def compareStrings(garland, flower):

count = 0

garland\_len = len(garland)

flower\_len = len(flower)

for i in range(flower\_len - garland\_len + 1):

if flower[i:i + garland\_len] == garland:

count += 1

return count

garland\_input = input("Enter the garland string: ")

flower\_input = input("Enter the flower string: ")

result = compareStrings(garland\_input, flower\_input)

print("Number of garlands found:", result)

def calculate\_letter\_grade\_and\_gp(score):

if 85 <= score <= 100:

return 'A', 4.0

elif 80 <= score < 85:

return 'A-', 3.7

elif 75 <= score < 80:

return 'B+', 3.5

elif 70 <= score < 75:

return 'B', 3.0

elif 65 <= score < 70:

return 'B-', 2.7

elif 60 <= score < 65:

return 'C+', 2.3

elif 55 <= score < 60:

return 'C', 2.0

elif 50 <= score < 55:

return 'C-', 1.7

else:

return 'F', 0.0

def get\_honours(cumulative\_gpa):

if 3.85 <= cumulative\_gpa <= 4.0:

return "Summa Cum Laude"

elif 3.7 <= cumulative\_gpa < 3.85:

return "Magna Cum Laude"

elif 3.5 <= cumulative\_gpa < 3.7:

return "Cum Laude"

else:

return "None"

def calculate\_cumulative\_gpa():

num\_courses = int(input("Enter the number of courses: "))

total\_grade\_points = 0.0

total\_credits = 0.0

letter\_grades = {'A': 0, 'A-': 0, 'B+': 0, 'B': 0, 'B-': 0, 'C+': 0, 'C': 0, 'C-': 0, 'F': 0}

for \_ in range(num\_courses):

grade = float(input("Enter the numerical score (out of 100): "))

credit\_weighting = float(input("Enter the credit weighting of the course: "))

letter\_grade, grade\_point = calculate\_letter\_grade\_and\_gp(grade)

total\_grade\_points += grade\_point \* credit\_weighting

total\_credits += credit\_weighting

letter\_grades[letter\_grade] += 1

cumulative\_gpa = total\_grade\_points / total\_credits

honours = get\_honours(cumulative\_gpa)

print("Letter Grades Summary:")

for letter\_grade, count in letter\_grades.items():

print(f"{letter\_grade}: {count}")

print("Cumulative GPA:", cumulative\_gpa)

print("Honours:", honours)

calculate\_cumulative\_gpa()

def calculate\_sum(number):

total\_sum = 0

for i in range(1, number + 1):

total\_sum += i

return total\_sum

def main():

user\_input = int(input("Enter a number: "))

sum\_result = calculate\_sum(user\_input)

print(f"The sum is {sum\_result}.")

main()

def customLen(string):

length = 0

for \_ in string:

length += 1

return length

user\_input = input("Enter a string: ")

length\_of\_string = customLen(user\_input)

print("Length of the string:", length\_of\_string)

def is\_vowel(character):

vowels = "aeiouAEIOU"

return character in vowels

user\_input = input("Enter a single character: ")

if len(user\_input) == 1:

result = is\_vowel(user\_input)

print(f"The character '{user\_input}' is a vowel: {result}")

else:

print("Please enter a single character.")