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Ideally, the programming language best suited for the task at hand will be selected.  
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).  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
To produce machine code, the source code must either be compiled or transpiled.  
Use of a static code analysis tool can help detect some possible problems.  
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.  
FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
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.