful text

Description automatically generated

A screenshot of a computer

Description automatically generated

A screen shot of a computer error

Description automatically generated

The second part to this assignment was a little bit more involved. It still asks for the two inputs which are then cast as integers and the results for both multiplication and division are printed to the terminal, however, when dividing we have to consider the INF/NAN output when anything is divided by zero. In this case we have two options, we can use simple if statements to check for the second input being 0 or we could use a try catch around the division output and catch the ArithmeticError or ZeroDivisionError (python.org, “Built-in Exceptions”).

**Bibliography:**

“Built-in Exceptions.” *Python Documentation*, python.org, docs.python.org/3/library/exceptions.html. Accessed 17 Aug. 2024.

**GitHub Link: https://github.com/NTPRuntime/Masters-Programs**