Input Function

February 3, 2025

1 Input Function

```python
[1]: # Taking input
     input_values = input("Enter space-separated values: ")

     # Splitting the input string into a list of values
     values_list = input_values.split()

     # Printing the list of values
     print(values_list)
```

```
Enter space-separated values:  5 6

['5', '6']
```

```python
[4]: #Check if input values are positive or negative
     i = int(input('Enter any value'))
     if i > 0 :
         print('its a positive')
     elif i<0:
         print('its a negative')
     else:
         print('its a zero')
```

```
Enter any value 45

its a positive
```

```python
[ ]: # Converting a list of string into list of integers
     j = [int(item) for item in input('enter values').split()]
     print(j)
```

```python
[ ]: # Take input and print it in uppercase
     i = input('Enter any string').upper()
     print(i)
```

```python
[ ]: # Count the number of vowels present in the input string
     i = input('Enter any string')
     v = 'aeiou'
```

```python
j= sum(1 for c in i if c.lower() in v)
print(j)
```

```python
# Print the vowels present in the input string
i = input('Enter any string')
v = 'aeiou'
j= [c for c in i if c.lower() in v]
print(j)
```

```python
# Print the consonent present in the input string
i = input('Enter any string')
v = 'aeiou'
j= [c for c in i if c.lower()  not in v]
print(j)
```

```python
#9 Check if input value is even or odd
i = int(input('Enter any Number'))
if i%2 == 0:
        print('Even Number')
else:
        print('Odd Number')
```

Enter any Number 45

Odd Number

```python
#10 -  Check if its palindrome or not
i = input('Enter any string')
j = i[::-1]
print(j)
if j == i :
    print(j,'Its Palindrome')
else:
    (j,"Not palindrome")
```

Enter any string nitin

nitin
nitin Its Palindrome

```python
#11 Print a square of a number
i = int(input('Enter any Number'))
i = i*i
print(i)
```

Enter any Number 5

25

```
[15]: #12 Check if a number is divisible by 3 or not
      i = int(input('Enter any Number'))
      if i%3 == 0 :
          print ('Divisible by 3')
      else:
          print('Not divisible')
```

Enter any Number 45

Divisible by 3

```
[16]: # 13 - to check if a number is divisible by 3 and 7 both
      i = int(input('Enter any Number'))
      if i%3 == 0 and i%7 == 0:
          print('its divisible by both')
      else:
          print('its not divisible by both 3 and 7')
```

Enter any Number 45

its not divisible by both 3 and 7

```
[17]: #14 To accept a list of comma-separated values as input
      i = input('Enter any Number').split()
      print(i)
```

Enter any Number hello ji

['hello', 'ji']

```
[18]: #15
      i = int(input('Enter any Number'))
      j = int(input('Enter any Number'))
      print('Product of i and j is : ', i*j)
```

Enter any Number 5
Enter any Number 6

Product of i and j is : 30

```
[4]: #16 Check whether  entered value is  prime or not
     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:
```

3

```
        print("Not a prime number")
```

Enter a number: 7

Prime number

[10]:
```
#17
num = input("Enter a True or False ")
if num.lower()== 'true':
    bool = True
    print(bool)
elif num.lower() == 'false':
    bool = False
    print(bool)
else :
    print('Only enter True or False')
```

Enter a True or False true

True

[11]:
```
#18
num = input("Enter String ")
s = num[::-1]
print(s)
```

Enter String hello

olleh

[14]:
```
#19
name = input('Enter  name')
Age = int(input('Enter age'))
print(f'Age of the user {name} is {Age}')
```

Enter name chandu
Enter age 26

Age of the user chandu is 26

[20]:
```
#20
num = int(input('Enter any number'))
s = 1
for i in range (1,num+1):
    s*=i
print(s)
```

Enter any number 5

120

4

```python
[21]: #21
      str = input('Enter Any String').split()
      if not str :
          print('Blank input')
      else:
          print(f"You haave entered {str}")
```

Enter Any String hello ji

You haave entered ['hello', 'ji']

```python
[29]: #22
      import math as m

      num = int(input('Enter any number'))
      sqr = m.sqrt(num)
      if sqr**2 == num:
          print('Perfect Square')
      else:
          print('Not a perfect square')
```

Enter any number 64

Perfect Square

```python
[32]: #23
      year = int(input("Enter a year: "))
      if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
          print("Leap year")
      else:
          print('its a leap year')
```

Enter a year: 1998

its a leap year

```python
[35]: #24
      str = input('Enter Any String').strip()
      print(str)
```

Enter Any String hello ji

hello ji

```python
[38]: # 25
      try:
          num = int(input("Enter any value"))
      except ValueError:
          print("Invalid Value")
```

Enter any value 3.9

5

Invalid Value

```
[1]: # 26
     str = input("Enter any string")
     chr = input('Enter a character to count')
     print(f"no of charachter {chr} in {str} is {str.count(chr)}")
```

Enter any string heloooooo
Enter a character to count o

no of charachter o in heloooooo is 6

```
[2]: #27
     str  = input('Enter a string').lower()
     print(str)
```

Enter a string HELLO

hello

```
[6]: #28
     num = int(input("Enter any value"))
     if num%10 == 10:
         print(f'{num} is a multiple of 10')
     else:
         print(f"{num} is not a multiple of 10")
```

Enter any value 51

51 is not a multiple of 10

```
[5]: #29
     str  = input('Enter a string')
     if str.isalpha():
         print(f"the string {str} is alphabet")
     else:
         print("its not alpha")
```

Enter a string hell9

its not alpha

```
[11]: #30
      str  = input('Enter a Sentence').split()
      print(f'number of words is {len(str)}')
```

Enter a Sentence hello ji how are you

number of words is 5

```
[18]: #31
      from datetime import datetime
      date_str = input("Enter a date (YYYY-MM-DD): ")
```

```
d = datetime.strptime(date_str, "%Y%m%d")
d1 =datetime.strftime(d,'%Y %B %d')
print(d,d1)
```

Enter a date (YYYY-MM-DD): 19980717

1998-07-17 00:00:00 1998 July 17

[21]:
```
#32
num = int(input("Enter any value"))
if num%3==0 and num%5==0 :
    print('Divisible by Both')
else:
    print('Not Divisible by Both')
```

Enter any value 18

Not Divisible by Both

[23]:
```
#33
x = int(input("Enter any value"))
y = int(input("Enter any value"))
print(f'Before swapping {x,y}')
x,y = y,x
print(f'After swapping {x,y}')
```

Enter any value 8
Enter any value 9

Before swapping (8, 9)
After swapping (9, 8)

[26]:
```
#34
str  = input('Enter a Sentence').replace(' ','')
print(str)
```

Enter a Sentence hello ji

helloji

[29]:
```
#35
str  = input('Enter an email')
if '@' and '.com' in str :
    print(f'{str} is a valid email address')
else :
    print(f'{str} is not a valid email address')
```

Enter an email c@gmail.com

c@gmail.com is a valid email address

```
[30]: #36
      x = int(input("Enter any value"))
      print(f'Cube of {x} is {x**3}')
```

Enter any value 5

Cube of 5 is 125

```
[35]: #37
      str  = input('Enter names').split(',')
      print(str)
```

Enter names chandu,aashu,vivek

['chandu', 'aashu', 'vivek']

```
[37]: #38
      str  = input('Enter any value').split()
      j = []
      for i in str:
          if i.isdecimal():
              j.append(i)
          else:
              pass
      print(j)
```

Enter any value chandu 5 4 hello

['5', '4'] ['chandu', '5', '4', 'hello']

```
[42]: #39
      str  = int(input('Enter any value')).split()
      print(f"Max value in the list is {max(str)}")
```

Enter any value 456987

```
---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
Cell In[42], line 2
      1 #39
----> 2 str  = int(input('Enter any value')).split()
      3 print(f"Max value in the list is {max(str)}")

AttributeError: 'int' object has no attribute 'split'
```

```
[44]: #40
      while True:
          try:
              num = int(input("Enter a valid number: "))
              break
```

```
        except ValueError:
            print("Invalid input, please enter a number.")
```

Enter a valid number: cc

Invalid input, please enter a number.

Enter a valid number: 5

[47]:
```
#41
user_input = input("Enter a string: ")
if any(i.isdigit() for i in user_input):
 print("Contains digits")
else:
 print("No digits")
```

Enter a string: 78ggg

Contains digits

[51]:
```
#41 another method
user_input = input("Enter a string: ")
for i in user_input:
    if i.isdigit():
        print("Contains digits")
        break
    else:
        print("No digits")
```

Enter a string: 78ggg

Contains digits

[53]:
```
#42
str = input('Enter any value')
if str.isspace():
    print("Only contain white space")
else:
    print('Non space ')
```

Enter any value hello

Non space

[54]:
```
#43
str = input('Enter any value')
j = sum(int(i) for i in str if i.isdigit())
print(j)
```

Enter any value 45681jkl

24

```python
[65]: #44
      num = int(input("Enter a number: "))
      print("Absolute value:", abs(num))
```

Enter a number: -5425

Absolute value: 5425

```python
[ ]:
```