

lecture 13

Strings - part 2

length - method

```
In [2]: s = "theiscale"  
print(len(s))
```

9

```
In [3]: s = "the iscale"  
print(len(s))
```

10

```
In [4]: s = ""  
print(len(s))
```

0

```
In [5]: s = " "  
print(len(s))
```

1

```
In [6]: s = "  "  
print(len(s))
```

2

strings with special symbol

```
In [8]: s = "hello\nworld"  
print(s)  
print(len(s))
```

hello
world
11

```
In [9]: s = "hello@world"  
print(s)  
print(len(s))
```

```
hello@world  
11
```

```
In [11]: s = """hello  
world"""  
print(s)  
print(len(s))
```

```
hello  
world  
11
```

```
In [12]: a = "Data science also integrates domain knowledge from the underlying applica  
print(len(a))
```

299

python - modify strings

upper method

```
In [14]: s = "this is the iscale"  
print(s.upper())
```

```
THIS IS THE ISCALE
```

```
In [15]: s = "this IS the iscale"  
print(s.upper())
```

```
THIS IS THE ISCALE
```

```
In [16]: s = "this IS the iscale 123"  
print(s.upper())
```

```
THIS IS THE ISCALE 123
```

lower method

```
In [18]: a = "i am swati"
print(a.upper())

b = "THIS IS MY PYTHON CLASS"
print(b.lower())
```

I AM SWATI
this is my python class

```
In [22]: b = "Statistics (from German: Statistik, orig. description of a state, a count
print(b.upper())
```

STATISTICS (FROM GERMAN: STATISTIK, ORIG. DESCRIPTION OF A STATE, A COUNTRY
[1][2] IS THE DISCIPLINE THAT CONCERNS THE COLLECTION, ORGANIZATION, ANALYSIS,
INTERPRETATION, AND PRESENTATION OF DATA.[3][4][5] IN APPLYING STATISTICS
TO A SCIENTIFIC, INDUSTRIAL, OR SOCIAL PROBLEM

string concatenation

```
In [24]: a = "hello"
b = "world"
print(a + " " + b)
```

hello world

```
In [28]: a = "data"
print(a*5)
```

datadatadatadatadata

replace method

```
In [29]: text = "Helo word, I am learning python"
rep = text.replace("python", "data science")
print(rep)
```

Helo word, I am learning data science

```
In [30]: a = """A census is the procedure of systematically acquiring,
recording and calculating population information about the m
embers of a given population.
This term is used mostly in connection with
national population and housing censuses; other common
censuses include censuses of agriculture,
traditional culture, business, supplies, and traffic censuses."""

p = a.replace("censuses", "people")
print(p)
```

A census is the procedure of systematically acquiring, recording and calculating population information about the members of a given population. This term is used mostly in connection with national population and housing people; other common people include people of agriculture, traditional culture, business, supplies, and traffic people.

index method

```
In [34]: a = "i want to learn"
print(a.index("to"))
```

7

```
In [37]: b = "The UN's Food and Agriculture Organization (FAO), in turn, defines the ce
print(b.index("Organization"))
```

30

find method

```
In [38]: a = "python is great"
b = a.find("g")
print(b)
```

10

practice question

In []: Write a Python program that accomplishes the following tasks:

- 1) Concatenate the strings "hello" and "world".
- 2) Find the length of the resulting string from the concatenation.
- 3) Extract the substring "world" from the concatenated string.
- 4) Reverse the substring obtained in the previous step.
- 5) Convert the reversed substring to uppercase.
- 6) Replace the letter 'L' with 'X' in the reversed and uppercase substring.

In [40]: concatenated_string = "hello" + "world"

```
length = len(concatenated_string)
```

```
substring = concatenated_string[5:]
```

```
reverse = substring[::-1]
```

```
upper = reverse.upper()
```

```
modify = upper.replace("L", "X")
```

```
print(concatenated_string)
```

```
print(length)
```

```
print(substring)
```

```
print(reverse)
```

```
print(upper)
```

```
print(modify)
```

```
helloworld
```

```
10
```

```
world
```

```
dlrow
```

```
DLROW
```

```
DXROW
```

In []:

In []: