Unreadable code often leads to bugs, inefficiencies, and duplicated code..  
  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
Techniques like Code refactoring can enhance readability.  
 Different programming languages support different styles of programming (called programming paradigms).  
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.  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
There exist a lot of different approaches for each of those tasks.  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.  
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.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine.