

Constructors and Destructors in C++

Talk to a Teacher

<http://spoken-tutorial.org>

National Mission on Education through ICT

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Learning Objectives



Learning Objectives

► Constructors



Learning Objectives

- ▶ Constructors
- ▶ Types of constructors



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- ▶ Constructors
- ▶ Types of constructors
- ▶ Destructors



Learning Objectives

- ▶ Constructors
- ▶ Types of constructors
- ▶ Destructors
- ▶ Some examples



System Requirements



System Requirements

- Ubuntu OS v. 11.10



System Requirements

- ▶ Ubuntu OS v. 11.10
- ▶ g++ Compiler v. 4.6.1



Introduction to Constructors



Introduction to Constructors

- ▶ A constructor is a member function



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- ▶ A constructor is a member function
- ▶ It has the same name as the class name



Introduction to Constructors

- ▶ A constructor is a member function
- ▶ It has the same name as the class name
- ▶ Constructors cannot return values



Introduction to Constructors

- ▶ A constructor is a member function
- ▶ It has the same name as the class name
- ▶ Constructors cannot return values
- ▶ It is automatically called when an object is created



Types of constructors



Types of constructors

► Parameterized Constructors



Types of constructors

- ▶ Parameterized Constructors
- ▶ Copy Constructors



Types of constructors

- ▶ Parameterized Constructors
- ▶ Copy Constructors
- ▶ Default Constructors



Introduction to Destructors



Introduction to Destructors

- Destructors are used to deallocate memory



Introduction to Destructors

- ▶ Destructors are used to deallocate memory
- ▶ They are called when an object is destroyed



Introduction to Destructors

- ▶ Destructors are used to deallocate memory
- ▶ They are called when an object is destroyed
- ▶ A destructor takes no arguments and has no return types



Summary

- ▶ Constructors
 - ▶ eg. Addition
- ▶ Parameterized Constructor
 - ▶ eg. Addition obj(3,4)
- ▶ Destructors
 - ▶ eg. \sim Addition
- ▶ Default Constructor
 - ▶ eg. Subtraction



Assignment

- ▶ Create a class named Division
- ▶ Create a constructor for the class
- ▶ Create a function divide which divides two given numbers



About the Spoken Tutorial Project

- ▶ Watch the video available at http://spoken-tutorial.org/What_is_a_Spoken_Tutorial
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- ▶ 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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- ▶ More information on this Mission is available at:

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

