M02 Assignment – Python Data Types, Variables, Operators, and Basic I/O

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Course: Python Essentials

Module: M02 Assignment

Program 1: Integer and Float Operations (Legal-Themed Debt Settlement Tool)

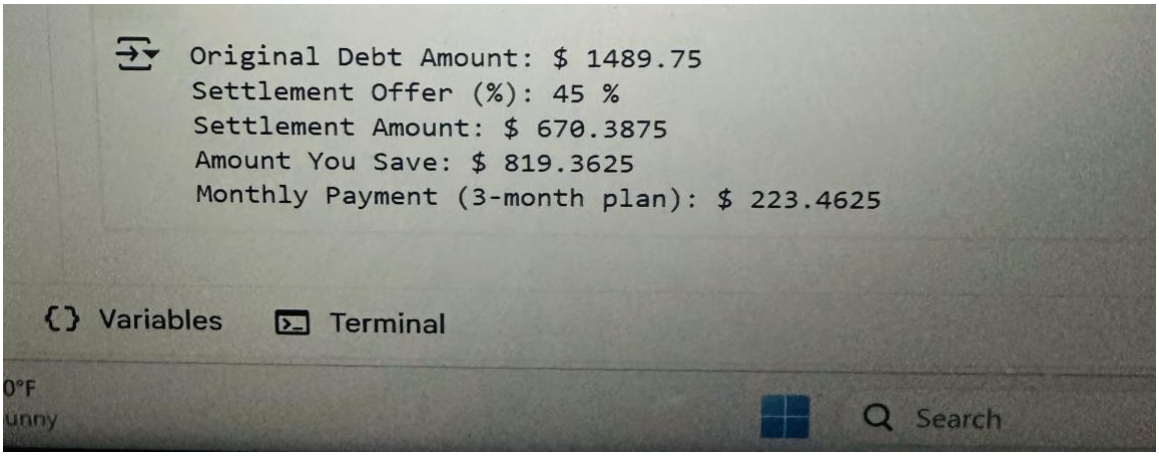
Code:

```
# Program 1: Integer and Float Operations (Legal-Themed)
# Declare variables
original_debt = 1489.75      # float
settlement_percent = 45      # integer

# Display values
print("Original Debt Amount: $", original_debt)
print("Settlement Offer (%):", settlement_percent, "%")

# Math operations
settlement_amount = original_debt * (settlement_percent / 100)
savings = original_debt - settlement_amount
monthly_plan = settlement_amount / 3

# Display results
print("Settlement Amount: $", settlement_amount)
print("Amount You Save: $", savings)
print("Monthly Payment (3-month plan): $", monthly_plan)
```

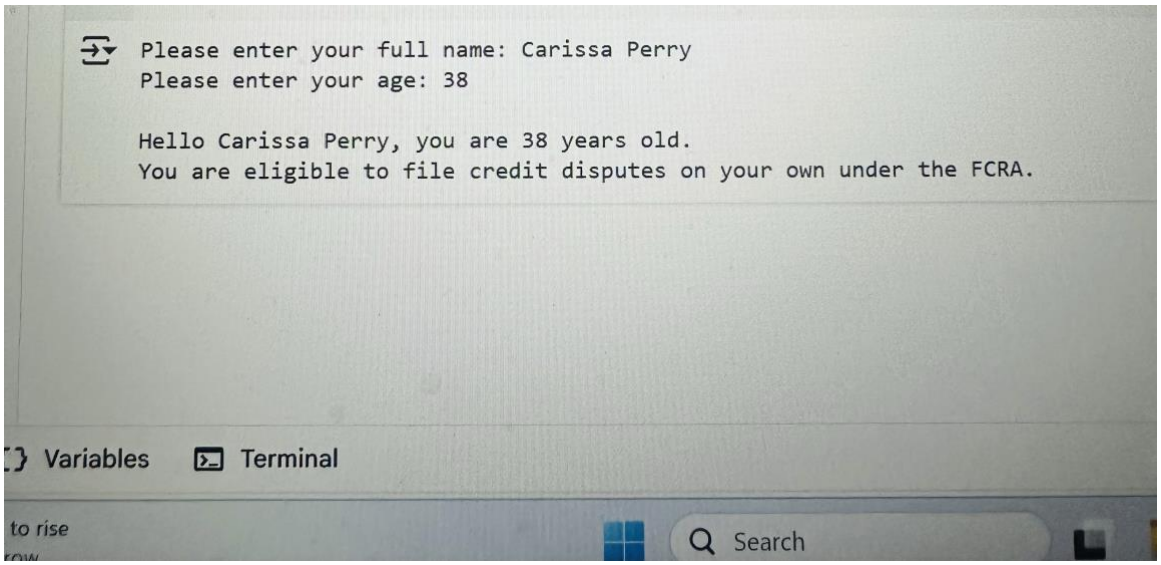


Program 2: Getting Input from the User (Legal-Themed FCRA Eligibility Prompt)

Code:

```
# Program 2: User Input – Age Eligibility for Credit Disputes
name = input("Please enter your full name: ")
age = int(input("Please enter your age: "))

print("\nHello", name + ", you are", age, "years old.")
print("You are eligible to file credit disputes on your own under the FCRA.")
```

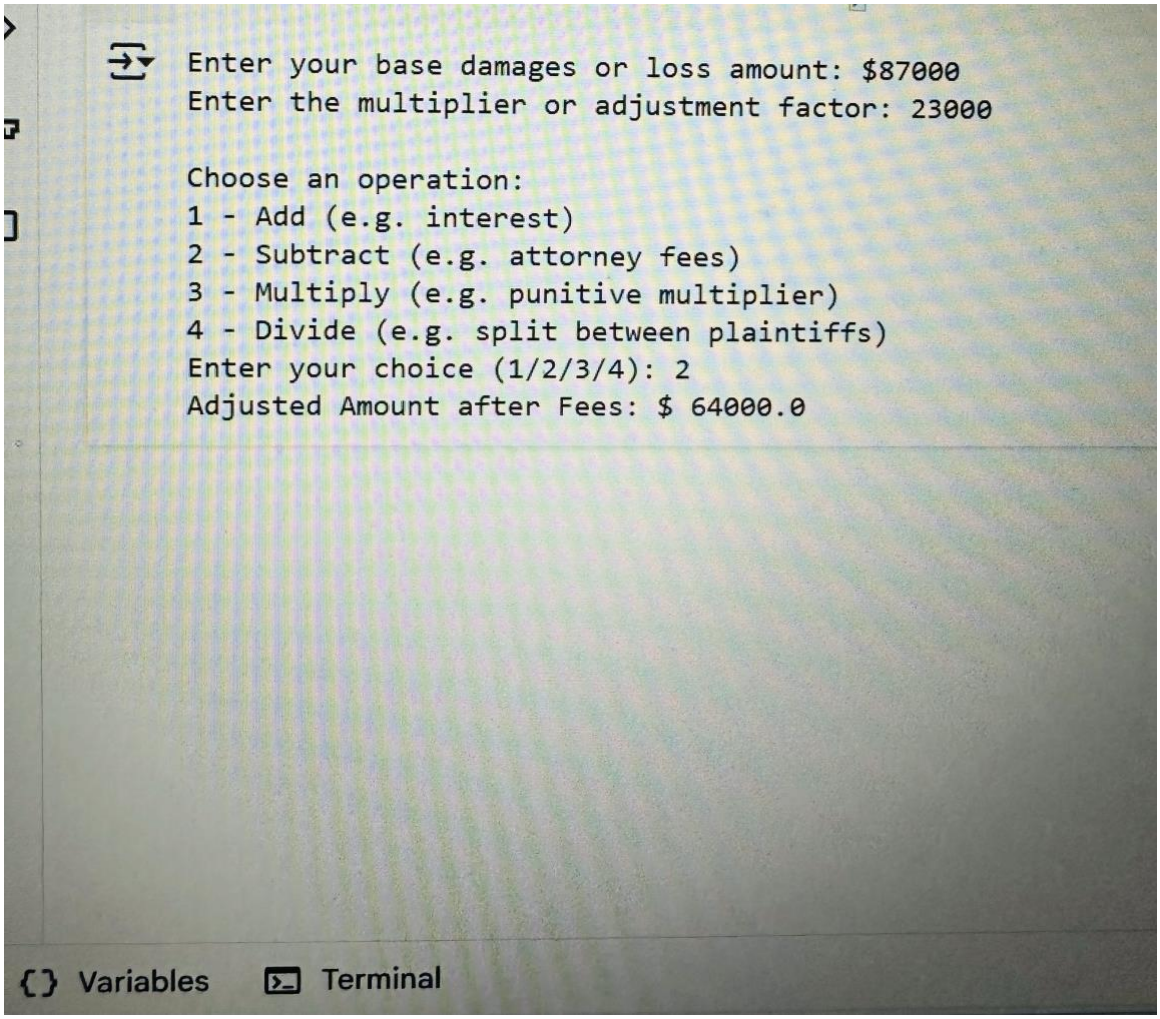


Program 3: Basic Calculator Using Input (Legal-Themed Settlement Adjuster)
Code:

```
# Program 3: Basic Calculator Using Input (Legal-Themed)
# Get input from user
amount = float(input("Enter your base damages or loss amount: $"))
factor = float(input("Enter the multiplier or adjustment factor: "))

# Ask user for operation
print("\nChoose an operation:")
print("1 - Add (e.g. interest)")
print("2 - Subtract (e.g. attorney fees)")
print("3 - Multiply (e.g. punitive multiplier)")
print("4 - Divide (e.g. split between plaintiffs)")
operation = input("Enter your choice (1/2/3/4): ")

# Perform operation
if operation == '1':
    result = amount + factor
    print("Adjusted Amount with Interest: $", result)
elif operation == '2':
    result = amount - factor
    print("Adjusted Amount after Fees: $", result)
elif operation == '3':
    result = amount * factor
    print("Total with Punitive Damages: $", result)
elif operation == '4':
    if factor == 0:
        print("Error: Cannot divide by zero.")
    else:
        result = amount / factor
        print("Split Amount per Person: $", result)
else:
    print("Invalid operation selected.")
```


Enter your base damages or loss amount: $87000
Enter the multiplier or adjustment factor: 23000
Choose an operation:
1 - Add (e.g. interest)
2 - Subtract (e.g. attorney fees)
3 - Multiply (e.g. punitive multiplier)
4 - Divide (e.g. split between plaintiffs)
Enter your choice (1/2/3/4): 2
Adjusted Amount after Fees: $ 64000.0
{} Variables
Terminal