

OOP USING C + +

TUTORIAL

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This workshop presents an overview of the basics of object-oriented programming (OOP) through C++. The concepts of OOP will be introduced through C++, effectively providing a good introduction to C++, as well. OOP is often characterized in terms of *encapsulation, inheritance and polymorphism*. An attempt will be made to cover the corresponding features of C++, namely, *objects and classes, base and derived classes, and finally overloading, templates and dynamic type binding*. Tested examples will be used to illustrate the important ideas.

INSTRUCTOR:

Dr. Venu Dasigi taught courses on OOP and C++ at the undergraduate and graduate levels. He also offered several multi-session workshops on the topics to employees of the local industry, both on and off site. He taught a broad spectrum of courses ranging from introductory computer science through data structures, concepts of programming languages to logic, artificial intelligence, natural language processing and OOP. He has over twenty papers published in journals and conferences (such as AI in Medicine, International Journal of Intelligent Systems, International Joint Conference on AI (IJCAI), etc.) as well as reports on topics such as Natural Language Processing, Expert Systems, Abductive Inference, Intelligent Information Retrieval, etc. He organized a workshop on Abductive Inference in 1991, sponsored by the American Association for AI (AAAI). He is a member of ACM, IEEE Computer Society and Association for Computational Linguistics, and has been listed in Who's Who in the Midwest and Men of Achievement.

OOP USING C++ -- OUTLINE

- Overview of Object-Oriented Programming and C++
- Encapsulation and Data Abstraction
- Classes
 - Visibility (Encapsulation)
 - Members
 - Introduction to Friends
- Polymorphism
 - Ad hoc - Overloading Operators
 - Parametric - Templates; Contrast with Overloading
- Introduction to Inheritance
 - Pure Polymorphism