They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
Integrated development environments (IDEs) aim to integrate all such help.  
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.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
This is interpreted into machine code.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.  
 Tasks accompanying and related to programming include testing, debugging, source code maintenance, implementation of build systems, and management of derived artifacts, such as the machine code of computer programs.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
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.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 Code-breaking algorithms have also existed for centuries.