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FUNCTION main():
    BEGIN
         num1 <- read first variable
          PRINT "Select operation:"
          PRINT "1. Addition"
          PRINT "2. Subtraction"
          PRINT "3. Multiplication"
          PRINT "4. Division"
          PRINT "5. Exit"
          operation = READ_INPUT()
          SWITCH operation:
         CASE "1":
                    addition()
                    BREAK
         CASE "2":
                    subtraction()
                    BREAK
         CASE "3":
                    multiplication()
                    BREAK
         CASE "4":
                    division()
                    BREAK
         CASE "5":
                    PRINT "Exiting calculator program..."
                    EXIT
         DEFAULT:
                    PRINT "Invalid operation. Please select again."

FUNCTION addition():
    num2 <- read second variable
    result = num1 + num2
    DISPLAY result

FUNCTION subtraction():
    num2 <- read second variable
    result = num1 - num2
    DISPLAY result

FUNCTION multiplication():
    num2 <- read second variable
    result = num1 * num2
    DISPLAY result

FUNCTION division():
    num2 <- read second variable
    IF num2 == 0:
        DISPLAY "Error: Division by zero"
    ELSE:
        result = num1 / num2
        DISPLAY result
```

flowchart