J Benites lesson 3

#investment input validation and question

investment = input("Enter the investment amount (must be greater than 0 and less than 50000): ")

if investment.isdigit():

    investment = int(investment)

    while True:

        if investment <= 0 or investment >= 50000:

            print("The investment amount must be greater than 0 and less than $50,000.")

            investment = input("Please enter a valid investment amount: ")

            if investment.isdigit():

                investment = int(investment)

        else:

            break

#interrest rate input validation and question

interestrate = input("Enter the interest rate (must be greater than 0 and less than 15): ")

if interestrate.isdigit():

    interestrate = int(interestrate)

    while True:

        if interestrate <= 0 or interestrate >= 15:

            print("The interest rate must be greater than 0 and less than 15%.")

            interestrate = input("Please enter a valid interest rate: ")

            if interestrate.isdigit():

                interestrate = int(interestrate)

        else:

            break

investmentyears = input("Enter the number of years (must be greater than 0): ")

if investmentyears.isdigit():

    investmentyears = int(investmentyears)

    while True:

        if investmentyears <= 0:

            print("The number of years must be greater than 0.")

            investmentyears = input("Please enter a valid number of years: ")

            if investmentyears.isdigit():

                investmentyears = int(investmentyears)

        else:

            break

else:

    # Handles negative numbers or non-digit input

    while True:

        try:

            investmentyears = int(input("Enter the number of years (must be greater than 0): "))

            if investmentyears > 0:

                break

            else:

                print("The number of years must be greater than 0.")

        except ValueError:

            print("Please enter a valid number.")

months = investmentyears \* 12

monthlyinterest = interestrate / 12 / 100

total = 0.0

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

    total += investment

    interest = round(total \* monthlyinterest, 2)

    total += interest

    if monnths % 12 == 0:

        print(f"Total after {monnths // 12} year(s): ${round(total, 2)}")

print("Summary:")

print("years calcualted : " + str(investmentyears))

print("interest rate : " + str(interestrate) + "%")

print("investment amount : $" + str(investment))

print("Total amount after compouding interest: $" + str(round(total, 2)))

print("completed by, John benites")

A screen shot of a computer program

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