**Creating Python Programs**

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CSC500-1: Intro to Programming

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**Creating Python Programs**

**Part 1**

Sourcecode:

## Program to calculate average rainfall over a period of years

# Ask the user for the number of years

years = int(input("Enter the number of years: "))

# Make variables for total rainfall and total months

total\_rainfall = 0.0

total\_months = 0

# Outer loop - iterate once per year

for year in range(1, years + 1):

print(f"\nYear {year}")

# Inner loop - iterate once per month (12 months)

for month in range(1, 13):

# Get rainfall for the month

rainfall = float(input(f"Enter inches of rainfall for month {month}: "))

total\_rainfall += rainfall

total\_months += 1

# Calculate average rainfall

average\_rainfall = total\_rainfall / total\_months

# Display results rounding to 2 decimal points

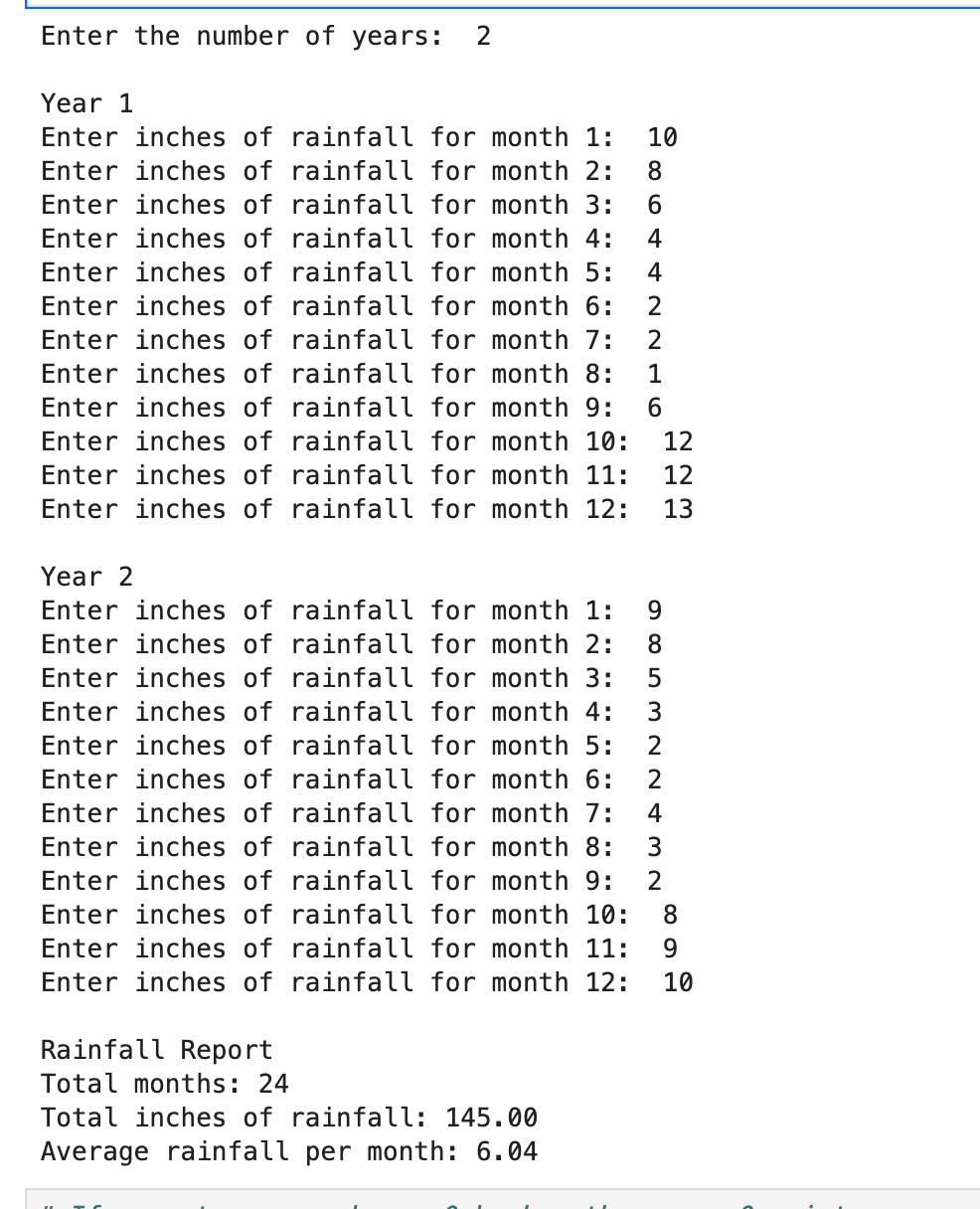
print("\nRainfall Report")

print(f"Total months: {total\_months}")

print(f"Total inches of rainfall: {total\_rainfall:.2f}")

print(f"Average rainfall per month: {average\_rainfall:.2f}")

Screenshot:



**Part 2**

Python source code:

# Calculate points earned

# Create variable for books purchased and points earned

books\_purchased = int(input("Enter books purchased during the month: "))

points\_earned = 0

# Evaluate for points earned

if books\_purchased >= 8:

points\_earned = 60

elif books\_purchased >= 6:

points\_earned = 30

elif books\_purchased >= 4:

points\_earned = 15

elif books\_purchased >= 2:

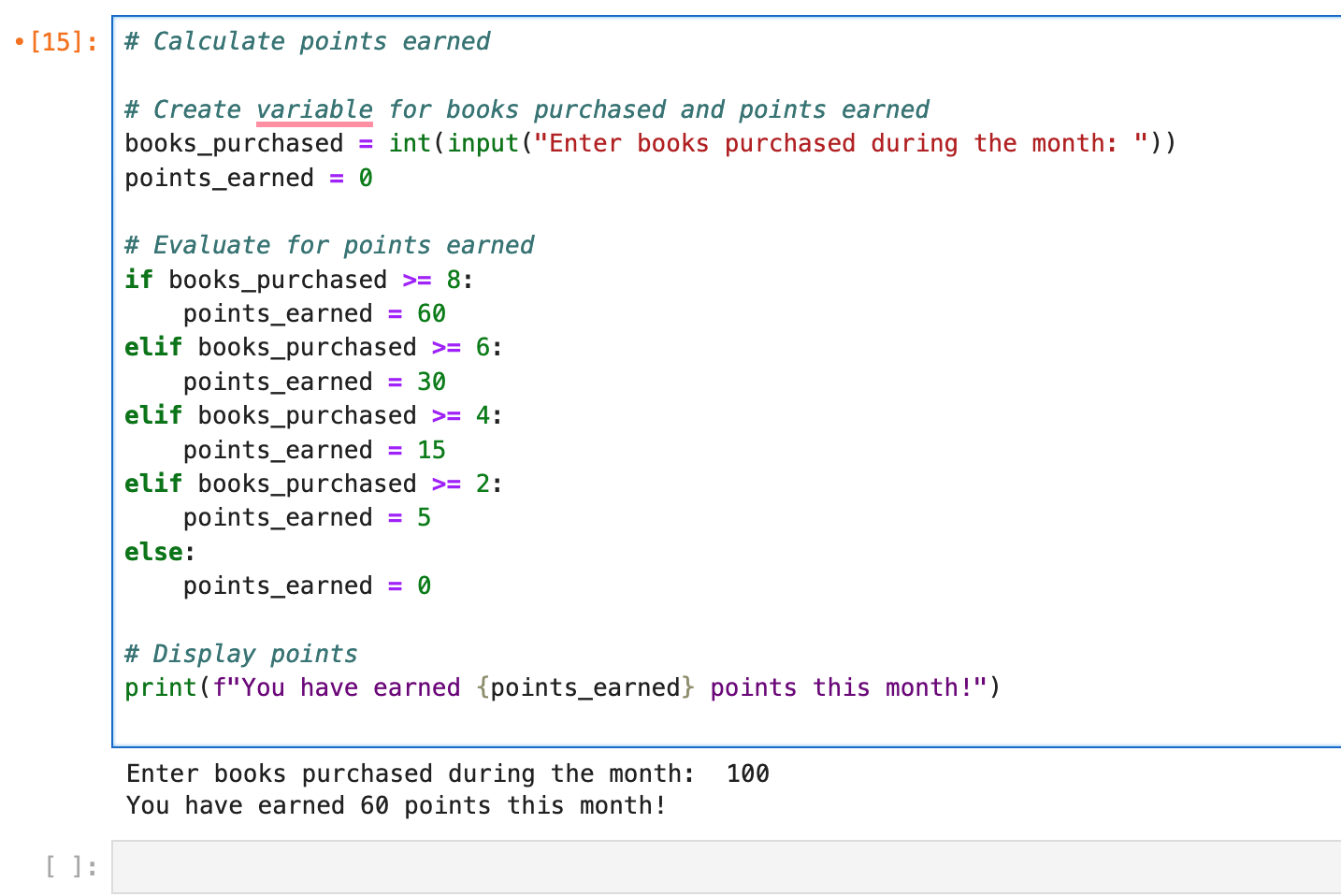
points\_earned = 5

else:

points\_earned = 0

# Display points

print(f"You have earned {points\_earned} points this month!")

Screenshot:

GIT: <https://github.com/dharbour12/IntroToProgramming/blob/main/CriticalThinking5.ipynb>

**References**

*zyBooks*. (2025). Zybooks.com. https://learn.zybooks.com/zybook/CSC500-1\_8/chapter/4/section/1

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