In [11]:
```
ch = input('enter a char')
print(ch) # if you enter as 2 + 6 -1 we get output as 2 + 6-1 only
```

```
enter a char1+7+8
1+7+8
```

In [13]:
```
result=eval(input (' enter a expr '))
print(result)
```

```
 enter a expr 10+20+30-60
0
```

In [18]:
```
 num = int(input("Enter an integer: "))
print(num)
```

```
Enter an integer: 30
30
```

In [20]:
```
num = float(input("Enter a float: "))
print(num)
```

```
Enter a float: 3.14
3.14
```

In [25]:
```
values = input("Enter values: ").split()
print(values)
```

```
Enter values: 40 50 60
['40', '50', '60']
```

In [32]:
```
num = int(input("Enter a number: "))
if num > 0:
    print("Positive")
elif num<0:
    print("Negetive")
else:
    print("Zero")
```

```
Enter a number: 0
Zero
```

In [35]:
```
nums = [int(x) for x in input("Enter numbers: ").split()]
print(nums)
```

```
Enter numbers: 1 20 3 40 5 6 70
[1, 20, 3, 40, 5, 6, 70]
```

In [37]:
```
 user_input = input("Enter a string: ")
print(user_input.upper())
```

```
Enter a string: ronieta
RONIETA
```

In [41]:
```
text = input("Enter a string: ")
vowels = "aeiou"
count = sum(1 for char in text if char.lower() in vowels)
print("Number of vowels:", count)
```

```
Enter a string: Ronieta
Number of vowels: 4
```

In [45]:
```
num = int(input("Enter a number: "))
if num % 2 == 0:
    print("Even")
else:
    print("Odd")
```

```
Enter a number: 25
Odd
```

In [47]:
```
 text = input("Enter a string: ")
if text == text[::-1]:
    print("Palindrome")
else:
    print("Not a Palindrome")
```

```
Enter a string: veol
Not a Palindrome
```

In [54]:
```
num=int(input("Enter a Number"))
print("Square:", num**2)
```

```
Enter a Number7
Square: 49
```

In [58]:
```
num=int(input("Enter a number"))
if num%3==0:
    print("number divisible by 3")
else:
    print("number not divisible by 3")
```

```
Enter a number30
number divisible by 3
```

In [63]:
```
num=int(input("Enter a number"))
if num % 3== 0 and num % 7==0:
        print("Number is divisible by 3 & 7 both")
else:
    print("Number is not divisible by 3 & 7 both")
```

```
Enter a number49
Number is not divisible by 3 & 7 both
```

In [65]:
```
values = input("Enter comma-separated values: ").split(',')
print(values)
```

```
Enter comma-separated values: 10,20,30
['10', '20', '30']
```

In [66]:
```
num1=int(input("Enter 1st number"))
num2=int(input("Enter 2nd number"))
print("Product:", num1*num2)
```

```
Enter 1st number7
Enter 2nd number8
Product: 56
```

In [75]:
```
 num = int(input("Enter a number: "))
if num > 1:
    for i in range(2, num):
        if num % i == 0:
            print("Not a prime number")
            break
    else:
        print("Prime number")
else:
    print("Not a prime number")
```

```
Enter a number: 6
Not a prime number
```

In [83]:
```
 user_input = input("Enter True or False: ").lower() == "true"
print(user_input)
```

```
Enter True or False: true
True
```

In [78]:
```
help()
```

```
Welcome to Python 3.9's help utility!

If this is your first time using Python, you should definitely check out
the tutorial on the Internet at https://docs.python.org/3.9/tutorial/. (https://docs.python.org/3.9/tutorial/.)

Enter the name of any module, keyword, or topic to get help on writing
Python programs and using Python modules.  To quit this help utility and
return to the interpreter, just type "quit".

To get a list of available modules, keywords, symbols, or topics, type
"modules", "keywords", "symbols", or "topics".  Each module also comes
with a one-line summary of what it does; to list the modules whose name
or summary contain a given string such as "spam", type "modules spam".

help> lower()
No Python documentation found for 'lower()'.
Use help() to get the interactive help utility.
Use help(str) for help on the str class.

help> help(str)
No Python documentation found for 'help(str)'.
Use help() to get the interactive help utility.
Use help(str) for help on the str class.

help> q

You are now leaving help and returning to the Python interpreter.
If you want to ask for help on a particular object directly from the
interpreter, you can type "help(object)".  Executing "help('string')"
has the same effect as typing a particular string at the help> prompt.
```

In [79]:
```
help(str)
```

```
Help on class str in module builtins:

class str(object)
 |  str(object='') -> str
 |  str(bytes_or_buffer[, encoding[, errors]]) -> str
 |
 |  Create a new string object from the given object. If encoding or
 |  errors is specified, then the object must expose a data buffer
 |  that will be decoded using the given encoding and error handler.
 |  Otherwise, returns the result of object.__str__() (if defined)
 |  or repr(object).
 |  encoding defaults to sys.getdefaultencoding().
 |  errors defaults to 'strict'.
 |
 |  Methods defined here:
 |
 |  __add__(self, value, /)
 |      Return self+value.
 |
```

In [84]:
```
user_input = input("Enter a string: ")
print("Reversed string:", user_input[::-1])
```

```
Enter a string: Ronieta
Reversed string: ateinoR
```

In [87]:
```
name=input("Enter Your Name:")
age=int(input("Enter Your Age:"))
print(f"Hello, {name}. You are {age} years old.")
```

```
Enter Your Name:Ron
Enter Your Age:34
Hello, Ron. You are 34 years old.
```

In [90]:
```
 num = int(input("Enter a number: "))
factorial = 1
for i in range(1, num + 1):
    factorial *= i
print("Factorial:", factorial)
```

```
Enter a number: 5
Factorial: 120
```

In [95]:
```
 num = int(input("Enter a number: "))
factorial = 1
for i in range(1, num + 1):
    factorial *= i
print("Factorial:", factorial)
```

```
Enter a number: 6
Factorial: 720
```

In [99]:
```
c=3
```

In [100]:
```
c*=4
print(c)
```

```
12
```

In [104]:
```
 user_input = input("Enter something: ").strip()
if not user_input:
    print("Input cannot be empty.")
else:
    print(f"You entered: {user_input}")
```

```
Enter something: I am a Data Scientiest
You entered: I am a Data Scientiest
```

In [111]:
```
import math
num = int(input("Enter a number: "))
if math.isqrt(num) ** 2 == num:
    print("Perfect square")
else:
    print("Not a perfect square")
```

```
Enter a number: 16
Perfect square
```

In [113]:
```
 year = int(input("Enter a year: "))
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("Leap year")
else:
    print("Not a Leap Year")
```

```
Enter a year: 2025
Not a Leap Year
```

In [119]:
```
user_input = input("Enter something: ").strip()
print(user_input)
```

```
Enter something:          Ronieta
Ronieta
```

In [125]:
```
try:
    num = int(input("Enter a number: "))
except ValueError:
    print("Invalid input! Please enter a valid integer.")
```

```
Enter a number: 7*-
Invalid input! Please enter a valid integer.
```

In [132]:
```
text = input("Enter a string: ")
char = input("Enter a character to count: ")
print(f"Occurrence of {char}: {text.count(char)}")
```

```
Enter a string: america
Enter a character to count: a
Occurrence of a: 2
```

In [127]:
```
user_input = input("Enter a string: ").lower()
print(user_input)
```

```
Enter a string: RONIETA
ronieta
```

In [134]:
```
num=int(input("Enter a Number"))
if num % 10==0:
    print("number is divisible by 10")
else:
    print("number is not divisible by 10")
```

```
Enter a Number51
number is not divisible by 10
```

In [137]:
```
user_input=input("Enter alphabets")
if user_input.isalpha():
    print("only Alphabets")
else:
    print("contains non alphabet characters")
```

```
Enter alphabetsabcdfr
only Alphabets
```

In [139]:
```
text = input("Enter a sentence: ")
print("Number of words:", len(text.split()))
```

```
Enter a sentence: my name is ronieta
Number of words: 4
```

In [141]:
```
from datetime import datetime
date_str = input("Enter a date (YYYY-MM-DD): ")
date = datetime.strptime(date_str, "%Y-%m-%d")
print("Entered date:", date)
```

```
Enter a date (YYYY-MM-DD): 2025-05-30
Entered date: 2025-05-30 00:00:00
```

In [142]:
```
a=input("Enter 1st value")
b=input("Enter a 2nd Value")
a,b=b,a
print(f"swaped values:a={a},b={b}")
```

```
Enter 1st value10
Enter a 2nd Value20
swaped values:a=20,b=10
```

In [143]:
```
user_input = input("Enter a string: ")
print(user_input.replace(" ", ""))
```

```
Enter a string: I am a Data Scientist
IamaDataScientist
```

In [146]:
```
import re
email = input("Enter email: ")
if re.match(r"[^@]+@[^@]+\.[^@]+", email):
    print("Valid email")
else:
    print("Invalid email")
```

```
Enter email: ronitadas05@gmail.com
Valid email
```

In [148]:
```
num = int(input("Enter a number: "))
print("Cube:", num ** 3)
```

```
Enter a number: 2
Cube: 8
```

In [150]:
```
names = input("Enter names separated by commas: ").split(',')
print("Names:", names)
```

```
Enter names separated by commas: ram,shyam
Names: ['ram', 'shyam']
```

In [151]:
```
import re
text = input("Enter a string: ")
numbers = re.findall(r'\d+', text)
print("Extracted numbers:", numbers)
```

```
Enter a string: ronita140191
Extracted numbers: ['140191']
```

In [3]:
```
numbers = list(map(int,input("Enter numbers separated by spaces: ").split()))
print("Maximum number:", max(numbers))
```

```
Enter numbers separated by spaces: 100 300 700
Maximum number: 700
```

In [13]:
```
while True:
    try:
        num = int(input("Enter a valid number: "))
        break
    except ValueError:
            print("Invalid input, please enter a number.")
```

```
Enter a valid number: 1+-2356
Invalid input, please enter a number.
Enter a valid number: 564987123
```

In [15]:
```
user_input=input("Enter a string")
if any(char.isdigit() for char in user_input):
    print("contains digit")
else:
    print("no digits")
```

```
Enter a stringprashanta
no digits
```

In [25]:
```
user_input = input ("Enter a string")
if user_input.isspace():
    print ("only whitespace")
else:
    print ("contains no whitespace characters")
```

```
Enter a string
only whitespace
```

In [2]:
```
user_input = input("Enter a string: ")
if user_input.isspace():
    print("Only whitespace")
else:
    print("Contains non-whitespace characters")
```

```
Enter a string: Data Science
Contains non-whitespace characters
```

In [5]:
```
text = input("Enter a string: ")
digit_sum = sum(int(digit) for digit in text if digit.isdigit())
print("Sum of digits:", digit_sum)
```

```
Enter a string: 10 30 60
Sum of digits: 10
```

In [6]:
```
text = input("Enter a string: ")
digit_sum = sum(int(digit) for digit in text if digit.isdigit())
print(digit_sum)
```

```
Enter a string: 40 50 60
15
```

In [9]:
```
num = int(input("Enter a number: "))
print("Absolute value:", [abs(num)])
```

```
Enter a number: 55
Absolute value: [55]
```

In [10]:
```
user_input = input("Enter a string: ")
if any(char.isupper() for char in user_input):
    print("Contains uppercase letters")
else:
    print("No uppercase letters")
```

```
Enter a string: my name is ronieta
No uppercase letters
```

In [11]:
```
celsius = float(input("Enter temperature in Celsius: "))
fahrenheit = (celsius * 9/5) + 32
print(f"Temperature in Fahrenheit: {fahrenheit}")
```

```
Enter temperature in Celsius: 98.5
Temperature in Fahrenheit: 209.3
```

In [12]:
```
import string
text = input("Enter a string: ")
if any(char in string.punctuation for char in text):
    print("Contains punctuation")
else:
    print("No punctuation")
```

```
Enter a string: r!
Contains punctuation
```

In [14]:
```
text = input("Enter a string: ")
consonants = "bcdfghjklmnpqrstvwxyz"
count = sum(1 for char in text.lower() if char in consonants)
print("Number of consonants:", count)
```

```
Enter a string: divine universe
Number of consonants: 7
```

In [15]:
```
 text = input("Enter a sentence: ")
words = text.split()
longest_word = max(words, key=len)
print("Longest word:", longest_word)
```

```
Enter a sentence: I am a data scientist
Longest word: scientist
```

In [ ]:
```

```