Module 05: Critical Thinking Assignment

Saravenus Khon

Colorado State University Global

CSC500-1: Principles of Programming

Dr. Isaac K. Gang

April 23rd, 2025

Module 05: Critical Thinking Assignment

Git Repository

https://github.com/saraKhon/CTA005_CSC500_SaraKhon-.git

Part I: Source Code:

```
# Will be used to track the total rainfall and the total number of months
total_months = 0
total_rainFall = 0

# ask the user to input the number of years,
years = int(input("Enter the number of years: " ))   # convert str to int

# Using a for loop for the outer loop to iterate once a year
for year in range(1, years +1):     # add the 1 in the 1st parameter so it starts @1 and not 0
print(f"Year:{year}")

   for month in range(1,13):       # start of the inner loop
      while True:
         try:
            rain = float(input(f" Enter the amount of rainfall (in inches) for month {month}: "))
            if rain <0:
               print( "ERROR - Entered a non-negative number. Try again.")
               continue
            break
         except ValueError:            # handles value error
            print(  "Enter a valid value (IN INCHES)")

      total_rainFall +=rain
      total_months +=1


# gets the average rainfall for the entire period
average_rainFall = total_rainFall/total_months

# prints out the work
print("\n -- Rainfall Summary --")
print("Displaying - Total Number of Months: ", total_months)
print("Displaying - Total Inches of rainfall: {:.2f} inches".format(total_rainFall))
print("Displaying Average rainfall for the Entire Period: {:.2f} inches".format(average_rainFall))
```

Module 04: Milestone

Part II: Source Code:

```
while True:
  # get the user input
  books_Purchased = int(input("Enter the number of books purchased this month: "))

  if books_Purchased < 2:
    points = 0
    print("You have earned O points")
  elif books_Purchased < 4:
    points = 5
    print("You have earned 5 points")
  elif books_Purchased < 6:
    point = 15
    print("You have earned 15 points")
  elif books_Purchased < 8:
    point = 30
    print("You have earned 30 points")

  else:
    point = 60
    print("You have earned 60 points this month! YAY! ")

  # Ask the user if they want to exist the application
  answer = input("Do you want to exist the application? (yes or no) )").lower()

  if answer !="no":
    print("Goodbye!")
    break    # stop the while loop, end the application
```

Module 04: Milestone

Screen Shot Part I

```
C:\Users\sarak\AppData\Local\Programs\Python\Python313\python.exe
Enter the number of years: 3
Year:1
 Enter the amount of rainfall (in inches) for month 1: 1.2
 Enter the amount of rainfall (in inches) for month 2: 3
 Enter the amount of rainfall (in inches) for month 3: 4
 Enter the amount of rainfall (in inches) for month 4: 5
 Enter the amount of rainfall (in inches) for month 5: 6
 Enter the amount of rainfall (in inches) for month 6: 7
 Enter the amount of rainfall (in inches) for month 7: 8
 Enter the amount of rainfall (in inches) for month 8: 2
 Enter the amount of rainfall (in inches) for month 9: 3.5
 Enter the amount of rainfall (in inches) for month 10: 01
 Enter the amount of rainfall (in inches) for month 11: 0
 Enter the amount of rainfall (in inches) for month 12: 10
Year:2
 Enter the amount of rainfall (in inches) for month 1: -1
ERROR - Entered a non-negative number. Try again.
 Enter the amount of rainfall (in inches) for month 1: 1
 Enter the amount of rainfall (in inches) for month 2: 5
 Enter the amount of rainfall (in inches) for month 3: 3.5
 Enter the amount of rainfall (in inches) for month 4: 6
 Enter the amount of rainfall (in inches) for month 5: 2
 Enter the amount of rainfall (in inches) for month 6: 1
 Enter the amount of rainfall (in inches) for month 7: 9
 Enter the amount of rainfall (in inches) for month 8: 4
 Enter the amount of rainfall (in inches) for month 9: 8.2
 Enter the amount of rainfall (in inches) for month 10: 1.65
 Enter the amount of rainfall (in inches) for month 11: 01
 Enter the amount of rainfall (in inches) for month 12: 0
```

```
Year:3
 Enter the amount of rainfall (in inches) for month 1: 10
 Enter the amount of rainfall (in inches) for month 2: 9
 Enter the amount of rainfall (in inches) for month 3: 8
 Enter the amount of rainfall (in inches) for month 4: 7
 Enter the amount of rainfall (in inches) for month 5: 5
 Enter the amount of rainfall (in inches) for month 6: 6
 Enter the amount of rainfall (in inches) for month 7: 3
 Enter the amount of rainfall (in inches) for month 8: 5
 Enter the amount of rainfall (in inches) for month 9: 1
 Enter the amount of rainfall (in inches) for month 10: 0
 Enter the amount of rainfall (in inches) for month 11: 2.5
 Enter the amount of rainfall (in inches) for month 12: 6.5

 -- Rainfall Summary --
Displaying - Total Number of Months:  36
Displaying - Total Inches of rainfall: 156.05 inches
Displaying Average rainfall for the Entire Period: 4.33 inches

Process finished with exit code 0
```

Screen Shot Part II:

```
Enter the number of books purchased this month: 01
You have earned 0 points
Do you want to exist the application? (yes or no) )no
Enter the number of books purchased this month: 12
You have earned 60 points this month! YAY!
Do you want to exist the application? (yes or no) )no
Enter the number of books purchased this month: 5
You have earned 15 points
Do you want to exist the application? (yes or no) )no
Enter the number of books purchased this month: 2
You have earned 5 points
Do you want to exist the application? (yes or no) )yes
Goodbye!

Process finished with exit code 0
```