They are the building blocks for all software, from the simplest applications to the most sophisticated ones..  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
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.  
 Following a consistent programming style often helps readability.  
There are many approaches to the Software development process.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
Techniques like Code refactoring can enhance readability.  
Ideally, the programming language best suited for the task at hand will be selected.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
 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.  
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.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.