C++ Language – Object Oriented Programming

Course code: CPP_OOP

The course is intended for people who are switching from C to C++ or simply want to start designing and implementing objects in C++. The demonstrated techniques are strictly platform-neutral and can be used in Windows, Unix, Linux etc.

Who is the course for

The course is intended for programmers, testers and project leaders who want to learn about designing and implementing objects in C++.

What we teach you

Definition of an object in C++

Object attributes and methods

Access rights to attributes and methods

Constructors, implicit constructors, copy constructors

Destructors

Inheritance

Virtual functions, destructors

New and Delete operators

Static attributes and methods

Required skills

Skills corresponding to the C and C++ programming languages course (MSCPP1)

Course Outline

Introduction to Object Oriented Programming
- Objects and Classes
- Encaptulation of objects
- Class Inheritance
- Using polymorphism

Object oriented programming
- Class keyword
- Defining attributes
- Naming Conventions
- Defining scope
- Defining Methods
- Defining Methods overriding
- New and Delete operators
- Constructors and destructors
- Deep and shallow copy of object

Inheritance in C++
- Introducing to Inheritance in C++
- Samples of objects hierarchies
- Protected keyword
- Using constructor for parent object
- Using methods and attributes of parent object

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- Inheritance versus aggregation

Polymorphism in C++

- Virtual methods
- Polymorphic containers
- Virtual destructors
- Abstract classes and methods
- Static attributes and methods
- Overriding operators
- Explicit constructors
- Errors and Events

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