

Assignment 3

For this assignment I have experimented with the gpt-4o model to test the limit of its calculator capabilities. I have found that the calculator breaks in the following cases. The first case is when numbers are too large, so this is a cause for overflow errors as exponential growth makes the result extremely long. The bot also breaks when using 1 for n or zero as well as when the user does not input anything for either i or n. This breaks the program right away so that is why I decided to encapsulate these cases in if statements and stop the program from executing. I also tried using negative numbers, but this did not break the program and numbers with leading zeros, but I have not found this to be breaking my program. I also have found in my third iteration if I put I to be extremely large then the AI will not loop infinitely, but it stopped computing when the numbers were getting way too big for the bot to handle. Finally, for my calculator to work well I had to specifically specify that the bot should not include words or explanations or anything else because otherwise I would get errors on all iterations.