Horrible Code Activity: Calculator Program

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Principles Violations:

- 1. **KISS**: The bad calculator program does its job but it can be simplified further.
- 2. DRY: The bad calculator program repeats its logic in every function.
- **3.** Clean Code: The bad_calculator program is not clean. Given each function has its own variables, fixing it for later versions can be annoying and repetitive.
- **4. Code Documentation:** The bad_calculator program has a lot of comments given the terrible names for each variable.

Principles Used in good calculator.py:

- 1. KISS (Keep It Simple, Stupid)
 - The code is modular and easy to read.
 - Uses functions instead of a long, unstructured script.
 - The calculate() function simplifies operation selection.
- 2. DRY (Don't Repeat Yourself)
 - Eliminates repetitive if-elif conditions by using a dictionary to map operations.
 - Instead of writing separate print statements for each operation, it calls calculate()
 once.
- 3. Separation of Concerns
 - Each function has a single responsibility:
 - add(), subtract(), multiply(), and divide() only perform calculations.
 - calculate() selects the operation.
 - main() handles input and output.
 - This makes it easier to debug and modify.
- 4. Clean Code
 - Uses meaningful function names (add(), subtract(), etc.).
 - Uses formatted output (f"Result: {calculate(x, y, op)}") for better readability.
 - Includes error handling (try-except) to prevent crashes.

Screenshots:



