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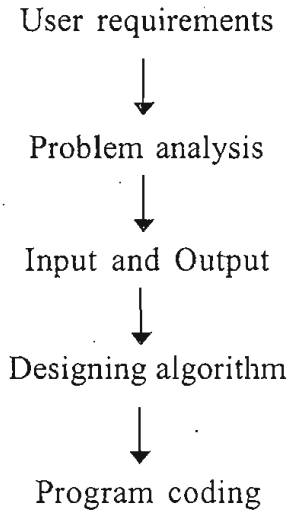
Chapter 1

Introduction to C

Software is a collection of programs and a program is a collection of instructions given to the computer. Development of software is a stepwise process. Before developing a software, number of processes are done. The first step is to understand the user requirements. Problem analysis arises during the requirement phase of software development. Problem analysis is done for obtaining the user requirements and to determine the input and output of the program.

For solving the problem, an "algorithm" is implemented. Algorithm is a sequence of steps that gives method of solving a problem. This "algorithm" creates the logic of program. On the basis of this "algorithm", program code is written. The steps before writing program code are as-



Process of program development

1.1 Design Methods

Designing is the first step for obtaining solution of a given problem. The purpose of designing is to represent the solution for the system. It is really difficult to design a large system because the complexity of system cannot be represented easily. So various methods have been evolved for designing.

1.1.1 Top-Down Design

Every system has several hierarchies of components. The top-level component represents the whole system. Top-Down design method starts from top-level component to lowest level (bottom) component. In this design method, the system is divided into some major components.