They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
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.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
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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, 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.  
As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices.  
Ideally, the programming language best suited for the task at hand will be selected.  
However, readability is more than just programming style.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
The following properties are among the most important:  
  
 In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
To produce machine code, the source code must either be compiled or transpiled.