C++ Programming
Curriculum Overview

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Teaching, Training and Coaching since more than a decade!

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Big Picture

- **Programming Fundamentals**
  - Variables, Loops, Control Flow, Functions, Recursive Functions, Arrays (1D, 2D, ND)
- **Advanced Topics**
  - Pointers, STL, Templates, Headers, and Includes, Exception Handling, Compilation Process
- **Object oriented programming**
  - Objects, Classes, Abstraction, Inheritance, Polymorphism, Operator Overloading
  - Embedded in homework: Several design principles & patterns
- **Modern C++ 11/14/17**
  - Move Semantics, Perfect Forwarding, Variadic template, Folding expressions, Smart Pointers, Lambda Expressions, Wrappers (Optional, Variant, Any, Functional) and more
- **Extensive** set of quizzes, practice, homework and projects

C++ Books

- You don't need to read now.
  - You may not read at all.
  - Course content will be comprehensive enough in most of cases.
- **A First Book C++** (Smooth reading - Classical C++, but still good)
- **C++ How to program** (Well written C++ book with a lot of tips)
  - Edition 10 covers C++14
- Specific for C++17:
  - **C++17 - The Complete Guide**, *Nicolai M. Josuttis*
  - Covering only C++17 additions

"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."