Programming involves tasks such as analysis, generating algorithms, profiling algorithms' accuracy and resource consumption, and the implementation of algorithms (usually in a particular programming language, commonly referred to as coding).  
Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances.  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
Techniques like Code refactoring can enhance readability.  
 Code-breaking algorithms have also existed for centuries.  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
To produce machine code, the source code must either be compiled or transpiled.  
Ideally, the programming language best suited for the task at hand will be selected.  
Normally the first step in debugging is to attempt to reproduce the problem.  
Trade-offs from this ideal involve finding enough programmers who know the language to build a team, the availability of compilers for that language, and the efficiency with which programs written in a given language execute.  
The source code of a program is written in one or more languages that are intelligible to programmers, rather than machine code, which is directly executed by the central processing unit.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.