A screenshot of a computer

Description automatically generated

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Lesson Assignment #3

Source codes:

while True:

    try:

        investment\_amount = int(input("Enter the investment amount (greater than 0 and less than 50000): "))

        if 0 < investment\_amount < 50000:

            break

        else:

            print("Invalid input. Investment amount must be greater than 0 and less than 50,000.")

    except ValueError:

        print("Invalid input. Please enter an integer.")

while True:

    try:

        interest\_rate = int(input("Enter the interest rate (greater than 0 and less than 15): "))

        if 0 < interest\_rate < 15:

            break

        else:

            print("Invalid input. Interest rate must be greater than 0 and less than 15.")

    except ValueError:

        print("Invalid input. Please enter an integer.")

while True:

    try:

        investment\_duration = int(input("Enter the investment duration in years (greater than 0): "))

        if investment\_duration > 0:

            break

        else:

            print("Invalid input. Duration must be greater than 0.")

    except ValueError:

        print("Invalid input. Please enter an integer.")

months = investment\_duration \* 12

monthly\_interest\_rate = (interest\_rate / 12) / 100

total\_investment = 0

for month in range(1, months + 1):

    total\_investment += investment\_amount

    interest = total\_investment \* monthly\_interest\_rate

    total\_investment += interest

    if month % 12 == 0:

        year = month // 12

        print(f"Year {year}: ${total\_investment:.2f}")

print(f"\nInvestment Duration: {investment\_duration} years")

print(f"Yearly Interest Rate: {interest\_rate}.0%")

print(f"Monthly Investment Amount: ${investment\_amount}")

print(f"Total Amount of Investment After Compounding: ${total\_investment:.2f}")

print("\nCompleted by,{Dajia-Rae Moreno}")