

Dictionaries

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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- ▶ **Check for presence of the keys.**
- ▶ **Iterate over elements.**



System Specifications



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- ▶ **Ubuntu Linux 14.04**



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- ▶ **Python 2.7.6**



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- ▶ **IPython 4.0.0**



Pre-requisite

To practice this tutorial, you should know how to -



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- ▶ **use datatypes and operators**



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



Overview of Dictionaries

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- ▶ Python dictionary is used to look up for a specific key and retrieve the corresponding value.



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- ▶ **Dictionaries are data structures that provide key-value mappings.**
- ▶ **Unlike lists, dictionaries can have both integers or strings as index.**

Accessing Elements

The elements in a dictionary can be accessed using the keys.



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The elements in a dictionary can be accessed using the keys.

- ▶ syntax

`dictionary_name[key_value]`



Retrieve keys and values

In a dictionary:

- ▶ **method `keys()` for getting a list of the keys**



Retrieve keys and values

In a dictionary:

- ▶ **method `keys()`** for getting a list of the keys
- ▶ **method `values()`** for getting a list of values.



Exercise 1

- ▶ **Print the keys and values in the dictionary student one by one.**

Hint: use `.items()` and for loop



Summary

In this tutorial, we have learnt to,

- ▶ **Create dictionaries**
- ▶ **Access elements in the dictionaries using the keys.**

Summary

In this tutorial, we have learnt to,

- ▶ Create dictionaries**
- ▶ Access elements in the dictionaries using the keys.**
- ▶ Add elements to a dictionary by assigning a value to a key.**



Summary

- ▶ Delete elements from a dictionary by using the function `del`.



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- ▶ Delete elements from a dictionary by using the function `del`.
- ▶ Retrieve the keys and values by using the methods `.keys()` and `.values()` respectively.



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- ▶ Delete elements from a dictionary by using the function `del`.
- ▶ Retrieve the keys and values by using the methods `.keys()` and `.values()` respectively.
- ▶ Iterate over elements of a dictionary using a `for` loop.



Assignment

1. Given `d = 1: 'a', 2: 'b'` How do you retrieve value 'b'



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1. Given `d = 1: 'a', 2: 'b'` How do you retrieve value 'b'
2. Delete value 'b' from dictionary d



Solutions

1. `d[2]`



Solutions

1. `d[2]`

2. `del d[2]`



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/>



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- ▶ **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/>

