In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form..  
 Programs were mostly entered using punched cards or paper tape.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Ideally, the programming language best suited for the task at hand will be selected.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
 The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems.  
 Code-breaking algorithms have also existed for centuries.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
 Computer programmers are those who write computer software.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
 It is very difficult to determine what are the most popular modern programming languages.  
Programming languages are essential for software development.