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**Class:- BSDS 3A**

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**(AI LAB TASK ONE)**

**CALCULATOR CODE EXPLANATION:-**

**What the code does**

1. **Prints a welcome message**
2. print("----- Dynamic Calculator -----")
3. print("Enter 'exit' to quit\n")
   * Shows the user that the calculator has started.
   * Explains that typing "exit" will stop the program.
4. **Runs an infinite loop**
5. while True:
6. expr = input("Enter expression: ")
   * The program keeps asking for a math expression until the user types "exit".
7. **Exit condition**
8. if expr.lower() == "exit":
9. print("Calculator closed.")
10. break
    * If the user types "exit", the loop breaks and the program ends.
11. **Evaluates the expression**
12. try:
13. result = eval(expr)
14. print("Result:", result)
    * eval(expr) is a built-in Python function that directly calculates the expression.
    * Example:
      + Input: 2+3\*4
      + Python does: 2 + (3\*4) = 14
      + Output: Result: 14
15. **Error handling**
16. except:
17. print("Invalid expression, try again.")
    * If the user types something wrong (like 2++3), the program doesn’t crash.
    * Instead, it shows "Invalid expression, try again."
18. **Calls the function**
19. calculator()
    * This starts the program.

**🔹 OUTPUT**

# 