Our code is a basic calculator that has functions to add, subtract, and multiply!

Gavin (Good Code):

Code has 3 functions; add, subtract, multiply (excluding main function)
Add takes in two numbers, adds them together.
Subtract takes in two numbers, subtracts them
Multiply takes in two numbers, multiplies them

KISS: The code follows the KISS principle by keeping the code simple and easy to follow.

DRY: The code follows the DRY principle by not reusing the same code over and over, putting the repetitive code into separate functions.

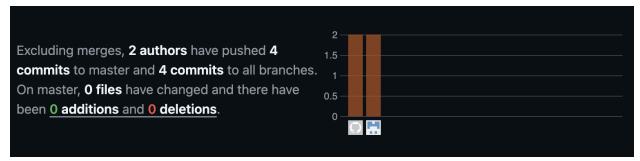
SRP: The code follows the SRP principle by assigning each function one task only.

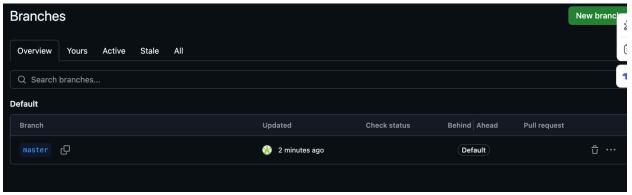
Documentation: The code follows this principle by commenting out and explaining functions where explanations are needed.

Kayd (Bad Code):

Code functions:

- Addition: checks the types of the inputs, if it matches or it's either a float or int, it returns the solution. Returns 0 if error occurs, doesn't tell the user why.
- S: checks the types of the inputs over and over and returns the subtracted total. Also returns 0 if error occurs.
- Multiplyy: checks the types AGAIN and returns multiplied values.
- Main: handles input and output. Takes 2 numbers for the input as well as an input for the operation desired. Returns the correct output.
- 1 Useless subclass (multiply) (Composition over Inheritance)
- Bad function name for subtraction (Clean Code)
- Repetitive code for subtraction function (DRY)
- Addition function is overly complicated for no reason (KISS)
- Main handles logic and input/output in the same function (Single Responsibility)





```
def addition_function(a, b):
8 minutes ago
                Functions
                                                               if type(a) == int and type(b) == int:
                                                               elif type(a) == float and type(b) == float:
                                                               elif type(a) == int and type(b) == float:
                                                                   return a + b
                                                               elif type(a) == float and type(b) == int:
                                                                   return a + b
                                                                   return "Invalid Input"
                                                           class Calculator:
                                                               def init(self):
                                                               def s(self, a, b):
                                                                   if type(a) == int and type(b) == int:
                                                                       return a - b
                                                                   elif type(a) == float and type(b) == float:
                                                                       return a - b
                                                                   elif type(a) == int and type(b) == float:
                                                                   elif type(a) == float and type(b) == int:
```

```
return "Invalid Input"
2 minutes ago
                Main Function
                                                          def main():
                                                              print("Calculator")
                                                              a = input("Enter first number: ")
                                                              b = input("Enter second number: ")
                                                              op = input("Enter operation (+, -, ): ")
                                                              if op == '+':
                                                                  print("Result:", addition_function(int(a), int(b)))
                                                               elif op == '-':
                                                                  calc = Calculator()
                                                                  print("Result:", calc.s(int(a), int(b)))
                                                              elif op == '':
                                                                  adv_calc = multiplyy()
                                                                  print("Result:", adv_calc.multiply(int(a), int(b)))
                                                                  print("WRONGGGG IDIOT")
                                                          main()
```