Normally the first step in debugging is to attempt to reproduce the problem..  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
However, readability is more than just programming style.  
 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.  
Ideally, the programming language best suited for the task at hand will be selected.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
 Code-breaking algorithms have also existed for centuries.  
Programming languages are essential for software development.  
 It is very difficult to determine what are the most popular modern programming languages.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Use of a static code analysis tool can help detect some possible problems.  
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.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.