

# 365 DataScience String formatting in Python

## Step 1 Concatenate strings

```
phrase_1 = 'The cat sat on the mat!'  
phrase_2 = 'And so did the dog!'
```

```
# A plus sign will concatenate the strings.  
# For clarity, we add a space between the two phrases.  
combined = phrase_1 + ' ' + phrase_2  
combined
```

## Step 2 Find the length of a string

```
python = 'python'  
len(python)
```

## Step 3 Slice a string

```
# Indexing in Python starts from 0.  
# To return the first character of a string, add square brackets with a  
0 inside.  
python[0]
```

```
# To return the second character of a string, add square brackets with  
a 1 inside.  
python[1]
```

```
# Use a '-' sign to access the string from the end.  
# You can return the last character of a string by putting -1 in square  
brackets.  
python[-1]
```

```
# You can return a portion of the string using the syntax  
# [i:j],  
# where 'i' is the index of the first character and 'j-1'  
# is the index of the last character.  
python[1:4]
```

```
# The syntax  
# [:i]  
# will output all character from index 0 to index 'i-1'.  
python[:4]
```

## Step 4 Make all characters upper- or lowercase

```
# Make only the first character in the string capital  
python.capitalize()
```

```
# Make all characters in uppercase  
python_capital = python.upper()  
python_capital
```

```
# Make all characters in lowercase
python_lower = python_capital.lower()
python_lower
```

### Step 5 The split() and strip() methods

```
piet_hein = 'When you feel how depressingly \n\
slowly you climb \n\
it\'s well to remember that \n\
Things Take Time.'
```

```
print(piet_hein)
```

```
# Split this string into smaller strings by breaking the 'piet_hein' va
riable by the specified separator.
```

```
# In this case, the separator is a space.
```

```
words_raw = piet_hein.split(' ')
words_raw
```

```
# Notice how the words list above contains '\n'.
```

```
# Often, this is not desired, so we apply the strip('\n') method below
on each word.
```

```
words_stripped = [word.strip('\n') for word in words_raw]
words_stripped
```

### Step 6 The 'in' keyword

```
# Check whether a certain string is present in the list
```

```
print('When' in words_stripped)
```

```
print('when' in words_stripped)
```

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