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# This program will calculate the total installation cost of fiber
# optic cable
# 4.1 Programming Assignment
# McKenzie Payne

def total_cost(input_feet, price):
    cost = input_feet * price
    return cost

def calculate_total_cost(input_feet):
    if input_feet > 0:
        if 100 < input_feet <= 250:
            price = total_cost(input_feet, 0.80)
        elif 250 < input_feet <= 500:
            price = total_cost(input_feet, 0.70)
        elif input_feet >= 500:
            price = total_cost(input_feet, 0.50)
        else:
            price = total_cost(input_feet, 0.87)
        return price

    elif input_feet <= 0:
        print("Invalid Value")
        return 0

def main():
    print("Welcome to the Fiber Optics Installation Cost Program,"
          " we are happy your here")
    input_name = input("Enter your companies name: ")
    print("Welcome ", input_name,
          " let's calculate your cost of installation")

    input_feet = int(input(" Enter the number of feet of fiber cable "))
    discounted_cost = calculate_total_cost(input_feet)
    final_cost = ("%.2f" % discounted_cost)

    print("Number of feet of fiber cable : ", input_feet)
    print("Printing your receipt...")
    print("Thank you", input_name,
          "Your total cost is $", final_cost,
          "for", input_feet, "feet")
    print("We appreciate your business, Have a good day")

if __name__ == '__main__':
    main()

# Change#:1
# Change(s) Made: Adding Bulk Discount
# >= 100 feet = $0.87 per foot
# < 100 feet = $0.80 per foot
# < 250 feet = $0.70 per foot
# > 500 = $0.50 per foot
# Date of Change: 3/27/2023
# Change#:2
# Change(s) Made: Added Float Precision Format Specifier
# Date of Change: 04/01/2023
# Change#:3
# Changes(s) Made: Added function with parameters (feet and cost)
# Date of Change: 4/4/2023

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