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.  
Use of a static code analysis tool can help detect some possible problems.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
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.  
Scripting and breakpointing is also part of this process.  
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Relatedly, software engineering combines engineering techniques and principles with software development.  
Normally the first step in debugging is to attempt to reproduce the problem.  
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Proficient programming thus usually requires expertise in several different subjects, including knowledge of the application domain, specialized algorithms, and formal logic.  
Their jobs usually involve:  
 Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software.  
  
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.