

# Manipulating Strings

**Spoken Tutorial Project**

**<http://spoken-tutorial.org>**

**National Mission on Education through ICT**

**<http://sakshat.ac.in>**

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# Learning Objectives



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- ▶ **Slice a string and get substrings out of them**



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- ▶ Slice a string and get substrings out of them
- ▶ **Reverse a string**



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- ▶ Slice a string and get substrings out of them
- ▶ Reverse a string
- ▶ **Replace characters in a string**



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- ▶ Reverse a string
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- ▶ Convert a string to upper or lowercase



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- ▶ Reverse a string
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- ▶ Convert a string to upper or lowercase
- ▶ Join list elements to form a string



# System Specifications





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- ▶ **Python 3.4.3**
- ▶ **IPython 5.1.0**



# Pre-requisite

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To practise this tutorial, you should know how to

- ▶ use basic **datatypes**, **operators**, **strings** and **lists**

If not, see the relevant Python tutorials on <http://spoken-tutorial.org>



# String Slicing





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# String Slicing

- ▶ String slicing allows us to obtain substrings
- ▶ **Syntax:**  
**`string_name[start:stop]`**  
**`string_name[start:stop:step]`**



# Exercise 1

`s = "saturday"`

Obtain the substring excluding the first and last characters from the string `s`



# Exercise 2

```
week_name = ["sun", "mon", "tue",  
             "wed", "thu", "fri", "sat"]
```

Check if each element in the following list is present in the list `week_name`

```
["SATURDAY", "python", "Sunday"]
```



# Exercise 3

Replace the **[dot]** with **‘.’** symbol in email **info@fossee[dot]in**



# Exercise 4

```
email_str = "info@fossee.in,  
enquiries@fossee.in, help@fossee.in"
```

From the **email\_str**, change the separator to **semicolon** instead of **comma**



# Summary

- ▶ Obtain substrings
- ▶ Reverse strings by using the index numbers
- ▶ Use the following methods -
  - ▶ `upper()`
  - ▶ `lower()`
  - ▶ `replace()`
  - ▶ `join()`



# Evaluation

1. Given a string  $s = \text{"this was a string"}$ , how will you change it to  $\text{"this wasn't a list"}$
2. Given a string  $s = \text{"F.R.I.E.N.D.S"}$ , change the string to  $\text{"friends"}$





# Solutions

1. `s = s.replace("string", "list")`  
`s = s.replace("was", "wasn't")`  
`print(s)`
2. `s[::-2].lower()`



# Forum to answer questions

- ▶ **Do you have questions in THIS Spoken Tutorial?**
- ▶ **Choose the minute and second where you have the question.**
- ▶ **Explain your question briefly.**
- ▶ **Someone from the FOSSEE team will answer them. Please visit**

<http://forums.spoken-tutorial.org/>



# Forum to answer questions

- ▶ Questions not related to the Spoken Tutorial?
- ▶ Do you have general / technical questions on the Software?
- ▶ Please visit the FOSSEE Forum  
<http://forums.fossee.in/>
- ▶ Choose the Software and post your question.



# Textbook Companion Project

- ▶ The FOSSEE team coordinates coding of solved examples of popular books
- ▶ We give honorarium and certificate to those who do this

For more details, please visit this site:

<http://tbc-python.fossee.in/>



# Acknowledgements

- ▶ **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- ▶ **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this mission is available at:**

<http://spoken-tutorial.org/NMEICT-Intro>



# THANK YOU!

For more information, visit our website  
<http://fossee.in/>

