# interest\_calculator.py

# Ask for Monthly Investment amount

investment = int(input("Enter your monthly investment amount (greater than 0 and less than 50000): "))

# Check Monthly Investment amount

while investment <= 0 or investment >= 50000:

print("Invalid input. Please enter a value greater than 0 and less than 50000.")

investment = int(input("Enter your monthly investment amount (greater than 0 and less than 50000):"))

# Ask for Yearly Interest Rate

rate = int(input("Enter your yearly interest rate (greater than 0 and less than 15): "))

# Check Yearly Interest Rate

while rate <= 0 or rate >= 15:

print("Invalid input. Please enter a value greater than 0 and less than 15.")

rate = int(input("Enter your yearly interest rate (greater than 0 and less than 15) "))

# Ask for Number of Years

years = int(input("Enter number of years (greater than 0): "))

# Check Number of Years

while years <= 0:

print("Invalid input. Please enter a value greater than 0.")

years = int(input("Enter number of years (greater than 0): "))

# Change Years to months

months = years \* 12

monthly\_rate = rate / 12 / 100

# Start Total

total = 0

# Loop each month to calculate

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

total = total + investment

interest = total \* monthly\_rate

interest = round(interest, 2)

total = total + interest

# Display end of year results

if month % 12 == 0:

year = month // 12

year\_num = 0 + year

print("Year", year\_num, ": $", round(total, 2))

# Final Output

print("\n Results ")

print("Years Invested:", years)

print("Yearly Interest Rate:", rate, "%")

print("Monthly Investment: $", investment)

print("Final Total after Compounding: $", round(total, 2))

# Completion

print("Completed by, Leven Bowman")