

Arrays in C & C++

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



Learning Objectives

► Array



Learning Objectives

- ▶ **Array**
- ▶ Declaration of an array



Learning Objectives

- ▶ Array
- ▶ Declaration of an array
- ▶ Initialization of an array



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- ▶ Array
- ▶ Declaration of an array
- ▶ Initialization of an array
- ▶ Examples



Learning Objectives

- ▶ Array
- ▶ Declaration of an array
- ▶ Initialization of an array
- ▶ Examples
- ▶ Some common errors and their solutions



System Requirements



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- ▶ Ubuntu OS v. 11.04



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- ▶ Ubuntu OS v. 11.04
- ▶ gcc and g++ Compiler v. 4.6.1



Introduction



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- ▶ The first element is stored at index 0



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- ▶ Array index starts from 0
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- ▶ There are three types of arrays



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- ▶ The first element is stored at index 0
- ▶ There are three types of arrays
 - ▶ Single Dimensional Array



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- ▶ Array index starts from 0
- ▶ The first element is stored at index 0
- ▶ There are three types of arrays
 - ▶ Single Dimensional Array
 - ▶ Two Dimensional Array



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- ▶ Array is the collection of data or elements of same data-type
- ▶ Array index starts from 0
- ▶ The first element is stored at index 0
- ▶ There are three types of arrays
 - ▶ Single Dimensional Array
 - ▶ Two Dimensional Array
 - ▶ Multi Dimensional Array



Syntax



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 - ▶ eg. `int star[5];`



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 - ▶ `star[0]` to `star[4]`



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Summary



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- ▶ Arrays
- ▶ To declare Single Dimensional Arrays



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- ▶ To initialize Single Dimensional Arrays



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- ▶ Arrays
- ▶ To declare Single Dimensional Arrays
- ▶ To initialize Single Dimensional Arrays
 - ▶ eg. `int star[3] = {4, 5, 6};`



Summary

- ▶ Arrays
- ▶ To declare Single Dimensional Arrays
- ▶ To initialize Single Dimensional Arrays
 - ▶ eg. `int star[3] = {4, 5, 6};`
- ▶ To add the elements of the array



Summary

- ▶ Arrays
- ▶ To declare Single Dimensional Arrays
- ▶ To initialize Single Dimensional Arrays
 - ▶ eg. `int star[3] = {4, 5, 6};`
- ▶ To add the elements of the array
 - ▶ eg. `sum = star[0] + star[1] + star[2];`



Assignment

- ▶ Write a program to calculate the difference of the elements stored in an array



About the Spoken Tutorial Project

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



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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>

