1. Isdigit()
2. Isalnum()
3. Istitle()

Example:

```
>>> a="12"
>>> a.isdigit()
True
>>> b="ab"
>>> a.isdigit()
True
>>> b.isdigit()
False
>>> c="a123"
>>> c.isdigit()
False
```

Example:

```
# Write a program to add two integers

n1=input("Enter First Number")
n2=input("Enter Second Number")
if n1.isdigit() and n2.isdigit():
    res=int(n1)+int(n2)
    print(f'Sum is {res}')
else:
    print("Input value must be integer")
```

Output:

```
Enter First Number10
Enter Second Number20
Sum is 30

Enter First Number10
Enter Second Numberab
Input value must be integer
```

Example:

```
>>> x="ab"
>>> x.isalnum()
True
>>> y="12"
>>> y.isalnum()
True
>>> z="ab123"
>>> z.isalnum()
True
>>> p="ab$"
>>> p.isalnum()
False
```

Example:

```
# Write a program to validate username

uname=input("UserName ")
if uname.isalnum():
    print(f'{uname} valid')
else:
    print(f'{uname} invalid')
```

Output:

```
UserName ab
ab valid

UserName ab123
ab123 valid

UserName ab123%
ab123% invalid
```

Example:

```
>>> s1="Hello World"
>>> s1.istitle()
True
>>> s2="hello world"
```

```
>>> s2.istitle()
False
>>> s3="Hello world"
>>> s3.istitle()
False
```

Example:

```
# Write a program to count alphabets,digits
# and special characters in input string

str1=input("Enter any String")
ac,dc,sc=0,0,0
for ch in str1:
    if ch.isalpha():
        ac+=1
    elif ch.isdigit():
        dc+=1
    else:
        sc+=1

print(f'Alpha Count {ac}')
print(f'Digit Count {dc}')
print(f'Special Character Count {sc}')
```

Output:

```
Enter any Stringpython 3.10
Alpha Count 6
Digit Count 3
Special Character Count 2
```

Split methods

1. split()
2. rsplit()

str.split(sep=None, maxsplit=- 1)

Return a list of the words in the string, using sep as the delimiter string. If maxsplit is given, at most maxsplit splits are done (thus, the list will have at most maxsplit+1 elements). If maxsplit is not specified or -1, then there is no limit on the number of splits.

```
>>> str1="a,b,c,d,e"
>>> list1=str1.split(",")
>>> print(list1)
['a', 'b', 'c', 'd', 'e']
>>> list2=str1.split(",",2)
>>> print(list2)
['a', 'b', 'c,d,e']
>>> str2="a b c d e f"
>>> list3=str2.split()
>>> print(list3)
['a', 'b', 'c', 'd', 'e', 'f']
>>> str3="10,20,30,40,50"
>>> list4=str3.split(",")
>>> print(list4)
['10', '20', '30', '40', '50']
```

str.rsplit(sep=None, maxsplit=- 1)
Return a list of the words in the string, using sep as the delimiter string.
If maxsplit is given, at most maxsplit splits are done, the rightmost ones.
If sep is not specified or None, any whitespace string is a separator.

```
>>> s1="a,b,c,d,e"
>>> list1=s1.rsplit(",")
>>> print(list1)
['a', 'b', 'c', 'd', 'e']
>>> list2=s1.rsplit(",",2)
>>> print(list2)
['a,b,c', 'd', 'e']
>>> list3=s1.split(",",2)
>>> print(list3)
['a', 'b', 'c,d,e']
```

Strip methods

1. lstrip()
2. rstrip()
3. strip()

str.lstrip([*chars*])

Return a copy of the string with leading characters removed.
The *chars* argument is a string specifying the set of characters to be removed. If omitted or None, the *chars* argument defaults to removing whitespace. The *chars* argument is not a prefix; rather, all combinations of its values are stripped:

```
>>> s1="      nit"
>>> s2=s1.lstrip()
>>> print(s1)
      nit
>>> print(s2)
nit
>>> s3="****nit"
>>> s4=s3.lstrip("*")
>>> print(s3)
****nit
>>> print(s4)
nit
>>> s4="**$$**n*i*t$"
>>> s5=s4.lstrip("*$")
>>> print(s4)
**$$**n*i*t$
>>> print(s5)
n*i*t$
```

str.rstrip([*chars*])
Return a copy of the string with trailing characters removed.
The *chars* argument is a string specifying the set of characters to be removed. If omitted or None, the *chars* argument defaults to removing whitespace. The *chars* argument is not a suffix; rather, all combinations of its values are stripped:

```
>>> str1="abc      "
>>> len(str1)
9
>>> str2=str1.rstrip()
>>> len(str2)
3
>>> str1==str2
False
>>> str3="abc*****"
```

```
>>> str4=str3.rstrip("*")
>>> print(str3)
abc*****
>>> print(str4)
abc
>>> str5="abc****$$@@@**"
>>> str6=str5.rstrip("*$@")
>>> print(str5)
abc****$$@@@**
>>> print(str6)
abc
```

Example:

```
# Write a program to add two integers

num1=int(input("Enter First Number").strip())
num2=int(input("Enter Second NUmber").strip())
num3=num1+num2
print(f'Sum is {num3}')
```

Output:

```
Enter First Number  40
Enter Second NUmber    60
Sum is 100
```

Example:

```
userNames=["naresh","suresh","kishore","rajesh","kiran"]

uname=input("UserName:")
if uname.strip() in userNames:
    print(f'{uname} welcome')
else:
    print("Invalid UserName")
```

Output:

```
UserName: suresh
Invalid UserName

UserName:  naresh
  naresh   welcome
```

Example:

```
>>> s1="   nit   "
>>> s2=s1.strip()
>>> print(s1)
   nit
>>> print(s2)
nit
>>> s3="www.nareshit.com"
>>> s4=s3.strip("wcom.")
>>> print(s3)
www.nareshit.com
>>> print(s4)
nareshit
```

Alignment methods

1. ljust
2. rjust
3. center