

C++ By Dissection: Module 1 Overview of C++ and Object-Orientation

C++ By Dissection Series

Featuring Dr. Ira Pohl



This course is based on the just issued book by Ira Pohl, C++ by Dissection (published by Addison-Wesley) which emphasizes professional coding techniques, and object-oriented programming using C++. By carefully developing working C++ programs, Dr. Pohl presents key insights into the programming process in C++.

Dr. Ira Pohl is a Professor of Computer Science at the University of California, Santa Cruz. He has over three decades experience as a software methodologist and is the author of over 15 books including, C by Dissection (with Al Kelley), C++ by Dissection, C++ for C Programmers, Java by Dissection (with C. McDowell) and A Book on C, 4th edition (with Al Kelley) and is currently at work on C# by Dissection. He is a fellow of the ACM.

In this first module, software professionals get an overview of key features of the language. Core topics include OOP (object-oriented programming) what is it and why use it, how C++ is derived and why it is better than C, and how to benefit from polymorphism as supported in C++.

TIME: _____

DATE: _____

LOCATION: _____

Learn how to

- Understand the benefits provided by C++ and OOP
- Understand how encapsulation, extensibility and polymorphism are implemented in C++
- Understand the importance of generic programming

Program level
Introductory

Target Audience

This course will benefit professional programmers, software designers and project leaders who use or intend to use C++.

CEUs or certificate of completion
0.30

Produced by



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Course Outline

1:30 - 2:25pm ET

Session One: Why OOP in C++

- Explain what OOP is
- Describe how C++ is better than C
- Present sample programs

2:25 - 3 pm ET Break

3 - 3:55 pm ET

Session Two: Encapsulation and Extensibility

- Explain abstract data types
- Explain data hiding and class
- Describe the construction of objects
- Present sample programs

3:55 - 4:05 pm ET Break

4:05 - 5 pm ET

Session Three: Polymorphism

- Explain inheritance
- Explain generic code and templates
- Describe the benefits of OO
- Present sample programs

Prerequisites

Familiarity with programming is assumed. Experience with the C language is useful, but not required.