String operations

Membership test in strings

```
In [ ]: x="Today is a beautiful day"
In [ ]: "Today" in x
In [ ]: "today" in x #t is in Lowercase
In [ ]: "Yesterday" in x
In [ ]: "bad" not in x
In [ ]: "Today" not in x
```

Length of strings

```
In [ ]: x="Today is a beautiful day"
len(x)
```

Eventhough the strings are not mutable there are some ways of modifying

```
In [ ]: x="My name is Sam"
y=x.replace("Sam","Kane")
print(y)
```

Converting strings to upper case and lower case

```
In [ ]: x="My name is Sam"
    y=x.upper()
    print(y)

In [ ]: x="My name is Sam"
    y=x.lower()
    print(y)
```

Capitalize the sentences

```
In [ ]: x="today is a great day"
    y=x.capitalize()
    print(y)
```

Swapping cases of the string values

```
In [ ]: x="Happy New Year!!!"
y=x.swapcase()
print(y)
```

Convert each word's first letter to uppercase

```
In [ ]:     x="today is a great day"
     y=x.title()
     print(y)
```

Count a specific part in a string

```
In [ ]: x="today is a great day"
x.count("day")

In [ ]: x="today is a great day"
x.count("today")

In [ ]: x="today is a great day"
x.count("a")
```

```
In [ ]: x="today is a great day"
x.count("bad")
```

startswith & endswith

```
In [ ]: x="Happy birth day"
In [ ]: x.startswith("Happy")
In [ ]: x.endswith("day")
In [ ]: x.endswith("year")
```

Find a specific parts's index in a sentence

```
In [ ]: x="Today is a rainy day"
In [ ]: x.find("is")
In [ ]: x.find("r")
In [ ]: x.find("z")
In [ ]: x.find("a")
```

Checking the specific characteristics of strings

Checking whether the string is alphanumeric (String has only letters and numbers)

```
In [ ]: x="123Dog"
    x.isalnum()

In [ ]: x="#123Dog"
    x.isalnum()
```

Checking whether the string has only letters

```
In [ ]: y="Cat"
    y.isalpha()

In [ ]: y="Man123"
    y.isalpha()
```

Checking whether the string has only intergers

Checking whether the string is in lowercase

```
In [ ]: y="happy birthday"
   y.islower()

In [ ]: y="Happy birthday"
   y.islower()
```

Checking whether the string is in uppercase

```
In [ ]: y="HAPPY BIRTHDAY"
    y.isupper()

In [ ]: y="HaPPY BIRTHDAY"
    y.isupper()
```

Splitting a string to a list

```
In [ ]: msg="Today is a great day"
In [ ]: msg_list=msg.split(" ")
    print(msg_list)
In [ ]: msg_list=msg.split("a")
    print(msg_list)
```

```
In [ ]: L=list(msg)
print(L)
```

Joining list of strings as a single string

```
In [ ]: L=["Happy","new","year"]
L
In [ ]: msg=" ".join(L)
    print(msg)

In [ ]: msg=",".join(L)
    print(msg)

In [ ]: msg="-".join(L)
    print(msg)
```