

# Accessing Parts of Arrays-II

**Spoken Tutorial Project**

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

**National Mission on Education through ICT**

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

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# Objectives

**In this tutorial we will learn,**



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**In this tutorial we will learn,**

- ▶ **Read images into arrays and perform processing on them.**



# System Specifications



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- ▶ **Ubuntu Linux 14.04**



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- ▶ **Python 2.7.6**



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- ▶ **Ubuntu Linux 14.04**
- ▶ **Python 2.7.6**
- ▶ **IPython 4.0.0**



# Pre-requisite

To practise this tutorial, you should know how to

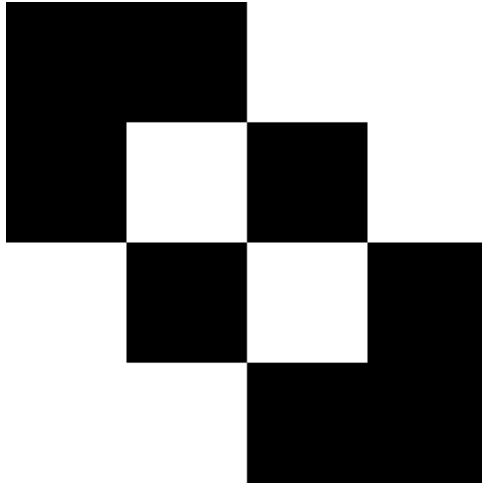
- ▶ run basic Python commands on the ipython console.
- ▶ access parts of arrays

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





# Squares.png



# Exercise 1

- Obtain the square in the center of the image.



# Python.png



# Summary

**In this tutorial, we have learned to,**



# Summary

**In this tutorial, we have learned to,**

- ▶ **Read images into arrays and manipulate them.**



# Evaluation

1. Given the array,

```
C = array([[10, 11, 12, 13],  
          [20, 21, 22, 23]])
```

Change the array to,

```
C = array([[10, 11, 10, 11],  
          [20, 21, 20, 21]])
```



# Solutions

1. `C[:2, 2:] = C[:2, :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/>



# 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/>

