Function Calls in C and C++

Talk to a Teacher
http://spoken-tutorial.org
National Mission on Education through ICT
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Learning Objectives

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- **call by value**

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- **call by reference**

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- **We will do this through an example**

System Requirements

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- **Ubuntu OS v. 11.10**

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- **gcc and g++ Compiler v. 4.6.1**

Functions call by value

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- ▶ **It is a method of passing arguments to the function**

Functions call by value

- **It is a method of passing arguments to the function**
- **A copy of the variable is made before passing it to the function**

Functions call by value

Functions call by value

- **Changes made to the arguments inside the function will remain in the function**

Functions call by value

- **Changes made to the arguments inside the function will remain in the function**
- **It will not be affected outside the function**

Function call by reference

Function call by reference

- **It is another method of passing arguments to the function**

Function call by reference

- **It is another method of passing arguments to the function**
- **This method copies the address of the argument instead of the value**

Function call by reference

- ▸ **It is another method of passing arguments to the function**
- ▸ **This method copies the address of the argument instead of the value**
- ▸ **Changes made to the arguments inside a function can affect them outside**

Function call by reference

- It is another method of passing arguments to the function
- This method copies the address of the argument instead of the value
- Changes made to the arguments inside a function can affect them outside
- In this we need to declare the arguments as pointer type

Summary

- **Function call by value**
- **Function call by reference**

Assignment

- ▶ **Write a similar program to calculate the cube of a number**
- ▶ **Using call by value in C++**

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- ▶ **It summarises the Spoken Tutorial project**
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