Genesis of Java

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To know about genesis of java, first we need to know about C and C++.

Evolution of C: Initially C language has given a dimension to a new programming approach called structured programming. In a structured programming language, there will be top down approach, control statements and modular programming. As C provides all the three, it is referred to as structured programming language. The impact of 'C' on software development can't be ignored as it consists of the following:

Control statements Modular programming Top down approach

It replaced the existing assembly languages successfully. When a computer language is designed, trade-offs are often made, such as the following:

Ease-of-use versus power Safety versus efficiency Rigidity versus extensibility

During the late 1970s and early 1980s, C became the dominant computer programming language, and it is still widely used today. Since C is a successful and useful language, one might ask a question like why a need for something else existed. The answer is *complexity*. Throughout the history of programming, the increasing complexity of programs has driven the need for better ways to manage that complexity.

Evolution of C++: C++ is a response to the above said need. Although C is one of the world's great programming languages, there is a limit to its ability to handle complexity. Once a program exceeds somewhere between 25,000 and 100,000 lines of code, it becomes so complex that it is difficult to grasp as a totality. C++ allows this barrier to be broken, and helps the programmer comprehend and manage larger programs. By the end of the 1980s and the early 1990s, object-oriented programming using C++ took hold. Object oriented programming has given a new dimension to the programming world the era is continuing. With the help of OOPS concept, software design has been changed. The main object oriented principles are: data abstraction, inheritance.